

Bylaw 16407

A Bylaw to adopt the Riverview Area Structure Plan

WHEREAS pursuant to the authority granted to it by the Municipal Government Act, the Municipal Council of the City of Edmonton, may, by bylaw, adopt an area structure plan for an area; and

WHEREAS Council considers it desirable to adopt the Riverview Area Structure Plan by bylaw; and

NOW THEREFORE after due compliance with the relevant provisions of the Municipal Government Act RSA 2000, ch. M-26, as amended, the Municipal Council of the City of Edmonton duly assembled enacts as follows:

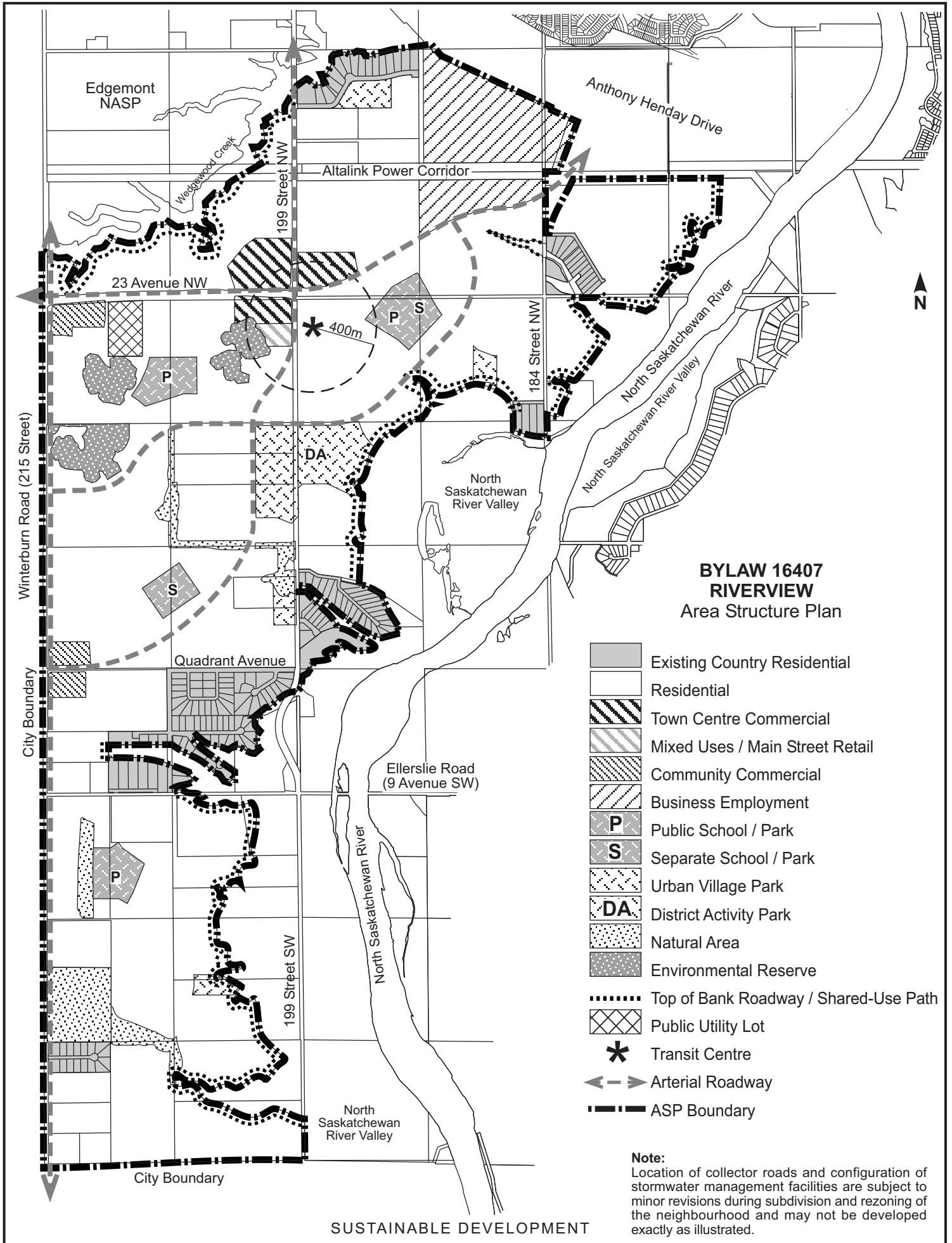
1. The Map entitled “Bylaw 16407 – Riverview Area Structure Plan”, attached hereto as Schedule “A”, and the document entitled “Riverview Area Structure Plan – Bylaw 16407” attached hereto as Schedule “B” are hereby adopted as Riverview Area Structure Plan.

READ a first time this	day of	, A. D. 2013;
READ a second time this	day of	, A. D. 2013;
READ a third time this	day of	, A. D. 2013;
SIGNED and PASSED this	day of	, A. D. 2013.

THE CITY OF EDMONTON

MAYOR

CITY CLERK



**BYLAW 16407
RIVERVIEW
Area Structure Plan**

- Existing Country Residential
- Residential
- Town Centre Commercial
- Mixed Uses / Main Street Retail
- Community Commercial
- Business Employment
- Public School / Park
- Separate School / Park
- District Activity Park
- Natural Area
- Environmental Reserve
- Top of Bank Roadway / Shared-Use Path
- Public Utility Lot
- Transit Centre
- Arterial Roadway
- ASP Boundary

Note:
Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.



RIVERVIEW AREA STRUCTURE PLAN

Prepared for:

Walton Development and Management LP
Qualico Developments

March 2013





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1 ADMINISTRATION

1.1 PURPOSE

The purpose of this Area Structure Plan (ASP) is to establish a framework for future land use planning and the provision of municipal infrastructure, services and amenities in conformance with established planning policies, objectives and requirements of the City of Edmonton and based on the characteristics and opportunities contained within the site.

The Riverview ASP describes:

- the sequence of development proposed for the area;
- the land uses proposed for the area;
- the density of population proposed for the area;
- the general location of major transportation routes and public utilities; and,
- other matters considered necessary by City Council.

1.2 AUTHORITY

Preparation of the Riverview ASP was authorized through the adoption of Bylaw 15100 (*The Municipal Development Plan: The Way We Grow*) on the 26th day of May, 2010. In this plan, the City identified the Northeast, Southeast, and Southwest (Riverview) areas as Urban Growth Areas.

The Riverview ASP was adopted by Edmonton City Council in (*insert approval date*) as Bylaw 16407 in accordance with Section 633 of the *Municipal Government Act*.

1.3 TIMEFRAME

The Riverview ASP has been prepared to accommodate growth and guide the preparation of Neighbourhood Structure Plans (NSP) within the Plan area. The City of Edmonton's Sustainable Development Growth Analysis Unit estimates that the city's west sector contains approximately 10,703 low density residential lots (as of December 2011).¹ Based on average absorption rates, this represents approximately a 17 year supply of low density residential lots. The Urban Development Institute estimates that at the end of 2012, there were approximately 9,455 low density residential lots remaining in the west sector, providing a lot supply for approximately 15 years.

As this supply decreases, additional land is needed to "ensure a combination of single family and multifamily housing development potential is available for the next 30 years", as indicated in *The Way We Grow*.

While no specific timeframe is forecast within the Riverview ASP, it is anticipated that neighbourhoods within the Plan area will be fully developed within 30 to 40 years.

1.4 POLICY FRAMEWORK

In 2008, the City's Strategic Plan, *The Way Ahead* was approved by Council providing a vision for Edmonton in 2040 and establishing strategic goals to provide a clear focus for the future. The Riverview ASP advances the vision of *The*

¹ City of Edmonton. 2011. Land Supply in Developing and Planning Neighbourhoods 2010.



Way Ahead through the directional plans: *The Way We Grow*, *The Way We Move*, *The Way We Live* and *The Way We Green*.

This section describes how the Riverview ASP advances the vision and objectives of *The Way Ahead* and all supporting municipal plans.

1.4.1 THE WAY AHEAD

Integration

A holistic view of strategic planning that acknowledges the inter-related and interdependent reality of complex urban environments.

The Riverview ASP:

- Integrates the North Saskatchewan River Valley and Ravine System into the Plan area through linkages (greenways, shared use paths, roadways) and recreational opportunities;
- Integrates the parks and open space network with the natural systems and North Saskatchewan River Valley and Ravine System, providing a network for both pedestrians and wildlife habitat;
- Retains and incorporates wetlands in residential and commercial development areas;
- Provides opportunities for existing Country Residential developments to connect to municipal services (water and sanitary) as development occurs;
- Integrates urban agriculture and community gardens into parks and open spaces; and,
- Provides transit service adjacent to the main street commercial and district park area.

Sustainability

A way of living that meets the needs of the present and does not compromise the ability of future generations to meet their own needs.

The Riverview ASP:

- Proposes densities which exceed the minimum density requirements of the Capital Region Growth Plan;
- Encourages innovative and green servicing infrastructure;
- Encourages native and naturalized plant species in the landscaping of parks and public open spaces;
- Retains key ecological connections throughout the Plan area and between Wedgewood Creek Ravine and North Saskatchewan River Valley; and,
- Provides opportunities for a variety of housing types to allow individuals to remain in one community as they age.

Livability

A set of interrelated factors that influence people in choosing where they live and reinforce their sense of well-being.

The Riverview ASP:

- Provides public spaces throughout the ASP area to serve both as gathering spaces and centres of activity;



- Encourages the development of parks, recreation, arts, and cultural events throughout the ASP area with an emphasis on the agricultural heritage of the area;
- Support a range of housing choices, commercial and recreational amenities;
- Provides sustainable economic employment and lifelong learning opportunities, with business and employment, commercial and educational facilities located within the Plan area;
- Encourages the application of winter design principles.

Innovation

A planning approach and operational culture within a municipality that encourages and enables continuous improvement, exploration and adoption of new techniques, technologies, products and ways of operating in order to improve results and lead progressive change.

The Riverview ASP:

- Encourages and provides opportunities for innovative approaches to housing and servicing to be explored as more detailed planning is completed;
- Encourages urban agriculture uses and community gardening;
- Encourages low impact development, innovative servicing strategies, and green building principles; and,
- Incorporates winter city planning and design principles, and furthers the objectives outlined in *For the Love of Winter*, Edmonton's Winter City Strategy.

1.4.2 THE WAY WE GROW

The Municipal Development Plan (MDP), *The Way We Grow*, approved in May 2010, is the City's strategic growth and development plan. Through its MDP, the City of Edmonton will shape the City's urban form and direct the development and implementation of more detailed plans.

Sustainable Urban Form

The Riverview ASP promotes the development of a sustainable community, encouraging the development of renewable energy, minimizing energy use, and incorporating innovative servicing strategies.

Integrated Land Use and Transportation

The Riverview ASP was developed in tandem with the Transportation Impact Assessment, revising each in response to potential impacts from the other.

Complete, Healthy and Livable Communities

The Riverview ASP promotes healthy lifestyles for all neighbourhood residents, providing access to large-scale parks and open space, natural areas, environmental reserve, and neighbourhood services.

Urban Design

The Riverview ASP promotes high-quality urban design and built form to create a great place to live in winter as well as in the summer.

Supporting Prosperity

The Riverview ASP supports local employment opportunities.

**Natural Environment**

The Riverview ASP retains key ecological connections within the Plan area and encourages the use of native and natural plant species in the landscaping and design of parks and public places.

Working Within Our Region

The Riverview ASP provides a suitable transition between the Plan area and Parkland County.

Managing Land and Resources

The Riverview ASP protects significant natural areas and wetlands, and promotes the protection of water resources.

Food and Urban Agriculture

The Riverview ASP encourages urban agriculture and community gardening, and supports the development of local food hubs as well as community agriculture.

1.4.3 THE WAY WE MOVE

The Transportation Master Plan (TMP), *The Way We Move*, is the framework that responds to the City of Edmonton's future transportation needs. The TMP directs policies and gives guidance for funding projects and programs that work towards an integrated transportation network.

Transportation and Land Use Integration

The Land Use Concept and transportation network within the Plan area were developed concurrently, and are mutually compatible and supportive.

Access and Mobility

The transportation system is well integrated with the city-wide system, and accommodates multiple modes of transport. Areas of higher density residential development have been located adjacent to collector roadways to promote shorter walking distances and to support a higher level of transit services.

Transportation Mode Shift

The Riverview ASP will provide a well-integrated network of sidewalks, walkways and shared use paths connecting people to transit, parks and River Valley, commercial, and future employment centres.

Sustainability

The Riverview ASP will support a sustainable community by providing increased residential densities, public transit and active transportation opportunities. Services are located nearby and are readily accessible. The Riverview ASP promotes low impact development practices to minimize the environmental impact of the development.

Health and Safety

The network of sidewalks, walkways and shared use paths provides residents with the ability to walk, or cycle through the neighbourhood, encouraging healthy and active lifestyles.



1.4.4 THE WAY WE GREEN

The City of Edmonton's Environmental Strategic Plan, *The Way We Green*, is a framework to guide the protection and preservation of Edmonton's environmental resources. It sets out the principles, goals, objectives, and strategic actions for Edmonton to live in balance with nature.

Healthy Ecosystems – Land

The Riverview ASP meets the goal of Healthy Ecosystems – Land by ensuring preservation of natural areas, wetlands and the North Saskatchewan River Valley and Ravine System by providing linkages and open space for residents to enjoy these areas.

Healthy Ecosystems – Water

The Riverview ASP contributes to the Healthy Ecosystem – Water goal by ensuring that stormwater is stored and treated naturally prior to release into the river. The Riverview ASP also encourages the exploration of Low Impact Development techniques.

Healthy Ecosystems – Air

The Riverview ASP meets the goal of Healthy Ecosystems – Air by including walkable neighbourhoods and transit service to reduce the use of the personal automobile as well as preserving Natural Areas where possible or encouraging the planting of additional trees.

Energy and Climate Change

The Riverview ASP encourages green building and alternative energy servicing opportunities to be explored with the City to improve the overall environmental sustainability of the Riverview area.

Food

The Riverview ASP provides opportunities for local food productions and the integration of urban agriculture and urban land uses.

Solid Waste

The Riverview ASP provides opportunities for the development of an eco-station to help reduce the amount of waste generated in Edmonton

Foundation for Success

The Riverview ASP strives to create a sustainable area within our City.

1.4.5 THE WAY WE LIVE

The City of Edmonton's People Plan, *The Way We Live*, approved by Council in July 2010, sets the direction, establishes priorities, and guides decisions about current and future people services. This 10-year strategic plan redefines local government as a caring entity that creates a diverse and inclusive city by connecting people, creating communities where people can age in place and actively nurturing an arts, culture and athletic community.

***Edmonton is a Vibrant, Connected, Engaging and Welcoming Community***

The Riverview ASP provides opportunities in neighbourhoods, communities and public spaces to connect people and build vibrant communities. The Riverview ASP also integrates public transit with employment centres such as the town centre and the recreation centre.

Edmonton Celebrates Life

The Riverview ASP celebrates and promotes healthy living by providing for a variety of active and passive park space, the preservation of natural areas and connections to the North Saskatchewan River Valley and Ravine System. The Riverview ASP also celebrates and promotes both the agricultural and historical heritage of the area.

Edmonton is a Caring, Inclusive, Affordable Community

The Riverview ASP provides the opportunity for a variety of housing options for people throughout their life cycle and offers complete neighbourhoods with commercial, business employment, recreational and educational facilities.

Edmonton is a Safe City

The design of neighbourhoods and buildings within the Riverview ASP are to include Crime Prevention Through Environmental Design (CPTED) Principles to ensure safety. The Riverview ASP supports the development of facilities for emergency response services as identified by Fire and Police Services.

Edmonton is an Attractive City

The Riverview ASP takes pride in, and showcases its green spaces and natural areas by providing linkages and connections to the North Saskatchewan River Valley and Ravine System, preserving and enhancing natural areas, as well as introducing additional linkages and open space.

Edmonton is a Sustainable City

The Riverview ASP supports sustainable development by providing opportunities for green infrastructure, complete communities, innovation in servicing, and a variety of housing and transportation options.

1.5 INTERPRETATION

All map symbols, locations, and boundaries contained within the Riverview ASP (otherwise referred to as the Plan”) shall be interpreted as approximate unless otherwise specified within the Plan, or coincide with clearly recognizable physical features or fixed (i.e. legal) boundaries.

Each land use type (e.g. commercial) and strategy (e.g. green development) is addressed in *Section 3.4 – Policy* with a specific objective for the land use, the corresponding policy, and the implementation strategy to realize each objective. Each policy statement uses either “should” or “shall.”

A policy statement(s) containing “shall” is mandatory and must be implemented. Where a policy proves impractical or impossible, an applicant may apply to amend the plan.

A policy statement(s) containing “should” is an advisory statement and indicates the preferred objective, policy and/or implementation strategy. If the “should” statement is not followed, because it is impractical or impossible, the intent of the policy may be met through other agreed-upon means.



1.6 AMENDMENT

Policies, text, and mapping information contained with the Riverview ASP may be amended from time to time in order to remain current and up-to-date in response to broader or more specific issues affecting the Plan area.

Any changes to policy, text, or mapping information contained within the Riverview ASP shall be in accordance with the *Municipal Government Act* and the *Terms of Reference for the Preparation and Amendment of Area Structure Plans*.



2 PLAN CONTEXT

2.1 LOCATION

The Riverview ASP is located in southwest Edmonton (Figure 1 – Location) and encompasses approximately 1,471 hectares. The Plan area includes all of section 31-51-25-4 and portions of sections 4, 5, and 6-52-25-4; and, 18, 19, 29, 30, and 32-51-25-4. The Riverview ASP is defined by the following boundaries:

- The North Saskatchewan River Valley boundary to the East;
- 33 Avenue SW (Township Road 512A) / City of Edmonton boundary to the South;
- Winterburn Road (215 Street SW) / City of Edmonton boundary to the West; and,
- Anthony Henday Drive and Wedgewood Creek Ravine to the North.

2.2 BACKGROUND

Preparation of the Riverview ASP was granted by City Council on May 26, 2010 with the approval of *The Way We Grow*, City of Edmonton's Municipal Development Plan (MDP). The MDP identifies the Riverview area as an Urban Growth Area and authorizes the preparation of an ASP for this area. Contingent upon their approval, each ASP is required to comply with the Growth Coordination Strategy, Integrated Infrastructure Management Plan, and City-Wide Food and Agriculture Strategy. In addition, each ASP is directed to incorporate the following elements:

- An area vision created with area landowners and other city stakeholder groups;
- A peri-urban agricultural section in support of the City-Wide Food and Agriculture Strategy; and
- Innovative approaches to food systems, ecological networks, green infrastructure provision, demand reduction strategies and eco-design for future residential, commercial, industrial, business, agricultural and natural uses.

The Riverview ASP area encompasses those lands located south of Anthony Henday Drive and west of the North Saskatchewan River. The Plan area makes up a portion of the nearly 37,000 hectares of land annexed by the City of Edmonton in 1982, and represents some of the last of the lands from the annexation to be planned.²

Growing Forward, the Capital Region Board's Growth Management Plan, identifies the Riverview area as a Priority Growth Area for the region. Riverview is located in area "C_w" within the priority growth area, mandating a target density between 30 and 40 units per net residential hectare (upnrha).

2.3 LAND OWNERSHIP

The Riverview ASP was prepared on behalf of several landowners, who own approximately 588 hectares of land in the Plan area. Remaining land in the area is owned by numerous other landowners, including area residents, City of Edmonton, and the Province of Alberta. Current land ownership is illustrated in Figure 2 – Land Ownership.

² As a result of O.C. 538/81.



2.4 SITE CONTEXT

2.4.1 TOPOGRAPHY

The Riverview area is mainly level throughout, though sloping gently west to east towards the North Saskatchewan River, and south to north towards the Wedgewood Creek Ravine and Anthony Henday Drive. Elevations for the site range from 698m in the southwest corner of the Plan area, to 678m in the northeast corner of the Plan area (Figure 3 – Site Contours). Surface drainage throughout the area generally flows in an easterly direction towards the North Saskatchewan River.

2.4.2 EXISTING LAND USES

Existing land uses in the Riverview area include Country Residential, agriculture, public utilities, and oil and gas well sites (Figure 4 – Site Features). Existing residential uses are mostly located along the Top-of-Bank of the North Saskatchewan River, with the largest grouping located in the central area around 9 Avenue SW.

There are numerous oil and gas wells within the Plan area and an electrical transmission utility corridor. These uses are discussed in Section 2.4.7 – Pipelines, Wells, and Utility Corridors.

