

THE WAY WE GROW

GROWTH COORDINATION STRATEGY

NOVEMBER 2012

TRANSFORMING | **EDMONTON**

BRINGING OUR CITY VISION TO LIFE



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EXECUTIVE SUMMARY



Edmonton is a great city that continues to attract new residents. In order to accommodate growth in a fiscally, socially and environmentally responsible manner, *The Way We Grow*, Edmonton's municipal development plan, directs the management of future public obligations and growth opportunities through a long term growth coordination strategy.

The Growth Coordination Strategy is a framework to identify and manage future public obligations and accommodate the expected growth of new residential communities through the following actions:

Monitoring infrastructure commitments and growth indicators as specified in *The Way We Grow* and incorporating growth information into departmental master plans, financial planning and three and ten-year budget planning. An annual Growth Monitoring Report will be produced that will be used throughout the Administration to better inform their business planning.



Reporting to City Council through growth monitoring reports and Neighbourhood and Area Structure Plan applications. In addition to receiving the Annual Growth Monitoring Report, Council will receive relevant growth information at the time an area or neighbourhood structure plan is submitted for their approval consideration.

Coordinating planning and provision of infrastructure in developing neighbourhoods. This will be done internally through use of consistent, comprehensive and timely information provided to all business areas of the City. The Growth Coordination Committee will allow the opportunity for coordination with external development partners.

Communicating and collaborating with private, public and non-profit community builders to meet the physical and social/recreational needs of new communities. This will be done through a Growth Coordination Committee which will provide a forum for ongoing discussion and information sharing of growth information well in advance of plan submissions. A terms of reference will be developed for the Committee as a first step in the implementation of the Growth Coordination Strategy.

Together with the Integrated Infrastructure Management Planning Framework, the Growth Coordination Strategy, through its components listed above, will provide comprehensive, consistent and timely

information on how and where the City is growing. It will identify the requirements and costs associated with the approval of new area and neighbourhood structure plans, rates of growth by sector, neighbourhood completion rates and other information. Determination of how to finance the obligations triggered by this growth will be addressed in *The Way We Finance*. Ongoing discussions with stakeholders in the provision of new communities and annual updating of the Growth Monitoring Report, will ensure that the Growth Coordination Strategy continues to evolve to best accommodate expected demand for growth while managing future public obligations.

INTRODUCTION



A city's quality of life is a function of many factors: its economic health, the quality of its leadership, the nature of its citizenry, and its geographic reality.

All these factors, and many others, contribute to making Edmonton a great city.

One of the ways in which a city expresses its quality of life and prosperity—and in fact extends and safeguards that prosperity—is the manner in which it grows. A healthy city draws people to it. A healthy city employs people. A healthy city accommodates people who need housing. A healthy city grows. It grows in many ways—economically, culturally, and physically.

Through the strategic document, *The Way Ahead*, Council has defined its vision for a great city. *The Way Ahead* provides a focus to the City's efforts to deliver the greatest value of infrastructure and services that are most important to Edmontonians, while managing the opportunities and challenges of an ever-changing city.

The Way We Grow, the City's Municipal Development Plan, was approved on May 26, 2010, and is one of six strategic documents that support *The Way Ahead*. The Municipal Development Plan provides for the creation of the Growth Coordination Strategy (GCS) based on the following policy directions:

- Focus land development activity and the provision of civic infrastructure to ensure developing neighbourhoods are completed.
- Determine the level of completion of developing neighbourhoods based on extent of development, extent of infrastructure, and the ability to provide infrastructure.
- Identify infrastructure and service obligations related to developing neighbourhoods.
- Address demand for land, housing units, and housing choice at the regional, city-wide, and sector level.
- Develop a completion target, influenced by the budget allocated, to completing neighbourhoods and for initiating new neighbourhoods.
- Address timing and phasing of new residential growth in developing neighbourhoods.
- Monitor population and employment growth to inform decisions on future residential growth and expansion.

The GCS stems from the recognition that:

- the development of new neighbourhoods results in significant demands on publicly funded infrastructure and services with a significant impact on the City's operating and capital budgets; and
- an integrated planning approach between infrastructure and service providers based on communication, collaboration, and relevant and consistent growth information, is fundamental to understanding and managing the City's financial position.

The GCS seeks to understand and manage future public obligations, and accommodate growth opportunities through:

- **monitoring** urban growth indicators, infrastructure costs, and revenues to inform the City's growth capacity and financial position;
- **reporting** the above information to City Council annually, as well as when Council considers new Area and Neighbourhood Structure Plans in the Urban Growth Areas;
- **coordinating** the planning and provision of public and private infrastructure, and the City's operating and capital budget, to accommodate new growth in an effective and efficient manner, and
- **communicating** between the City Administration and stakeholders to enhance understanding of each other's needs and perspectives through a Growth Coordination Committee.

The GCS applies to growth in planned and developing residential neighbourhoods. The coordination of growth and renewal in mature and established neighbourhoods will be the focus of other work and subsequent documents. Other City initiatives that will influence how the city grows include:

- Great Neighbourhoods
- New Neighbourhood Design Guidelines
- Complete Streets
- Infill Strategy
- Residential Infill Guidelines
- Area Redevelopment and Transit Oriented Development Plans
- City Centre Redevelopment Project
- The Quarters
- The Capital City Downtown Plan
- Commercial Sites Development Guidelines
- Business Revitalization Zone Strategy
- Industrial Land Development Strategy
- Congestion Management Policy
- LRT Network Implementation
- Edmonton's Energy Transition Plan
- WinterCity Strategy
- Elevate
- Low Impact Design Guide and Implementation Plan
- Sanitary Servicing Strategy and Stormwater Servicing Strategy
- Urban Parks Management Plan
- Recreation Facilities Master Plan
- Fire Rescue Master Plan

A GROWING CITY



Edmonton is growing, and keeping pace with this growth is a challenge. Edmonton is the urban centre of a resource rich economic region and a gateway to global trade, producing and distributing goods for a global market.

CONTEXT

Region

To fully capitalize on growth and economic activity, Edmonton must attract and accommodate the labour force of the future.

Edmonton is the heart of the Capital Region (including Edmonton, St. Albert, Spruce Grove, Stony Plain, Leduc City, and spanning the surrounding Counties of Leduc, Parkland, Strathcona, Sturgeon and Lamont) and provides a wide range of services and employment and housing choices. The Capital Region is expected to grow to 1.65 million people by 2040 with Edmonton reaching 1.2 million. Based on this anticipated increase in population, Edmonton will require approximately 150,000 new dwellings units by 2040.

Edmonton is a centre for employment in the Capital Region. The City has approximately 500,000 jobs, accounting for 79 percent of all jobs in



the Capital Region. Looking forward to 2044, the City is projected to maintain and grow its share of jobs within the region based on current and future efforts to expand its employment base across all sectors.

Edmonton has steadily maintained a majority of the housing starts within the region. Over the last ten years, the City averaged 66 percent of annual housing starts (all dwelling types) within the Region. For the same period, the City's share of single-detached and multi-family housing starts (semi-detached, row housing, and apartments) averaged 58 percent and 76 percent respectively. To maintain, and increase its share of annual housing (all types) starts in the region, Edmonton must be competitive relative to the price of housing. Part of being competitive is ensuring that growth is coordinated and efficient to allow housing products to be brought to the market in a cost effective manner.

City

In the last 10 years the population for Edmonton has increased by 150,000 people, to 817,498 in 2012. The housing market reflects this growth with 74,000 housing starts between 2002 and 2011. Employment in the City of Edmonton also drives the growth of the city. Employment areas in the City are dispersed with 57 percent of employment in the core of the city. Key employment areas outside the core area include the South, Southeast, Winterburn, and Northwest Industrial areas. Employment projections for the City of Edmonton indicate that employment growth will occur at the outer edge of the city in areas such as Ellerslie Industrial on the south side of the city, and Edmonton Energy and Technology Park in the north east. In order to accommodate a growing and diverse population, residential growth will occur in mature and established neighbourhoods as well as in new communities.

The majority of new dwelling units in the city occur in new neighbourhoods. In 2011, 81 percent of new dwelling units (all types) were located in the new neighbourhoods. The mature and established neighbourhoods have a relatively fixed amount of low-density housing (single and semi-detached), but they have the ability to increase densities through infill development. In 2011, the mature neighbourhoods had a net dwelling unit increase of 1,312, most of which were multi-family units. Mature and established areas have typically had a net loss of single-detached homes over the last 10 years, due to higher density infill development.

New communities provide affordable low-density housing options for people moving to and within the city. Within new neighbourhoods, single and semi detached units account for about 65 to 85 percent of all dwelling units. Over the last ten years there are typically 30-35 neighbourhoods actively under

development. These neighbourhoods are located in all sectors of the City (Maps 1) and are in various stages of development. This number of active neighbourhoods allows developers and home builders to respond to different market conditions and provide people with a range of housing options located close to the City's major business/employment areas.

Edmonton's developing and planned neighbourhoods have evolved to offer a wide range of housing options and higher densities, with improved access to employment and commercial opportunities. Communities are being planned to meet and exceed density targets that have been set out by the Capital Region Plan, and have convenient access to range of easily accessible amenities either within a single neighbourhood or a group of neighbourhoods via a range of transportation modes. Ongoing collaboration with the development industry, on the design of new residential communities, will further advance and enhance their livability and sustainability.

Balancing City Obligations

The City of Edmonton faces a number of challenges as it evolves and grows. These challenges extend from the core of the City to the fringes of new development. This includes provision of infrastructure and services to both existing and new neighbourhoods. To meet the needs of these areas the City strives for a balance of expenditures relative to renewal and growth.

The City is committed to the redeveloping and revitalizing the mature and established areas of the city. To this end, the City has approved a number of policy documents and initiatives including the Transit Oriented Development Guidelines, the Residential Infill Guidelines, LRT Development and Implementation, the Community Sustainability Task Force, and the Area Redevelopment Plan, Green Building Plan, and Transit Oriented Plan program to guide and enable redevelopment and revitalization in the mature and established neighbourhoods.

The City is also committed to renewal and ongoing maintenance of mature and established neighbourhoods. Accordingly, the City has made tangible investments in many projects including The Quarters, the City Centre Redevelopment, and the West Rosedale Urban Design Plan. In 2009, Edmonton earmarked a portion of its annual capital budget increase to its Neighbourhood Renewal Program. This investment into mature and established neighbourhoods updates and expands existing infrastructure and ensures that services are current to the needs and expectations of the people living there.

As new neighbourhoods develop the City is committed to providing services and infrastructure required to meet the needs of the residents in those neighbourhoods. In the last three years the City has made major investments into new neighbourhoods including:

- Opened Transit Centres in Leger, Meadows, Eaux Claires and Lewis Farms
- Purchased 60 new buses
- Construct and prepare to open the new South West Division Police Station (Windermere) in 2013
- Opened a new fire station in Ellerslie with plans in place for fire stations in Lewis Farms and Heritage Valley
- Acquired seven new natural areas
- Begun construction of Clareview and Meadows branch libraries and recreation centres
- Opened the Terwillegar Recreation Centre

The investment in infrastructure and services in new neighbourhoods provides new and existing residents with similar access to services and amenities.

BUILDING A GREAT CITY



Building a great city requires the collaboration and investment of many organizations and agencies including:

- The City
- Development Industry and Home Builders
- Utilities Providers
- School Boards
- The Province
- Community Builders (Residents, Business Revitalization Zones, Chamber of Commerce, Edmonton Federation of Community Leagues, and non-profit groups).

THE ROLE OF THE DEVELOPMENT INDUSTRY

The development industry is a major contributor to Edmonton's economic health by creating jobs and housing for the City's expanding population. The development industry assumes significant costs (with associated risk) in advancing the development of new communities. Industry is involved in the early stages of city building including securing financing to buy and service land, preparing planning documents and technical studies and obtaining various planning approvals, servicing land for both private (housing) and public (schools and parks) uses, and constructing housing and commercial developments.

The following provides a breakdown of the up-front costs of new neighbourhoods for the development industry:

- Land for private and public use (i.e. roads, parks, stormwater management facilities)
- Planning, engineering and design
- Roads (arterials, collectors, local, and alleys), sidewalks, curb and gutter, trails, bollards, and street lighting
- Storm and sanitary sewers (both local and network) and stormwater management facilities
- Electrical (underground) power
- Landscaping within road right-of-ways and stormwater management facilities
- Municipal Reserve land provided at rough grade and services (three-phase power, water, sewer, and gas) available within road frontage of a park site
- Fencing on private lands abutting public property (e.g. - park, Stormwater Management Facility)

THE ROLE OF THE CITY

The City is involved in monitoring growth; establishing policies, guidelines, and plans that direct land use and built form; evaluating and advancing planning and development proposals; maintaining and enforcing standards and regulations; preparing and approving capital and operating budgets; building, operating, and maintaining community-based infrastructure; and providing services and programs for residents and visitors, and monitoring growth development trends to forecast future needs.

The City assumes ownership of developer funded infrastructure, generally two years after construction, and is responsible for ongoing maintenance, periodic rehabilitation, and eventual replacement. The City funds the costs of the following:

- Fire Stations
- Police Stations
- Arterial Roads (portion exceeding four lanes and neighbourhoods where approval preceded the Arterial Roadway Bylaw)
- Recreation and community facilities
- Bus transit centres
- Libraries
- Major Transportation Infrastructure (bridges, interchanges, LRT)
- Parks development

The City also assumes all operating costs for the above infrastructure and services required to meet the needs of residents.

THE ROLE OF THE COMMUNITY

The community provides input to the City's development of policies, plans, guidelines, standards, regulations, and various private and public planning and development proposals.

As residential neighbourhoods develop, their residents are engaged by the City to provide input on significant public infrastructure (schools, parks, playgrounds) and changes to the planning documents that guide and regulate land use and built form in the neighbourhood.

School districts monitor student population of developing neighbourhoods to ensure that students are provided access to quality educational options. The City of Edmonton and the school districts identify and locate future school sites in developing neighbourhoods. School districts develop plans for accommodating students in the area. Requests for funding new schools are included in their Three Year Capital Plan, as the student population increases and the area warrants new capacity. The provincial funding for schools is based on the identified district priorities included within the Three Year Capital Plan.

The City also works with community groups, and in particular Community Leagues, to establish and operate (or assist) services and programs geared toward the community's needs. In addition, the City partners with community groups to build community infrastructure, such as playground equipment, trails, and community halls.

The Way We Grow, Edmonton's Municipal Development Plan, provides strategic direction to shape the land use and built form of the city.

STEPS IN BUILDING A CITY

Edmonton's planning process is depicted in Figure 1 and described below.

Figure 1: Sequence of Development



The Way We Grow, Edmonton's Municipal Development Plan, provides strategic direction to shape the land use and built form of the city. The Municipal Development Plan applies to the whole city, is updated on a 10 year cycle, and is based on a 30 year planning horizon. The Municipal Development Plan states City Council's position and expectations on various land use matters and is the source for many of the City's major policy, guideline and program initiatives (e.g., the Growth Coordination Strategy, Area Redevelopment Planning Program).

Area Structure Plans apply to generally 600, or more, hectares of land. Area Structure Plans provide a high level development concept identifying the general location and configuration of residential,

commercial, institutional, public open space and utilities, and the alignment of major transportation infrastructure including LRT, highways, and arterial and collector roadways. Area Structure Plans also outline a scheme to service and stage the development of the Plan area. In preparing an Area Structure Plan the City collaborates with the development industry and others (e.g, schools, utilities) to ensure the development concept and servicing scheme comply with the City's applicable policies and standards and appropriately addresses the constraints and opportunities present in the Plan area. It is at this stage that the City evaluates, understands and begins to identify the infrastructure and service needs attributable to the future development and population of the Plan area.

Neighbourhood Structure Plans apply to a portion of, and form a planning unit within, an Area Structure Plan. Neighbourhood Structure Plans provide additional detail on the land uses and circulation pattern for Plan area. The Neighbourhood Structure Plan differentiates between the types of residential land uses (low, medium, and higher density), and better defines the location, size and configuration of various components of a neighbourhood. As with Area Structure Plans, the City works closely with developers, schools, and utility operators to formulate neighbourhood structure plans and understand the infrastructure and servicing needs of the Plan area.

Zoning is applied to land in compliance with the Area and Neighbourhood Structure development concepts and assigns the development opportunities and regulations for built form on the affected lands. Land use zones identify permitted and discretionary uses; site coverage, building heights, forms and density; landscaping, site layout and parking requirements.

Subdivision divides land into smaller parcels, in accordance with the land use Zone in place for the “parent” parcel, and establishes the configuration and orientation of lots and the pattern and alignment of the abutting road network. It is at the subdivision stage that the City identifies the specific requirements (including infrastructure) necessary to support the future development of the lots created by the subdivision.

Servicing Agreements are a condition of subdivision approval and are concluded between a land developer and the City. Agreements specify the location and standard of the municipal improvements (sewer, water, roads, etc.) required to support a subdivision. Once a servicing agreement is in place, the lots created by a subdivision can be registered, serviced and sold to builders to construct housing and commercial buildings, etc.

Development Permits allow for the operation of a particular land use as specified under the land use zone in place for the affected land.

Building Permits are the end product of a review by the City to ensure a particular development meets the requirements of the Edmonton Zoning Bylaw, the Alberta Building Code and other City regulations.

The development industry initiates the process to develop land, beginning with Area Structure Plans, based on a number of market considerations and the collaboration with multiple land owners. Once industry invests in an Area Structure Plan, it generally pursues subsequent planning approvals in fairly short order all the way to lot registration and lot sales to begin to recover its up front investment in purchasing land, preparing the necessary planning and engineering documents, and servicing land. At the same time, the City monitors the pace of approvals and estimates the lead time required for neighbourhood and sector level infrastructure (fire halls, libraries, local and district parks, etc) to be in place to support new development. In so doing, the City also factors this information into its future capital and operating budget submissions.

PLANNING FOR GROWTH



Using different criteria each business area within the City of Edmonton produces a Master Plan or Strategic document that guides how it plans for growth in the City. The following describes how each business area plans for growth in the City.

RECREATION CENTRES AND LIBRARIES

New neighbourhoods require basic amenities and services such as parks, playgrounds, and programs to meet the needs of residents and overall community development. Physical infrastructure (beyond roads, water, and sewers) become important as a neighbourhood builds out and people require places to gather. The City's goal is to ensure that all these facilities, programs, and services are available in every sector of the city and that every citizen has equal access.

The City owns and operates 60 community facilities and attractions ranging from community recreation centres to arenas and outdoor pools. By 2015 and based on current service criteria, there will be a need for four new and four expanded recreational facilities (see Map 4). The City also has 17 existing libraries, and funding is in place for two additional libraries located in Clareview and the Meadows (See Map 4). Planning for a new library generally begins once an area's population has reached 20,000 and is projected to grow to 30,000 to 35,000 within the next five years. However, a full service facility may not be developed where there is another branch within 4 to 5 km.



FIRE RESCUE SERVICES

Edmonton Fire Rescue Services delivers an essential public service, helping make Edmonton a safer place to live, work and play. Edmonton Fire Rescue Services responds to fires as well as rescue and emergency situations. The role and expectations placed on Edmonton Fire Rescue Services have also evolved to include responding to environmental disasters, preparing for potential acts of terrorism and fostering increased partnerships both inside and outside of City limits. To plan for growth within the City of Edmonton, goals are outlined in the Fire Rescue Master Plan to ensure that these responsibilities are met, including annual service level targets. Response coverage is continuously evaluated against recognized international benchmarks which represent the fundamental standards that guide an effective and efficient deployment model.

New areas of growth represent a risk for Fire Rescue Service, and therefore fire stations and apparatus are strategically located throughout the City based on ongoing demand and risk analysis of variables including:

- Analysis of call volumes and fire response times in neighbourhoods of the city
- Overall risk assessment that considers Edmonton's unique residential, commercial and industrial environments and natural areas, high risk areas and hazards
- Population in areas of the city
- Analysis of alternative station location and apparatus deployment strategies
- Geography, including roadways, bridges, rivers/ravines, traffic patterns and congestion, and existence of permanent traffic obstructions such as railroad tracks
- Ensuring sufficient lands are dedicated for required facilities in coordination with Policy 3.2.2 of *The Way We Grow* (Municipal Development Plan).

A current analysis of the above variables provides a short and long-term plan for new facilities. The Fire Rescue Services Master Plan has identified five additional fire halls based on the expected growth in the city by 2015 (See Map 5).

EDMONTON POLICE SERVICE

Edmonton Police Service (EPS) strives to provide a safe and vibrant city through innovative community policing. EPS is unique as a service provider in that service levels and resource allocation are based on the amount of calls for services.

On a secondary basis, the Edmonton Police Service deployment of resources is related to two criteria:

- Land area – To meet response time goals
- Population – There is an indirect link between the population and the number of calls for service

The Edmonton Police Service involvement in the growth coordination process generally follows a five stage process:

New public open space and school sites are being assembled in all sectors of the city where new neighbourhoods are developing.

STAGE 1 - As vacant land is identified to be within the corporate city limits, there is an expectation that Edmonton Police Service will have some measure of responsibility over it. This involvement is at a very low level and has little effect on budget or resources.

STAGE 2 - When a community is being planned, it is beneficial for EPS to have knowledge of where, when, and what is being built for EPS planning purposes. EPS may have some minimal involvement in the design through Crime Prevention through Environmental Design (CPTED). At this stage, there is a minimal impact on budget or resources, but considerable value from a strategic planning perspective in being aware of the future community needs.

STAGE 3 - Construction in a neighbourhood results in the first major impact on EPS workload and resources. EPS is involved in worker safety, traffic enforcement, construction site protection, and area patrols.

STAGE 4 - The second major impact for EPS is when businesses and people move into a new community. There are increased calls of all types and more resources are required, and the police budget begins to be affected.

STAGE 5 - This is the stage when development of the community is essentially complete. This is the end of the cycle for EPS as the resources that are needed begin to depend on the nature and type of development. EPS establishes community contacts and begins working with the community to identify and resolve ongoing issues.

The City has five main police buildings or divisional stations with a number of smaller community stations. A new divisional station in the Southwest is under construction in Windermere to replace the older existing one, which was located at 51 Avenue and 97 Street (Coronet Industrial). There are plans to construct a Northwest Campus (Sixth Division) within the next five years, which will assist in providing police service to this sector into the future (See Map 5).

PARKS AND NATURAL SPACES

Parks create social capital, enhance our quality of life and overall health, preserve our natural heritage, create positive economic spinoffs, and greatly improve the image and character of both individual neighbourhoods and the city in general. A challenge in developing neighbourhoods is fully developing new parkland in a timely fashion to continue Edmonton's reputation as a city of extraordinary parks and natural spaces.

The Urban Parks Management Plan 2006-2016 (UPMP) provides strategic direction for the acquisition, design, construction, maintenance, preservation and use of parks. The development of this strategic plan was in consultation with various internal and external stakeholders.

There are three components to the development of a park:

1. Parkland acquisition
2. Parkland development (design and construction)
3. Parkland operation (maintenance and programming)

The first two parts involve the coordination with various internal and external stakeholders. The acquisition of parkland takes place in the broader development context. Developers work with the City to establish where and what type of parks (i.e. district park, school/park site, neighbourhood park, greenway) are to be located in a planning area; this land is dedicated as municipal reserve (10% of land in the planning area).

The development of parkland is usually completed by the City working with development partners, both for-profit developers, and community-based partners. After neighbourhood park sites are constructed and are in use, redevelopment of parks can occur to meet evolving community needs. The City works with the community to make those changes through a community needs assessment which is conducted by the community and supported by Community Recreation Coordinators.

The Urban Parks Management Plan establishes a set of standards for each level of park facility developed in the City. When considering the timing for new park development, many factors are taken into account, including:

- Public open space, natural spaces, and recreation facility land requirements
- School land (building envelope and type) and joint use requirements
- Early collaboration with developers and land owners
- Development funding options
- Operational and maintenance considerations

In order to meet policy 4.3.1.5 in *The Way We Grow* to “time development of parks as closely as possible with the development they are intended to serve”, all avenues of funding and development cooperation need to be explored in order to implement this policy directive.

New public open space and school sites are assembled in all sectors of the city where new neighbourhoods are developing. Map 6 illustrates where parks are planned in approved neighbourhoods. As neighbourhood plans are approved, the City’s commitment to the development and maintenance of parks and open space expand to ensure that all residents have access to these amenities.

SANITARY AND STORMWATER DRAINAGE

Provision and delivery of drainage services ensures a safe environment and public health.

Sanitary Sewer Servicing

Drainage Services works closely with the development industry through the Urban Development Institute to deliver drainage infrastructure to adequately service large-scale urban development in a timely and appropriate manner. The Sanitary Sewer Servicing Strategy Fund utilizes contributions from developers and the City to address the financial needs of the strategy. Ongoing planning processes facilitates timely, appropriate construction. This approach, together with the permanent area contribution system, lends flexibility to the way drainage is provided in response to demand from the development industry.

An important benefit of the Sanitary Sewer Servicing Strategy is that it helps to relieve the inner core of combined sewers of excess flow, including flow from new development, to further reduce pollutant loading in the North Saskatchewan River. Protection of the aquatic environment in this manner is a condition of the licence to operate the wastewater collection system granted by Alberta Environment and Sustainable Resource Development. Areas serviced by the strategies are presented in Map 8.

Stormwater Management

On land in its natural state, substantial amounts of precipitation naturally soaks into the ground, where it may drain to water courses or the water table. Extensive paving and roofing of land in newly developing areas greatly increases both the rate at which water runs off land, and the total runoff volume and pollutants transferred to the downstream piped drainage system and receiving water courses. Methods used to solve this problem include:

- storage lakes, dry ponds, or constructed wetlands
- dual-use storage, such as converting sports fields into stormwater storage dry ponds and converting existing dry ponds into sports fields
- low-impact development – strategic placement of linked, lot-level controls, customized to address specific pollutant load and storm water timing, flow rate, and volume issues
- structural best management practices (oil/grit interceptors, surface and subsurface filtration systems)

TRANSPORTATION

Efficient transportation is essential to a smoothly functioning city, and the planning, design, construction, and operation of the transportation system have a substantial impact on issues of sustainability, affordability, and quality of life. Transportation infrastructure must be responsive to changing conditions.

The Transportation Master Plan, *The Way We Move* provides the vision and goals for all transportation modes over the next thirty years. A key goal of *The Way We Move* and *The Way We Grow* is to integrate transportation and land use. *The Way We Move* also provides direction to develop a transportation network where more people use transit and active modes as their preferred transportation choice and goods and services move efficiently through the city.

- Policies and guidelines that implement the Vision of the Transportation Master Plan are:
 - Complete Streets Guideline
 - Optimization of the Transportation System Network Policy
 - Multi-Modal Level of Service Guidelines
 - Active Transportation Policy
 - LRT Construction and Planning

Efficient transportation is essential to a smoothly functioning city, and the planning, design, construction, and operation of the transportation system have a substantial impact on issues of sustainability, affordability, and quality of life.

Transportation infrastructure influences urban form; the construction of roadways and public transit infrastructure shape the city's land use patterns. New or expanded roads can enable development to take place. All new development requires transportation infrastructure such as roads, sidewalks, railways, interchanges, bridges and transit centres. Most utilities are placed within road rights-of-way so roads are not only used to convey traffic but also to support required servicing used by the development. Transportation Services works with developers to determine the requirements for all modes of transportation in new neighbourhoods. This is done by:

- Coordinating with land developers in the concept and design stage of development, planning for roads, pedestrian/bicycle routes, school access, and transit as well as the land required for that infrastructure
- Coordinating with the Province and region
- Administering and applying the Arterial Roads for Development Bylaw #14380.
- Reviewing land use and development applications from a transportation perspective
- Inspecting private roadway development and accepting the developments as capital infrastructure assets
- Identifying large scale infrastructure needed to support new development such as bridges, interchanges, major roadways and LRT. From the point of identification, the projects are then prioritized as part of the capital budget process.
- Identifying the timing and priority for new transit routes and transit centers.



For large scale infrastructure such as bridges, interchanges, major roadways, LRT and other transit improvements, the City develops and coordinates concept engineering plans. These plans take projects from policy, to design, construction and implementation. Projects that are identified require capital budget dollars and are prioritized as part of the capital budget process.

As growth occurs in the suburbs, vehicles drive further and traffic on the existing road network increases. Although infrastructure within a neighbourhood is constructed by developers, additional investment in major transportation facilities is necessary in order to provide the accessibility and level of service that residents expect. Development within the Capital Region, outside of Edmonton's corporate limits, has a similar impact as development within Edmonton. Demand upon existing roadways will increase while growth continues, inside or outside of our boundaries. Additional infrastructure improvements to these major facilities are currently a City obligation and

funding is not generally considered as part of the cost of development. Examples of this scenario would be the upgrades required to Whitemud Drive west of Anthony Henday Drive in order to accommodate the growth in Lewis Farms and The Grange. In some cases, the infrastructure required is not within the City's jurisdiction and timing of construction is outside of the City's control. An example of this is the requirements for additional bridges or interchanges along Anthony Henday Drive to accommodate growth in adjacent developing areas. Map 7 identifies many of the transportation infrastructure requirements that are required to support growth that are not funded by the development industry.



Transit Routes for New Neighbourhoods

Requirements for the implementation of new services are identified in the Transit Service Standards (Policy C539). For initial implementation of new peak period service, a minimum population in a neighbourhood of 500 residents is required. Actual implementation is then undertaken if additional funding for new services is approved in the Edmonton Transit Operating Budget and roads are available for bus operations.

Also, new areas are candidates for a developer funded service where developer pays for the operating cost for new bus service at the early stages of development. Ideally, this service is provided when roads are built and the first houses are occupied. Developers of new neighbourhoods carry the cost of the service for the first two years and the City assumes the cost of service after that.

Transit Centres for New Neighbourhoods

Currently there are no specific guidelines that govern the timing for new transit centre construction, with the need for the new transit centres considered individually based on the development conditions in the area. Some of the factors that are considered in determining when a new transit centre will be built include:

- Is capacity available at the nearest existing transit centre to the new area to accommodate the increased number of bus routes required to serve the area?
- Can operating cost savings be achieved by having new transit centre in the new area instead of extending all bus routes to the nearest existing transit centre?
- With bus network restructuring options available with a new transit centre, can service be improved for customers (e.g. better transfer connections, improved travel times, provision of new opportunities to travel to different areas of the city?)

- With LRT line extensions, is a facility required to accommodate passenger transfers between rail and bus modes?
- Is funding available in the Capital Priorities Plan?

As a rough indicator, new transit centres have been built when the population of the surrounding neighbourhoods has reached 15,000 to 20,000 residents. At this point, there have been about 16 and 20 buses per hour (peak periods) or between 4 and 8 routes operating from the surrounding neighbourhoods, feeding into the new transit centre for connections to/from destinations outside of the neighbourhood.

As growth continues in the city, school districts will strive to balance the utilization of existing infrastructure with demand for new local accommodation.



Transportation Costs

The development industry pays for the initial construction of local, collector and arterial roadways in new neighbourhoods. The City pays for large scale transportation network improvements. Following a 2-year warranty period, the City assumes responsibility for the developer funded neighbourhood transportation infrastructure. Annual ongoing operating costs are borne by the City for the neighbourhood to provide snow clearance, seasonal roadway maintenance, regular sidewalk and roadway repair, street lighting and transit services. In addition, neighbourhood transportation infrastructure requires major rehabilitation at the appropriate time in its life-cycle. As the inventory of roadways and transportation infrastructure increases, the City's requirement for infrastructure rehabilitation investment grows, impacting future budgetary needs.

SCHOOLS

There are three publicly-funded school districts responsible for providing education from kindergarten to grade twelve within the city: Edmonton Public Schools, Edmonton Catholic Schools, and Conseil scolaire Centre-Nord. As the city expands with the development of new neighbourhoods, school districts face many issues in providing educational opportunities.

Although a significant portion of the student population living in Edmonton resides in developing areas, most existing school buildings are located in the mature areas. This means a significant number of students are transported to school. As new areas grow, it is critical to provide adequate transportation routes to existing schools until new local schools can be provided.

As growth continues in the city, school districts will strive to balance the utilization of existing infrastructure with demand for new local accommodation. Capital investment is required to support both existing and new school infrastructure. School districts will continue to seek capital funding from the province, which is responsible for public education funding, and to partner with the City of Edmonton and other organizations to provide support to families and students.

STEPS IN BUILDING THE BUDGET

The City has both operating and capital budgets (hard infrastructure). Budgeting for operations and infrastructure is separate because they are delivered in different ways – daily operations, compared to longer-term projects – and have different funding sources.