2.4.3 PARKLAND COUNTY INTERFACE

An urban-rural interface exists between the City of Edmonton and Parkland County. Lands immediately west and south of the Riverview ASP, are designated under the Country Residential District within the County's Woodbend-Graminia Area Structure Plan.

As development occurs, Winterburn Road SW (Range Road 260) in its ultimate form would provide a clear delineation between the City and County. The urban standard Winterburn Road SW is expected to include a 3 m wide shared use path along the eastern boundary of the ROW. All residential lots adjacent to this road will also include a (potential) berm and a no gap fence. These features, in addition to the actual width of the carriageway, will provide adequate buffer between the existing Country Residential estates and agricultural land uses within Parkland County, and proposed land uses within Riverview ASP.

2.4.4 NATURAL AREAS AND ECOLOGICAL RESOURCES

The City of Edmonton's Inventory of Environmentally Sensitive and Significant Natural Areas (1993) identifies the following natural areas within the ASP boundary (see Figure 4 – Site Features):

NW 354 is a wetland in the northwest Riverview area. The area is an important habitat for ungulate and raptor species and acts as a corridor between the North Saskatchewan River Valley and the forested areas of the Stony Plain Indian Reserve (I.R. 135).

NW 355 [Environmentally Sensitive Area] – NW355 is a major wetland in the northwest Riverview area with permanent open water and a high plant and wildlife diversity. The area is particularly sensitive as a drop in water levels would have a severe impact on the waterfowl species using the wetland as a migration point.

NW 357 is a forest-wetland complex located in the northwest of the plan area. The natural area consists of a saturated wet meadow with a well-developed cattail fringe, willow sedge, surrounded by balsam poplar-aspen. NW 357 acts as a linkage between the NSRV, adjacent natural areas, and the forested Stony Plain Indian Reserve (I.R. 135). It contains diverse of vegetation communities and open water, which provides critical habitat for waterfowl.



NW 384 [Significant Natural Area] – NW384 is a remnant woodlot in the southwest Riverview area. This area is one of the few remaining white-birch stands in Edmonton and is an important connection to the North Saskatchewan River Valley for white-tailed deer.

The Ecological Network Report for Riverview also identifies ten smaller natural areas throughout Riverview. These areas provide important habitats for animal species, connect significant natural areas (such as North Saskatchewan River Valley, Wedgewood Creek Ravine, NW354, NW355, NW357 and NW384), aid in the dispersal of local plant seeds, and help to maintain the hydrological cycle in Riverview. In addition to the environmentally sensitive and significant areas identified in the inventory, the Ecological Network Report prepared for Riverview identifies other important natural areas adjacent to the Plan area.

The North Saskatchewan River Valley (NSRV), governed by the North Saskatchewan River Valley Area Redevelopment Plan, is a nationally designated Environmentally Sensitive Area adjacent to Riverview, forming the entire east boundary of the Plan area. This River Valley is an important habitat for animal species and is a key animal corridor between other significant natural areas in the region. The NSRV contains the following significant ecological features in proximity to the Riverview ASP boundary:

Big Island is an oxbow within the NSRV and a provincially designated Environmentally Sensitive Area. The site is approximately 139 hectares and is a critical habitat for ungulate, songbird, and waterfowl species. The area is also considered a very old non-regenerating forest, and is the site of the largest known balsam poplar in Alberta.

Woodbend Natural Area is a unique riparian complex of wetlands and springs within the NSRV, abutting the south-eastern portion of the ASP. It is an important backwater channel that provides habitat for a variety of species of fish. It is also a habitat for the Edmonton River Valley's largest population of white-tailed and mule deer, as well as moose, porcupines, other large and small mammals, amphibians, and birds (source: North Saskatchewan River Valley Conservation Society).

Wedgewood Creek Ravine is a locally designated Environmentally Sensitive Area approximately 100 hectares in size and forms a portion of Riverview's north boundary. The ravine has diverse plant and animal species and is an important corridor to the NSRV.

2.4.5 ENVIRONMENTAL SITE ASSESSMENT

An environmental overview was completed for the parcels legally described as 31-51-25-W4M and portions of 4-52-25-W4M, 5-52-25-W4M, 6-52-25-W4M, 18-51-25-W4M, 19-51-25-W4M, 29-51-25-W4M, 30-51-25-W4M and 32-51-25-W4M. The objective of the environmental overview is to identify areas of potential concern that may require further studies at the Neighbourhood Structure Plan (NSP) stage. The overview includes:

1. Review of online databases for:
 - a. Pipelines
 - b. Oil wells
 - c. Spills/releases
 - d. Coal mines
 - e. Water wells
 - f. Publicly available reports/information (ESAR Database)
 - g. Reclamation certificates
2. Review of maps for background information pertaining to groundwater, soils, topography



3. Review of current aerial photograph to identify farmyards, buildings, active oil wells, industrial/commercial facilities
4. Summarizing the areas of potential concern including a map showing the locations of farmyards, pipelines, oil wells, and spills

A Phase I Environmental Site Assessments (ESA) will be required at the NSP stage for all participating landowners. All properties within the Riverview ASP area will require Phase I ESAs to be completed and signed off prior to rezoning approval.

2.4.6 HISTORICAL RESOURCES

A Statement of Justification (SoJ) was completed in support of the Riverview ASP for parcels under the ownership of the plan proponents. Other landowners will be required to submit SoJs of their respective parcels prior to rezoning. The preservation, conservation, and integration of cultural, historical and/or archaeological resources within Riverview is important to retaining local history and character that may also be of regional or provincial significance.

Table 1 - Historical Resources Overview presents a summary of the parcels that were included in the study. At the direction of Alberta Culture and Community Spirit (ACCS), Historical Resources Impact Assessments (HRIA) will be required for five of the eight parcels of land prior to the rezoning.

	Land Owner	Location	SoJ Completed	Recommendation
1	Private Corporation	18-51-25-W4	Yes	HRIA for historic structures and treed areas above slope
2	Private Corporation	19-51-25-W4	Yes	HRIA for FiPj 161 and treed areas above slope
3	Private Corporation	30-51-25-W4	Yes	No further work
4	Private Corporation	31-51-25-W4	Yes	HRIA for historic structures
5	Private Corporation	32-51-25-W4	Yes	HRIA for historic structures
6	Private Corporation	32-51-25-W4	Yes	No further work
7	Private Corporation	5-52-25-W4	Yes	No further work
8	Private Corporation	6-52-25-W4	Yes	HRIA for treed areas above slope

TABLE 1 - HISTORICAL RESOURCES OVERVIEW

2.4.7 PIPELINES, WELLS, AND UTILITY CORRIDORS

A search of Alberta Energy Resources Conservation Board (ERCB) pipeline and oil well information, using the Abacus Datagraphics website (Abadata), indicates that there are 32 wells, 23 pipelines, 25 spills and/or releases and 2 facilities within the ASP boundary.

Future development surrounding the abandoned oil well sites and the pipeline will adhere to the policies and requirements established by the Energy Resources Conservation Board (ERCB) and the City of Edmonton.

An electrical transmission corridor passes through the north portion of the Plan area, running east—west. This corridor has been identified within the land use concept.

All wells sites as well as pipeline and electrical transmission corridors are shown in **Figure 4 – Site Features**. Within these corridors, a number of pipelines or electrical transmissions lines may exist.



2.5 PUBLIC INVOLVEMENT

The preparation of the Riverview ASP included extensive stakeholder consultation and public involvement throughout the process. From crafting a vision to refining the concepts, stakeholders contributed their ideas and vision for the future of the Riverview area.

2.5.1 STAKEHOLDER ADVISORY GROUP

At the outset of the ASP, a Stakeholder Advisory Group (SAG) was formed through discussions with the City of Edmonton. This group consisted of local landowners, residents, developer landowners, and other interested stakeholders and group representatives.

The role of the SAG was to participate in a series of facilitated consultation sessions and provide feedback in preparation of the Riverview ASP. Specifically, the SAG provided advice in the development of the vision and principles (see Section 3.2), objectives (Section 3.3), and design concept alternatives, which served as the foundation for the draft Riverview ASP.

2.5.2 PUBLIC CONSULTATION

The public consultation process for the preparation of the Riverview ASP involved a visioning charrette and several meetings with the SAG, as well as two public open houses.

The first public open house—held on March 29, 2011—introduced local stakeholders and the public to the purpose of the project and ASP process, and solicited their ideas for the future of the area. More than 250 land owners, two elected officials, and six staff members from the City of Edmonton’s Sustainable Development were invited.

The visioning charrette—held on August 10, 11, and 13, 2011—brought together members of the SAG and observers to participate in a visioning process with the intent to provide a clear design framework for the major elements of the Riverview ASP. The follow up meetings with the SAG sought their input to refine and strengthen the principles, objectives, and land use concept developed during the visioning charrette.

The second open house—held on October 27, 2011— was organized to share with attendees the land use concept, vision statement, and guiding principles that came out of the visioning charrette.

Advance Notification

Consistent with Policy C513—City of Edmonton’s Public Involvement Policy—advance notification was sent to property owners and residents on May 25, 2012 advising them of the application and encouraging them to contact either Sustainable Development or the applicant (Stantec Consulting Ltd.) for further questions or to communicate any possible concerns.

Public Meeting

A public meeting was held by the City of Edmonton’s Sustainable Development on February 20, 2013 at the West Edmonton Christian Assembly church. Mailed notification letters were sent to landowners in and surrounding the Riverview ASP area advising of this meeting. At the meeting, landowners were provided with further information on the application and the opportunity to provide comments. All feedback received at the public meeting will be summarized in Sustainable Development’s report to City Council.

**Public Hearing**

Landowners will also be notified when Public Hearing is scheduled and will have the opportunity to provide written comments or register to speak at Council. In accordance with the MGA, a public hearing was held in order to hear representations made by parties affected by the proposed bylaw and to receive approval by City Council.

Intermunicipal Consultation

As required within the Municipal Government Act and City of Edmonton Municipal Development Plan, Parkland and Leduc County were given the opportunity to review and comment on this Plan as part of the City's advance notification process. Prior to receiving third and final reading at City Council, this ASP has also been reviewed and accepted by the Capital Region Board, an Intermunicipal planning commission created to jointly develop and oversee the Capital Region Growth Management Plan.



3 LAND USE, TRANSPORTATION, AND SERVICING

3.1 LAND USE POPULATION STATISTICS

Riverview will be developed as five distinct neighbourhood units that form a complete, walkable community with a hierarchy of focal points and natural amenities. The land use concept features a residential area with several school/park sites, a District Activity Park (with a recreation centre), commercial and business/employment services, and recreation trails. Each neighbourhood unit will include a diversity of housing types and a variety of natural amenities and park spaces.

The neighbourhood units and overall land use concept for Riverview are illustrated in Figure 5 – Neighbourhood Areas and Figure 6 – Land Use Concept. Areas for the proposed land uses are detailed in Table 2 – Land Use and Population Statistics.

TABLE 2 - LAND USE AND POPULATION STATISTICS

	Area (ha)	% GA	Nbhd 1	Nbhd 2	Nbhd 3	Nbhd 4	Nbhd 5
GROSS AREA	1,427.64	100%	279.67	317.81	311.28	187.66	331.22
Environmental Reserve - Natural Area (Wetland)*	30.16	2.1%	0.00	0.00	0.00	0.00	0.00
Pipeline Utility Right-of-Way	4.07	0.3%	0.00	1.70	2.38	0.00	0.00
Altalink Power Corridor	23.08	1.6%	23.08	0.00	0.00	0.00	0.00
Public Utility - Communications Facility	8.02	0.6%	0.00	8.02	0	0.00	0.00
Arterial Road Right-of-Way	62.05	4.3%	15.08	21.64	16.02	5.24	4.07
Transit Centre	2.00	0.1%	0.00	0.00	2.00	0.00	0.00
Existing Country Residential	114.12	8.0%	15.56	0.00	13.58	66.40	18.58
Existing Urban Village Park	5.66	0.4%	5.66	0.00	0.00	0.00	0.00
Existing Natural Area	20.36	1.4%	0.00	0.00	0.00	0.00	20.36
GROSS DEVELOPABLE AREA	1,158.12	81.1%	220.29	256.29	277.31	116.02	288.21
		%GDA					
Town Centre Commercial	25.97	4.7%	19.68	6.29	0.00	0.00	0.00
Mixed Uses / Main Street Retail	2.83	0.5%	0.00	2.83	0.00	0.00	0.00
Community Commercial	14.55	2.7%	0.00	10.52	0.00	4.03	0.00
Neighbourhood Commercial	4.00	0.7%	0.00	0.00	2.00	1.00	1.00
Business Employment	62.98	5.4%	62.98	0.00	0.00	0.00	0.00
Parkland, Recreation, School (Municipal Reserve)	115.81	10.0%	1.20	25.48	52.94	8.66	27.53
<i>District Activity Park</i>	34.86	3.0%	0.00	0.00	34.86	0.00	0.00
<i>School/Park</i>	39.44	3.4%	0.00	16.48	13.48	0.00	9.48
<i>Urban Village Park/Pocket Park/Greenway</i>	17.53	1.5%	1.20	1.73	4.60	3.90	6.10
<i>Natural Area</i>	23.98	2.1%	0.00	7.27	0.00	4.76	11.95
Transportation - circulation	231.62	20.0%	44.06	51.26	55.46	23.20	57.64
Stormwater Management Facility	89.18	7.7%	16.96	19.73	21.35	8.93	22.19
Total Non-Residential Area	546.94	51.8%	144.88	116.11	131.75	45.83	108.36
Net Residential Area	611.18	47.8%	75.41	140.18	145.55	70.19	179.85
RESIDENTIAL LAND USE AREA, DWELLING UNIT & POPULATION COUNT							
Land Use		ASP	Nbhd 1	Nbhd 2	Nbhd 3	Nbhd 4	Nbhd 5
Single/Semi-detached	Area (ha)	542.18	67.41	124.18	127.55	59.19	163.85
25 du/nrha	Units	13,555	1,685	3,105	3,189	1,480	4,096
2.8 p/du	Population	37,953	4,719	8,693	8,929	4,143	11,469
Row Housing	Area (ha)	33.00	3.00	8.00	10.00	6.00	6.00
45 du/nrha	Units	1,485	135	360	450	270	270
2.8 p/du	Population	4,158	378	1,008	1,260	756	756
Low-rise/Medium Density Housing	Area (ha)	31.00	5.00	7.00	6.00	4.00	9.00
90 du/nrha	Units	2,790	450	630	540	360	810
1.8 p/du	Population	5,022	810	1,134	972	648	1,458
Medium to High Rise Housing	Area (ha)	4.00	0.00	1.00	2.00	0	1.00
225 du/nrha	Units	900	0	225	450	0	225
1.5 p/du	Population	1,350	0	338	675	0	338
Total Residential	Area (ha)	611.18	75.41	140.18	145.55	70.19	179.85
	Units	18,730	2,270	4,320	4,629	2,110	5,401
	Population	48,483	5,907	11,172	11,836	5,547	14,021

SUSTAINABILITY MEASURES						
Population Per Net Hectare (p/nha)	79.3	78.33	79.70	81.32	79.03	77.96
Dwelling Units Per Net Residential Hectare (du/nrha)	30.6	30.1	30.8	31.8	30.1	30.0
Population (%) within 500m of Parkland	84%					
Population (%) within 400m of Transit Service	98%					
Population (%) within 600m of Commercial Service	39%					
Presence/Loss of Natural Areas						
Protected as Environmental Reserve	42.9					
Conserved as Naturalized Municipal Reserve (ha)	25.1					
Protected through other means (ha)	20.4					
Lost to Development (ha)	10.6					
STUDENT GENERATION COUNT						
Public School Board						
Elementary School	2,316	440.58	512.59	554.61	232.04	576.42
Junior High	1,158	220.29	256.29	277.31	116.02	288.21
Senior High	1,158	220.29	256.29	277.31	116.02	288.21
Separate School Board						
Elementary School	1,158	220.29	256.29	277.31	116.02	288.21
Junior High	579	110.15	128.15	138.65	58.01	144.11
Senior High	579	110.15	128.15	138.65	58.01	144.11
Total Student Population	6,949	1,321.74	1,537.76	1,663.83	696.12	1,729.26
* This area includes NW 354 and NW355 (with a 30 m buffer around them) that are expected to be claimed by the Crown. The boundary of each natural area will be adjusted through subsequent studies.						
** Includes the Public Upland Area with an assumed setback of 10 m from the TOB line. This setback is subject to change, based on the slope stability analysis at the NSP stage.						

3.2 VISION AND PRINCIPLES

During the public engagement process, the SAG developed and refined a Vision and Planning Principles to guide the development of Riverview. The Vision and Planning Principles directly influenced the Objectives (Section 3.3) and Policies (Section 3.4).

3.2.1 VISION

Riverview is a sustainable, walkable, and complete community in Southwest Edmonton with a sense of scale and place, a hierarchy of vibrant focal points, and a diversity of housing choices. Riverview respects and celebrates the unique natural landscape while encouraging pedestrian connections to the ravine systems and River Valley, creating a community in which to live, work, and play during both the winter and summer seasons.

3.2.2 PLANNING PRINCIPLES

1. Develop a walkable community

A neighbourhood that does not require a vehicle for every trip can have important positive impacts on the health of residents, building community relationships, and improving residents' overall quality of life. Pedestrian comfort is fundamental to creating a walkable neighbourhood. Since streets are the preeminent form of public space, they should be designed such that buildings and landscaping create a level of enclosure. This combined with a fine-grained mix of land uses provides realistic choices for people to walk or bike to work or grocery store.



2. Connect pedestrian access to the river

Riverview's most prominent natural landmark is the North Saskatchewan River Valley. It is therefore important to provide pedestrian and vehicular connectivity from within the Plan area to the River Valley, Big Island, and/or Woodbend Natural Area, thereby creating a sense of place.

3. Respect the natural areas and landscape

Beyond the River Valley, Riverview boasts the Wedgewood Creek Ravine, wooded areas, wetlands, and other important natural areas. These areas serve as important habitats and corridors for local wildlife and are essential to natural processes in Riverview. Accordingly, the ecologically significant areas and corridors should be conserved and integrated with development.

4. Design a creative transportation and roadway network

Opportunity for a range of transportation options is fundamental. Therefore the transportation system must give equal consideration to all modes of transport e.g. automobiles, bicycles, pedestrians, and transit. In addition, the street pattern must be designed as a network that provides a number of alternative routes linking one part of a neighbourhood to the other.

5. Develop a great place to live in the winter

Edmonton is a winter city and the design of all communities needs to take winter issues into consideration. Winter conditions, and accommodating and encouraging winter activities and active transportation should be given full consideration in the development of Riverview thereby creating an urbanism that promotes use of streets and public places during all seasons.

6. Provide space for community schools and civic centres

Schools and civic centres (community leagues) are the heart of every community and are essential institutions for all families. The Riverview ASP ensures that it promotes access to and integration of education and recreation facilities within the neighbourhoods.

7. Establish a hierarchy of centres (i.e. town, village, hamlet)

Well-defined and well-designed centres located within walking distances provide the opportunity for people to live, work, shop, and play. Riverview is envisioned to feature a hierarchy of centres—a town centre, village centre, and several hamlets (local centres)—to serve the shopping needs and serve as destinations for its residents and adjacent communities.

8. Develop a complete community to live, work, and play

Complete communities are those with a mix of land uses, a diversity of housing types, parks and open spaces, and employment opportunities located within walking distances of each other, or easily accessed by transit. Simply, complete communities serve the needs of the residents without requiring them to travel to other parts of the city. Riverview will strive to become a complete community by providing opportunities for business/employment, commercial, parks/open spaces in addition to residential to serve the needs of residents.

9. Establish a sense of scale and place

Every community should have a focal point to provide identity and a gathering place. Establishing a sense of scale and place is about developing a unique community at a scale appropriate to the area that evokes an emotional connection from residents and visitors. Participants want to see a community develop that leaves them and visitors with a sense of place.



10. Provide a variety of housing types for all ages, incomes, and abilities

A variety of housing types contributes to the health of the community by welcoming residents at different income levels, family composition, and life stages. Provision of a variety of housing breaks free from the monotony of a single demographic, which will ensure that Riverview welcomes everyone.

11. Encourage alternative energy/infrastructure options

Infrastructure is what makes an urban neighbourhood function smoothly. Exploring new technologies with the City for alternative wastewater treatment and delivering energy will improve the quality of life for neighbourhood residents and the entire city. Riverview proposes to be a sustainable and innovative community to reduce its ecological footprint.

12. Support urban and peri-urban agriculture

Access to healthy food choices is important to any community and locally produced fruit and vegetables means shorter transportation distances and, in turn, greenhouse gas emissions. Providing opportunities for local food production in the form of community gardening and community-supported agriculture will move Riverview towards a more sustainable and self-sufficient future.