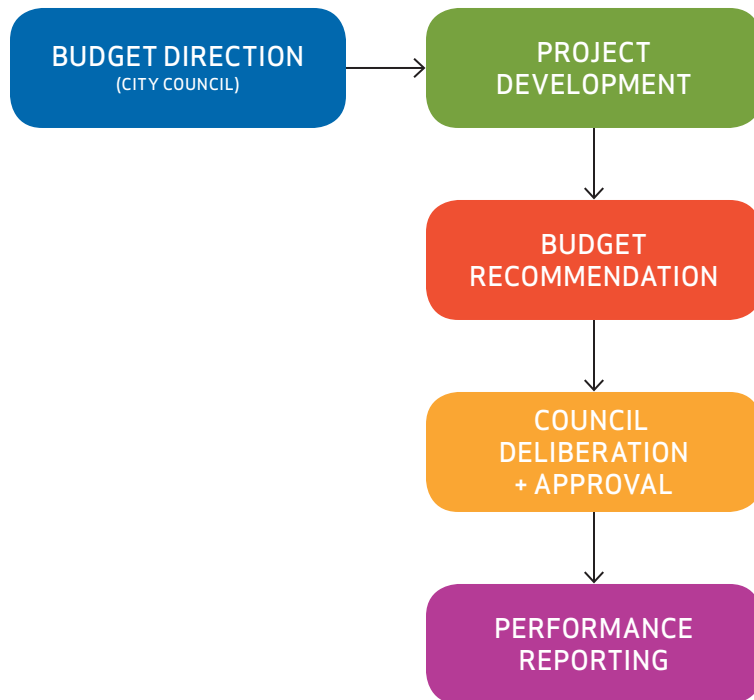
The ten-year Capital Investment Agenda (2012-2021) and three-year Capital Budget (2012-2014) were developed by Administration to assist Council in making strategic decisions on how best to allocate City resources to build and maintain the infrastructure Edmontonians will require over the next decade. The Capital Investment Agenda and Capital Budget were also developed through a collaborative process with all City departments, the Edmonton Public Library and the Edmonton Police Service, who identified capital needs and priorities for growth projects and determined the investment targets for renewal.

The three-year Capital Budget determines the investment in Edmonton’s hard infrastructure: the construction of buildings like recreation centres and libraries, transportation assets like LRT lines and bridges, and neighbourhood infrastructure like sidewalks and streetscapes. While the Capital Budget looks at funding immediate capital needs, the ten-year Capital Investment Agenda looks beyond the three-year budget cycle to identify key infrastructure and financial challenges the City faces.

There are five key steps in building the Capital Budget (Figure 2).

1. BUDGET DIRECTION - Provided to the City’s Administration from City Council.
2. PROJECT DEVELOPMENT - Prioritized renewal and growth projects are submitted by the various City Departments and authorities (Edmonton Public Library, Edmonton Police Service, and Edmonton Economic Development Corporation) to the Corporate Budget Office.
3. BUDGET RECOMMENDATION - Growth and renewal projects are reviewed and revised and the ten-year Capital Investment Agenda and three-year Capital Budget are prepared, reviewed and finalized.
4. COUNCIL DELIBERATION AND APPROVAL - A Public Hearing is held and Council will deliberate and approve the ten-year Capital Investment Agenda and three-year Capital Budget.
5. PERFORMANCE REPORTING - Review actual expenditures to the budget and carry forward any balance to the next year.

Figure 2: Capital Budget Process



GOING FORWARD



Growth coordination is an ongoing process to assist the City, developers, and community builders, manage future public obligation and growth opportunities.

There are three key themes to effectively implement a GCS:

1. Consistent, comprehensive, and timely information
2. Communication with external stakeholders
3. Integrated planning

The Growth Coordination Strategy addresses these themes through:

1. Establishment of a Growth Coordination Committee
2. Preparation of an Annual Growth Monitoring Report
3. Provision of Growth Information Requirements for the authorization of new Neighbourhood Structure Plans
4. Utilization of Integrated Infrastructure Management Planning Framework
5. Corporate Integration

GROWTH COORDINATION COMMITTEE

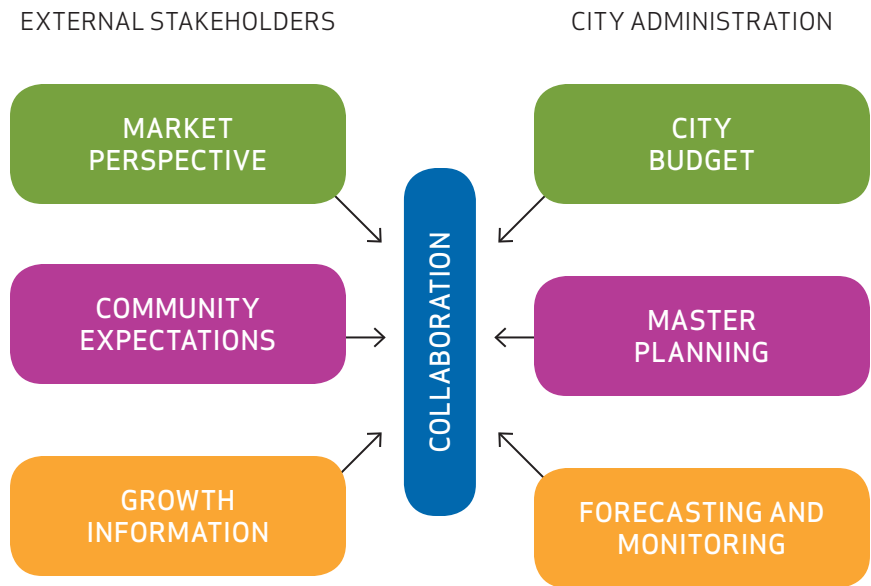
The formation of a Growth Coordination Committee (GCC) is essential to the success of the GCS, in that it will provide a forum for ongoing discussions about expected future growth and related challenges and opportunities. The GCC will help identify potential solutions to reducing infrastructure costs and meeting service needs. Early identification of civic obligations triggered by expected development will provide the City with a longer timeframe in which to budget and prepare for future capital and operating requirements associated with growth. The work of the GCC will also feed into the annual Growth Monitoring Report.



A Terms of Reference for the Growth Coordination Committee will provide more details on the committee including its purpose, when the committee will meet, and who will be represented on the Committee. It is expected that representation will include members from each City Department and external stakeholders.

The GCS is, fundamentally, about integrated information sharing to inform decision making (Figure 3). It's about interested and affected parties having access to the same information. The City and stakeholders involved in the city's growth must continually engage one another to make sure growth is responsive to the needs of residents and businesses, and is responsible in terms of economic, environmental, and social sustainability. The formation of the GCC will facilitate this engagement, and this, in turn, will help ensure the ongoing viability of the GCS.

Figure 3: Growth Coordination Committee



GROWTH MONITORING REPORT

One of the key outputs of the Growth Coordination Strategy is an annual Growth Monitoring Report. This report will inform Administration’s recommendations to Council and will also be provided directly to Council. The report will offer current and comprehensive information on city-wide growth related issues; including those specifically directed by *The Way We Grow* (Figure 4). Currently the Administration provides the following monitoring reports:

- Developing and Planned Neighbourhoods
- Residential Land Servicing Forecast
- Status of Suburban Residential Land
- Mature Neighbourhood Reinvestment

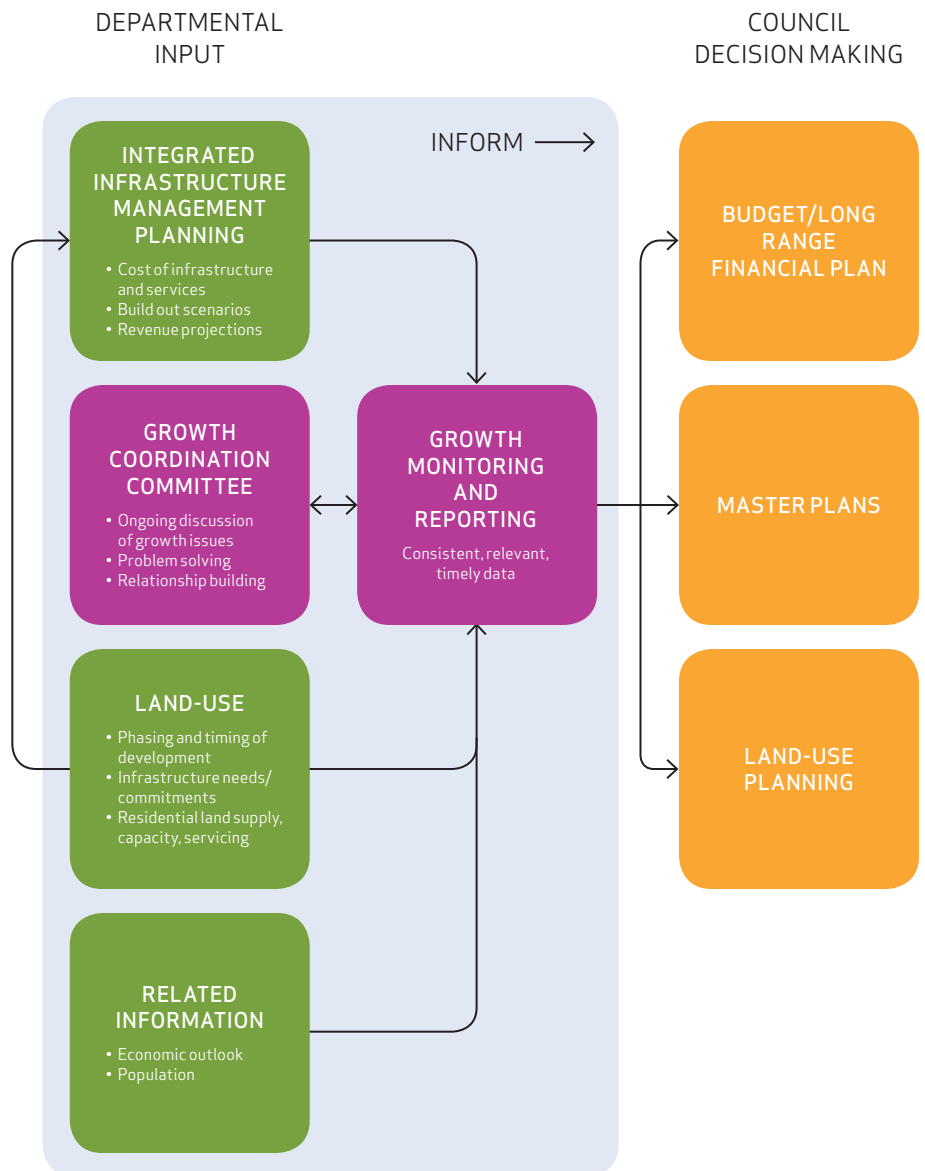
Information from these reports will be included in the Annual Growth Monitoring Report. The annual Growth Monitoring Report will take a look at the city in more comprehensive manner and will also directly monitor the ongoing success of the GCS. In particular, the monitoring report will provide the following information:

- overview of socio-economic conditions influencing growth including population and employment forecasts and economic outlook
- level of completion of approved neighbourhoods including infrastructure and service needs not yet provided
- costs of current infrastructure obligations
- percentage of new growth in mature areas
- land, housing demand, and housing choice at the sector, city-wide, and regional level
- measures related to livability

It will be the responsibility of each business area within the City Administration to provide the information necessary to determine growth related civic infrastructure and service commitments and costs. An appropriate body within the

Administration will be appointed to coordinate this work. The Growth Coordination Committee will help inform expected market and growth direction. Appendix III provides a template of the information contained within the annual Growth Monitoring Report.

Figure 4: Annual Growth Monitoring Report



INFORMATION REQUIREMENTS FOR NEW NEIGHBOURHOOD STRUCTURE PLANS

Section 3.1.1.8 and 3.1.1.9 of *The Way We Grow* outlines requirements specifically related to new neighbourhood structure plans.

Information Requirements

Proponents for a new Neighbourhood Structure Plan will seek Council's authority to prepare the Plan. City Administration will prepare a report for Council that will include information from the proponent and City Administration. This information will allow Council to see where new growth is proposed and ensure that it is in accordance with the Council's Vision.

To satisfy the requirements in Section 3.1.1.9 the Growth Information, supplied by the Administration and the proponent, will include:

- Population and Development information:
 - Current population capacity in the sector
 - Population growth in annual and 5 year increments
 - Dwelling unit absorption in 5 year increments by type
 - Anticipated year in which actual development will start
 - Development Staging Plan
- Relationship of the proposed plan to transit
- Municipal infrastructure needs (Fire, Police, Library, Rec Centres, Sanitary Trunk lines) detailing what is funded and unfunded
- Proximity to existing infrastructure (hard and soft)
- Significant environmental impacts

Requirements for Neighbourhood Structure Plans in Existing Area Structure Plans

Information requirements for Neighbourhood Structure Plan in Area Structure Plan approved prior to the Growth Coordination Strategy are different, as these neighbourhoods were authorized for plan preparation by Council on February 2, 2011. These neighbourhoods are required to provide growth information to Council when seeking approval of these plans.

INTEGRATED INFRASTRUCTURE MANAGEMENT PLANNING

Integrated Infrastructure Management Planning is a process for the gathering, synthesis, presentation and use of data related to the provision of infrastructure to the three remaining Urban Growth Areas. It will provide Council information about the infrastructure required for the development, how it relates to existing infrastructure, timing, and implications to the City's operations.

Analysis concerning existing and future infrastructure needs becomes more in depth and covers more facets of development as plans become more detailed. Typically, broader based, higher level analysis performed at a conceptual stage can help to inform high level decision-making that does not result in specific budget approvals but provides a general indication of future cost implications and revenue potential. The more detailed the planning, the more detailed and meaningful the analysis becomes.

Area Structure Plans are a high order planning document that, in conjunction with other planning documents, ultimately results in how our City is built. Therefore, it is important that any recommendations that arise from Integrated Infrastructure Management Planning at the Area Structure Plan level reflect the conceptual nature of the plans at this stage in the process. As indicated in *the Way We Grow*, an Integrated Infrastructure Management Plan is to be utilized in conjunction with other planning documents to identify implications for decision-making.

The framework for Integrated Infrastructure Management Planning is designed to provide appropriate and timely insight for Council, Administration, and the Development Industry in Urban Growth Areas. There are many aspects that must be considered, however the following is assumed:

- The purpose of Integrated Infrastructure Management Planning is not to determine whether suburban growth should continue to occur. The assumption is that the City will grow, and the question becomes how can this be achieved in the most effective and sustainable way.
- The City of Edmonton is a major urban municipality surrounded by a region of smaller, urban and rural municipalities. As such, we have our own infrastructure standards (e.g. urban cross sections), and we provide distinct services (e.g. transit) that set us apart from some of our regional neighbours. Exploration of changes to our levels of service is beyond the scope of this initiative.

Collectively, the City of Edmonton and the development industry invest significant amounts of money to build a city that citizens enjoy. Approached in an integrated fashion, infrastructure within a community interfaces and plays a role in all aspects of the live, work, play paradigm. One asset or system of assets is not independent from another.

The framework will not provide a one stop solution for development approval, rather it is a lens to examine development with respect to the provision of infrastructure, its costs, efficiencies, how it relates to other infrastructure (present and planned) in the sector and the City, and a greater understanding of the effects of the timing of the development.

Administration will provide a report for each of the Area Structure Plan approvals under consideration based on the Integrated Infrastructure Management Planning Framework. The report will present Council with relevant infrastructure information and perspective to assist in the assessment and decision-making for the approval of development within the Urban Growth Areas. The report will include the following:

- A high level overview of infrastructure costs associated with the development. This includes initial construction, renewal, and operation and maintenance costs, and the responsibility for those costs.
- The implications of various build-out scenarios (for example, high/low absorption rates, timing of the development of land uses). Implications include the timings of



facility development, implications to near and long term capital budgets, revenue realizations, and extrinsic effects on other developments.

- How the proposed infrastructure fits into existing master plans, the Capital Investment Agenda, and current (2012-2014) and future capital plans.
- How the proposed infrastructure, in terms of servicing the proposed Area Structure Plan, interfaces with infrastructure currently on or in the ground.
- How the development moves forward the vision and objectives in the Ways.
- An overview of efficiencies that are or could be worked into the design of the development. Due to the high conceptual level of an Area Structure Plan, this would be narrative in nature. Appendix IV contains a sample template of the information expected to be presented in the report to Council. This information is for illustrative purposes only, and shows the results of the analysis of a fictional neighbourhood.

CORPORATE INTEGRATION

The Way Ahead – the City’s strategic plan – was established by City Council in 2008 and updated in 2011. The outlines the City’s vision for 2040, and six ten-year strategic goals. For each of the strategic goals, The Ways directional plans have been, or are in the process of, being developed. The directional plans are as follows:

- *The Way We Grow*: Municipal Development Plan
- *The Way We Move*: Transportation Master Plan
- *The Way We Live*: People Plan
- *The Way We Green*: Environmental Strategic Plan
- *The Way We Finance*: Financial Sustainability Plan
- *The Way We Prosper*: Economic Development Plan

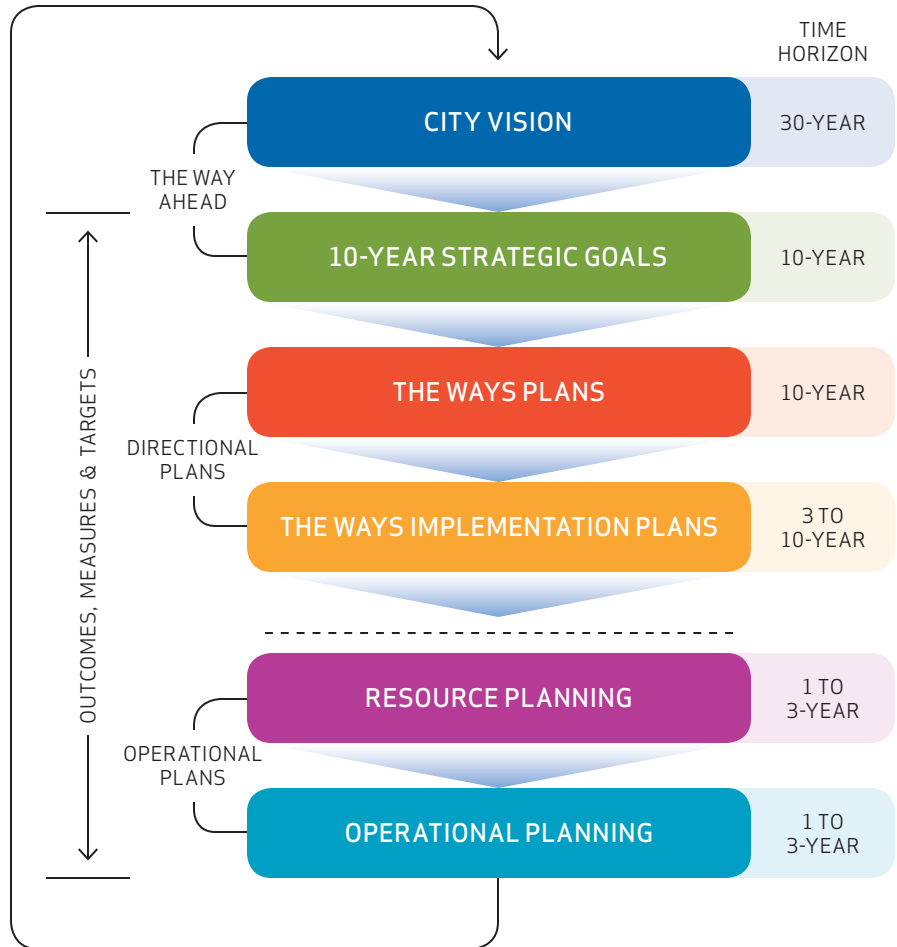
The Ways Implementation Plans outline actions to achieve The Ways (Figure 5). This level of planning provides detail to guide what city services and/or infrastructure will be needed to serve developing and planned areas as well as projected timing.

Prior to the approval of the Growth Coordination Strategy, each business area bases its planning work on a different set of information.

The growth information provided through the Growth Monitoring Report will play a significant role in ensuring that all departments in the corporation and City Council are provided with a comprehensive and consistent information source. This will be achieved through an internal body whose responsibility it will be to ensure that consistent, comprehensive and timely information is consolidated and used appropriately.

The growth information will be enhanced by input received through the Growth Coordination Committee. As plans are approved, information regarding servicing obligations triggered by the plan will be used to update the next growth monitoring cycle.

Figure 5: Corporate Planning Framework



CONCLUSION



The Growth Coordination Strategy provides a new way of integrating internal processes and working with external partners to accommodate expected growth while managing future public obligations triggered by that growth.

By laying out a process for enhanced monitoring, reporting, coordinating and communicating of growth related issues, the City will be better positioned to attract and accommodate new growth in a way that maintains the high quality of life already offered - by choosing to grow in a way that is financially, environmentally and socially sustainable.

The Growth Coordination Strategy, as presented here, provides the starting point. As the final two *Ways: The Way We Finance* and *The Way We Prosper*, are completed, the Growth Coordination Strategy can evolve to reflect their ambitions. This framework begins to implement the policies of *The Way We Grow*, Edmonton's Municipal Development Plan, and can be enhanced over time. Right away, Council will be provided with more timely and comprehensive information that can assist them in making growth related decisions.

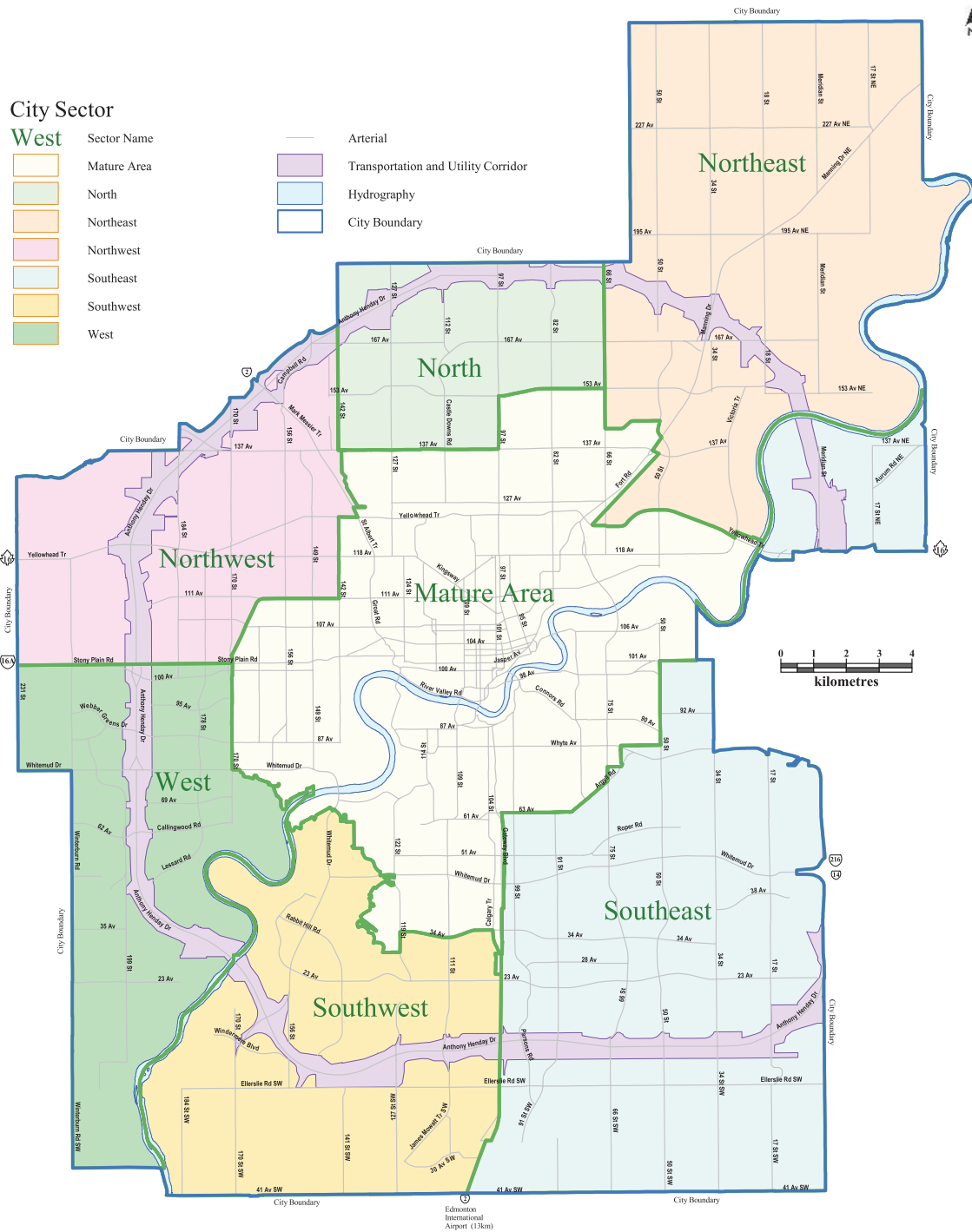
APPENDICIES



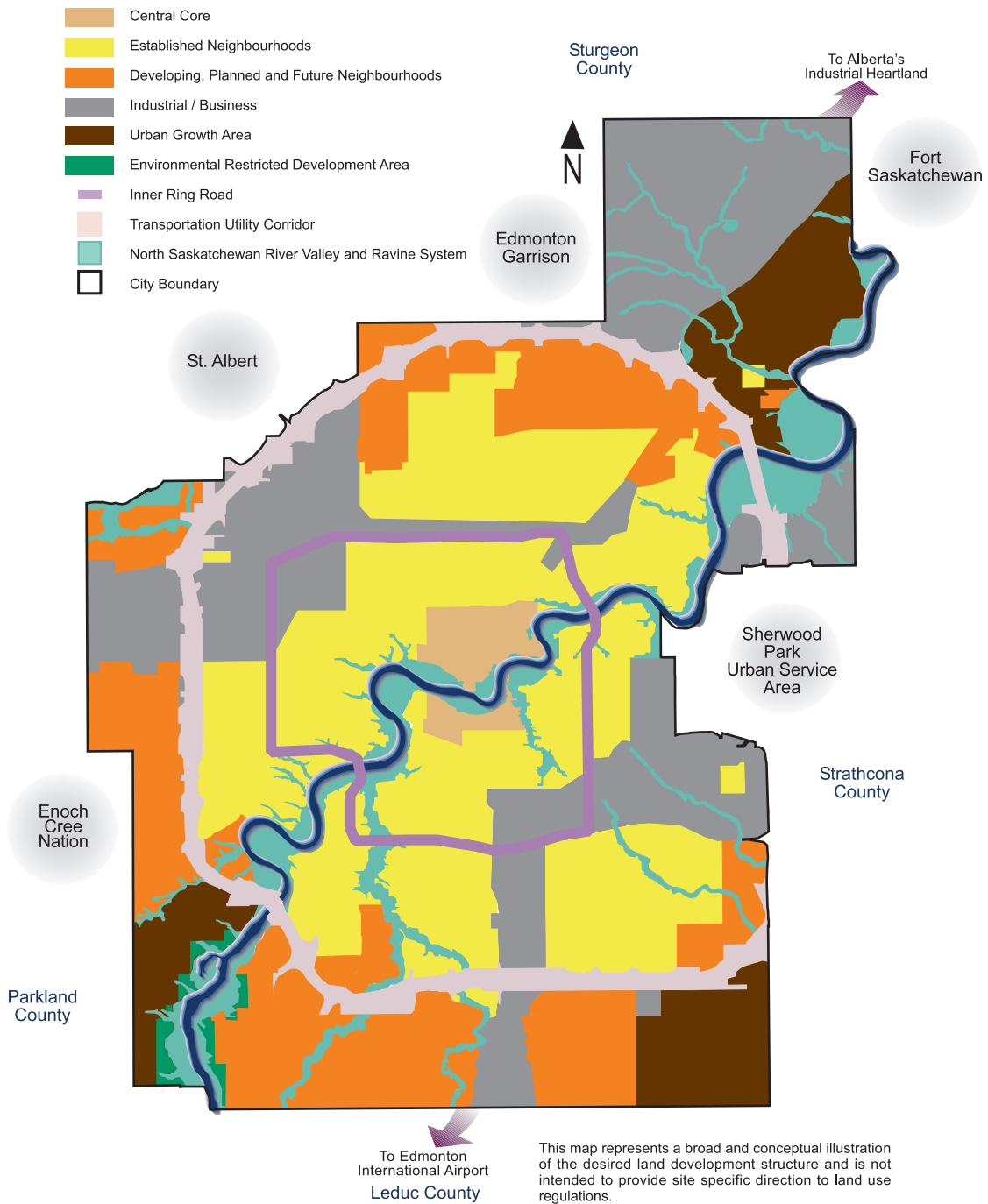
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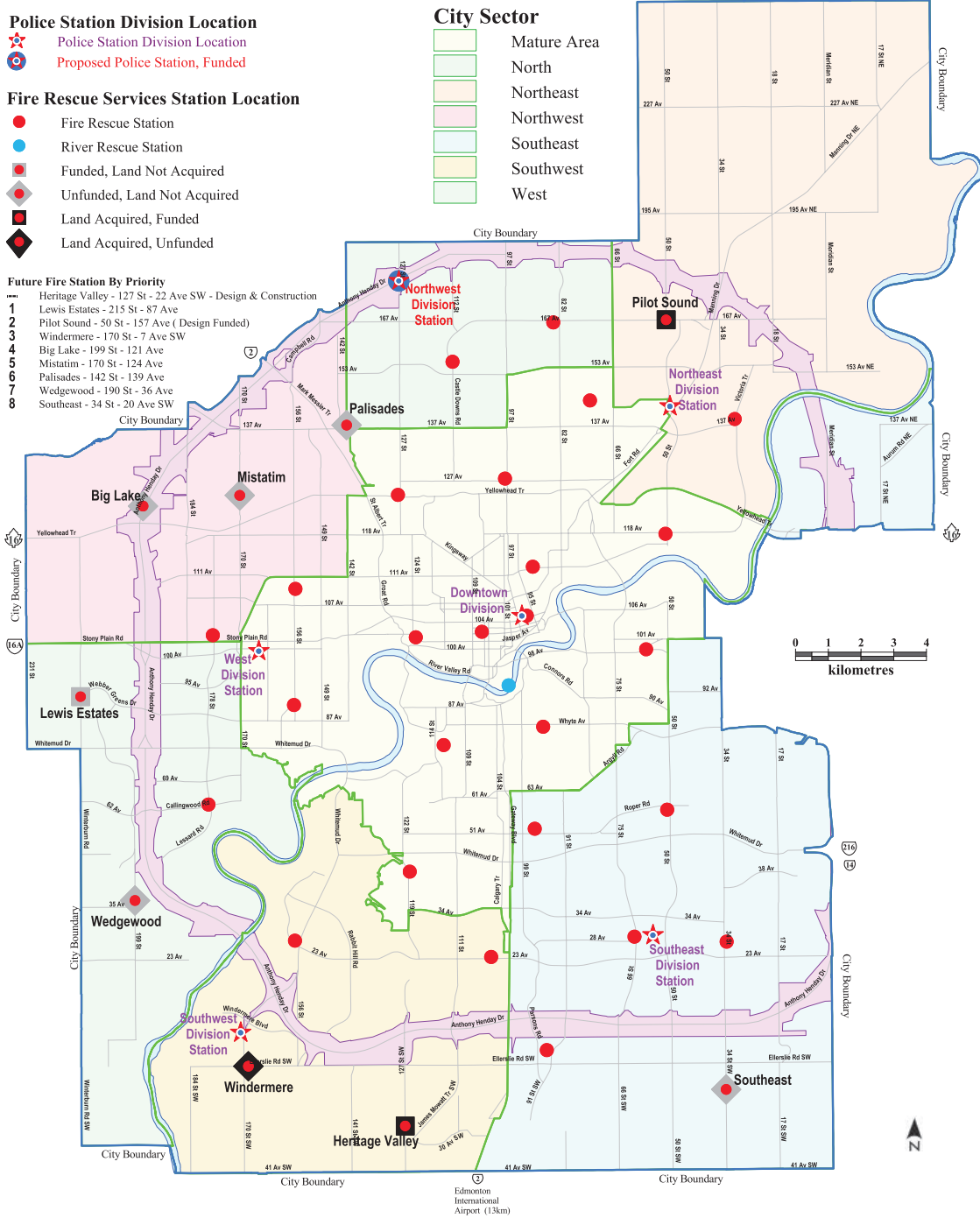
Map 1: Sectors Map