3.3 OBJECTIVES

In order to develop as a sustainable, walkable, complete community, and provide direction for the preparation of future NSPs, the following goals and objectives were established. These goals and objectives align with the City of Edmonton's strategic plans and are based on the Planning Principles discussed in the previous sections:

Urban Design

- To create distinct, walkable, and aesthetically pleasing neighbourhoods as basic building blocks of Riverview.
- To ensure a compact urban form that uses land responsibly and efficiently.
- To encourage an active interface between the built form and public spaces in Riverview.
- To provide a range of transportation options.
- To use natural features and notable locations to create focal points and a sense of place.
- To integrate existing residential uses.
- To establish linkages to the North Saskatchewan River Valley.
- To incorporate urban design elements which maximize the benefits of winter.

Residential

- To meet the residential density targets mandated by the Capital Region Board.
- To provide a diversity of housing options to serve all future residents.
- To ensure an adequate supply of affordable housing is available in the Riverview ASP area.
- To develop a walkable residential community with a mix of neighbourhood uses.
- To accommodate the continued operation of existing Country Residential uses within the Plan area until such time as the owners choose to develop the affected lands in accordance with the approved development concept.
- To encourage mixed use development and higher density residential in appropriate locations.
- To encourage a variety of different types of mixed use developments.

Commercial

- To provide opportunity for commercial development to meet the needs of the Riverview area.
- To provide opportunity for integration of commercial, residential and office uses.
- To locate and orient commercial sites to ensure high visibility and convenient access opportunities.

**Business Employment**

- To provide employment opportunities within the neighbourhood.
- To ensure a high degree of access and visibility of Business Employment sites.
- To ensure that appropriate transitions are designed between business land uses and adjacent land uses.
- To encourage innovative and sustainable business employment uses in Riverview.

Institutional / Civic Service

- To accommodate future development of institutional and civic service land uses.

Parkland, Recreation Facilities, and Schools

- To design a connected and integrated open space system that encourages active transportation.
- To promote public access to the North Saskatchewan River and River Valley.
- To consider winter issues in the landscaping and programming of public parks, open spaces, plazas, and boulevards.
- To encourage public education on nature and natural processes within Riverview .
- To accommodate City of Edmonton's requirements for school, parks sites, and recreation facilities within the neighbourhood.

Ecology

- To preserve and enhance natural systems through the location and design of open spaces and the preservation of natural areas.
- To protect the North Saskatchewan River Valley and Ravine System.
- To respect the natural land forms in Riverview.
- To protect ecologically sensitive and significant natural areas.
- To retain key ecological connections within Riverview.
- To protect wetlands within the Plan area.

Green Development & Innovation

- To incorporate sustainable development principles in the planning and design of the ASP and NSPs.
- To explore alternative energy options in Riverview.
- To encourage xeriscaping and natural landscaping using native tree and plant species.
- To utilize Low Impact Development principles for the design of the stormwater management system, including bioswales and naturalized wetlands.
- To employ sustainable planning principles in the design of the neighbourhood.

Urban Agriculture

- To allow for retention of land for urban agriculture.
- To buffer urban agriculture uses and non-agriculture uses.
- To promote urban agriculture in Riverview.
- To establish community supported urban agriculture opportunities in Riverview.
- To support the development of local food infrastructure.

Environment

- To ensure that the environmental status of the lands within Riverview is suitable for development.
- To minimize oil and gas well sites' potential environmental hazards and disruption of future development.



Environment

- To ensure that the environmental status of the lands within Riverview is suitable for development.
- To minimize oil and gas well sites' potential environmental hazards and disruption of future development.

Historical Resources

- To ensure historical, archeological, and paleontological resources are identified and, where applicable, conserved.

Transportation

- To create a creative, multi-modal transportation network with a high degree of connectivity.
- To create a pedestrian- and cyclist-friendly environment.
- To ensure roadways do not interrupt significant wildlife corridors.
- To ensure that cost of arterial roadways is shared throughout the Riverview catchment area.
- To ensure integrated access is provided to the North Saskatchewan River Valley and Ravine System.
- To encourage innovation in transportation systems design.
- To encourage Transit and Active Modes as alternative to single occupant vehicle travel.
- To facilitate snow removal and storage in Riverview.
- To encourage transit and active modes as alternatives to single occupant vehicle travel.
- To emphasize pedestrian-friendly environments in key locations.

Infrastructure, Servicing, and Staging

- To ensure that Riverview is serviced to a full urban standard.
- To explore innovative and alternative servicing options where possible.
- To ensure that the Riverview ASP area is serviced to a full urban standard, using contemporary and emerging sustainable infrastructure solutions, and that "soft" services are provided.

3.4 POLICY

The following outlines the policies that will guide the preparation of future NSPs in Riverview. This section is organized by land use type (e.g. Residential, Commercial) and strategy (e.g. Infrastructure, Urban Design) to describe each policy statement and how the policy will be implemented.

3.4.1 URBAN DESIGN

A neighbourhood's built form is a strong determinant of community health. A mix of uses provided within highly connective street blocks and compact urban development will encourage residents to walk and bicycle to neighbourhood focal points as opposed to using their vehicles. A strong focus on urban design is important to fostering a strong sense of place and promoting active transportation. Accordingly, Riverview is intended to consist of several pedestrian-friendly cells comprised of a mix of land uses that are focused on community focal points e.g. park, school, or commercial uses. Riverview's setting along the North Saskatchewan River, in addition to its environmental, climatic, and historic characteristics must be reflected in its urban form to maintain its unique identity and character, and to foster a sense of place and belonging.

Winter is the dominant season in Edmonton and paying close attention to winter design issues will help the residents to enjoy the public places during winter. Effective landscaping and wind control measures in parks and public plazas (such as natural and constructed wind barriers and park orientation) can enliven public spaces even on the coldest days.

Technical Summary

No technical studies required.



Objective	ASP Policy	Implementation
<p>3.4.1 (a) To create distinct, walkable and aesthetically pleasing neighbourhoods as basic building blocks of Riverview.</p>	<p>(i) Create a distinct pedestrian friendly town centre defined by Main Street Retail and located adjacent to supporting commercial and residential uses and with convenient access to public transit.</p>	<p>(i) Figure 6 – Land Use Concept illustrates the location of Town Centre Commercial, Mixed Uses/Main Street Retail in proximity to the transit centre.</p> <p>NSPs will provide urban design guidelines for Town Centre Commercial and Mixed Uses/Main Street Retail designations, to facilitate a high-quality, pedestrian friendly development.</p>
	<p>(ii) Neighbourhoods shall be designed to include a mix of uses such as residential, commercial, institutional, parks and open spaces.</p>	<p>(ii) NSPs within Riverview will include a mix of land uses such as residential, commercial, institutional, parks and/or SWMF within walking distances of each other.</p>
<p>3.4.1 (b) To ensure a compact urban form that uses land responsibly and efficiently.</p>	<p>The ASP shall incorporate increased residential density to make more efficient use of land.</p>	<p>Table 2 – Land Use and Population Statistics illustrates the planned overall density for the ASP that meets:</p> <ul style="list-style-type: none"> the Council-approved Suburban Housing Mix Guidelines, and the minimum density target for Priority Growth Area “C_w” of the Capital Region Growth Plan.
<p>3.4.1 (c) To encourage an active interface between the built form and public spaces in Riverview.</p>	<p>(i) Provide smaller setbacks, street orientation, and active frontages for buildings within 400 m of the transit centre and along collector roadways to create a pedestrian friendly built form.</p>	<p>The type and location of street oriented uses will be determined at the NSP stage.</p>
	<p>(ii) Where appropriate, locate and orient buildings such that they define and reinforce public places, such as parks and amenity areas.</p>	
<p>3.4.1 (d) To provide a range of transportation options.</p>	<p>(i) Create a network of streets that allow for multiple route options.</p>	<p>(i) Figure 9 – Roadway Network illustrates the arterial and collector roadways within the ASP.</p>
	<p>(ii) Design streets to allow for multiple modes of transport including cyclists,</p>	<p>(ii) Streets shall generally be in accordance with City design</p>



Objective	ASP Policy	Implementation
	pedestrians, transit users, and vehicles.	standards. Where required, alternative cross-sections may be submitted and reviewed at the NSP and subdivision stages.
	(iii) Provide greenways and walkways linking major focal points within the Plan area and the River Valley.	(iii) NSPs shall identify greenways and walkways.
	(iv) Trails and shared use paths shall accommodate both winter and summer modes of transport.	(iv) At the detailed design stage, shared use paths and trails shall be designed to allow cross-country skiing, and snowshoeing in winter in addition to biking, walking, and inline skating in the summer.
<p>3.4.1 (e) To use natural features and notable locations to create focal points and a sense of place.</p>	<p>(i) Higher priority natural areas shall be conserved and integrated within the ASP.</p>	<p>(i) Figure 4 – Site Features illustrates natural areas within the Riverview ASP.</p> <p>Further studies shall be required at the NSP stage to determine the natural areas that will be retained or integrated.</p>
	<p>(ii) Civic buildings shall be provided in prominent locations within the District Park and school/park sites to create landmarks.</p>	<p>(ii) Figure 8 – Parkland, Recreation Facilities and Schools illustrates the location of the future District Park Site and additional school sites.</p> <p>The ASP identifies park sites for the location of schools, recreation centres, and community leagues. Other civic buildings such as libraries and religious assemblies, if required, shall be identified at the NSP stage.</p>
<p>3.4.1 (f) To integrate existing residential uses.</p>	<p>Provide appropriate buffers or compatible residential uses adjacent to existing Country Residential parcels.</p>	<p>NSP Land Use Concepts shall provide appropriate buffers or compatible residential uses adjacent to existing Country Residential parcels.</p>
<p>3.4.1 (g) To establish linkages to the North Saskatchewan River Valley.</p>	<p>Provide access to the North Saskatchewan River and River Valley at several points within the Plan area.</p>	<p>Figure 8 – Parkland, Recreation Facilities and Schools illustrates the location of potential access points to the River Valley.</p> <p>NSPs shall review the location of these access points in more detail and determine their feasibility.</p> <p>NSPs shall determine whether they</p>



Objective	ASP Policy	Implementation
		<p>will provide pedestrian, vehicular or combined pedestrian/vehicular access.</p> <p>NSPs shall further detail and identify the location of Top-of-Bank roadways.</p>
<p>3.4.1 (h) To incorporate urban design elements which maximize the benefits of winter.</p>	<p>(i) Incorporate design elements into the district park and public spaces that protect users from the wind and maximize solar access.</p> <p>(ii) Encourage engaging lighting, vibrant colours, and “warm” materials in the main street commercial area and park spaces.</p> <p>(iii) Encourage the strategic use of lighting to enliven gathering spaces while minimizing light pollution.</p>	<p>Urban design guidelines will be prepared at the NSP level to guide the implementation winter design elements.</p>

3.4.2 RESIDENTIAL

The Riverview ASP will provide opportunities for a range of residential densities, housing types, alternative site designs and unique building sites that contribute to a sustainable residential land use pattern and form. The variety in housing types will contribute to the health of the community by providing housing for different income levels, family composition and life stages.

Approximately 53 percent of the Plan area is designated for residential land uses. Residential densities within the Riverview ASP range from 25 units per net residential hectare (upnrh) to 225 upnrh. The lower range of 25 upnrh will be developed as single/semi-detached housing. The higher range of 225 upnrh will be developed as high density residential, also referred to as medium to high rise units. Within this range, there is also the opportunity for row housing and low rise apartment housing, providing a variety of choices in the housing mix of the area. The distribution and location of the different residential densities will be determined at the NSP stage with consideration for proximity to transit, services and amenities.

Country Residential

The Riverview ASP acknowledges the existing Country Residential housing located within its boundary. The existing Country Residential land uses can remain in perpetuity, unless it is the desire of the landowner to redevelop. As per the City’s Municipal Development Plan, no new Country Residential housing is supported within the boundaries of the City of Edmonton. Should any existing residential area be redeveloped in the future, an amendment to the Riverview ASP will be required and will need to meet the Capital Region Board’s density targets.

Low Density Residential (LDR)

Low density residential housing forms will be predominantly single and semi-detached housing in a variety of sizes to accommodate different types of households and income levels. Larger residential lots may be provided in areas adjacent to the existing Country Residential lots as a transitional land use.



Medium Density Residential (MDR)

Medium density housing forms include rowhousing, stacked rowhousing and low rise apartments. Medium density housing also serves as an appropriate transition between low and high density residential developments.

Medium to High Rise Housing

Medium to High Rise housing will be located in proximity to arterial roads, transit nodes/facilities, community focal points and/or employment areas with excellent accessibility and visibility.

Mixed Use

Mixed Use sites promote compact, walkable areas which also promote independence of movement, especially for the young and elderly who have convenient access to transit or can easily walk or cycle to the various amenities nearby. Mixed use sites also often include higher densities as well as assisted living opportunities which allow individuals to remain in the same neighbourhood as they age.

The purpose of these policies is to encourage a diversity of housing to meet the needs of different income groups and lifestyles within the Plan area. Providing a variety of housing types promotes the creation of a well-balanced neighbourhood, one which can accommodate a range of income groups and market segments, various types and sizes of households and also allows families to remain within the same community throughout their life-cycle. Locating commercial, institutional and recreational uses in close proximity to residential housing, will create a more compact, walkable, attractive and liveable community.

Technical Summary

No technical studies required.

Objective	ASP Policy	Implementation
<p>3.4.2 (a) To meet the residential density targets mandated by the Capital Region Board.</p>	<p>Each neighbourhood shall establish minimum residential densities of 30 dwelling units per net residential hectare, in accordance with the Capital Region Growth Plan.</p>	<p>(i) Appropriate residential land use allocation at the Neighbourhood Structure Plan (NSP) level shall be used to achieve the density target.</p> <p>The Riverview ASP density meets the Capital Region Board’s density target.</p>
		<p>(ii) Existing Country Residential uses will be allowed to intensify in the future subject to provision of municipal servicing. Maximum intensification would be within CRB density targets. An amendment to the Riverview ASP will be required should existing residential parcels be redeveloped.</p>
<p>3.4.2 (b) To provide a diversity of housing options to serve all future residents.</p>	<p>(i) A mix of housing sizes and types shall be provided including: single/semi-detached, row housing,</p>	<p>Figure 6 - Land Use Concept illustrates the general location of residential land use in the Riverview</p>



Objective	ASP Policy	Implementation
	<p>low rise/medium density housing, and medium to high rise housing.</p> <p>(ii) Different housing types shall be developed in a manner compatible in scale and density to adjacent residential developments.</p> <p>(iii) Alternative/innovative housing forms should be encouraged.</p>	<p>ASP.</p> <p>NSPs will specify the location, area and anticipated density of each type of residential use (e.g. single/semi-detached housing, low-rise/medium density housing, and/or medium to high rise housing).</p> <p>Alternative housing forms to be considered as development proceeds.</p>
<p>3.4.2 (c) To ensure an adequate supply of affordable housing is available in the Riverview ASP area.</p>	<p>(i) Developments shall comply with City of Edmonton’s affordable housing policies and guidelines.</p> <p>(ii) A variety of housing types with a range of price points shall be provided.</p>	<p>City of Edmonton’s affordable housing policies and guidelines shall be applied prior to approval of NSPs.</p> <p>Figure 6 – Land Use Concept illustrates the general location of residential land use designations in the Riverview ASP.</p> <p>NSPs shall determine the location of various residential land uses.</p> <p>The range of densities and housing forms shall be applied at the NSP and rezoning stages.</p> <p>Secondary suites, garden suites, and garage suites will be implemented through Edmonton Zoning Bylaw.</p>
<p>3.4.2 (d) To develop a walkable residential community with a mix of neighbourhood uses.</p>	<p>(i) Neighbourhood commercial, institutional, and recreational uses may be included in residential areas where determined appropriate.</p> <p>(ii) Multi-family residential should be located near commercial uses, recreation facilities, park areas, or transit facilities.</p>	<p>Figure 6 – Land Use Concept illustrates the general location of residential, commercial, institutional and recreational uses.</p> <p>NSPs shall provide the range of densities and location of multi-family residential uses.</p> <p>NSPs shall identify neighbourhood commercial and pocket parks.</p>
<p>3.4.2 (e) To accommodate the continued operation of existing Country Residential uses within the Plan area until such time as the owners choose to develop the affected lands in accordance with the approved development concept.</p>	<p>(i) Developments shall take into consideration existing Country Residential uses and ensure compatible uses are provided.</p> <p>(ii) Extend municipal water and sanitary sewer services to the</p>	<p>Figure 6 – Land Use Concept illustrates the location of existing Country Residential uses.</p> <p>Buffering (if required) and/or compatible land uses will be applied at the NSP and rezoning stages.</p>



Objective	ASP Policy	Implementation
	boundary of existing country residential uses, providing country residential residents with the opportunity to connect to these services.	Existing Country Residential uses will be allowed to intensify in the future depending on provision of urban services. Maximum intensification would be within CRB density targets. An amendment to the Riverview ASP shall be required should existing residential parcels be redeveloped.
<p>3.4.2 (f)</p> <p>To encourage mixed use development and higher density residential in appropriate locations.</p>	<p>Mixed Use developments and higher density residential may be included in the NSP level integrated with Commercial/Retail with Main Street, Transit Centre, and along arterial and collector roadways.</p>	<p>Location of Mixed Use and higher density residential sites shall be further identified at the NSP stage.</p>
<p>3.4.2 (g)</p> <p>To encourage a variety of different types of mixed use developments.</p>	<p>Mixed use developments may include a variety of uses including different housing forms, residential and institutional uses, residential and commercial uses or a combination of the above.</p>	<p>The composition of mixed use sites shall be identified at the NSP and rezoning stages.</p>

3.4.3 COMMERCIAL

The land use concept provides three types of retail/commercial sites within the ASP: Town Centre Commercial, Mixed Uses/Main Street Retail and Community Commercial. These sites contribute to the health of the community by supporting the local employment base and providing retail services within the Plan area. Commercial uses provide local employment opportunities for residents to live and work in the same neighbourhood, reducing the dependency on commuting outside of the community and, in turn, reducing residents’ carbon footprint.

Prominent frontage along 23 Avenue, 199 Street and Winterburn Road (215 Street) are significant components influencing the location of the commercial sites. The sites provide opportunities for access from arterial and/or collector roadways, minimizing traffic shortcutting through residential areas, and maintaining appropriate traffic patterns and volumes within the neighbourhood core. The Town Centre Commercial and the Mixed Uses/Main Street Retail, located at the intersection of 23 Avenue NW and 199 Street NW, are within 400 m walking distance of the transit centre.

The Town Centre Commercial will be developed to be developed as high-quality, multi-purpose, pedestrian friendly development that will serve the commercial needs for Riverview and surrounding communities. Future NSPs will specify urban design guidelines for this designation.

The Mixed Uses/Main Street Retail will be developed to be developed as high-quality, street-oriented and pedestrian friendly development that may include a mix of retail, office, civic, and/or residential uses. Future NSPs will specify urban design guidelines for this designation.



The Community Commercial is intended to be developed as shopping centre-type development benefitting from excellent access and visibility along the arterial roadways. The size and scale of these developments will be further reviewed and evaluated at the time of NSP preparation.

In addition, small-scale neighbourhood sites will be identified in future NSPs in appropriate locations.

Technical Summary

A Commercial Needs Assessment was prepared and submitted under separate cover.

Objective	ASP Policy	Implementation
<p>3.4.3 (a) To provide opportunity for high-quality commercial development to meet the needs of the Riverview area.</p>	<p>(i) Opportunity for commercial development shall be provided within Riverview.</p> <p>(ii) Neighbourhood and convenience commercial uses shall be provided at the NSP stage.</p> <p>(iii) Town Centre Commercial and Mixed Uses/Main Street Retail shall be developed as high-quality, pedestrian friendly development in consideration of their prominent location in the ASP.</p>	<p>Figure 6 – Land Use Concept illustrates the location of Town Centre Commercial, Mixed Uses/Main Street Retail, and Community Commercial.</p> <p>Land Use Concepts of future NSPs shall illustrate the location of convenience commercial uses.</p> <p>Respective NSPs shall provide urban design guidelines for Town Centre Commercial and Mixed Uses/Main Street Retail designations.</p>
<p>3.4.3 (b) To provide opportunity for integration of commercial, residential, and office uses.</p>	<p>The Mixed Uses/Main Street Retail designation shall allow for development of retail, office, civic, and/or residential uses.</p>	<p>Figure 6 – Land Use Concept indicates the location of Mixed Uses/ Main Street Retail.</p> <p>Respective NSPs shall provide urban design guidelines for Mixed Uses/Main Street Retail designation.</p>
<p>3.4.3 (c) To locate and orient commercial sites to ensure high visibility and convenient access opportunities.</p>	<p>Commercial sites shall be located along arterial and/or collector roadways and be accessible by multiple modes of transport i.e. car, transit, and walking.</p>	<p>Figure 6 – Land Use Concept illustrates the location of Town Centre Commercial, Mixed Uses/Main Street Retail, and Community Commercial.</p> <p>Figure 9 – Roadway Network shows the various types of access to the commercial types.</p>

3.4.4 BUSINESS EMPLOYMENT

Business Employment land uses provide employment opportunities for residents within the neighbourhood and broaden the economic base. Jobs within a community also contribute to its sustainability and residents’ quality of life, while reducing traffic levels and the environmental costs associated with commuting long distances.



The Business Employment designation is located in the northeast portion of the Plan area adjacent to Anthony Henday Drive and 23 Avenue NW to ensure the area has a high degree of access and visibility. This designation is intended for high quality office and service uses, industrial/non-industrial businesses and light industrial developments. These uses may form around a business-park environment or develop as larger, stand-alone entities as dictated by market demands. This area is not intended for the development of large format warehouse type uses.

Technical Summary

No technical studies were identified.

Objective	ASP Policy	Implementation
3.4.4 (a) To provide employment opportunities within the neighbourhood.	Business Employment uses shall be provided within Riverview.	Figure 6 – Land Use Concept illustrates the location of Business Employment designation.
3.4.4 (b) To ensure a high degree of access and visibility of Business Employment sites.	Business Employment uses shall be located adjacent to arterial and/or collector roadways.	Figure 6 – Land Use Concept illustrates the location of Business Employment designation.
3.4.4 (c) To ensure that appropriate transitions are designed between business land uses and adjacent residential land uses.	Incompatible uses shall not be permitted adjacent to residential land uses. Development adjacent to residential uses shall be designed in a sensitive manner to minimize impacts.	The Development Officer shall ensure that appropriate transitional elements (e.g. landscaping, setbacks, lot orientation) are implemented to ensure appropriate separation of residential uses from adjacent Business Employment uses.
3.4.4 (d) To encourage innovative and sustainable Business Employment uses in Riverview.	The NSPs should encourage sustainable land use and sustainable design of buildings/facilities.	NSPs will explore policy options that promote sustainable land use and building/facility design.

3.4.5 INSTITUTIONAL/CIVIC SERVICES

Whether provided by the City of Edmonton or by other agencies and organizations, institutional and urban service uses aid in the development of a “complete community.” By identifying and anticipating future community needs, land may be set aside for emergency services, health providers, cultural institutions, and other uses.

Institutional/Civic Service land uses are permitted throughout Riverview and are intended to support social sustainability, providing space for worship, learning, and community safety. The ASP supports the future development of institutional and civic services in the Riverview area, including religious assemblies, libraries, recreation centres, fire halls, and police stations.

Technical Summary

No technical studies were identified



Objective	ASP Policy	Implementation
<p>3.4.5 (a) To accommodate future development of institutional and civic service land uses.</p>	<p>The ASP shall allow for development of institutional, civic, and urban services uses based on assessed requirements.</p>	<p>Requirement for institutional/civic service land uses shall be determined at the NSP stage. The NSPs shall also identify the location of such land uses.</p> <p>The location of emergency services shall be determined through consultation with Edmonton Fire Rescue Services.</p>

3.4.6 PARKLAND, RECREATION FACILITIES AND SCHOOLS

A well-connected system of parks and open spaces provide areas for active and passive recreation and facilitate connectivity between park spaces and across the neighbourhood. Natural areas and open spaces provide amenity space for neighbourhood residents, preserve important habitat for animals, and promote biodiversity. Accordingly, conserving and integrating natural areas with development, while providing improved access to parks, open spaces, and natural areas are important in creating vibrant and livable communities.

Riverview ASP provides several parks and open spaces for residents. Park spaces are located throughout the neighbourhood in order to meet the recreational needs of all residents. The plan seeks to link park space, open space, SWMFs, and natural areas as well as the NSRV through a system of greenways, shared use paths, sidewalks, and walkways.

District Activity Park

The ASP includes a District Activity Park, which is intended to include several structures such as a multi-purpose recreation centre (which may include, but is not limited to, pools, arenas, gymnasiums, indoor soccer and fitness training area) a Public High School, a Catholic High School, and associated parking. The District Activity Park will also serve as a staging area and provide access to the River Valley.

School and Community Parks

Five School and Community Parks are provided within the Plan area. These are intended to include: i) a joint Public and Separate Elementary/Junior High (K-9) school site and associated community league, ii) two Public Elementary/Junior High school sites and associated community leagues, and iii) two Separate Elementary/Junior High school parks and associated community leagues. All school sites are generally located centrally within the catchment areas and adjacent to collector roadways.

Urban Village Parks

The ASP provides four Urban Village parks (including an existing Urban Village Park located north of 23 Avenue NW). These parks have been generally located to provide physical and visual access to the River Valley, adjacent to collector roadways. These parks are not intended to accommodate community league buildings.

North Saskatchewan River Valley (NSRV)

Although outside the Plan area and governed by the North Saskatchewan River Valley ARP, the River Valley is an immense natural area immediately adjacent to Riverview and forms the entire boundary to the east—more than 16 km in length. The NSRV provides a variety of recreation opportunities, such as canoeing, hiking, and mountain biking,



and recreation trails along the Top-of-Bank encourage winter and summer active transportation, such as skating, cross-country skiing, and cycling.

Technical Summary

A Community Knowledge Campus Needs Assessment was completed to determine the requirement for school sites within Riverview.

A Parkland Impact Assessment has been completed in accordance with the requirements of Urban Parks Management Plan.

Objective	ASP Policy	Implementation
<p>3.4.6 (a)</p> <p>To design a connected and integrated open space system that encourages active transportation.</p>	<p>The Riverview ASP shall incorporate an array of pedestrian connections, such as, greenways, shared use paths, and walkways that connect park spaces, Ravine Valley and stormwater management facilities.</p>	<p>Figure 6 – Land Use Concept, Figure 8 – Parkland, Recreation Facilities and Schools will guide application of neighbourhood parks and open spaces.</p> <p>NSPs shall identify connections between parks and open spaces in the form of greenways, shared use paths, and walkways.</p>
<p>3.4.6 (b)</p> <p>To promote public access to the North Saskatchewan River and River Valley.</p>	<p>(i) Public access to the North Saskatchewan River Valley and Ravine System shall be provided through a combination of Top-of-Bank roadway/park along a minimum of 30% of the length of the Urban Development Line.</p> <p>The north and west perimeters of the District Activity Park will not be counted in the Top-of-Bank roadway/park calculations. Only the length of the Urban Development Line adjacent to the District Activity Park shall be counted as the Top of Bank roadway/park length.</p> <p>(ii) Where appropriate, a continuous top-of-bank walkway shall be provided along the length of the Urban Development Line, within the Public Upland Area.</p> <p>(iii) The design of the neighbourhood shall comply with City Policy C542 Development Setbacks from River Valley/Ravine Crests.</p>	<p>(i), (ii), and (iii) Figure 6 – Land Use Concept illustrates the location of the Top-of-Bank (TOB) walkway along the entire length of the North Saskatchewan River Valley and Wedgewood Creek Ravine.</p> <p>The NSPs shall identify a combination of TOB roadway and park for a minimum of 30% of the entire length of the Urban Development Line, which shall be implemented through the subdivision process.</p> <p>Geotechnical/slope stability assessment and City Policy shall determine the final alignment of the TOB roadway, TOB walkway and parks. TOB roadway, TOB walkway and parks shall be dedicated to the City of Edmonton at the time of subdivision. Compensation for the development of TOB roadway shall adhere to City Policy C542.</p>



Objective	ASP Policy	Implementation
	(iv) Where feasible, parks located along the TOB should function as staging areas to the River Valley.	(iv) At the detailed design stage, Parks Planning will determine the feasibility of the top-of-bank parks to incorporate staging function.
	(v) The ASP shall identify several potential River Valley access points.	(v) Figure 8 – Parkland, Recreation Facilities and Schools illustrates the location of potential River Valley access points.
<p>3.4.6 (c) To consider winter issues in the landscaping and programming of public parks, open spaces, plazas, and boulevards.</p>	<p>(i) At the detailed design stage, tree species within parks and other public spaces shall be provided such that they provide wind shelter and enable solar penetration.</p> <p>(ii) Tree species which are salt tolerant shall be included in the detailed landscape design of boulevards and street areas.</p> <p>(iii) Programming for parks and public plazas should incorporate gas hook-ups for large portable fire pits to provide warmth to parks users during the winter.</p>	<p>An urban design framework that supports the City of Edmonton Winter City Strategy will be prepared at the NSP level to guide the implementation winter design elements and create more livable outdoor microclimates.</p> <p>Landscape design for public land will be developed in conjunction with relevant City departments, such as Transportation Services and Sustainable Development.</p>
<p>3.4.6 (d) To encourage public education on nature and natural processes within Riverview.</p>	<p>Explore the possibility for development of a wildlife education centre integrated with NW 384.</p>	<p>The feasibility for development of a wildlife education centre will be determined at the NSP stage in discussions with the City of Edmonton.</p>
<p>3.4.6 (e) To accommodate City of Edmonton’s requirements for school, parks sites, and recreation facilities within the neighbourhood.</p>	<p>(i) The ASP shall follow the guidelines for provision of parks as per the Urban Parks Management Plan (UPMP), while considering the natural characteristics of the neighbourhood.</p>	<p>(i) Figure 6 – Land Use Concept and Figure 8 – Parkland, Recreation Facilities and Schools illustrate the location and general configuration of the District Activity Park, four School and Community Parks, four Urban Village parks, and several Natural Areas within the ASP boundary.</p> <p>At the NSP stage, configuration of the park spaces may be revised to respond to individual programming needs of each site. Such minor revisions shall not require amendment to the Riverview ASP.</p>



Objective	ASP Policy	Implementation
		<p>At the NSP stage, the configuration/location of the District Park site may be revised to ensure all accesses/egresses, site programming, and building offsets are able to be appropriately addressed. If required, the ASP amendment will be completed in conjunction with the NSP.</p> <p>Additional Urban Village Parks, pocket parks, and greenways will be identified at the NSP stage.</p> <p>A School/Park site for the Greater North Central Francophone Education Region No. 2 shall be identified at the NSP stage.</p> <p>The need for a Special Facility Site shall be determined at NSP stage, including the location, size, and configuration of the site.</p>
	<p>(ii) Municipal Reserves (MR) shall be provided as land, cash-in-lieu, or a combination thereof, in accordance with the Municipal Government Act.</p>	<p>(ii) The Subdivision Authority, in consultation with Parks Planning, shall determine the Municipal Reserves owing for the ASP area, which shall be dedicated in full as the dedication of land, cash-in-lieu, or an acceptable combination thereof, at the time of subdivision.</p>
	<p>(iii) With the exception of park areas adjacent to the Top-of-Bank where grade changes and topography pose design difficulties, all park space within the neighbourhood shall be universally accessible.</p>	<p>(iii) Design and development of future parks and open spaces shall consider safety needs of all community and be implemented based on requirements of Parks Planning, Urban Planning and Environment Branch, and Sustainable Development.</p>
	<p>(iv) Park spaces shall have frontage along public roadways to ensure sightlines, natural surveillance, and adequate lighting. Landscaping and design of park spaces shall take into consideration basic Crime Prevention Through Environmental Design (CPTED) principles and design principles included in the Design Guide for a Safer City and UPMP.</p>	<p>(iv) Frontages along park spaces shall be determined at the NSP stage, as per the UPMP guidelines.</p>



3.4.7 ECOLOGY

The Riverview area possesses a rich, natural habitat. The NSRV, and two tributary ravines, Wedgewood and an unnamed ravine in the southernmost quarter of the ASP leading to the Edmonton Sand Dunes Natural Area (NW384) are the dominant natural features within the Plan area. In addition, Riverview includes several natural features within the Plan area including Environmentally Sensitive Areas (NW354 and NW355), Significant Natural Area (NW384), natural areas, woodlots, and windrows.

The ASP land use concept aims to retain, conserve, and integrate various natural areas in consideration of their ecological function and significance.

The Plan identifies the approximate areas of Crown claimed wetlands and other wetlands, as shown on Figure 4 – Site Features. For non-Crown claimed wetlands, additional study will be completed at the NSP stage to determine their classification and feasibility for retention. Additional review and study will be required at the NSP stage to confirm the delineation of wetland areas and size of buffer.

The River Valley, and two major tributary ravines, Wedgewood and an unnamed ravine in the southernmost quarter of the ASP leading to the Edmonton Sand Dunes Natural Area (NW384) will be protected and preserved as per the MGA, MDP, Development Setbacks from River Valley/Ravine Crests Policy (C542), and other strategic policies and guidelines. The ASP approximately illustrates the Top-of-Bank (TOB) line and Urban Development Line (UDL) on the basis of aerial photographs and topographic information. These lines will be established at the NSP stage on the basis of site visits, geotechnical analysis and slope stability assessment.

Due to the general conceptual nature of the ASP, there may be substantial changes or modifications to the natural area requirements at the NSP planning stage, subject to further studies.

Technical Summary

An Ecological Network Report (ENR) was prepared for the ASP area, and was submitted under separate cover. The ENR recommends NW354, NW355, and NW384 be retained. NW357 has been claimed by the crown and has been retained within the concept plans as Environmental Reserve. Additional studies are required to examine natural areas and Class III, IV, and V wetlands to confirm which natural areas will be conserved, ensuring the overall ecological connectivity is maintained.

Objective	ASP Policy	Implementation
<p>3.4.7 (a) To preserve and enhance natural systems through the location and design of open spaces and the preservation of natural areas.</p>	<p>A range of habitat will be provided in the Plan area through the retention of natural areas, an interconnected park system, and the utilization of naturalized landscaping, including engineered wetlands.</p>	<p>A Phase II Ecological Network Report (ENR) shall be submitted with associated NSP(s). The Phase II ENR builds on the findings of the Phase I further describing and assessing the structure, function and integrity of the ecological network within the plan area. Site-specific information shall be collected for natural areas within the plan area to ensure the long term sustainability and functionality. Habitat connectivity, buffers, restoration, ecological impacts, mitigation measures and ecological design shall be examined. Additional Environmental Reserve</p>



Objective	ASP Policy	Implementation
		<p>(ER) may be dedicated at the NSP stage for wetland protection/preservation and/or to address ravine/creek stability within the ASP area.</p> <p>At the NSP stage, further study shall be required to determine any potential wetlands to be retained.</p> <p>Natural areas will be retained through application of any or all of the following methods:</p> <ul style="list-style-type: none"> • Dedication of municipal or environmental reserve • Purchase/compensation by City <p>Encourage the design of stormwater management facilities to function as engineered wetlands at the engineering and design phases.</p> <p>Use of native plant materials will be identified through landscaping design review.</p> <p>Requirements for Natural Area Management Plans shall be determined at the NSP stage for each natural area to be retained.</p>
<p>3.4.7 (b) To protect the North Saskatchewan River Valley and Ravine System.</p>	<p>(i) An Urban Development Line (UDL) shall be established within the ASP area. The UDL will separate developable land from non-developable land to preserve and protect the North Saskatchewan River Valley and Ravine System.</p>	<p>(i) At the time of NSP, the TOB and the UDL shall be established in accordance with Policy C542.</p>



Objective	ASP Policy	Implementation
	<p>(ii) Determine whether development within Riverview Neighbourhood 5 will impact recharge of the Woodbend Natural Area and, if required, incorporate appropriate mitigation strategies.</p>	<p>(ii) A hydrogeological assessment shall be completed over a period of one full year, prior to commencement of an NSP for neighbourhood 5.</p> <p>This assessment will measure in-situ precipitation, surface water runoff, meltwater runoff and groundwater flows to the Woodbend Natural Area. If applicable, the respective NSP will address potential mitigation strategies pertaining to recharge of the natural area.</p>
	<p>(iii) Explore opportunities to restore portion of the ravine that is currently bisected by existing 184 Street.</p>	<p>(iii) At the NSP stage, the feasibility closing the portion of 184 Street crossing the ravine will be determined. If deemed feasible, the respective portion of 184 Street will be closed at the subdivision stage.</p>
	<p>(iv) Lands below the Urban Development Line shall be protected from urban development.</p>	<p>(iv) Lands that meet the criteria for Environmental Reserve (ER) under Section 664(1) of the MGA shall be dedicated to the City of Edmonton at the time of subdivision.</p>
<p>3.4.7 (c) To respect the natural landforms in Riverview.</p>	<p>Where practical, the natural land forms should be conserved within natural areas and parks.</p>	<p>The detailed design affecting public lands should maintain the existing land forms, accommodating nature in all aspects of the built environment through building and site design.</p>
<p>3.4.7 (d) To protect ecologically sensitive and significant natural areas.</p>	<p>(i) Retention of Natural areas and Class III, IV, and V wetlands shall be retained through a combination of purchase and dedication of land, using Environmental Reserve and Municipal Reserve, where appropriate and in accordance with the MGA.</p>	<p>(i) Figure 6 – Land Use Concept illustrates NW354, NW355, NW384 and NW357 to be conserved within the ASP. Size and sustainability of all crown claimed, Class III, IV, and V wetlands and other natural areas shall be determined at the NSP stage.</p>
	<p>(ii) Provide appropriate buffer areas around retained wetlands and natural areas to ensure proper integration with the surrounding development.</p>	<p>(ii) Buffer distances shall be confirmed at the NSP stage, in accordance with City Policy C531 and City of Edmonton’s Guidelines for Determining Environmental Reserve Dedication.</p>



Objective	ASP Policy	Implementation
	(iii) Natural, pre-development hydrological flows to natural areas shall be maintained to ensure the long term protection of the environmental features that are retained through the development process.	(iii) A hydrologic analysis shall be completed at the NSP stage to ensure the long term sustainability of all natural areas retained in the plan area.
<p>3.4.7 (e) To retain key ecological connections within Riverview.</p>	<p>The Riverview ASP shall integrate and link land use components (i.e. North Saskatchewan River Valley and Ravine System, natural areas, SWMFs, parks and greenways) to provide habitat and maintain ecological connectivity.</p>	<p>Figure 6 – Land Use Concept guides the development of subsequent NSPs within Riverview. Figure 7 – Ecological Connectivity identifies potential connections between the natural areas. The ecological network components and connectivity requirements will be confirmed at future NSP stages.</p>
<p>3.4.7 (f) To protect wetlands within the Plan area.</p>	<p>Where possible explore opportunities for the retention of wetlands through a variety of mechanisms including retention, compensation or incorporation with SWMFs.</p>	<p>Wetlands to be retained shall be determined at the NSP stage through additional study.</p> <p>Opportunities of compensation for wetlands not retained within the Plan area shall be explored at the NSP stage.</p>

3.4.8 GREEN DEVELOPMENT & INNOVATION

Low Impact Development (LID) refers to a collection of alternative engineering and landscape architecture strategies to manage and improve the quality of stormwater runoff in an urban environment. Low Impact Development principles replace conventional stormwater management strategies with natural processes. Some LID strategies include constructed wetlands, bioswales, and rain gardens. Some of the benefits of LID include improved groundwater quality and quantity, reduction of river bed erosion and peak flows, reduced costs, and habitat protection.

Native species or (non-invasive) naturalized species should be used in landscaping. The use of plant species which are native or adapted to the local climate generally require less irrigation and maintenance than non-native species, which serves to minimize costs associated with development and maintenance. Appropriate landscaping within open spaces provides opportunities to create wildlife habitat, and strengthens the ecological network within the neighbourhood.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ for Neighbourhood Development (ND) offers an evaluation system that incorporates principles of smart growth, urbanism and green building. Regardless of whether certification under the system is pursued, the required and optional program components offer a comprehensive set of development considerations that can guide neighbourhood design.

A number of alternative energy options will be explored for the Riverview ASP. A geexchange heating and cooling system, for example, is a renewable alternative to conventional heating systems using gas, oil or electricity. Geexchange systems take advantage of the heat energy stored in the ground to heat or to cool buildings. Another example would be photovoltaic (PV) systems which are used to convert sunlight into electricity. These systems



produce no pollution or emissions, have low operating costs, and are fairly easy to install. PV systems are increasingly being incorporated into buildings that are also connected to utility systems.