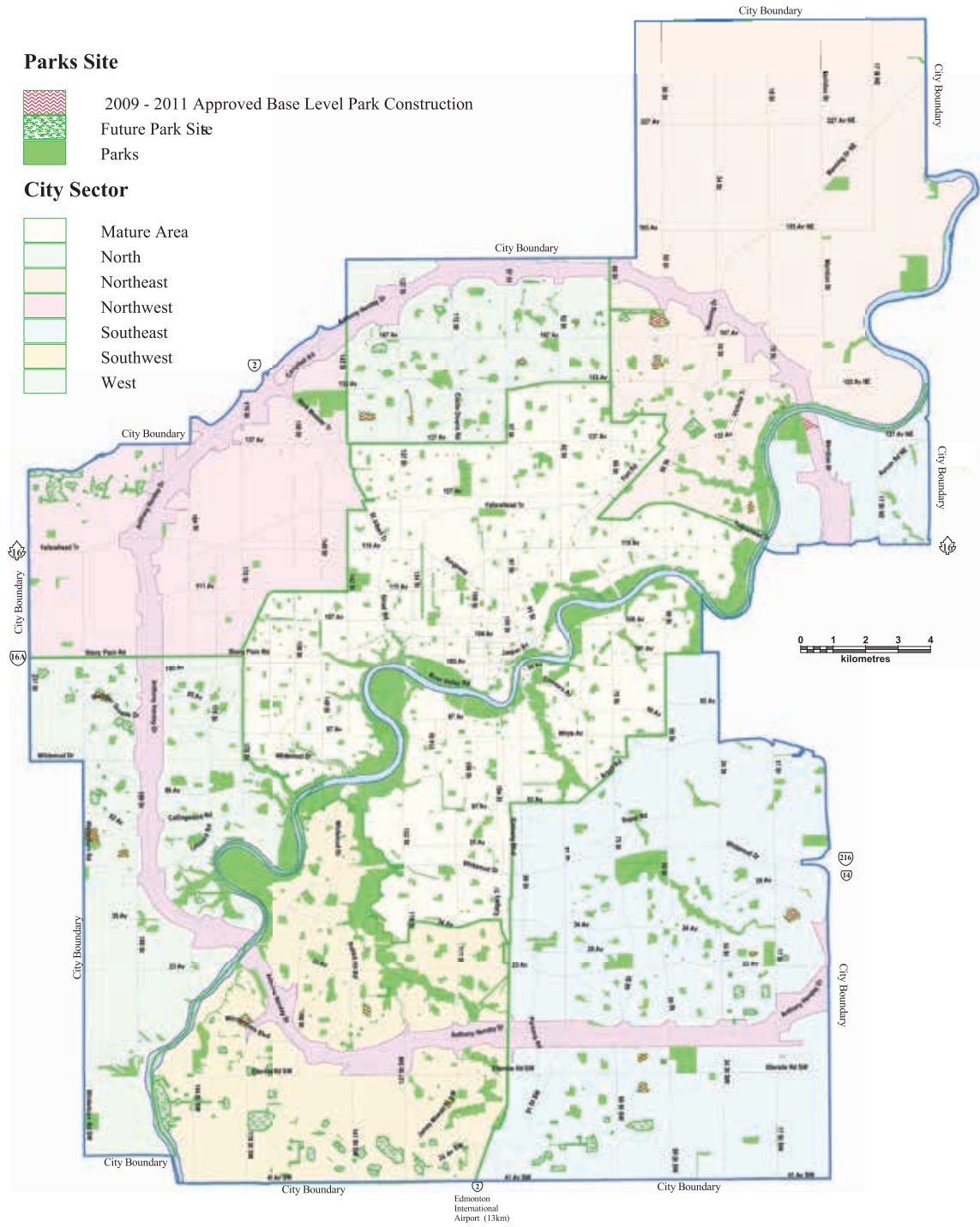
Map 2: Land Development Map of Edmonton



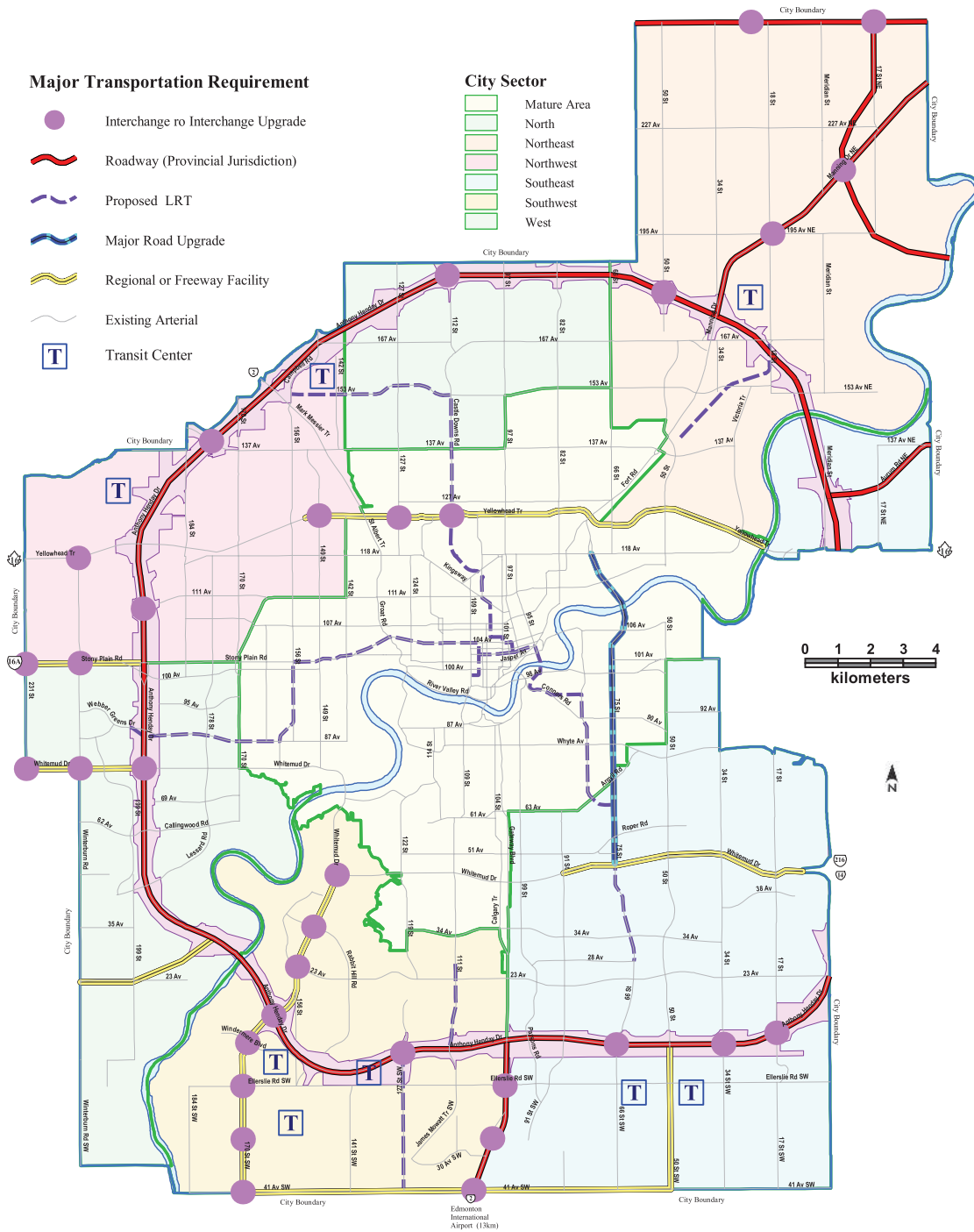
Map 5: Fire Rescue Station Location Master Plan



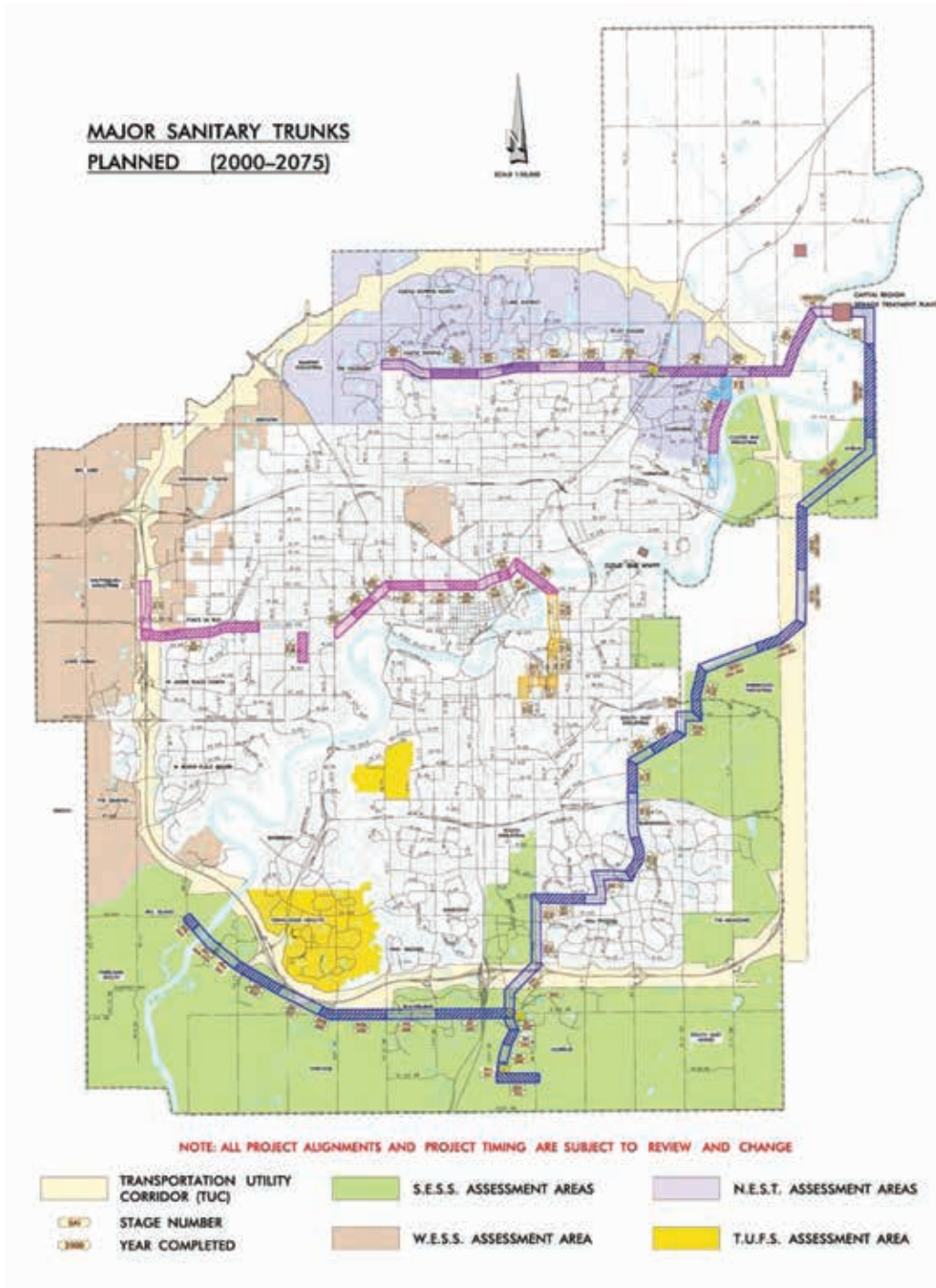
Map 6: Planned Parks in Approved Neighbourhoods



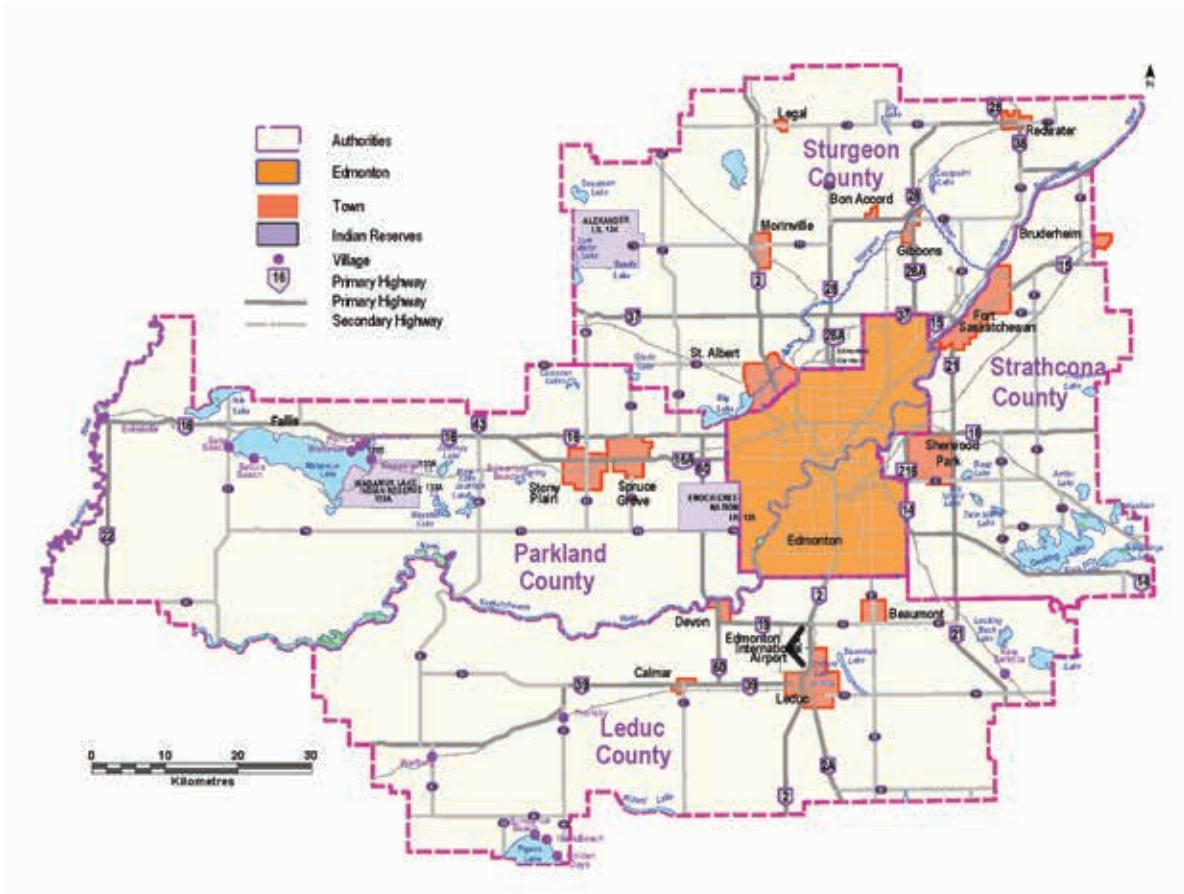
Map 7: Transportation System Bylaw showing Proposed Infrastructure



Map 8: Sanitary Servicing Strategies



Map 9: Capital Region Board



There are twenty-four participating municipalities in the Capital Region:

| | |
|---------------------------|----------------------|
| Town of Beaumont | Town of Legal |
| Town of Bon Accord | Town of Morinville |
| Town of Bruderheim | Parkland County |
| Town of Calmar | Town of Redwater |
| Town of Devon | City of St. Albert |
| City of Edmonton | City of Spruce Grove |
| City of Fort Saskatchewan | Town of Stony Plain |
| Town of Gibbons | Strathcona County |
| Lamont County | Sturgeon County |
| Town of Lamont | Village of Thorsby |
| City of Leduc | Village of Wabamun |
| Leduc County | Village of Warburg |

GROWTH INFORMATION

EDMONTON'S ECONOMIC OUTLOOK

Edmonton has great prospects for continued growth over the coming decade. The recovery of oil prices was the key factor in Edmonton's growth over the course of 2011 and into 2012. With oil prices remaining high, investment in both conventional oil and oil sands development was strong. This was a stimulus for manufacturing, logistics, and professional services such as engineering. Employment growth has been strong enough in the Capital Region that evidence of labour shortages in select sectors is evident.

There is a high level of uncertainty in the global economy, which poses risks to the local and regional economy. However, the prospects for Edmonton's economic growth remain strong, but the relatively soft conditions in the United States and the rest of Canada limit the likelihood of a return to the boom conditions of 2004 to 2008.

Within this fairly strong regional economic climate, the demand for housing is supported by continued net migration gains resulting from strong employment growth and household formation values that reflect Edmonton's relatively young demographic profile.

Table 1: City of Edmonton's Projected Average Annual Growth Rate by Key Indicators

| KEY INDICATORS | ANNUAL GROWTH 2012-14 | ANNUAL GROWTH 2012-21 |
|--|--------------------------|--------------------------|
| Real Economic Output | 3.1% | 2.6% |
| Population | 1.4% | 1.3% |
| Employment | 1.7% | 1.7% |
| Consumer Price Index | 2.7% | 2.8% |
| Non Residential Construction Price Index | 4.9% | 4.0% |
| Housing Starts* (Average units per year) | 6,661 | 6,970 |

* For all housing types

OVERALL HOUSING DEMAND

Edmonton's current population is over 817,000 people. The Capital Region Board population projection of the City of Edmonton in 2039 is 1,123,500 people. Using the Capital Region Board projections, an additional 146,000 households would be created by 2039.

LOW DENSITY RESIDENTIAL LAND SUPPLY

Low density housing occurs predominantly in Edmonton's new neighbourhoods. Based on the City of Edmonton's year-end 2011 figures, Edmonton has enough land in approved area structure plans to accommodate an estimated 63,000 low density units (Table 2). This does not include potential low density units in the Urban Growth Areas.

The Urban Development Institute has identified a potential for 55,000 low density units (Table 2). Based on their mid-range scenario for absorption of 4,000 low density units (using housing starts as a measure) per year, they estimate a 13 year supply of low density residential in the City of Edmonton which excludes medium and high density development and the Urban Growth Areas. UDI expects that the 10 year average will trend upward and increase to 5,000 low density units per year. The UDI analysis is market based and assesses each sector from the standpoint that the market is unconstrained and can contribute to the supply of housing in an unrestricted fashion. Housing starts as defined by Canada Mortgage and Housing Corporation (CMHC) are when the foundation for the dwelling unit(s) is poured. CMHC provides housing start information on a city-wide basis.