Another option to efficiently cool and heat a series or cluster of buildings would be a district energy system. Benefits of district energy systems can include increased energy efficiency, reduced air pollution and emissions, greater fuel flexibility, facilitation of the use of renewable energy and helping manage the demand for electricity. District energy systems can make use of waste heat generated from other processes, such as the generation of electricity – which is known as combined heat and power (CHP) or co-generation. Similarly, they can be fuelled by industrial by-products like wood chips, biomass or hydrocarbon products or even from municipal refuse. Energy from other renewable sources can be integrated into the systems, including photovoltaic cells, or geexchange systems.

Technical Summary

No technical study requirements are identified.

Objective	ASP Policy	Implementation
<p>3.4.8 (a) To incorporate sustainable development principles in the planning and design of the ASP and subsequent NSPs.</p>	<p>(i) Where practical, future development in Riverview should explore Low Impact Development (LID) principles such as stormwater infiltration, and reduction and detention of stormwater runoff.</p> <p>(ii) Future NSPs should explore incorporation of appropriate LEED ND principles (or other comparable sustainable development standards).</p>	<p>At the NSP stage, appropriate LID and LEED ND principles will be researched and applied where practical.</p>
<p>3.4.8 (b) To explore alternative energy options in Riverview.</p>	<p>NSPs which feature higher intensity/density land uses (e.g. transit-oriented developments, employment hubs, or education campuses) may consider alternative energy options, such as district heating, combined heat and power systems, geothermal or solar power, where possible.</p>	<p>Evaluate the potential for alternative energy options such as district heating, combined heat and power systems, geothermal or solar power at the NSP level.</p>
<p>3.4.8 (c) To encourage xeriscaping and natural landscaping using native tree and plant species.</p>	<p>(i) Parks, open spaces, and boulevards should incorporate tree and plant species native to central Alberta.</p> <p>Where practical, ecotypes from the Riverview area should be used in the landscape design of parks and open spaces.</p> <p>(ii) Edible landscaping, such as cherry and apples trees and saskatoon bushes, should be incorporated into public parks and boulevards, where appropriate.</p>	<p>Selection of species shall take place at the detailed design and/or subdivision stage. Landscape design for public land shall be developed in conjunction with relevant City departments, such as Transportation Services and Sustainable Development.</p>



Objective	ASP Policy	Implementation
<p>3.4.8 (d) To utilize Low Impact Development principles for the design of the stormwater management system, including bioswales and naturalized wetlands.</p>	<p>Where possible, neighbourhoods should incorporate Low Impact Development principles that promote stormwater infiltration, filtering, storage, evaporating, in addition to the detention of runoff close to its source.</p>	<p>Land use and servicing plans dealing with stormwater at the NSP level shall employ the City of Edmonton’s Low Impact Development Guidelines, or best development practices.</p>
<p>3.4.8 (e) To employ sustainable planning principles in the design of the neighbourhoods.</p>	<p>Each NSP should explore LID, LEED ND principles or other comparable measurable sustainable development standards.</p>	<p>A narrative describing compliance with the chosen standard (or aspects thereof) should be provided to the Sustainable Development Department at the time of NSP submission.</p>
<p>3.4.8 (f) To enhance the quality and quantity of soils in urban areas.</p>	<p>Developers and homebuilders are encouraged to explore innovative topsoil reuse within the ASP</p>	<p>The City and developers should explore the possibility of reuse of topsoil within Riverview ASP or the city.</p>

3.4.9 URBAN AGRICULTURE AND FOOD

The Riverview ASP supports *fresh*, the City of Edmonton’s Food and Urban Agriculture Strategy, and proposes a number of land uses, policies and approaches to support local food production in the area, to grow the local food market and sustainable food practices.

Intensive and Extensive Urban Agriculture

Intensive agriculture refers to high-input, high-output production such as horticulture, greenhouses, specialty crops and fresh vegetable and fruit production. This is a suitable use for urban agricultural land and, at a smaller scale, for urban agricultural land. Extensive agriculture includes such activities as pasture, grazing, and to some extent large scale field crops that are typically grown in dry land situations (without irrigation). Extensive agriculture is not considered ideal for urban or peri-urban agriculture.

Local Food Economy

While Edmonton’s climate cannot support year-round outdoor growing, developing innovative urban food production, processing and storage strategies can be appropriate for the climate and context. Supporting local food production and processing in the Capital Region helps contribute to the development of the local economy, and can encourage a healthy and sustainable food system.

Value-Added Food Production

Value added agriculture refers to the processes that increase the value of raw agricultural products such as pickling, curing, canning and/or preparing industrial or consumer ready food products. Value-added industries can occur on different scales, from the home-based business selling jams and pies to national brand consumer foods. While much of Edmonton’s food processing occurs in industrial areas, there are ways to promote the use and production of local foods in Riverview.

Community kitchens, for instance, are an important component of building strong, healthy, and sustainable communities. As economic development incubators, community kitchens provide food entrepreneurs with access to



the tools and resources to add value to local produce and distribute their products in the community, city, and region. These spaces have been key starting points for many small-scale food entrepreneurs to generate revenue and transition to larger-scale production. Community kitchens provide space for residents preparing large quantities of food for home catering businesses and religious services. Community kitchens serve as a space to promote literacy in healthy eating and food preparation for community courses, and should be included in community centres or recreation facilities to benefit from other education and recreation programming.

Home Gardens

Home gardening is both an exceedingly popular pastime and a means of producing vegetables and fruit throughout the summer months. One of the simplest and most apparent examples of small scale local food production is the traditional back yard garden. The amount of land that is available for gardening in low density residential areas is considerable, and even apartment housing on private amenity spaces such as balconies or shared open space could be used for garden plots.

Community gardens

Community gardens are features that are found in many neighbourhoods throughout the city. Community gardens are generally divided into individual plots which are made available to the public or members of the community, often for a nominal fee or for no cost. These spaces serve multiple purposes – from social gathering spaces, to vegetable gardens, to ornamental flower gardens – and are often popular in locations with higher density housing where private open space is limited. As Community Services recognizes gardening as a legitimate recreational pursuit, some Municipal Reserve land within neighbourhood parks may be dedicated for community gardens throughout the Riverview area. Organizations such as Community Leagues, non-profit societies, residents associations or faith groups are often willing to administer community gardens, likely with minimal support from Community Services.

Edible Landscaping

In addition to private gardens, public spaces can provide attractive and productive land. Public lands such as parks and open spaces, or even road and utility rights of way, can be planted with a broad variety of edible species. These might include fruit trees, berries like saskatoons, high-bush cranberries, raspberries, nuts, or other plants like rhubarb. Expanding the variety of plants in public spaces beyond ornamental species is a fairly easy way to increase the range of potential uses, and to provide a source of local food.

Community-Supported Agriculture

Community-Supported Agriculture (CSA) connects agriculture producers with the consumers in a food distribution network. A typical CSA arrangement is a shared-risk agreement that sees a farmer offer memberships to consumers who then receive a regular delivery of seasonal produce directly from the farmer. This arrangement removes the middle-person from the supply chain and connects the consumer with the farmer. In turn, farmers benefit from the regular and increased cash flow, and consumers benefit from access to health, locally growth food.

Urban Agriculture and Beekeeping

Ways of promoting healthy eating and sustainable food practices are re-emerging in urban areas. Urban agriculture, for example community gardens, community orchards, food forests and berry patches, allow food to be grown locally and contribute to sense of community. Several cities now allow the keeping of a limited number of hens for the purposes of laying eggs, as well as the keeping of bees. Beekeeping, whether located on farms, backyards or urban rooftops, can contribute to a healthy urban landscape by contributing to the pollination of plant species. Should the City of Edmonton pursue changes to current bylaws and regulations to allow beekeeping and backyard hens, the Riverview ASP would be supportive of those uses, as well as opportunities for community orchards, food forests, berry



patches, hydroponics, SPIN farming, aquaponics, container gardens, and vertical growing systems, among other methods for urban agriculture.

Land use compatibility

As more detailed planning occurs, methods to mitigate potential nuisance factors (e.g. noise and dust from farming, traffic and encroachment from residential development) created by intensive agricultural operations will be investigated. Possible solutions include setbacks, shelterbelts, multi-use trails, park space, or roadways. In addition to buffering, the integration of compatible land uses should be considered.

Technical Summary

No technical studies were identified.

Objective	ASP Policy	Implementation
<p>3.4.9 (a) To allow for retention of land for urban agriculture.</p>	<p>i) Land may be retained for urban agricultural use. ii) Where lands are designated urban agriculture through future amendment of this ASP, farming activities shall be limited to intensive agriculture operations, and will not include intensive livestock operations, extensive agriculture operations, or other high-impact operations.</p>	<p>Agricultural Land Reserve (ALR) designation may be applied for by landowners of privately owned farmland who self- declare their intent to retain urban agricultural use within the ASP area. The ALR designation in the ASP may be applied for, at the discretion of the landowner.</p>
<p>3.4.9 (b) To buffer urban agriculture uses and non-agriculture uses.</p>	<p>(i) Provide appropriate buffers or compatible land uses adjacent to retained urban agricultural parcels. ii) Where agricultural operations predate new developments, the responsibility for buffering shall fall to new land uses.</p>	<p>If applicable, NSPs shall provide guidelines for appropriate buffers, setbacks or compatible uses adjacent to retained urban agricultural parcels.</p>
<p>3.4.9 (c) To promote urban agriculture in Riverview.</p>	<p>(i) Opportunities for community garden plots are encouraged on publicly-owned parcels.</p>	<p>(i) The location, number and size of community gardens should be further developed at the NSP level. The land requirements for public community gardens shall be reviewed and determined at the NSP stage.</p>
	<p>(ii) Community gardening is recreational, a public benefit, builds community and should be included in programming for community parks in balance with other park programming needs.</p>	<p>(ii) Community leagues and other voluntary organizations, such as Sustainable Food Edmonton, should be encouraged to be the stewards of community gardens and develop best practices for urban agriculture.</p>
	<p>(iii) Explore opportunities to utilize harvested rainwater for irrigation of parks and community gardens.</p>	<p>(iii) Specific implementation strategies pertaining to sustainable practices shall be determined at the NSP stage, and in conjunction with the appropriate City Departments.</p>



Objective	ASP Policy	Implementation
	(iv) Landscaping of public parks and open spaces should consider planting of edible fruit and vegetable plants where appropriate.	(iv) Edmonton’s edible landscaping guidelines (to be developed) should be adhered to at the neighbourhood planning level and during the design of parks and open spaces.
	(v) Opportunities for urban agriculture, for example community gardens, community orchards, food forests, berry patches and beekeeping in the Riverview area may be explored in NSPs and through City bylaws and policies.	(v) Opportunities for urban agriculture such as keeping bees, raising backyard laying hens, community orchards, food forests, berry patches, hydroponics, SPIN farming, aquaponics, container gardens, and vertical growing systems, among other methods for urban agriculture shall be explored and implemented in accordance with <i>fresh</i> .
	(vi) Investigate urban agriculture opportunities on utility rights-of-way.	(vi) Developers and/or City Administration shall investigate the feasibility of using utility corridors (e.g. electrical transmission lines or transportation corridors) for urban agriculture.
	(vii) explore opportunities for additional urban agricultural land.	(vii) The City and partners shall explore opportunities to identify and secure new urban agricultural lands. Examples include using an Agricultural Land Reserve (ALR), Transfer of Development Credit (TDC), Land Trust, Conservation Covenant, Land Swap, Community Investment, Cluster Development, zoning and land use designations, and land/financial contributions by developers
<p>3.4.9 (d)</p> <p>To support the development of local food infrastructure.</p>	<p>(i) The Mixed Uses / Main Street Retail area should include public space for food related infrastructure which could include a community farmers’ market, pocket park, street vendor sites, or sidewalk patios.</p>	<p>(i) Planning at the NSP level shall provide guidance for the development of the Mixed Uses / Main Street - town centre area, including the public space.</p>
	<p>(ii) Support the development of pocket markets, mobile markets, and mobile food vendors.</p>	<p>(ii) Public and quasi-public spaces (plazas, recreation centres, shopping centre parking lots, or streets) can accommodate small scale food operations. Policies supporting these and other food system assets should be provided at</p>



Objective	ASP Policy	Implementation
		the NSP stage.
	(iii) Support the development of food hubs in the Riverview ASP, as directed by <i>fresh</i> .	(iii) Food hubs vary in type, scale, and model, but all opportunities and partnerships to establish food hubs should be encouraged. If applicable, additional policies supporting food hub uses should be provided at the NSP stage.
3.4.9 (e) To establish community supported peri-urban agriculture opportunities in Riverview.	(i) The Mixed Uses / Main Street Retail - town centre should include a public space for a community farmers market. (ii) Community leagues should be encouraged to be the stewards of community gardens and develop best practices for urban agriculture.	Strategies pertaining to peri-urban agricultural activities will be developed in accordance with City-wide Food and Agriculture Strategy of the City of Edmonton provided at the NSP stage.

3.4.10 ENVIRONMENT

Lands within the Riverview ASP Plan area will be suitable for urban development and their environmental status will be confirmed prior to rezoning. Those lands identified as contaminated must undergo remediation according to Federal, Provincial, and Municipal standards.

Policies relating to existing and abandoned oil and gas uses will ensure conscientious residential development around oil and gas well sites and pipelines at all stages of the plan implementation and construction process while minimizing potential disturbances to the area’s future residents. Urban development in the vicinity of all resource well sites will be planned in accordance with the City policy document entitled “Policy Guidelines for the Integration of Resource Operations and Urban Development” (1985) and Policy C515 “Oil and Gas Facilities” (2007) and other relevant City procedures. Development of lands involving abandoned wells shall comply with ERCB guidelines for development around abandoned wells. An assessment of risk and nuisance will be conducted on operating or suspended oil and gas wells, as directed by existing or future City policy for the integration of oil and gas facilities prior to any rezoning of the parcel where the facility is located.

Technical Summary

An Environmental Overview report has been completed for the Riverview area to confirm that the Plan area will be suitable for development. An environmental site assessment will be completed at the NSP stage.

Objective	ASP Policy	Implementation
3.4.10 (a) To ensure that the environmental status of the lands within Riverview is suitable for development.	(i) The likelihood, types, and location of any environmental concerns present on the lands shall be determined prior to rezoning.	(i) Phase I Environmental Site Assessments (ESA) shall be required for participating landowners at the NSP stage.



		<p>ESAs shall be submitted and any follow-up will receive sign-off by city Administration prior to the rezoning stage of development.</p> <p>Phase I ESA reports older than 1 year from the date of rezoning application shall be updated, and any Phase I ESA report older than 5 years from the date of rezoning application shall be redone.</p>
	(ii) Where necessary, contaminated material shall be removed and disposed of in an environmentally sensitive manner, in accordance with Federal, Provincial, and Municipal regulations.	(ii) Site remediation, where necessary, shall be conducted prior to rezoning. An environmental site assessment report verifying the remediation shall be submitted for approval by the City administration prior to the rezoning of the subject lands.
<p>3.4.10 (b) To minimize oil and gas well sites' potential environmental hazards and disruption of future development.</p>	The Riverview ASP and future NSPs shall be designed to comply with relevant requirements of the ERCB regulations, the Urban Parks Management Plan and other relevant City of Edmonton policies.	<p>Setback requirements shall be confirmed at time of subdivision approval. Subdivision planning must adhere to all relevant ERCB regulations, City of Edmonton Policy C515, and the Urban Parks Management Plan.</p> <p>An assessment of risk and nuisance may be required at the NSP or rezoning stages.</p>

3.4.11 HISTORICAL RESOURCES

Riverview likely contains numerous historical artifacts and archeological resources. Identification and protection of historical resources is important for preserving Alberta’s culture and understanding the history of the land and the people who called it home.

Development within the Riverview ASP shall have regard for the preservation of historical, archaeological and paleontological resources. Pursuant to Section 31 of the Historical Resources Act, development proponents and/or their representatives are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction.

Technical Summary

A Statement of Justification for Historical Resources Act has been submitted to Alberta Culture and Community Spirit.

Objective	ASP Policy	Implementation
<p>3.4.11 (a) To ensure historical, archeological, and paleontological resources are</p>	(i) Proponents of the Riverview ASP shall submit a Statement of Justification for Historical Resources	(i) A Statement of Justification has been completed for eight parcels within the Plan area and approved



Objective	ASP Policy	Implementation
<p>identified and, where applicable, conserved.</p>	<p>Act Requirements and, if necessary, a Historical Resources Impact Assessment (HRIA).</p>	<p>by Alberta Culture and Community Spirit.</p> <p>Where required, Historical Resources Impact Assessments (HRIA) shall be submitted prior to rezoning approval.</p> <p>Those lands which have not received clearance on Historical studies shall be required to submit and receive sign off prior to rezoning.</p>
	<p>(ii) All historical, archaeological, and palaeontological discoveries made during construction shall be reported.</p>	<p>(ii) Section 31 of the Historical Resources Act requires all historical, archaeological, and palaeontological discoveries made during the course of an excavation to be reported to Alberta Culture and Community Spirit. Those discoveries that are notable or deemed significant enough, should be incorporated or interpreted within the development scheme/proposal in a manner that ensures its historical significance is appropriately interpreted and/or displayed. Proposals should be submitted to the City's heritage planners in consultation with Alberta Culture and Community Spirit.</p>

3.4.12 TRANSPORTATION

The transportation goal of the Riverview ASP is to establish a neighbourhood that provides a well-connected transportation system within the Plan area, and maximizes access opportunities for multiple modes of transport for residents. This goal is conceptually illustrated in Figure 9 – Roadway Network and Figure 10 – Active Transportation Network, which identify the roadway network and alternative system that accommodates the movement of transit, bicycles and pedestrians within the neighbourhood and connects to the River Valley and adjacent communities.

Roadway Network

The transportation network has been designed to meet both the internal and external traffic flow requirements generated by the neighbourhood in accordance with City of Edmonton’s guidelines and standards. A hierarchy of arterial, collector and local roadways is intended to facilitate the efficient movement of vehicular traffic (see Figure 9 – Roadway Network).

Arterial roadways generally form boundaries of future NSPs. These roadways, which accommodate the ASP’s major internal/external traffic flows, include 23 Avenue, 199 Street, and Winterburn Road (215 Street).



The interchange on Anthony Henday Drive at 23 Avenue NW will provide access opportunities from the ASP to major external destinations. In addition, Winterburn Road (215 Street) and 199 Street will accommodate additional north-south traffic movements to/from the ASP.

Collector roadways, which provide internal/external accesses, are spaced at appropriate intervals to facilitate traffic progression (if traffic signals are required) and to ensure that sufficient distance is available to allow for right and left turn-bay development. The collector roadway network provides efficient and convenient access to residential areas, reinforces a local 'sense of place' among residential sub-areas, and establishes a pedestrian-oriented streetscape through provision of separate sidewalks.

Arterial Roadway Assessment

Lands within the Riverview ASP shall be subject to an Arterial Road Assessment (ARA) to cost-share the arterial roadway facilities needed to service the area.

In general terms, the ARA outlines the developers' responsibility for roadway construction within a catchment area and is based on the costs of constructing arterial roads required for access to a catchment area. The configuration (number of lanes) and other specific criteria (such as channelization) required for access to the Riverview ASP are defined in detail by the associated Transportation Impact Assessment.

Parking

Parking for vehicles will generally be provided off-street in conjunction with development. The land use concept identifies the District Park adjacent to the North Saskatchewan River Valley to promote access to the River Valley and accommodate parking for visitors. The parking supply on the district park site should be rationalized through the completion of a shared use parking assessment and should consider parking demands associated with on-site uses as well as parking demands associated with visitors to the River Valley.

Future NSPs may identify additional parks along the Top-of-Bank that may function as staging areas for the River Valley by incorporating visitor parking.

Public Transit

Public transit services will be extended into the ASP area in accordance with City of Edmonton Transit System Guidelines and demands. The neighbourhood has been designed such that a majority of the residential areas will be within 400 m walking distance from a transit route. Walkways will be added in the plan area in an effort to reduce walking distances to transit.

Transit service will be accommodated within the neighbourhood as demand warrants. Developer funded transit service will be explored within a Neighbourhood Structure Plan and if warranted, initiated at the time of development. Internal collector roadways will be developed to a suitable standard to accommodate transit service and provide readily accessible service to all areas of the neighbourhood.

Transit Oriented Development

Transit Oriented Development (TOD) concentrates housing, shopping and employment along a network of walkable and bikeable streets within a five-minute walk in any direction of a transit station (or 400 metres). The City TOD Guidelines and policy for development adjacent to the proposed Transit Centre shall be followed and rationally integrated at the NSP stage.



Pedestrian and Bicycle Network

The Riverview area will benefit from an increased level of pedestrian connectivity. All local and collector roadways within the ASP shall be developed with sidewalks, providing a general level of access throughout the neighbourhood. Bicycle traffic within the ASP is designed to follow collector and local roadways. Bicycle routes may be integrated with shared use path corridors and walkways connecting internal and adjacent residential areas and amenities. Routes will be clearly marked using appropriate signage and markings in order to minimize potential conflicts between vehicles, cyclists, and pedestrians in the neighbourhood.

The provision of pedestrian access to the Transportation Utility Corridor (TUC) and a shared use path within the TUC to connect to the existing shared-use bridge at Anthony Henday Drive to the Riverview Top-of-Bank shared use path will be explored by the City of Edmonton and/or developer(s) and the Province at the NSP or subdivision stage. If permission for a path and walkways is granted by the Province, a shared use path and the associated walkways will be built by the developer at their expense with adjacent subdivisions.

Greenways

Subsequent NSPs will provide a number of greenways linking key locations within the Riverview area, which will provide pedestrian and active transportation routes that are separate from vehicle routes. Greenways function as shared use path (SUP) corridors and are intended to be approximately 10 m wide with a 3 m wide paved path, and will also feature grassed and/or naturalized planting, park furniture (e.g. benches, waste receptacles), trees and shrubs, as well as interpretive and directional signage.

Top-of-Bank Shared Use Path / Roadway

A Top-of-Bank (TOB) shared use path shall be provided along the entire length of the Urban Development Line, between the Top-of-Bank line and the Urban Development Line. It will feature a 3m wide paved shared use path, unless topographic limitations necessitate an alternative design. There will be multiple access points from residential areas by way of walkways and from several points along the roadway system. The shared use path will accommodate pedestrian and bicycle access along portions of the North Saskatchewan River Valley and Ravine System.

The top of bank roadway will be provided along a minimum of 30% of the length of the Urban Development Line.

Transportation Mode Shift

As an alternative to expanding roadway cross-sections to accommodate passenger vehicle traffic, opportunities to promote a mode shift to transit and active modes will be explored. These opportunities may include the recommended use of premium transit options, the implementation of Transportation Demand Management (TDM) programs, and the implementation of active mode strategies. These opportunities will be reviewed in further detail at the NSP stage. There is a significant opportunity to reduce passenger vehicle traffic within and external to the plan area with the successful implementation of transit, TDM, and active mode strategies.

Truck Routes

In the vicinity of the plan area, 215 Street north of 23 Avenue is designated as a 24 hour truck route and Anthony Henday Drive is designated as a dangerous goods truck route. Eventually, 23 Avenue through the plan area may be designated as a 24 hour truck route.

Noise Attenuation

Noise attenuation will be provided for all residential lots adjacent to arterial roadways and Anthony Henday Drive in accordance with the Urban Traffic Noise Policy.



Technical Summary

A Transportation Impact Assessment (TIA) has been submitted under separate cover for review and approval by Transportation Services.

Objective	ASP Policy	Implementation
<p>3.4.12 (a) To create a creative, multi-modal transportation network with a high degree of connectivity</p>	<p>(i) The ASP shall provide a high degree of connectivity and access for active modes of transportation.</p>	<p>(i) Figure 9 – Roadway Network and Figure 10 – Active Transportation Network illustrate the multiple modes of transportation provided within the ASP.</p> <p>NSPs shall provide a network of collector roadways, shared use paths and walkways , and explore opportunities for a grid network.</p>
	<p>(ii) Provide community bus service to facilitate movement within Riverview.</p>	<p>(ii) Provision of community bus service for Riverview shall be explored at the NSP stage in discussions with the City of Edmonton.</p>
	<p>(iii) Where feasible, provide roundabouts at key roadway intersections within Riverview.</p>	<p>(iii) NSPs will investigate the potential to provide roundabouts at key arterial and/or collector intersections.</p>
<p>3.4.12 (b) To create a pedestrian- and cyclist-friendly environment.</p>	<p>(i) Roadways should accommodate pedestrians and cyclists. Trails, paths and walkways should supplement, not replace, shared use roadway facilities.</p>	<p>(i) NSPs shall provide a network of collector roadways, shared use paths and walkways.</p>
	<p>(ii) NSP transportation concepts shall include a system of greenways/shared use paths, TOB shared use path, and walkways to facilitate pedestrian movement across the neighbourhoods and to the River Valley.</p>	<p>(ii) & (iii) Neighbourhood design at the NSP level shall have regard for pedestrian movement and connections.</p>
	<p>(iii) The stormwater management facilities shall accommodate paved shared use paths.</p>	
	<p>(iv) Front drive access for ground-oriented residential units along arterial roadways shall not be permitted.</p> <p>Front drive access for ground-oriented residential units along collector roadways within 400 m of the Transit Centre should be minimized.</p>	<p>(iv) Conformance with this policy will be reviewed at the subdivision stage.</p>
<p>3.4.12 (c) To ensure roadways do not</p>	<p>Roadways passing through key ecological</p>	<p>Transportation Services, in</p>



Objective	ASP Policy	Implementation
<p>interrupt significant wildlife corridors.</p>	<p>connections shall be designed in accordance with the Wildlife Passage Engineering Design Guidelines to mitigate impacts.</p> <p>The potential wildlife passages are identified in the on Figure 7 – Ecological Connectivity and are subject to more detailed study at the NSP stage.</p>	<p>conjunction with the Office of Biodiversity, shall review the design of wildlife passages at the concept plan stage for arterials, and at subdivision for other roadways.</p>
<p>3.4.12 (d) To ensure that cost of arterial roadways is shared throughout the Riverview catchment area.</p>	<p>Lands within the Riverview ASP shall be subject to an Arterial Road Assessment (ARA) to cost-share the roadway facilities needed to service the area.</p>	<p>City Administration will prepare an Arterial Road Assessment Bylaw for the Riverview ASP area.</p>
<p>3.4.12 (e) To ensure integrated access is provided to the North Saskatchewan River Valley and Ravine System.</p>	<p>Public access to the North Saskatchewan River Valley and Ravine System shall be provided through a combination of Top-of-Bank roadway and viewpoint parks along a minimum of 30% of the length of the Urban Development Line. A continuous Top-of-Bank walkway shall be provided along the length of the Urban Development Line, within the Public Upland Area. In area of existing residential development where subdivision has already occurred, a Top-of-Bank shared use path cannot be provided. In such cases, an alternate connectivity internal to the neighbourhoods shall be provided.</p> <p>The design of the neighbourhood shall comply with City Policy C542 Development Setbacks from River Valley/Ravine Crests.</p>	<p>A combination of TOB roadway and park will be provided for a minimum of 30% of the entire length of the Urban Development Line and shall be implemented through the subdivision process, with the Urban Development Line being identified on participating lands at the NSP stage.</p> <p>Where Existing Country Residential prohibits the continuation of the TOB walkway/roadway adjacent to the Urban Development Line alternate connections shall be determined at the NSP stage to ensure a connection between the TOB walkway/roadway on either side of the existing development.</p> <p>Potential access points to the River Valley are illustrated in Figure 9 – Roadway Network.</p> <p>Geotechnical/slope stability assessment and City Policy C542 shall determine the final alignment of the TOB roadway, TOB walkway and viewpoint parks. TOB roadway, TOB walkway and parks shall be dedicated to the City of Edmonton at the time of subdivision. Compensation for the development of TOB roadway shall adhere to City Policy C542.</p>



Objective	ASP Policy	Implementation
<p>3.4.12 (f) To encourage innovation in transportation systems design.</p>	<p>New and innovative roadway cross-sections should be explored to improve cost-effectiveness and to ensure that form follows intended function.</p>	<p>Where required, alternate roadway cross sections will be prepared for review and approval by Transportation Services, prior to subdivision approval.</p>
<p>3.4.12 (g) To plan for Transit Oriented Development around the Transit Centre.</p>	<p>Development surrounding the Transit Centre shall be developed in accordance with the City's Transit Oriented Development Guidelines.</p>	<p>NSPs shall plan for Transit Oriented Development in areas adjacent to the Transit Centre.</p>
<p>3.4.12 (h) To facilitate snow removal and storage in Riverview.</p>	<p>(i) Incorporate boulevards into the design of roadways.</p>	<p>(i) Roadways designated for boulevards with separate sidewalks will be identified within NSPs.</p>
	<p>(ii) Encourage practical uses for cleared snow, such as building wind breaks in parks.</p>	<p>(ii) Snow removal strategies will be reviewed with applicable City Departments at the NSP stage.</p>
<p>3.4.12 (i) To encourage Transit and Active Modes as alternative to single occupant vehicle travel.</p>	<p>Developers shall work with City Administration to encourage alternative modes of travel by exploring incentive programs to increase transit ridership, transportation demand management programs, as well as opportunities for premium transit, in addition to ensuring that the appropriate infrastructure is provided within the roadway network to allow for active modes of transportation.</p>	<p>Developers shall work with City Administration at the NSP stage to develop a transportation strategy including infrastructure and programming needs, timing, cost sharing or funding.</p>
<p>3.4.12 (j) To emphasize pedestrian-friendly environments in key locations.</p>	<p>Streets within the Commercial / Retail with Main Street area shall be designed as pedestrian-oriented streets and is encouraged to incorporate elements/techniques such as human-scale design; traffic calming measures; weather protection, wide sidewalks, pedestrian oriented furnishings, etc.</p>	<p>Transportation Services, in conjunction with the Sustainable Development Department, shall review proposed roadway designs.</p>

3.4.13 INFRASTRUCTURE, SERVICING, AND STAGING

The ASP will be designed in accordance with City of Edmonton servicing standards. Development staging and extension of infrastructure will be contiguous, efficient, and economical while mitigating potential environmental and ecological impacts. Opportunities for research and innovation should be supported in order to discover efficient, low cost or low environmental impact servicing options.

Sanitary Drainage

Sanitary servicing for the Riverview area consists of a series of trunk sewers that flow by gravity from the south to the north within the proposed road rights-of-way to the intersection of 23 Avenue NW and 184 Street NW. From this



point the sanitary flows will be directed to the SESS system through a large diameter gravity trunk under the North Saskatchewan River. Although the majority of the Riverview area can be serviced by gravity trunks, there are several areas along the bank of the North Saskatchewan River that will require pumping of sanitary flows. The sanitary servicing network concept is identified on Figure 11 – Sanitary Servicing.

An interim sanitary system will be required if the SESS river crossing is not constructed at the time initial development of Riverview occurs. The interim system will consist of a sanitary pump station located near the future terminus of the river trunk with a forcemain that crosses the Wedgewood Ravine and pumps wastewater northward to the existing Lessard Road trunk. Wet weather storage of wastewater may be required depending on the amount of land that is to be serviced in advance of the SESS connection.

Stormwater Drainage

Stormwater management for the Riverview basin will consist of a series of interconnected management facilities with controlled discharge that will provide storage for peak events as well as treatment of stormwater prior to release into existing watercourses. The majority of the Riverview area will discharge to the North Saskatchewan River through a series of outfalls, with a small area in the northwest discharging to Wedgewood Creek. The general direction of stormwater drainage to each of these watercourses is shown on Figure 12 – Stormwater Servicing. The number of outfalls will be minimized through interconnection of the stormwater management facilities.

The stormwater management facilities will be designed as constructed wetlands to enhance water treatment prior to release. Low Impact Development principles related to stormwater management will be implemented wherever feasible to increase infiltration of stormwater, improve cleansing, and help manage runoff rates.

Several stormwater outfalls to the North Saskatchewan River from the Riverview area will be located upstream of the EL Smith water treatment plant, and water quality monitoring at these outfalls will be required. The monitoring program will be developed in consultation with EPCOR Water as neighbourhood plans that will require outfalls to the river are undertaken.

Stormwater management facilities will also be designed as easily accessible community focal points within Riverview, including shared use paths and landscaping to enhance the overall quality of the public open space.

Stormwater Management Facilities (SWMF)

Stormwater facilities, though not technically classified as parks, are considered an amenity area and integral part of the open space system. Besides the function of these facilities as part of the storm servicing network, the SWMFs provide important wildlife habitat, areas for passive recreation, and incorporate shared use paths to facilitate active transportation.

Water Servicing

Water servicing for this area will primarily be provided from an extension of the 600 mm transmission main on 199 Street north of Wedgewood Ravine. A network of mains within the arterial and collector roadway network of the Plan area will provide water service throughout the area. A second water feed into the Riverview area will be provided from a 400 mm connection to the Edgemont neighbourhood on Winterburn Road (215 Street).

The 199 Street arterial roadway crossing of Wedgewood Ravine is identified in the current ARA Bylaw as a bridge structure. The ravine crossing of the watermain will be reviewed with further study at the NSP stage. The Wedgewood Ravine crossing on Winterburn Road may also consist of a bridge structure. The ravine crossing at this location would also be reviewed in further study at the NSP stage.



Several areas within the Riverview ASP will require accommodation of higher than standard pressures. This may be accomplished through inline or in-home pressure reducing valves or by other means to be determined at the detailed engineering drawing stage. The water servicing concept is shown on Figure 13 – Water Servicing, and will be further refined with Neighbourhood level Hydraulic Network Analyses, which will be required in support of future NSPs.

Technical Summary

An Area Master Plan and Hydraulic Network Analysis have been prepared in support of the Riverview ASP.

Objective	ASP Policy	Implementation
3.4.13 (a) To ensure that Riverview is serviced to a full urban standard	(i) Sanitary and stormwater servicing shall be provided in accordance with the approved Area Master Plan.	(i) A Neighbourhood Design Report shall be completed in support of future NSP(s).
	(ii) Water servicing to the Riverview area shall be provided in accordance with an approved Hydraulic Network Analysis.	(ii) Approval of engineering drawings and servicing agreements will be required prior to installation of water servicing.
	(iii) Shallow utilities will be extended into the Plan area as required.	(iii) Installation of shallow utilities will be executed through servicing agreements.
	(iv) Accommodate the development of an electrical substation to provide power for Riverview.	(iv) The location of the electrical substation will be determined through consultation with EPCOR Power at the NSP stage.
3.4.13 (b) To explore innovative and alternative servicing option where possible	Support innovative and alternative service delivery, if feasible and practical.	Opportunities for innovative and alternative servicing options will be explored at the NSP stage. The City of Edmonton will consider supporting projects which meet all identified requirements.
3.4.13 (c) To ensure that the Riverview ASP area is serviced to a full urban standard, using contemporary and emerging sustainable infrastructure solutions, and that “soft” services are provided.	Ensure that development within the Riverview ASP is within acceptable response times as determined by emergency services.	City Administration and agencies should work with Council to ensure planning and funding is in place to provide for the timely delivery of municipal services.

3.5 IMPLEMENTATION

It is anticipated that the Riverview ASP will develop over a period of approximately 30 years. Within this time period, it is important to provide guidance that will ensure that development occurs in a way that maximizes efficiency while minimizing disturbance to surrounding communities.



3.5.1 GENERAL STAGING

The Riverview ASP will be developed in five neighbourhoods as shown on Figure 5 – Neighbourhood Areas. Development is recommended to commence in the northern and eastern portion of the Plan area and extend to the west and south. The numbering of neighbourhoods as shown in Figure 5 – Neighbourhood Areas may not reflect the actual sequence of NSP submissions or development. Plan proponents may seek authorization from Council to prepare an NSP at their discretion.

As further studies are completed to service the area, the order of neighbourhood development may change. Further details regarding the ultimate staging of each of the neighbourhoods will be provided at the neighbourhood structure plan stage through detailed review and modification of the preliminary conceptual plan design in consideration of contemporary market demand.

The extension of services and the upgrade of roadways in the existing Country Residential subdivisions of the Riverview area, should it be desired, would be expected to occur at the expense of the residents.

3.5.2 STAGING INFRASTRUCTURE AND SERVICING

Each development phase will include stormwater management facilities in addition to necessary off-site water and sewer mains appropriately located within and adjacent to the Riverview ASP area.

Extending existing utilities from the north will provide shallow utility servicing including electric, telephone, cable television and gas.

3.5.3 REZONING AND SUBDIVISION

Existing zoning within the Riverview ASP includes, but is not limited to, lands zoned Agricultural (AG) and existing residential subdivisions zoned Rural Residential (RR). Rezoning and subdivision of lands are to conform to the land uses designated in the Riverview ASP and subsequent NSPs will be undertaken when necessary.

3.5.4 ECOLOGICAL NETWORK

To support the preparation of the Riverview ASP, an Ecological Network Report was completed.

3.6 STATUTORY PLAN AND POLICY CONTEXT

In 2008, the City's Strategic Plan, The Way Ahead was approved by Council providing a vision for Edmonton in 2040 and establishing strategic goals to provide a clear focus for the future. The Riverview ASP advances the vision of The Way Ahead through the directional plans; The Way We Grow, The Way We Move, The Way We Live and The Way We Green as well as the four principles which guide the development and implementation of The Way Ahead.

This section outlines the various plans and policies which are applicable to the Riverview ASP including the City of Edmonton's Municipal Development Plan (The Way We Grow), People Plan (The Way We Live), Environmental Plan (The Way We Green), and the Transportation Master Plan (The Way We Move). Future NSPs in the Riverview area will comply with this ASP and those guiding its preparation. Applicants seeking amendments to the ASP or applying for rezoning, subdivisions or development permits are required to consult the actual documents for specific guidance on detailed requirements as they apply to particular properties.



3.6.1 CAPITAL REGION GROWTH PLAN: GROWING FORWARD

The primary purpose of the Capital Region Growth Plan is to manage sustainable growth in a manner that protects the region’s environment and resources, minimizes the regional development footprint, strengthens communities, increases transportation choices and supports economic development. The Capital Region Growth Plan: Growing Forward was approved by the Government of Alberta on March 11, 2010.

Capital Region Land Use Plan	Riverview ASP
I. Protect the Environment and Resources	
A. Preserve and Protect the Environment	
Policy (i) – Any development which may cause detrimental effects such as erosion or pollution to lakes, rivers, water bodies and shorelines shall be prohibited unless appropriate mitigative measures are implemented.	The Riverview ASP protects the North Saskatchewan River and Ravine System from erosion and pollution.
Policy (ii) – Any development which fragments contiguous natural features, functions and habitat, such as water systems, moraines, forests, wetlands and wildlife habitat and corridors shall be discouraged.	The Riverview ASP designates a number of Natural Areas as either Environmental Reserve or Municipal Reserve. Natural areas to be retained will be further reviewed for retention at the NSP stage. Development that interrupts wildlife passage will be discouraged and mitigated, where necessary.
Policy (v) – Support innovative design, construction and operational technologies and strategies which reduce emissions.	The Riverview ASP will explore the application of renewable energy sources, green building technology, low impact development, and innovative servicing strategies with City Administration.
Policy (vi) – Manage land use distribution patterns to reduce reliance on automobiles.	The Riverview ASP promotes a complete, walkable community by encouraging neighbourhood commercial services integrated with residential development and by locating higher density residential uses in proximity to transit centres and bus routes.
C. Protect natural Resources	
Policy (ii) – Prevent development incompatible uses adjacent to natural resources.	The Riverview ASP provides policies to prevent incompatible land uses adjacent to natural resource extraction sites.
II. Minimize Regional Footprint	
A. Identify, Protect and Prioritize Lands for Regional Infrastructure	
Policy (i) – Ensure that lands identified for regional infrastructure such as energy transmission, highways, municipal infrastructure, transit and related facilities are protected from incompatible development.	The Riverview ASP requires compatible development in the vicinity of the Anthony Henday Drive transportation corridor and the AltaLink utility corridor or a buffer area between incompatible uses.
Policy (v) – Encourage and support sustainable development within the region.	The Riverview ASP promotes sustainable development by promoting compact development and low impact development practices.
B. Concentrate New Growth Within Priority Growth Areas	
Policy (i) – Most new growth shall occur within priority growth areas.	The Riverview area is located in the Capital Region Board’s Priority Growth Area “C _w ”, establishing a minimum net residential density