Table 2: Potential Low Density Lot Supply by Sector

| SECTOR | POTENTIAL LOT SUPPLY | | AVERAGE ABSORPTION | | YEAR SUPPLY | |
|--------------|----------------------|---------------|--------------------|----------------------|-------------|-----------|
| | COE | UDI | COE (REGIST.) | UDI (HOUSING STARTS) | COE | UDI |
| North | 5,891 | 5,255 | 592 | 400 | 11 | 13 |
| Northeast | 3,674 | 2,901 | 373 | 700 | 9 | 4 |
| Southeast | 15,661 | 13,930 | 936 | 800 | 17 | 17 |
| Southwest | 20,806 | 18,318 | 1,218 | 1,000 | 17 | 18 |
| West | 10,703 | 9,455 | 606 | 600 | 18 | 15 |
| Northwest | 6,220 | 5,525 | 3* | 500 | n/a* | 11 |
| Total | 62,955 | 55,384 | 3,728 | 4,000 | 17 | 13 |

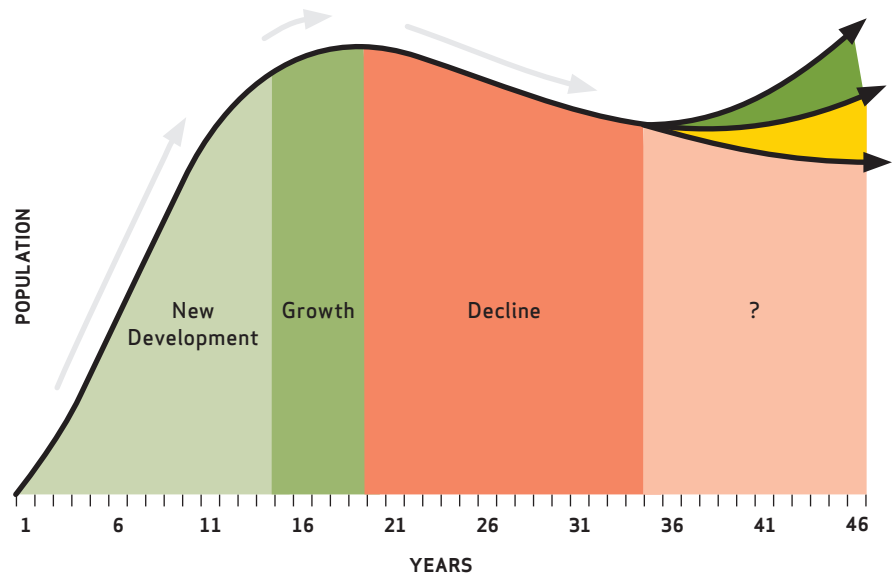
* Northwest Sector was created in 2011 no historical information available to assess the absorption rate

The City of Edmonton calculates the absorption of lots using lot registrations which occur at the beginning of the development lifecycle. Registrations can be counted for individual neighbourhoods, Area Structure Plans, and sectors of planned and developing areas. Potential lot supply numbers for the City of Edmonton are taken from current plans in effect as of December 2011.

The development lifecycle starts when an area is subdivided and the services are brought into an area allowing for the registration of individual lots. Once the lot has been registered it is available for building and a development permit is applied for and issued. When a house is constructed, people will move in and the neighbourhoods will start to grow. The population for a neighbourhood lags behind the lot registration. The potential population capacity for a neighbourhood may not be reached for decades (Figure 1). The economy also influences the development of neighbourhoods. For instance, when the economy is strong neighbourhoods may build out faster reaching the population capacity earlier. When the economy is slow, neighbourhoods build out slower thus increasing the time it will take to reach the targeted population. If development occurs over an extended period of time, the neighbourhood may never reach its projected total population due to the neighbourhood lifecycle (Figure 1).

Figure 1: The Typical Lifecycle of a Neighbourhood*

- Development of vacant lands results in population increase; typically young families with young children
- The neighbourhoods completed an in-migration is quite slow. Population continues to grow as families have children.
- Population declines as children grow up and leave their parents homes.
- A mature neighbourhood may be revitalized, or seen as a desirable place to live. Redevelopment and intensification increase available dwellings and attract new residents.
- New in-migration from young families occurs as older couples begin to leave the neighbourhood. Stable neighbourhood population is achieved.
- Sometimes undesirable economic and social conditions may make the neighbourhood unattractive, resulting in negative net-migration.



* Adapted from the City of Edmonton Population & Employment Forecasts: 2003-2030 Summary

The average annual absorption rate from 2002 to 2011 – was 3,728 low density lots per year. The 10 year average takes into account the cyclical nature of the economy experienced by Edmonton. Table 1 provides the estimated low density lot capacity for each sector of the city and the shows that the city-wide low-density lot supply average is 17 years.

Urban Growth Areas

It is estimated that the Urban Growth Areas could accommodate 48,012 low-density units (Table 4). This information is based on 2011 year-end data regarding the Urban Growth Areas. These plans are not approved and are subject to change prior to approval by City Council. The Urban Growth Areas will add an estimated 13 years of low-density lot supply bringing the total low-density lot supply for the City to an estimated 30 years. Future levels of economic activity and overall demand for housing and its affordability will affect the actual absorption of low density lots and lot supply.

Neighbourhoods under Development

Based on year-end 2011 figures from City of Edmonton, the city had 57 developing and planned neighbourhoods in approved area structure plans. Of these, 13 neighbourhoods were planned but did not have approved neighbourhood structure plans.

Of the remaining 44 developing neighbourhood structure plans:

- 13 neighbourhoods had no lot registrations
- 6 neighbourhoods were less than 25 percent complete
- 14 neighbourhoods were between 25 and 75 percent complete
- 11 neighbourhoods were 76 to 95 percent complete

Once a neighbourhood has more than 95% of planned low density lots registered, it is considered to be completed in terms of land supply, even though medium and high density lots may or may not still be available for development and housing may not yet be built on the registered lots. Registration of low density lots in a neighbourhood may not reach a 100% due to obstacles such as servicing or land ownership.

MEDIUM DENSITY RESIDENTIAL HOUSING SUPPLY

The City of Edmonton tracks medium units and their absorption rates separately from low density units.

In the past, medium density residential has typically followed low density residential development with a lag time varying from a few years to up to a decade for higher-density units. In the recent past, medium density units have been absorbed by the residential market at a much faster pace and have at times developed at the same time as low density units.

Medium Density Residential Unit Capacity

At year-end 2011, it was estimated that there is potential for future development of 56,350 medium density units in approved and planned neighbourhoods in suburban areas. The Urban Development Institute has estimated that based on the developing and planned neighbourhoods, Edmonton has a potential for an additional 54,000 medium density units.

URBAN GROWTH AREAS POTENTIAL CAPACITY

Edmonton has three urban growth areas as identified in *The Way We Grow*. It is difficult to provide an estimate for the potential development of the urban growth areas due to a number of issues that impact the development of land. The numbers provided in Tables 3 and 4 are based on the initial plan applications for the Rural Northeast and Rural West and preliminary estimates for the Rural Southeast and are subject to change.

Table 3: Urban Growth Areas Size (ha)

| AREA | TOTAL AREA (HA) | RESIDENTIAL AREA (HA) |
|------------------|-----------------|-----------------------|
| Rural Southeast* | 1,991 | 1,064 |
| Rural West | 1,484 | 702 |
| Rural Northeast | 2,950 | 851 |
| Total | 6,425 | 2,617 |

* Preliminary data only, to be confirmed with Area Structure Plan for Urban Growth Area has been submitted

The Urban Growth Areas have a potential for an estimated 55,000 low density residential units (LDR) and an estimated 24,500 medium density units (MDR), which will accommodate over 212,000 people.

Given the current rate of land absorption, the Urban Growth Areas will add an estimated 13 years or more of additional low density land supply. This does not include the build out of the medium density units, which will extend beyond those 13 years.

Table 4: Urban Growth Areas Potential Number of Units and Population

| LAND USE | | RURAL NORTHEAST* | RURAL WEST* | RURAL SOUTHEAST** | TOTAL |
|---------------------|-------------------------|---------------------|----------------|----------------------|---------|
| Low Density | Units (25 upnrha) | 13,815 | 14,911 | 19,286 | 48,012 |
| | Population (2.8 ppu) | 38,682 | 41,751 | 54,000 | 134,433 |
| Row Housing | Units (45 upnrha) | 8,325 | 3,158 | 4,084 | 15,567 |
| | Population (2.8 ppu) | 23,310 | 8,841 | 11,435 | 43,586 |
| Medium Density | Units (90 upnrha) | 9,000 | 2,526 | 3,267 | 14,793 |
| | Population (1.8 ppu) | 16,200 | 4,547 | 5,880 | 26,627 |
| High Density | Units (225 upnrha) | 1,890 | 1,579 | 2,042 | 5,511 |
| | Population (1.5 ppu) | 2,835 | 2,368 | 3,063 | 8,266 |
| Total Units | | 33,030 | 22,173 | 28,680 | 83,883 |
| Total Population | | 81,027 | 57,507 | 74,378 | 212,912 |

upnrha - units per net residential hectare

ppu- persons per unit

* Numbers taken from the December 2011 Draft Northeast ASP and November 2011 Riverview ASP (Rural West)

** There is currently no ASP for the Rural Southeast Urban Growth Area, numbers are based on estimated land that would be developed for residential land uses and the average split between low and medium density development

HOUSING DEVELOPMENT IN EDMONTON AND THE REGION

Edmonton's share of single-detached dwellings in the Capital Region was around 58 percent between 2002 and 2011 and its share of all dwelling types has been 66 percent (Table 5). Edmonton typically has a larger share of multi-family units in the Capital Region, averaging 76 percent over the last ten years.

Table 5: Housing Starts in the City of Edmonton and the Capital Region 2002-2011

| YEAR | CITY OF EDMONTON | | | CAPITAL REGION (CR) | | | SINGLE % SHARE OF CR | TOTAL % SHARE OF CR |
|-----------------------------|------------------------------|----------------------------|----------------|------------------------------|----------------------------|----------------|-------------------------------|------------------------------|
| | SINGLE- DETACHED UNITS | MULTI- FAMILY UNITS* | TOTAL UNITS | SINGLE- DETACHED UNITS | MULTI- FAMILY UNITS* | TOTAL UNITS | | |
| 2002 | 4,158 | 4,664 | 8,822 | 6,861 | 5,721 | 12,582 | 61 | 70 |
| 2003 | 3,857 | 5,099 | 8,956 | 6,391 | 5,971 | 12,362 | 60 | 72 |
| 2004 | 4,030 | 4,129 | 8,159 | 6,614 | 4,874 | 11,488 | 61 | 71 |
| 2005 | 5,023 | 4,411 | 9,434 | 7,623 | 5,671 | 13,294 | 66 | 71 |
| 2006 | 5,363 | 4,453 | 9,816 | 9,064 | 5,906 | 14,970 | 59 | 66 |
| 2007 | 3,763 | 5,131 | 8,894 | 7,682 | 7,206 | 14,888 | 49 | 60 |
| 2008 | 1,220 | 2,865 | 4,085 | 2,613 | 4,196 | 6,809 | 47 | 60 |
| 2009 | 2,206 | 1,705 | 3,911 | 3,897 | 2,420 | 6,317 | 57 | 62 |
| 2010 | 3,417 | 2,693 | 6,110 | 6,062 | 3,897 | 9,959 | 56 | 61 |
| 2011 | 3,080 | 3,055 | 6,135 | 5,017 | 4,315 | 9,332 | 61 | 66 |
| Ten Year Average | 3,612 | 3,821 | 7,432 | 6,182 | 5,018 | 11,200 | 58 | 66 |

Source: CMHC

* CMHC classifies semi-detached housing under the multi-family category; City of Edmonton includes Semi's and Single Detached under low density residential.

EMPLOYMENT GROWTH IN EDMONTON AND THE REGION

Employment is dispersed throughout the Capital Region (Figure 2). Edmonton currently accounts for 79 percent of employment in the region. By 2044, this number is expected to decrease nominally to 78 percent, indicating that the City will remain a stable in terms of employment opportunities.

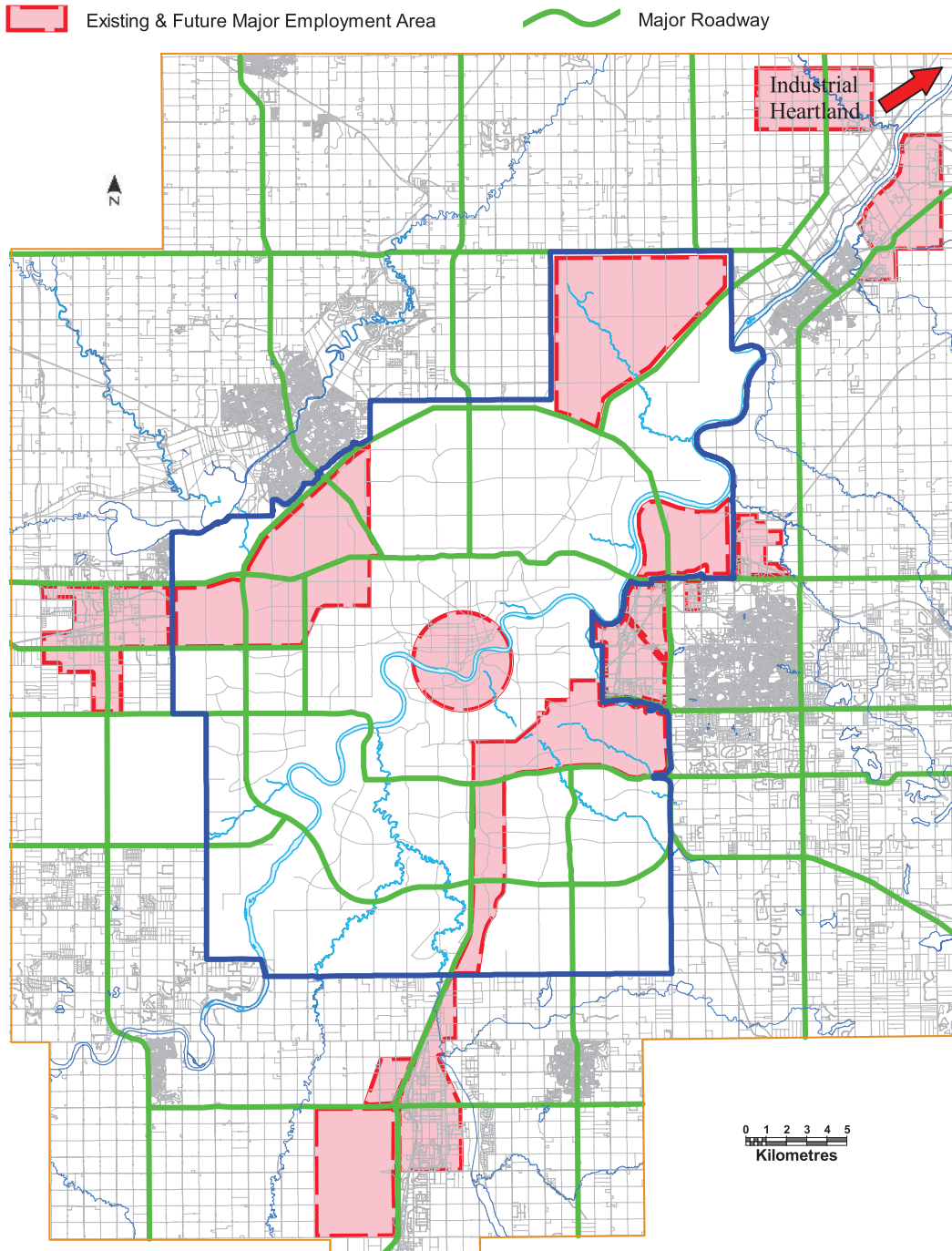
The city's core areas represent 57 percent of the employment in the City with 14 percent of that in the downtown area. The core area is considered the mature area of the City (See Map 3). Within the forecast period it is expected that the core area will maintain a smaller share of employment within the City with only 47 percent employment expected in the core area with 11 percent of that in the downtown.