Capital Region Land Use Plan	Riverview ASP
	target of 30 units per net residential hectare. The Riverview ASP land use concept exceeds this density target.
Policy (v) – Priority growth areas shall incorporate intensive forms of development that significantly exceed existing development patterns.	The Riverview ASP requires a variety of higher types with higher proposed densities than existing development patterns in Edmonton.
Policy (ix) – Development on or near municipal boundaries shall be compatible and consistent with the policies of the Plan and shall not impede the sustainable delivery of infrastructure.	The Riverview ASP provides an appropriate transition to adjacent municipalities’ land uses.
D. Support Expansion of Medium and Higher Density Residential Housing Forms	
Policy (i) – New residential development shall provide a greater proportion of higher density residential units.	The Riverview ASP proposes multiple housing types with a hierarchy of densities. More than 30% of the residential units in Riverview are either medium or high density. Higher density residential uses are strategically concentrated in proximity to commercial uses.
Policy (ii) – Support innovative housing designs and / or built forms within new and existing residential neighbourhoods.	
Policy (iii) – Greenfield developments shall make provision for a mixture of uses including a diversity of housing forms, community services, local retail and employment opportunities.	
Policy (iv) – Transit accessibility must be included in the design of all new developments.	The land use concept includes a transit centre integrated in the town centre area. More detailed planning for transit accessibility will be addressed at the NSP level to ensure new developments are accessible to public transportation.
III. Strengthen Communities	
A. Create Inclusive Communities	
Policy (i) – Encourage and support the establishment of social infrastructure throughout the region.	The Riverview ASP promotes the development of civic, recreational, and service facilities within the area.
Policy (ii) – Support initiatives to improve the livability of communities.	The Riverview ASP promotes the protection and enhancement of natural areas throughout the Plan area and preserves the North Saskatchewan River Valley and Wedgewood Creek Ravine.
Policy (iii) – Integrate uses with adjacent developments to improve connectivity and accessibility to local parks, open space, commercial, and community services.	The Riverview ASP provides access to the recreational activities in the North Saskatchewan River Valley and Ravine System, and natural areas throughout the Plan area.
Policy (iv) – Encourage co-location and/or shared use of compatible public service infrastructure, such as education facilities, parks and civic uses.	The Riverview ASP promotes the integration of uses, such as education facilities with active recreation areas, and public transit with commercial uses.
B. Support Healthy Communities	
Policy (i) - Support the implementation of present and future initiatives to create and enhance parks, trails and natural areas for public use.	The Riverview ASP promotes the development of parks and natural areas throughout the Plan area and along the North Saskatchewan River Valley.
Policy (ii) – Improve accessibility to community services by providing sidewalks, bicycle trails to encourage walking and	The land use concept includes recreational trails along the Top-of-Bank and a public



Capital Region Land Use Plan	Riverview ASP
cycling and locate these services within proximity to transit, where possible.	transit facility near the town centre. Active and public transportation facilities will be further developed at the NSP level to encourage active transportation options and reduce the dependence on personal vehicles in Riverview.
Policy (iv) - Encourage and support innovative and green design solutions for neighbourhoods and buildings.	The Riverview ASP incorporates low impact development practices and green development principles.
C. Support Public Transit	
Policy (i) – Provide a mix of higher intensity land uses along transit corridors, at nodes, and employment centres.	The Riverview ASP encourages medium and high density residential development in close proximity to the transit centre, town centre and along bus routes.
Policy (iii) – New developments shall be designed for connectivity and accessibility to transit facilities.	
D. Support Innovative and Affordable Housing Options	
Policy (i) - Municipalities shall provide for a diversity of housing needs for the entire population of the region.	The Riverview ASP promotes the development of a variety of housing types.
Policy (ii) – All residential developments shall provide a greater variety of housing types.	The Riverview ASP encourages a range of housing types, including single- and semi-detached, street oriented row housing, and low-rise medium density housing.
Policy (iii) - Encourage intensification opportunities within existing residential neighbourhoods.	The Riverview ASP provides direction for the future redevelopment of the existing Country Residential in the area.
IV. Increase Transportation Choice	
A. Integrate Transportation Systems with Land Use	
Policy (ii) – Ensure the integration of public transportation infrastructure and land use development	The transit centre in the Riverview ASP is adjacent to the commercial area to maximize the benefit of the facility.
Policy (iii) – Design transportation infrastructure to support multiple modes of transport.	The land use concept includes recreational trails along the Top-of-Bank and a public transit facility near the town centre. Active and public options will be further developed at the NSP level to reduce the dependence on personal vehicles in Riverview.
Policy (iv) – Support development of inclusive communities to reduce the need for travel.	
B. Support the Expansion of Transit Service in Various Forms	
Policy (i) – Expand and extend the level, quality and range of public transportation options available to serve the Region.	The Riverview ASP encourages multiple modes of transportation. Detailed design of the transportation network at the NSP level will accommodate multiple modes of transportation, including personal vehicle, bicycle, and public transportation.
Policy (iv) – Support multi-modal transportation options by providing multi-use streets sufficient to accommodate bicyclists, motorists and pedestrians.	
Capital Region Growth Plan Addendum	
Riverview ASP	
II. Land Use	
2.3 Land Use Policies	
Density Targets – Priority Growth Area “C _w ”: 30 – 40 dwelling units per net residential hectare	The Riverview ASP proposes a residential density that exceeds the minimum growth target mandated by the Capital Region Board.



3.6.2 MUNICIPAL DEVELOPMENT PLAN: THE WAY WE GROW

The Municipal Development Plan (MDP), “The Way We Grow,” approved in May 2010, is the City’s strategic growth and development plan. Through its MDP, the City of Edmonton will shape the city’s urban form and direct the development and implementation of more detailed plans. The plan is closely integrated with the Transportation Master Plan (TMP) to achieve more coordinated decision making. The plan also includes a regional component which addresses the coordination of future land use, growth patterns and transportation systems with Edmonton’s neighbouring municipalities.

Municipal Development Plan: The Way We Grow	Riverview ASP
<p>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.</p>	<p>When requesting Council’s authorization to prepare a Neighbourhood Structure Plan, proponents and Administration shall provide the required information to inform Council’s decision.</p>
<p>3.2.1.1 – Ensure a combination of single family and multi-family housing development potential is available for the next 30 years.</p>	<p>The Riverview ASP encourages a combination of single and multiple-family residential units, which are expected to be developed over the next 30 years.</p>
<p>3.2.1.3 – Achieve a balance between residential, industrial, commercial, institutional, natural and recreational land uses in the city through land development policies and decisions.</p>	<p>The Riverview ASP includes a mix of residential, commercial, institutional, business employment, and recreational uses, and, where feasible, integrates these uses with one another to promote a complete, walkable community.</p>
<p>3.2.1.7 – Preparation of Area Structure Plans is authorized for the Horsehills, Southeast and Southwest Urban Growth Areas, and shall only be approved following Council acceptance of, and adherence with the:</p> <ul style="list-style-type: none"> • Growth Coordination Strategy; • Integrated Infrastructure Management Plan; and • Citywide Food and Agriculture Strategy. 	<p>The Riverview ASP will comply with the policies of the Growth Coordination Strategy, Integrated Infrastructure Management Plan; and the City-Wide Food and Agriculture Strategy.</p>
<p>3.2.1.8 – Area Structure Plans for the Horse Hill, Southeast and Southwest Urban Growth Areas shall include the following:</p> <ul style="list-style-type: none"> • An area vision created with area landowners and other city stakeholder groups; • A urban agricultural section in support of the City-Wide Food and Agricultural Strategy; and <p>Innovative approaches to food systems, ecological networks, green infrastructure provision, demand reduction strategies and eco-design for future residential, commercial, industrial, business agriculture and natural uses.</p>	<p>The vision and principles for the Riverview ASP was developed with the Stakeholder Advisory Group which consisted of city administration, area landowners and other city stakeholder groups. The group worked together through a visioning charrette as well as on several other occasions to refine the plan. An agricultural section including urban agriculture is included in the plan and where possible innovative approaches to servicing, etc. will be incorporated.</p>
<p>3.2.1.11 – Neighbourhood Structure Plans within the Northeast, Southeast or Southwest Urban Growth Areas shall require Council authorization and comply with the Growth Coordination Strategy, the Integrated Infrastructure Management Plan, and the City-Wide Food and Agriculture</p>	<p>Council authorization will be requested at the time of Neighbourhood Structure Plan (NSP) preparation. All NSPs will also be in compliance with the Growth Coordination Strategy, the Integrated Infrastructure</p>



Municipal Development Plan: The Way We Grow	Riverview ASP
Strategy.	Management Plan, and the City-Wide Food and Agriculture Strategy.
3.2.2.3 – Ensure City departments and agencies collaborate to identify all municipal land needs within an Area Structure Plan, Neighbourhood Structure Plan or Area Redevelopment Plan boundary prior to plan approval.	All City departments and agencies have been consulted throughout the preparation of the Horse Hill ASP. All future NSPs will also require consultation prior to Council approval.
3.2.2.4 – Ensure all City departments identify facility development and service delivery needs prior to the approval of new plans and work collaboratively to prepare a comprehensive facility concept that will assist with budget planning.	Through consultation with City departments and agencies facility development and service delivery needs have been identified and incorporated into the Horse Hill ASP. The Growth Coordination Strategy and Integrated Infrastructure Management Plan will help in facility planning and budgeting.
3.6.1.6 – Support contiguous development and infrastructure in order to accommodate growth in an orderly and economical fashion.	The staging plan (Figure 14 – Staging Concept) for Riverview outlines a logical and orderly progression of contiguous development from north to south to follow the efficient expansion of infrastructure.
4.3.1.1 – The City of Edmonton will take municipal reserve, school reserve or municipal and school reserve, or cash-in-lieu in accordance with the Municipal Government Act and will use the land or money for purposes as defined by the Municipal Government Act.	The land use concept outlines the area allocated for Municipal Reserve in the Plan area.
4.3.1.5 – Time the development of parks as closely as possible with the development they are intended to serve.	Parks and open spaces will be explored at the NSP level and developed to coincide with residential development in each neighbourhood.
4.4.1.1 – Provide a broad and varied housing choice, incorporating housing for various demographic and income groups in all neighbourhoods.	The Riverview ASP encourages a range of housing types to accommodate a variety of age groups and family types with a range of incomes.
4.5.1.1 – Work proactively and in partnership with others to meet a wide range of affordable housing needs in all areas of the city with a focus on LRT stations and transit centres.	The Riverview ASP encourages medium and high density housing options in close proximity to transit facilities and a number of these units will be allocated for affordable housing.
4.5.1.2 – Encourage new development and infill redevelopment to incorporate affordable housing that is visually indistinguishable from market housing.	The Riverview ASP includes a variety of housing types to provide affordable and high quality housing options.
4.6.1.3 – Ensure active transportation opportunities are included in plans and redevelopment proposals.	The ASP land use concept includes a Top-Of-Bank walkway along the North Saskatchewan River and Ravine System, and the ASP recommends active transportation connections between parks and open spaces. Additional active transportation options will be included in each NSP.
5.5.1.2 – Incorporate sustainable neighbourhood design principles, low impact development and ecological design approaches when planning and building new neighbourhoods.	The land use concept preserves and protects most natural areas in the Plan area and, where possible, prevents the fracturing of animal corridors with roadways.



Municipal Development Plan: The Way We Grow	Riverview ASP
	Detailed design at the NSP and subdivision level will incorporate Low Impact Design strategies and other sustainable development principles to ensure Riverview strengthens Edmonton’s ecological network.
5.6.1.4 – Design density, land uses and buildings to benefit from local transit service by minimizing walking distances to transit service and by providing safe and comfortable pedestrian streetscapes and high quality transit amenities.	Medium and high density residential development is encouraged in the area surrounding public transit facilities and bus routes.
5.6.1.7 – Identify and preserve public views and vistas of the North Saskatchewan River Valley and Ravine System as new development occurs and require public access in accordance with the Top-of-bank Policy.	The ASP acknowledges the City’s Top-of-Bank Policy, and has identified an approximate top-of bank line. Subsequent stages of planning will establish an urban development line and will specify the location of public roadways, shared use paths, viewpoint parks and other features according to approved policy to preserve views and public access.
5.7.1.1 – Design streets, sidewalks and boulevards to provide safe, accessible, attractive, interesting and comfortable spaces for pedestrians, cyclists, automobiles and transit and to accommodate utilities, landscaping and access requirements for emergency response services.	The Riverview ASP encourages high-quality urban design and landscaping of streets and public spaces to contribute to a vibrant and walkable public realm.
6.1.1.3 – Include retail space as a key component of planned mixed-use centres that focus on LRT stations and transit centres.	The Riverview ASP allows for mixed use development with retail as a key component in the area around the transit station.
6.2.1.11 – Accommodate home-based businesses and services.	The Riverview ASP allows for minor home-based businesses in the Plan area.
7.1.1.5 – Acquire critical natural linkages and buffer zones to ensure natural areas of ecological value remain sustainable within the urban context.	The Riverview ASP recognizes the importance of the Ecological Network and will ensure ecological linkages will be maintained and enhanced.
7.1.1.7 – Public projects, new neighbourhoods and developments will protect and integrate ecological networks, as identified in the Natural Connections Strategic Plan, by adopting an ecological network approach to land use planning and design.	The land use concept protects several Natural Areas and designates these areas as either Environmental Reserve or Municipal Reserve.
7.1.1.10 – Utilize the full legislative entitlements of environmental reserve, in accordance with the <i>Municipal Government Act</i> , during the land development process.	The Riverview ASP identifies potential environmental reserve which will be dedicated at the subdivision stage.
7.1.1.12 – Lands and features that meet the definition of environmental reserve, but are not claimed by the Province, should be taken by the City as environmental reserve and protected.	The Riverview ASP acknowledges that lands and features which meet the definition and intent of environmental reserve as per the MGA should be taken by the City.
7.3.3.2 – Maintain adequate separation between new urban developments and the North Saskatchewan River Valley and Ravine System through the City’s Top-of-bank Policy, with	The Riverview ASP contains policies to protect the River Valley and Ravine System. A top-of-bank walkway will be identified at the NSP



Municipal Development Plan: The Way We Grow	Riverview ASP
viewscales and public access to the River Valley preserved.	stage in accordance with City policy.
7.4.1 – Utilize parks and open spaces to complement and enhance biodiversity, linkages, habitat and the overall health of Edmonton’s ecological network.	The Riverview ASP aims to link schools, parks and open spaces to create a well-functioning ecological network that enhances biodiversity, linkages, and protects habitats.
7.4.1.1 – Link parks and open spaces with natural systems through development and design to strengthen the connectivity of Edmonton’s ecological network, where feasible.	The land use concept protects Natural Areas in the Plan area by designating these areas as either Municipal Reserve or Environmental Reserve. Where feasible, these natural areas are connected with one another by way of green corridors, greenways, stormwater management facilities, parks, buffers, utility rights-of-way and other semi-natural landscape elements.
7.5.1.1 – Require new development to demonstrate that it has incorporated ecological design best-practices into the design of neighbourhoods and buildings to reduce stormwater run-off.	The Plan encourages the use of Low Impact Development principles in neighbourhood land use and servicing plans.
7.5.3.3 – Integrate indigenous vegetation, specifically low-maintenance drought tolerant species, and where feasible include edible plant species into City and private landscaping.	The Riverview ASP encourages the use of native, naturalized and edible plant species in both private and public spaces.
8.1.7.3 – Upon provincial approval of the Capital Region Plan Addendum, Edmonton’s new Area Structure and Neighbourhood Structure Plans in the Capital Region Plan’s priority growth area B, F, Cw or Ce will be required to meet or exceed the Capital Region’s minimum density targets.	The Riverview area is located in the Capital Region Board’s Priority Growth area “Cw,” establishing a minimum net residential density target of 30 units per net residential hectare. The Riverview ASP land use concept exceeds this minimum residential density target.
9.2.1.1 – Apply City of Edmonton Policy C515 Oil and Gas Facilities regarding setbacks, risk management and urban development.	City Policy C515 is acknowledged in the Riverview ASP. Neighbourhood Structure Plans and subdivision plans will confirm setback requirements.
9.3.1.4 – In consultation with the Energy and Resources Conservation Board (ERCB), ensure development setbacks from oil and gas pipelines are achieved through the subdivision approval process.	<p>Urban development in the vicinity of oil and gas pipelines will be planned in accordance with relevant City of Edmonton policies and procedures.</p> <p>Government agencies and industry operators were consulted in the development of this plan.</p>

3.6.3 TRANSPORTATION MASTER PLAN: THE WAY WE MOVE

The Transportation Master Plan (TMP), The Way We Move, is the framework that responds to the City of Edmonton’s future transportation needs. The TMP directs policies and gives guidance for funding projects and programs that work towards an integrated transportation network. The TMP strives to ensure transit sustainability and increase transit



ridership, improve travel options to reduce barriers between different modes of transportation, increase traffic safety and manage traffic congestion to facilitate travel through and around the city.

TMP Strategic Goal	Riverview ASP Compliance with Strategic Goal
<p>Transportation and Land Use Integration The transportation system and land use/urban design complement and support each other so that the use of transit and transportation infrastructure is optimized and supports best practices for land use.</p>	<p>The ASP land use concept features a town centre with a mix of commercial, medium and high density residential, and recreation uses in close proximity to public transportation facilities.</p>
<p>Access and Mobility The transportation system is interconnected and integrated to allow people and goods to move efficiently throughout the city and to provide reasonable access with a variety of modes for people across demographic, geographic, socio-economic and mobility spectrums.</p>	<p>The transportation network encourages multiple modes of transportation, including personal vehicle, public transportation, and active transportation to connect residents with local commercial use and recreational amenities as well as those across Edmonton.</p>
<p>Transportation Mode Shift Public transportation and active transportation are the preferred choice for more people making it possible for the transportation system to move more people more efficiently in fewer vehicles.</p>	<p>The Riverview ASP encourages medium and high density residential development in close proximity to the transit facility in the town centre or along major bus routes, encouraging fewer personal vehicle trips. Future NSPs will explore opportunities for Transportation Demand Management and other traffic management strategies.</p>
<p>Sustainability Transportation decisions reflect an integrated approach to environmental, financial and social impacts thereby creating sustainable, liveable communities that minimize the need for new infrastructure and increase residents' quality of life.</p>	<p>The Riverview ASP supports a more compact and efficient use of land and Low Impact Development strategies, minimizing infrastructure investment beyond those necessary and encouraging active transportation.</p>
<p>Health and Safety The transportation system supports healthy, active lifestyles, and addresses user safety and security including access for emergency response services, contributing to Edmonton's liveability.</p>	<p>The land use concept includes recreational trails along the Top-of-Bank of the North Saskatchewan River. Additional active transportation options will be included in each NSP.</p>

3.6.4 EDMONTON'S PEOPLE PLAN: THE WAY WE LIVE

Edmonton's People Plan, The Way We Live, will provide residents, community stakeholders and the City with a blue print for the coordination and delivery of people services in order to advance and support the 10-year goal of improving Edmonton's Livability. Edmonton is one of Canada's most livable cities because it is welcoming to all, safe and clean, fosters its heritage and supports its arts and multicultural communities, encourages active lifestyles through recreation opportunities and engages its citizens in the city vision and direction. The Riverview ASP recognizes the six goals of The Way We Live:



Goal	Riverview ASP
Edmonton is a Vibrant, Connected, Engaged and Welcoming Community	The Riverview ASP provides opportunities in neighbourhoods, communities and public spaces to connect people and build vibrant communities. The Riverview ASP also integrates public transit with employment centres such as the town centre, areas of higher density as well as near the recreation centre.
Edmonton Celebrates Life	The Riverview ASP celebrates and promotes healthy living by providing for a variety of active and passive park space, the preservation of natural areas and connections to the North Saskatchewan River Valley and Ravine System. The Riverview ASP also celebrates and promotes both the agricultural and historical heritage of the area.
Edmonton is a Caring, Inclusive, Affordable Community	The Riverview ASP provides the opportunity for a variety of housing options for people throughout their life cycle and offers complete neighbourhoods with commercial, business employment, recreational and educational facilities.
Edmonton is a Safe City	The design of neighbourhoods and buildings within the Riverview ASP are to include Crime Prevention Through Environmental Design (CPTED) Principles to ensure safety. The Riverview ASP supports the development of facilities for emergency response services as identified by Fire and Police Services.
Edmonton is an Attractive City	The Riverview ASP takes pride in and showcases its green spaces and natural areas by providing linkages and connections to the North Saskatchewan River Valley and Ravine System, preserving and enhancing natural areas, as well as introducing additional linkages and open space.
Edmonton is a Sustainable City	The Riverview ASP supports sustainable development by providing opportunities for green infrastructure, complete communities, innovation in servicing, and a variety of housing and transportation options.

3.6.5 EDMONTON’S ENVIRONMENTAL PLAN: THE WAY WE GREEN

The Riverview ASP recognizes the 12 goals of The Way We Green:

Goal	Riverview ASP
Healthy Ecosystems – Land	The Riverview ASP meets the goal of Healthy Ecosystems – Land by ensuring preservation of Natural Areas, Wetlands and the North Saskatchewan River Valley and Ravine System, and by providing linkages and open space for residents to enjoy these areas.
Healthy Ecosystems – Water	The Riverview ASP contributes to the Healthy Ecosystem – Water goal by ensuring that stormwater is stored and treated naturally prior to release into the river. The Riverview ASP also encourages the exploration of Low Impact Development techniques.
Healthy Ecosystems – Air	The Riverview ASP meets the goal of Healthy Ecosystems – Air by including walkable neighbourhoods and transit service to reduce the use of the personal automobile as well as preserving Natural Areas where possible, or encouraging the planting of additional trees.
Energy and Climate Change	The Riverview ASP encourages further studies to be completed to determine the feasibility of District Energy facilities, green building technology and renewable energy generation.