Table 6: City of Edmonton (COE) and Capital Region Employment Projections

| AREA | 2009 | 2014 | 2019 | 2024 | 2029 | 2034 | 2039 | 2044 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Downtown | 67,712 | 70,173 | 71,608 | 71,427 | 72,045 | 72,559 | 73,069 | 73,380 |
| City of Edmonton Core Area (Including Downtown) | 279,182 | 292,499 | 299,316 | 303,793 | 309,229 | 312,761 | 315,434 | 317,022 |
| Edmonton Total | 490,431 | 526,478 | 552,943 | 579,910 | 605,488 | 626,423 | 648,797 | 668,044 |
| Other Municipalities | 129,684 | 150,780 | 163,544 | 169,926 | 174,592 | 181,788 | 186,636 | 193,460 |
| Capital Region Total | 620,115 | 677,258 | 716,486 | 749,836 | 780,080 | 808,212 | 835,432 | 861,504 |
| % COE from Region | 79 | 78 | 77 | 77 | 78 | 78 | 78 | 78 |
| % Core from COE Total | 57 | 56 | 54 | 52 | 51 | 50 | 49 | 48 |
| % Core from Region Total | 45 | 43 | 42 | 41 | 40 | 39 | 38 | 37 |
| % Downtown from COE Total | 14 | 13 | 13 | 12 | 12 | 12 | 11 | 11 |
| % Downtown from Region Total | 11 | 10 | 10 | 10 | 9 | 9 | 9 | 9 |

Source: Capital Region Board Projections, 2009

Figure 2: Major Employment Areas: Capital Region



PRELIMINARY ANNUAL GROWTH MONITORING REPORT TEMPLATE

| MONITORING COMPONENT | INFORMATION REQUIRED |
|--|---|
| Socio-economic conditions influencing growth | <ul style="list-style-type: none"> • Population and Employment Forecasts • Economic Outlook |
| Level of completion of approved neighbourhoods Low density residential percent complete | <ul style="list-style-type: none"> • Low density residential percent complete • Medium density residential percent complete • Infrastructure and services needs not yet being provided |
| Costs of current infrastructure obligations | <ul style="list-style-type: none"> • Current infrastructure costs |
| Percentage of new growth in mature areas | <ul style="list-style-type: none"> • Building permit information for mature neighbourhoods |
| Land, housing demand, and housing choice at the sector, city-wide and regional level | <ul style="list-style-type: none"> • Low density land supply and housing demand sector and city-wide levels • Medium density land supply and housing demand sector and city-wide levels • Low density land supply and housing demand regional level • Medium density land supply and housing demand regional level • Housing choice sector and city-wide level • Housing choice regional level • Forecasting low density residential • Forecasting medium density residential |

INTEGRATED INFRASTRUCTURE MANAGEMENT PLANNING

PURPOSE

Integrated Infrastructure Management Planning is a process for the gathering, synthesis, presentation and use of data related to the provision of infrastructure to the three remaining Urban Growth Areas. It will provide Council information about the infrastructure required for the development, how it relates to existing infrastructure, timing, and implications to the city's operations.

BACKGROUND

The tax revenue generated by new residential neighbourhoods is not meant to pay for the municipal programs and services associated with those neighbourhoods. Property taxation is a tax on wealth as represented by the assessment of residential and non-residential properties under regulations set by the Province.

Residential neighbourhoods exist to provide for housing and community amenities. Other areas of the city, such as industrial areas and commercial nodes, exist to provide employment and wealth generation. The amount of revenue the City needs from property taxation is determined for the City as a whole and takes into consideration the balance between residential and non-residential assessment. A residential neighbourhood is not a microcosm of the entire City and property taxes are not calculated on a neighbourhood basis.

It is difficult to capture all of the indirect costs and benefits that are attributable in whole or in part to new residential neighbourhoods. For example, the City collects dividends from EPCOR, earnings from its investments, and a substantial amount of non-residential tax revenue from dense commercial nodes including West Edmonton Mall, the Downtown core, and South Edmonton Common. These sources all help fund services provided to all neighbourhoods, but are difficult to include in a neighbourhood or area specific analysis.

The challenges facing the City are to balance development costs with the strategic benefits of sustainable growth, to achieve an appropriate balance of residential to commercial/industrial development. Although the City of Edmonton has achieved some success in diversifying its revenue base, property tax remains the largest component of City revenue. The long term sustainability of cities in Canada will depend on a combination of smart, resource efficient growth mixed with a progressive form of revenue generation that provides for the services being enjoyed by the citizenry in the long term, without providing undue burden to any particular stakeholder.

METHODOLOGY

Integrated Infrastructure Management Planning is conducted by working closely with city departments, utilities, and development proponents.

A range of development projections is determined utilizing demographic data from both development proponents and Sustainable Development.

Infrastructure requirements are analyzed using data supplied by proponents and information from city departments and utilities to ensure effective use of infrastructure, alignment with existing and master plans, and will be guided by policies within *The Way Ahead*.

SECTION A) SCENARIO ANALYSIS

The following is a description of a template designed to provide infrastructure information related to an Area (or Neighbourhood) Structure Plan. Section A will provide data resulting from an analysis of the proposed development based on two demographic build-out scenarios. Section B will provide context to the data.

GENERAL AREA INFORMATION

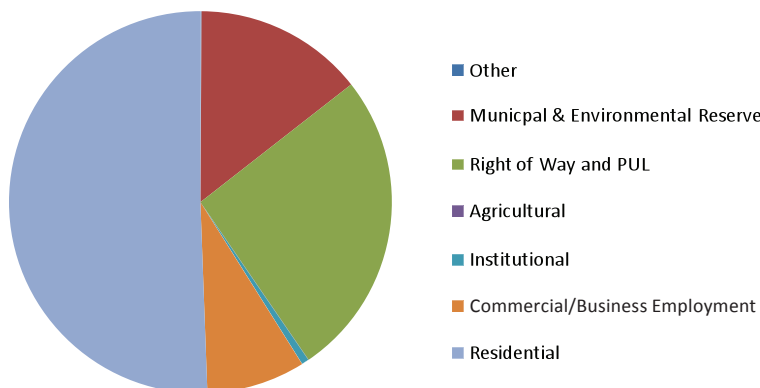
The proponent supplies information with the Area Structure Plan that will be used for Integrated Infrastructure Management Planning. This includes information on the allocation of a range of land uses, and counts of housing units and people at build out. This information forms the basis for the calculations and justifications for required infrastructure in the proposed communities. More specifically, current service standards in combination with long term planning and consideration for the capacity of existing facilities nearby contribute to the projections.

Note the following information is for illustrative purposes only. Any numbers shown do not reflect an actual current or proposed area structure plan.

GROSS AREA BREAKDOWN

The basic breakdown of the proposed Area Structure Plan is shown in Figure 1. Out of a total area of v ha, A%, (B ha) is residential. Other uses include Commercial and Municipal and Environmental Reserve.

Figure 1: Total Area (v)



TEMPLATE

NET RESIDENTIAL AREA BREAKDOWN

The three general residential land use types in planned neighbourhoods are low, medium and high density development. Low density development includes single detached and semi-detached housing, medium includes townhouses, triplexes and apartments up to 4 stories, and high density includes apartment complexes 5 stories and higher. Figure 2, Figure 3 and Figure 4 depict the breakdown of residential land use by the above described three types. Figure 2 shows a breakdown in hectares, Figure 3 shows the breakdown by population, and Figure 4 shows the breakdown by individual units.

Figure 2: Total Area (w.x ha)

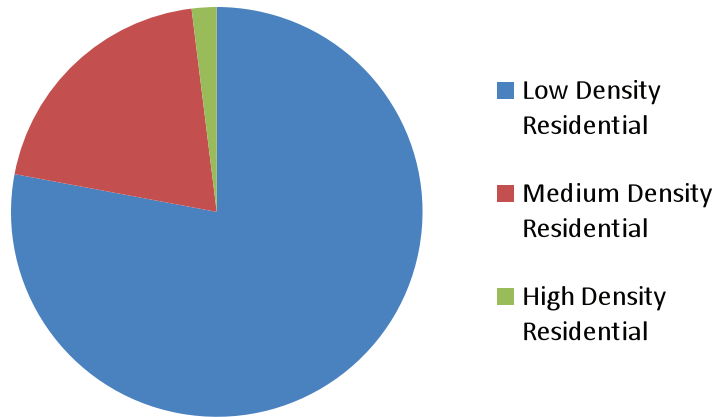


Figure 3: Total Population (y)

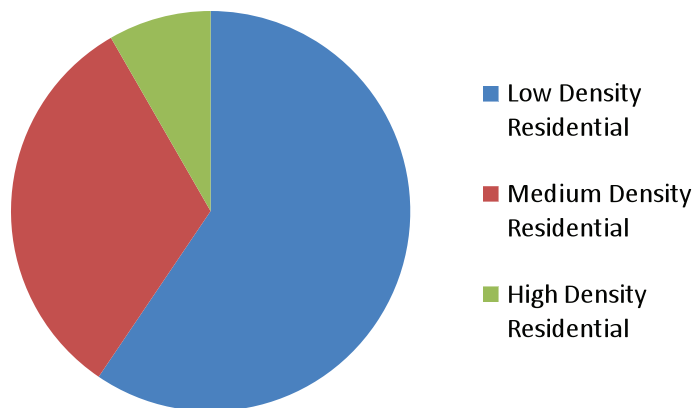


Figure 4: Total Units (z)

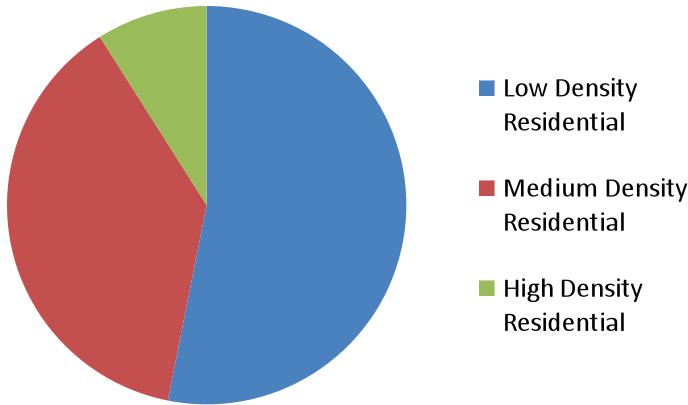


Figure 2, Figure 3, and Figure 4 are summarized in Table 1, which also includes additional information on the average market value expected for the different residential land use types in the proposed plan. As well, the average residents per unit and average units per hectare are detailed.

Table 1: Summary of Residential Breakdown

| | Area (ha) | Units | Population | Inhabitants per Unit | Average Assessment Value | Units/ha |
|--------------------------------|-----------|-------|------------|----------------------|--------------------------|----------|
| Low Density Residential | | | | | | |
| Medium Density Residential | | | | | | |
| High Density Residential | | | | | | |
| Commercial/Business Employment | | N/A | N/A | N/A | | N/A |
| Total | | | | | | |

GENERAL INFRASTRUCTURE BREAKDOWN

The amount of infrastructure required to be built by both the developer and the City of Edmonton is a function of many things, including the design of the community, the service standards provided, the amount and density of population served, and the presence of existing infrastructure. Table 2 and Table 3 detail the amount of infrastructure required for the proposed community, its approximate cost in the current year dollars, and the party responsible for its construction.

TEMPLATE

Table 2: Developer Contributed Assets

| | Local Road (Lane KM) | Collector Road (Lane KM) | Arterial Road (Lane KM) | Storm Sewer (KM) | Sanitary Sewer (KM) | Service Connections (#) | Pumping Stations (#) | Storwater Management Facilities (ha) | Bus Stops (#) | Storm/San Misc | Total |
|----------|----------------------|--------------------------|-------------------------|------------------|---------------------|-------------------------|----------------------|--------------------------------------|---------------|----------------|-------|
| Quantity | | | | | | | | | | | |
| Cost | | | | | | | | | | | |

Table 3: City Built Assets

| | Transit Facilities (#) | Police Stations (#) | Libraries (#) | Recreation Facilities (#) | Parks (ha) | Fire Stations (#) | Total |
|----------|------------------------|---------------------|---------------|---------------------------|------------|-------------------|-------|
| Quantity | | | | | | | |
| Cost | | | | | | | |

In addition to the infrastructure detailed in Table 2 and Table 3, it is anticipated that the following existing infrastructure will require upgrading/ expansion in order to accommodate the proposed community:

- Facility A, Brief Reason, Approximate Cost
- Facility B, Brief Reason, Approximate Cost
- Etc.

DEMOGRAPHIC BASED COST AND REVENUE PROJECTIONS

Forecasting financial impacts into the future is a speculative exercise. The following analysis projects costs and revenues for the proposed development out for 50 years. These projections are based on assumptions, which in a large part consist of what is known of the development at the present time, the current costs for the provision of service and infrastructure, and the length of time required to build both the overall development, as well as the individual components (commercial centers, high density residential projects, etc) that make it up. The use of the results of this analysis should take this, and the context of the City as a whole, into consideration. Some of the assumptions used on the analysis are detailed in the end of this report.

In addition to the Area Structure Plan under consideration, two population build out scenarios are analyzed. Both scenarios result in the same total population, but are based on different rates of completion and timelines. As any projection is just that, a projection based on defendable assumptions, it is important to consider that the eventual build out of the neighbourhood may well be different than that shown in this analysis.

SCENARIO 1 – SLOW STEADY GROWTH BASED ON 2008 PROJECTIONS BY THE CAPITAL REGION BOARD

DEMOGRAPHICS

In 2008, the Capital Region Board released demographic projections up to and including the year 2044. These projections cover the entirety of the Capital region, and are considered to be the official projections for the City of Edmonton. Figure 5 depicts the overall cumulative population growth of the proposed development utilizing the Capital Region Board projections, extrapolated over the next 50 years. Under this scenario, the total population of the proposed development is achieved by the year 20XY.

Figure 5: Population

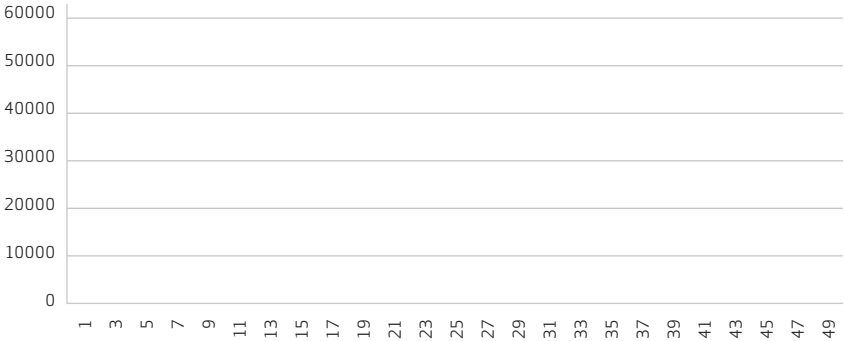


Figure 6 depicts how the projected population growth in Figure 5 translates into housing units of different density types (low, medium, and high density). It is cumulative, and shows the relative distribution over time.

Figure 6: Residential Growth



TEMPLATE

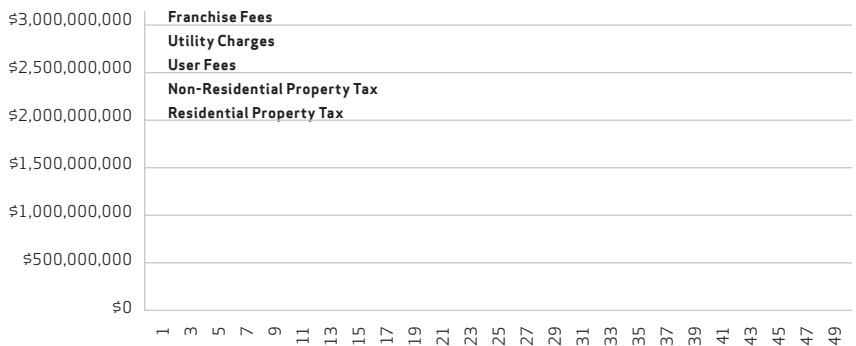
TEMPLATE

REVENUE EXPECTATIONS

City revenues come from a variety of sources. In this analysis, those revenues resulting from the proposed community directly were considered. Indirect revenues, such as EPCOR dividends are not included in this analysis. Figure 7 depicts the expected revenues over 50 years and identifies revenues by one of five sources:

- **Franchise Fees:** The City receives revenue from Atco Gas and EPCOR Electric customers for the use of public road allowances for their distribution networks.
- **Utility Charges:** The City Waste and Drainage utilities receive revenue resulting from the use of their services. This revenue is included in the analysis.
- **User Fees:** Individual City Departments and business units may charge fees for the service they provide. Examples include transit fees, recreation centre fees, and parking meters.
- **Non-Residential Property Tax:** Commercially zoned areas like strip malls, convenience stores, and grocery stores help form complete communities and provide employment and critical services for their communities. They also contribute to the City’s tax base, and therefore projected revenues from these areas is included.
- **Residential Property Tax:** All residential units pay municipal tax based on the current year’s mill rate and the assessed value of the property. As residential units are created in the model based on population growth, the taxes paid by these units are accounted for.

Figure 7: City Revenues



CITY EXPENDITURE EXPECTATIONS

City expenditures are attributable to the provision of a mix of services in the community, building new infrastructure required to provide that service, and maintaining and renewing infrastructure in the community that provides the service the community needs, and enjoys. Figure 8 depicts city costs over a 50 year time span. The expenditure is attributed to three categories:

- **Initial City Costs:** This represents infrastructure built and funded by the City, and includes Police and Fire Stations, Libraries, Community Facilities, Parks, and Major Transit Facilities. Initial City Costs are funded via the City’s capital budget.
- **Renewal Costs:** Renewal costs represent the reinvestment required to keep the community’s infrastructure to an accepted physical standard. These costs are derived from the infrastructure built by both the developer and the City, and include rehabilitative actions throughout the life of the assets, as well as replacement costs at the end of the expected life of the asset. The costs shown calculate the renewal costs at the expected time of expenditure (i.e. not amortized throughout the life of the asset), and therefore some replacement costs for long lived infrastructure such as sewers are not represented in the scope of the analysis. Renewal Costs are funded via the City’s capital budget.
- **Operating Costs:** Operating costs represent the set of on-going activities and expenses that allow the use of an asset for its intended function. These costs include those required for the use of the asset (e.g. electricity, fuel) and those costs required for the provision of the service provided (e.g. labour). Operating Costs are funded via the City’s operating budget.

TEMPLATE

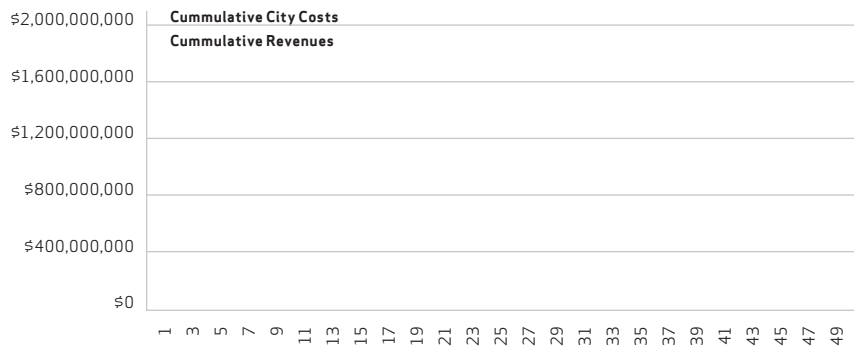
Figure 8: City Costs



SUMMARY OF REVENUES AND EXPENDITURES

Figure 9 shows the difference in expenditure and revenue to the city for the proposed Area Structure Plan over a projected 50 year period, highlighting the total net fiscal costs and revenues expected from the proposed community.

Figure 9: Revenues vs. Expenses



SCENARIO 2 - FASTER GROWTH BASED ON 2012 PROJECTIONS BY THE PROPONANT

DEMOGRAPHICS

As part of the Area Structure Plan submission, the proponent supplies the City with a proposed demographic projection. In the supplied projection, the proponent has assumed the following:

- Assumption 1
- Assumption 2

The same figures and analysis shown in Scenario 1 will be shown in Scenario 2.

SECTION B) BUILDING PERSPECTIVE

INFRASTRUCTURE PLANNING

This section provides commentary to put the analytics in the previous sections in perspective. The narrative on context will have to remain flexible and be somewhat plan specific; however the general themes below will be explored to some degree:

- How the proposed infrastructure fits into existing master plans, the Capital Investment Agenda, and current (2012-2014) and future capital plans.
- How the proposed infrastructure, in terms of servicing the proposed Area Structure Plan, interfaces with infrastructure currently on or in the ground.
- How the development moves forward the vision and objectives in the Ways.
- An overview of efficiencies that are or could be worked into the design of the development. Due to the high conceptual level of an Area Structure Plan, this would be narrative in nature.

SUSTAINABILITY THROUGH BALANCED GROWTH

The overall balance of residential and non-residential land in the City of Edmonton is important in a number of ways. Residential areas provide places for people to live and build community. Non-residential areas provide employment, services, and amenities among other things. Both contribute to and are an essential part of the fabric of the City. Maintaining a healthy balance between them is important.

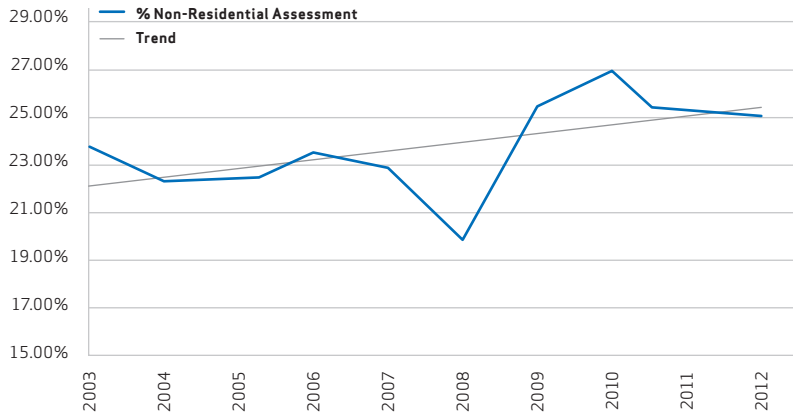
It is therefore important to consider how proposed development, in any form, contributes to the overall balanced growth of the City of Edmonton. Figure 11 indicates the percentage of non-residential assessment out of the total assessment value of all property in the City since 2003. It shows that non-residential assessment makes up approximately 25% of the total assessment base of the City.

How does the proposed development affect this balance? Generally, residential neighbourhoods have less than 25 % of their assessment base as non-residential. So as the City grows its residential areas, it must also grow its non-residential areas to maintain balanced growth. Conversely, the City must grow its residential areas to balance growth in non-residential areas. In other words, for the City as a whole to maintain the current ratio, there needs to be approximately \$5B of non-residential assessment for every \$20B in residential assessment growth. Not considered here are what the overall ratio should be, and the effects of changing it.

Growth in the City's assessment base has a significant impact on tax revenues. In the last ten years, the accumulated tax revenue from growth is approximately \$1.2B.

TEMPLATE

Figure 11: Non-Residential Assessment (%)



COMMITTED INFRASTRUCTURE

With both an aging and growing city, balancing investment choices between renewal and growth is a significant challenge. As infrastructure ages, more maintenance and rehabilitation is required to ensure that infrastructure is performing well and continuing to meet the needs of citizens. At the same time, demands arise for new infrastructure to support growth. The 2009-2011 Capital Budget allocated 66 per cent to growth projects and 34 per cent to renewal projects. The split in the approved 2012-2014 Capital Plan is 54 per cent for growth and 46 per cent for renewal.

Table 4 below shows the existing city wide commitment and financial obligations to already existing neighborhoods in approved Area Structure Plans by sector. The Capital Cost indicated in Table 4 is for funding new infrastructure and does not include renewal or operations.

Table 4: Approved Neighbourhoods and Area Structure Plans

| Sector | Infrastructure Capital Costs - \$M | | Population (2009 Municipal Census) | | |
|--------------|------------------------------------|---------------|------------------------------------|------------------|---|
| | Current Funded | Future Funded | 2009 | Final Population | % |
| North | | | | | |
| North West | | | | | |
| North East | | | | | |
| South East | | | | | |
| South West | | | | | |
| West | | | | | |
| Total | | | | | |

TEMPLATE

The 2009 column under Population represents the actual population of the specific area within the neighborhood in 2009, and the final population column represents the projected final population when the neighbourhood is complete. It is important to note that the population figures provided relate to the developing neighborhoods analyzed and not the sector as a whole.

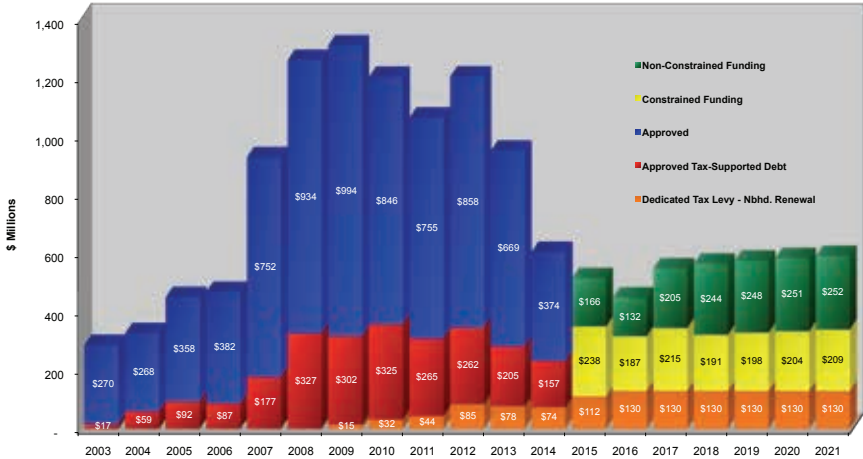
The current funded column represents the value of infrastructure in Council approved capital plans. The infrastructure represented in this column is either currently under construction, or will be in the not too distant future. The future funded column represents the balance of infrastructure required to complete the neighborhoods analyzed. In some cases, the neighbourhoods may take between 20 and 30 years to complete. This should be considered when putting these costs into context. Both columns are in 2010 dollars.

Long term planning for the infrastructure requirements in new growth areas involves understanding how the area will build out and how quickly it will build out, giving planners an idea of what is required now versus what will be required in the future. During the capital budgeting process, City departments evaluate infrastructure needs in new areas and make recommendations for funding to Council.

The figures in Table 4 are significant, but the City commitment to its capital expenditure is even more significant. Funding for both growth and renewal infrastructure comes in different forms. Figure 12, from the 2012-2014 Approved Capital Budget, shows historical and projected funding levels/ breakdowns from 2003 to 2021.

Figure 12: Historical and Projected Funding 2003-2021

Showing Approved Pojects and Projected Funding Levels



ASSUMPTIONS

The analysis presented in this report involves the combination of modeling using the Development Infrastructure Impact Model, coupled with area and sector specific analysis performed by the business units responsible for both the infrastructure and the provision of service. The gathering and analysis was performed by the Office of Infrastructure and Funding Strategy, with assistance from Sustainable Development (City wide planning and the growth analysis unit)

AREA SPECIFIC ASSUMPTIONS

With respect to the area being analyzed, the following was assumed:

- Assumption 1
- Assumption 2

ASSUMPTIONS FOR THE DEVELOPMENT INFRASTRUCTURE IMPACT MODEL

As with any analytical procedure, the results of a model are dependent on the accuracy of the input data. In order to achieve a consistent corporate approach, certain assumptions were made to ensure that all neighbourhood development-related infrastructure is compared on the same basis. The following describes some of the assumptions used in the Development Infrastructure Impact Model (DIIM).

1. A trend to when commercial infrastructure begins in a given neighbourhood is difficult to determine. This is important because it has a large impact on the revenues produced within that neighbourhood by the commercial sector. Administration worked with the proponent to determine a reasonable timeline for the development of commercial areas. The following was assumed:
 - Assumption 1
 - Assumption 2
2. It is also difficult to predict when, and in what order, the different types of residential housing forms (low, medium, and density) will be built, and which will have a significant impact on the timing of the revenues and expenditures related to that development.
3. An assumption was made with respect to when all of the required infrastructure within a neighbourhood would be completed and in service. It was determined that when the neighbourhood reaches 95% of its ultimate population, all City and developer built infrastructure would be in place.

4. Typically, area structure plan documents do not provide specific infrastructure quantities, rather general land areas for road right of ways and parks. Administration worked with the developer to ascertain some quantities in addition to those typically found in area structure plan documents. Given that this plan presents a very broad, high level design for the area and is subject to change, the resulting costs and revenue expectations are also subject to change. It is expected that more detail and accuracy can be achieved as neighbourhood planning progresses from this area plan.
5. Capital Construction Costs (City and others) are calculated based on the replacement value of the Asset (Tangible Capital Asset information) (\$ per unit).
6. Operation and Maintenance and Service Delivery Costs are calculated based on the City of Edmonton 2012 Operating Budget specific to each Asset as follows:
 - Linear assets (roads and drainage) - \$ per kilometer
 - All Others - \$ per capita
7. Major rehabilitation and renewal costs are asset specific and are based on typical lifecycle costs and timetables.
8. Tax rates and average assessments for both residential and commercial uses are based on the 2012 tax year.
9. Revenues considered do not include funding from other orders of government (e.g. Provincial and Federal Grants).
10. Industrial Areas and their associated revenues and expenditures have not been considered as part of the model.

TEMPLATE

MUNICIPAL DEVELOPMENT PLAN POLICIES

The policies directing the Growth Coordination Strategy are found in Section 3.1 of *The Way We Grow*, Edmonton's statutory Municipal Development Plan.

3.1.1 Manage future public obligations and growth opportunities through a long term growth coordination strategy.

POLICIES:

Effective Development – Link growth with optimized infrastructure investment

- 3.1.1.1 Integrate higher density development with Light Rail Transit (LRT) stations and transit centres (see Map 5: Potential LRT Expansion: 2040).
- 3.1.1.2 Encourage a minimum of 25 percent of city-wide housing unit growth to locate in the Downtown and mature neighbourhoods (see Map 3: Established Neighbourhoods) and around LRT stations and transit centres where infrastructure capacity supports redevelopment.

Complete Developing Neighbourhoods – Focus land development activity and infrastructure provision and expansion to approved neighbourhood plans to fulfill the City's commitment to residents and make efficient use of infrastructure investments.

- 3.1.1.3 Focus land development activity and the provision of civic infrastructure to ensure developing neighbourhoods (see Map 4: Developing and Planned Neighbourhoods) are completed from the perspective of the number of homes built, an established population threshold reached, and the civic facilities and services provided.
- 3.1.1.4 Determine the level of completion of approved neighbourhoods based on the principles of:
 - Extent of development (percent unit build out and percent population build out)
 - Extent of infrastructure provision (amount of infrastructure provided, age of infrastructure and age of neighbourhood)
 - Ability to provide infrastructure (infrastructure and service needs triggered by an approved plan, but not yet provided, the capital budget costs for these needs and their budget status).
- 3.1.1.5 Develop a new neighbourhood completion target influenced by the budget allocated to completing approved neighbourhoods and the budget allocated to initiating new neighbourhoods.

Manage future public obligations and growth opportunities – Approve new growth combined with its accompanying infrastructure obligations when it can be demonstrated that the City can afford it.

- 3.1.1.6 Develop a growth coordination strategy to address timing and phasing of new residential growth in developing and planned neighbourhoods. The strategy will relate to the City's strategic goals, current and future public infrastructure investment, long term financial sustainability and the amount, location and pace of population and employment growth; and will establish:
- Expectations for completing developing neighbourhoods
 - Expectations for initiating new Neighbourhood Structure Plans
- 3.1.1.7 The Growth Coordination Strategy will identify infrastructure and service obligations related to developing neighbourhoods and in conjunction with the Integrated Infrastructure Management Plan will outline the City's strategy for providing this infrastructure and infrastructure required by new growth.
- 3.1.1.8 Proponents for a new Neighbourhood Structure Plan will seek Council's authority to prepare the plan. The information supplied by the applicant and administration will allow Council to provide direction and permission in accordance with Council's Vision.
- 3.1.1.9 Information that proponents and administration supply will include the existing infrastructure and the funded and unfunded commitment for the sector, the relationship of the sector's infrastructure and funding to the other sectors in the City, the current population capacity in the sector, the relationship of the proposed plan to transit, the availability and timing of supportive City infrastructure related to the proposed plan's approval and significant environmental impacts.
- 3.1.1.10 The Growth Coordination Strategy will address demand for land, housing units, and housing choice at the regional, city-wide and sector level.

Additional *The Way We Grow* policies related to the Growth Coordination Strategy are found in Section 3.6 on Developing and Planned Neighbourhoods.

3.6.1 Focus efforts to provide public infrastructure, utilize existing infrastructure and achieve population thresholds necessary to support community facilities in developing neighbourhoods in order to create livable neighbourhoods and proactively manage Edmonton's tax burden.

POLICIES:

- 3.6.1.1 Develop a series of measures as part of the Growth Coordination Strategy for developing neighbourhoods, related to livability, current and future public infrastructure investment and long term financial sustainability to inform Edmonton's decisions on future residential growth and expansion.
- 3.6.1.4 Monitor population growth in developing neighbourhoods to inform Edmonton's decisions on future residential growth and expansion.
- 3.6.1.6 Support contiguous development and infrastructure in order to accommodate growth in an orderly and economical fashion.

INFORMATION ON THE CITY OF EDMONTON
IS AVAILABLE ONLINE:
www.edmonton.ca/GrowthCoordinationStrategy

INQUIRIES MAY ALSO BE DIRECTED TO:
City of Edmonton
Sustainable Development
5th floor, HSBC Building
10250-101 Street
Edmonton, AB, T5J 3P4