Food	The Riverview ASP provides opportunities for the retention of private agricultural lands and incorporation and education of urban agriculture and peri-urban agriculture.
Solid Waste	The Riverview ASP area will continue promoting and adhering to the City of Edmonton Waste Management policies and regulations in reducing the amount of waste generated in the City.
Foundation for Success	The Riverview ASP strives to create a sustainable area within the City.



4 FIGURES

FIGURE 1 – LOCATION

FIGURE 2 – LAND OWNERSHIP

FIGURE 3 – SITE CONTOURS

FIGURE 4 – SITE FEATURES

FIGURE 5 – NEIGHBOURHOOD UNITS

FIGURE 6 – LAND USE CONCEPT

FIGURE 7 – ECOLOGICAL CONNECTIVITY

FIGURE 8 – PARKLAND, RECREATION FACILITIES AND SCHOOLS

FIGURE 9 – ROADWAY NETWORK

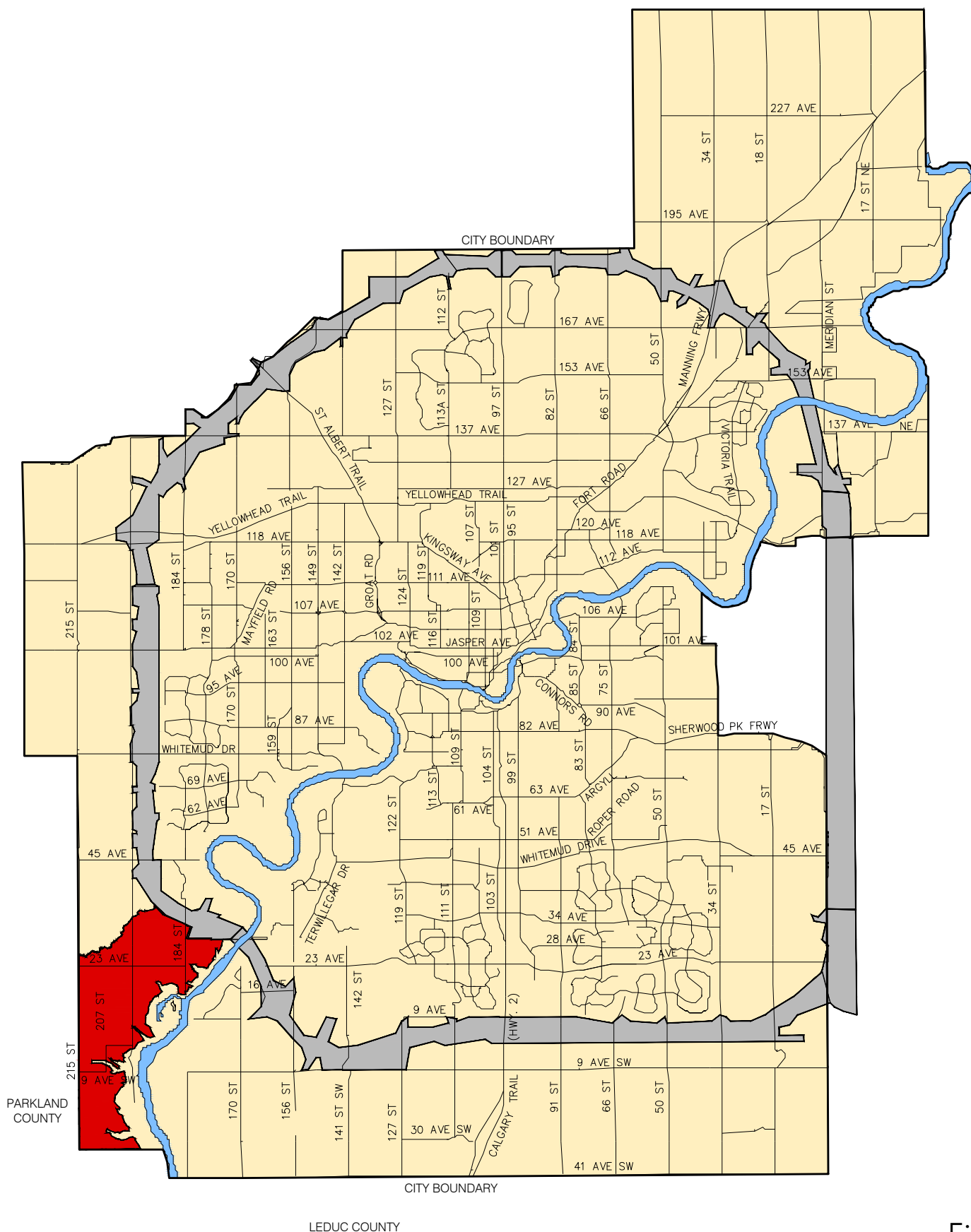
FIGURE 10 – ACTIVE TRANSPORTATION NETWORK

FIGURE 11 – SANITARY SERVICING

FIGURE 12 – STORMWATER SERVICING

FIGURE 13 – WATER SERVICING

FIGURE 14 – STAGING CONCEPT

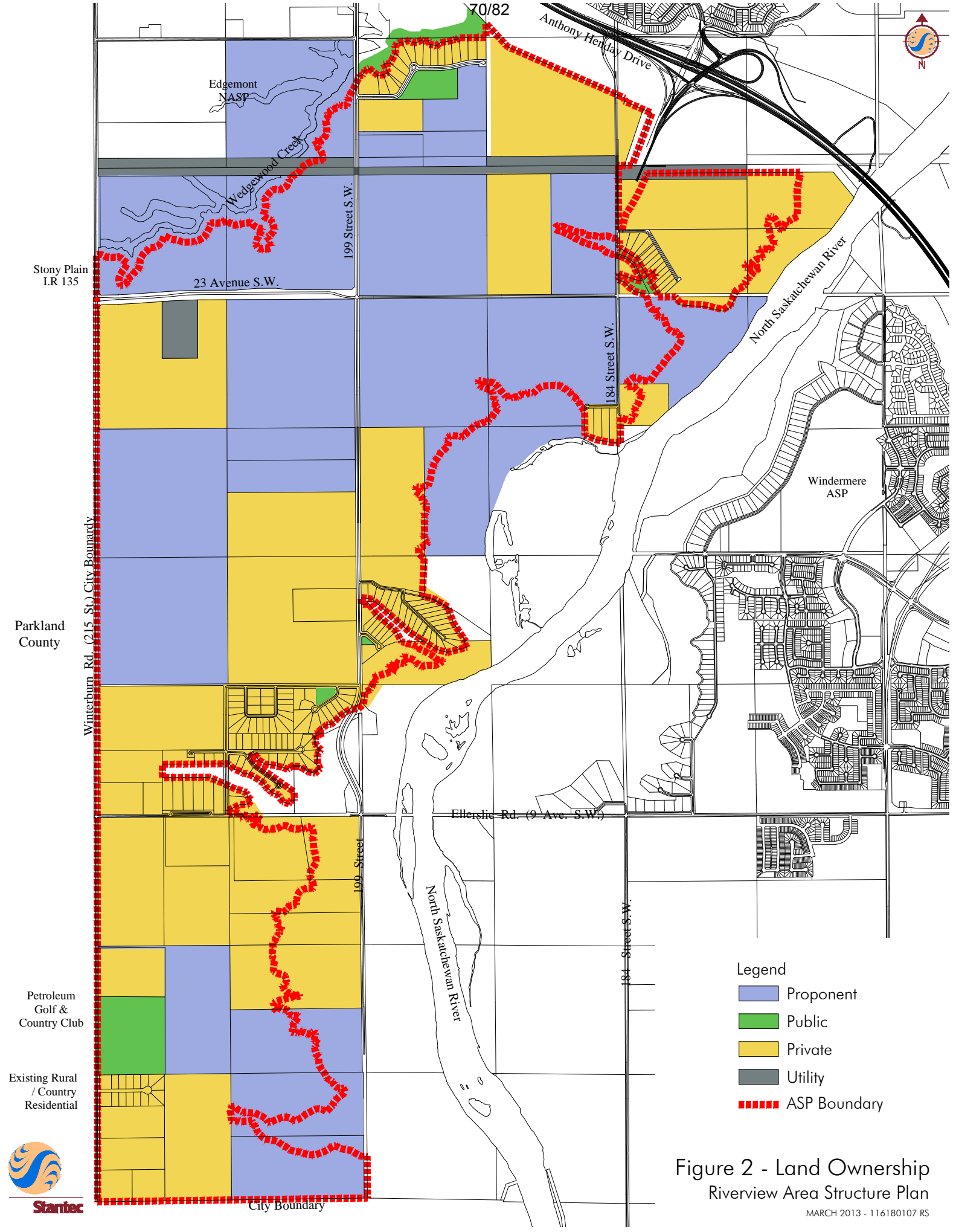


Legend
■ Riverview ASP Boundary

Figure 1
Location

Riverview Area Structure Plan



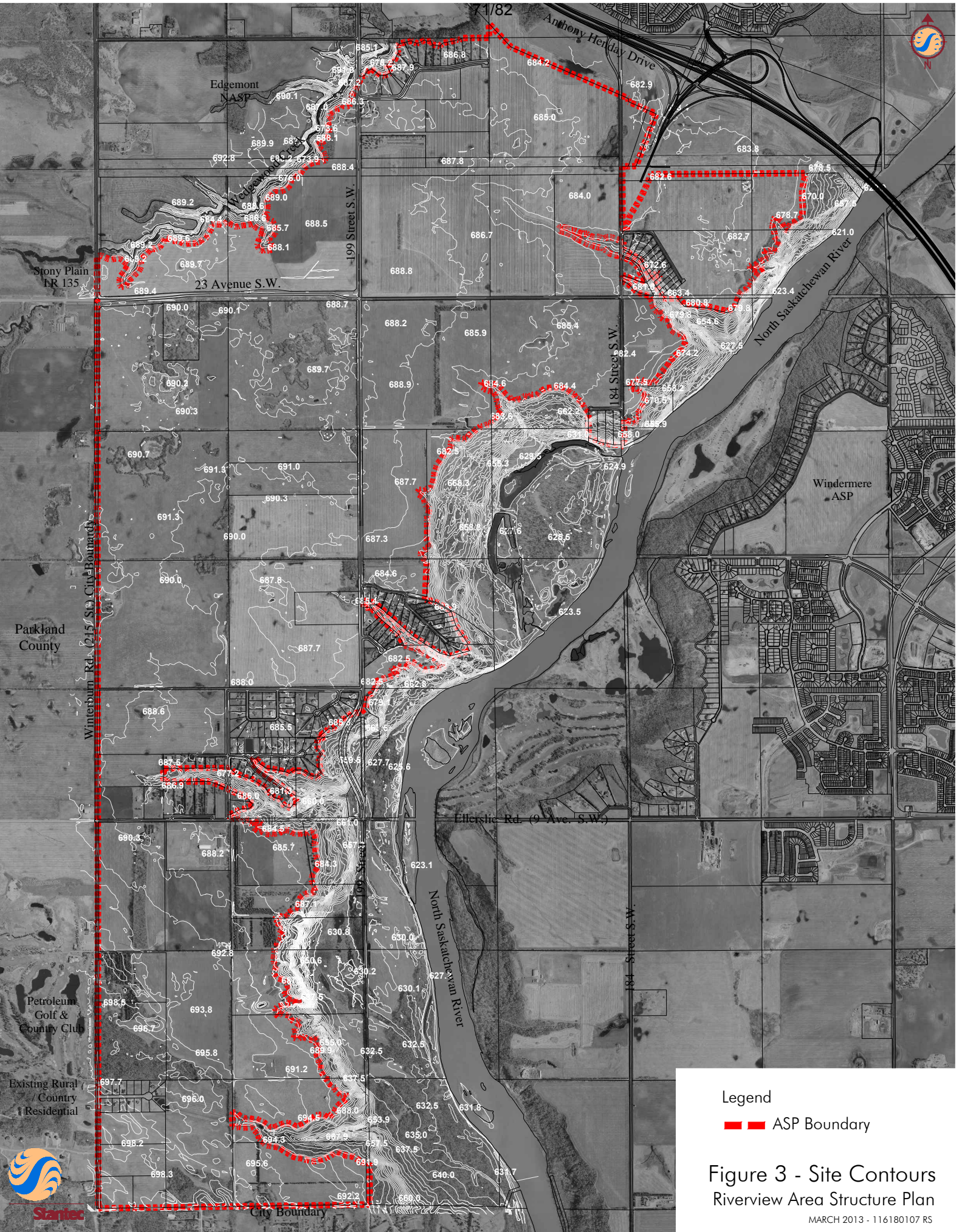


- Legend
- Proponent
 - Public
 - Private
 - Utility
 - ASP Boundary

Figure 2 - Land Ownership
Riverview Area Structure Plan

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Legend
 ASP Boundary

Figure 3 - Site Contours
 Riverview Area Structure Plan

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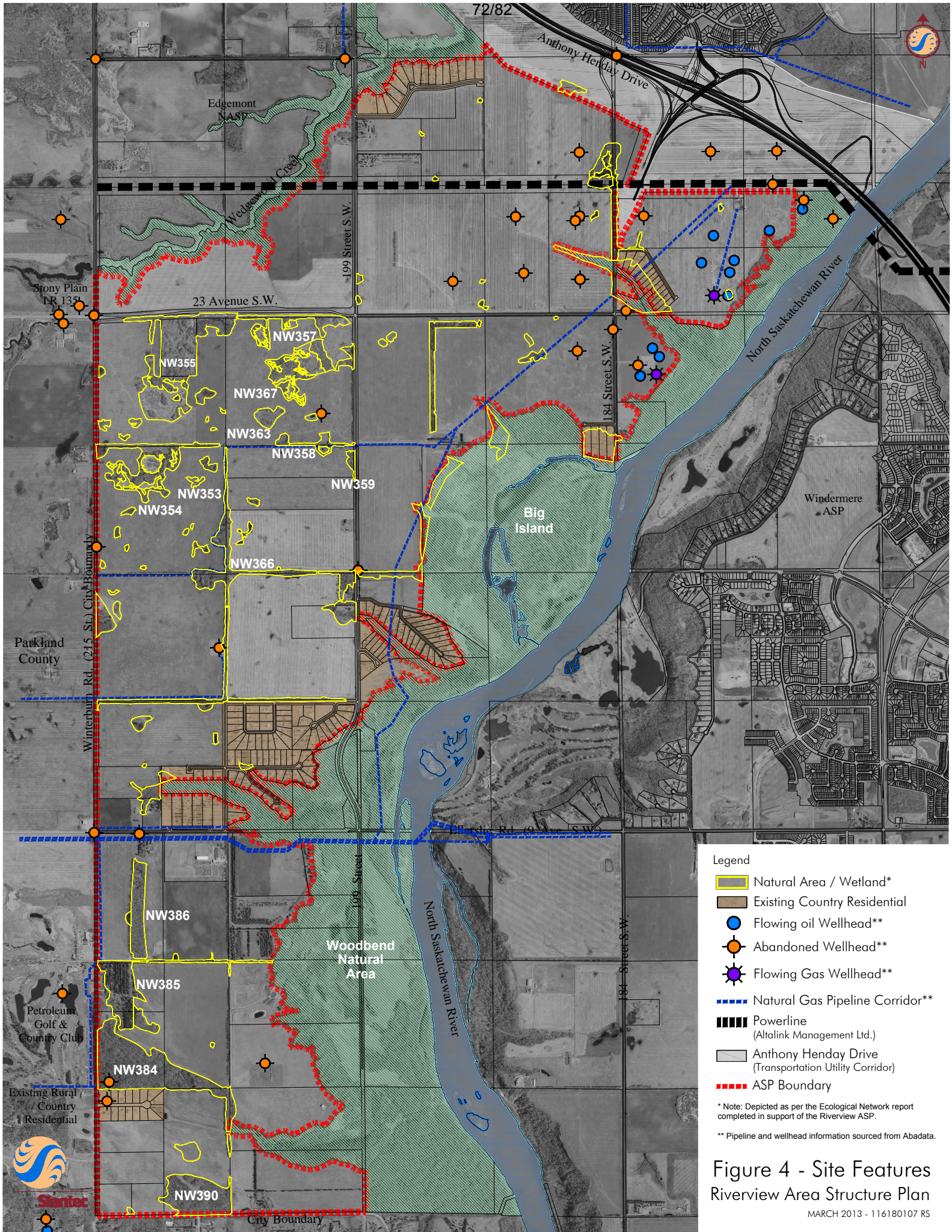
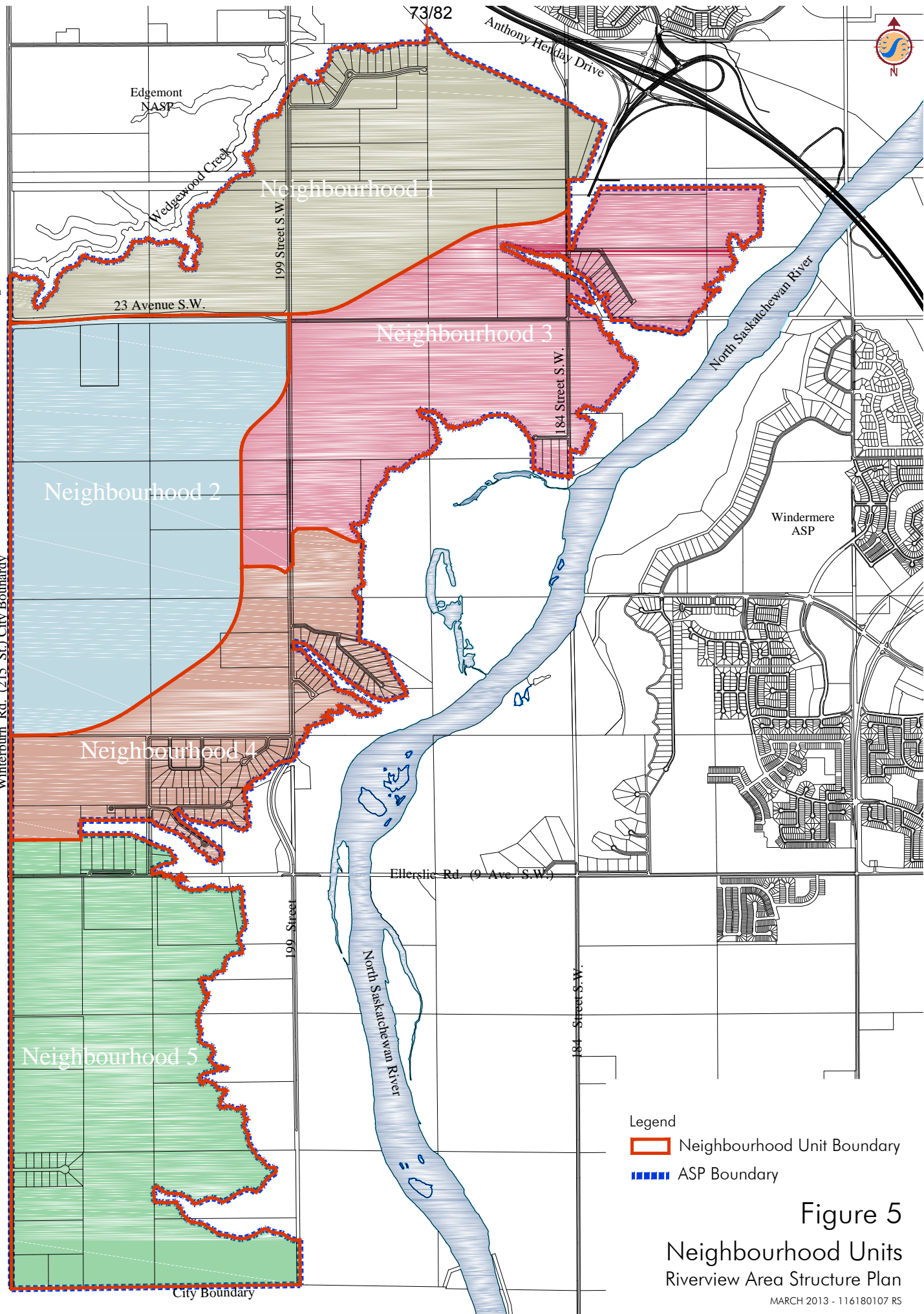


Figure 4 - Site Features
 Riverview Area Structure Plan
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- Legend
- Neighbourhood Unit Boundary
 - ASP Boundary

Figure 5
Neighbourhood Units
 Riverview Area Structure Plan

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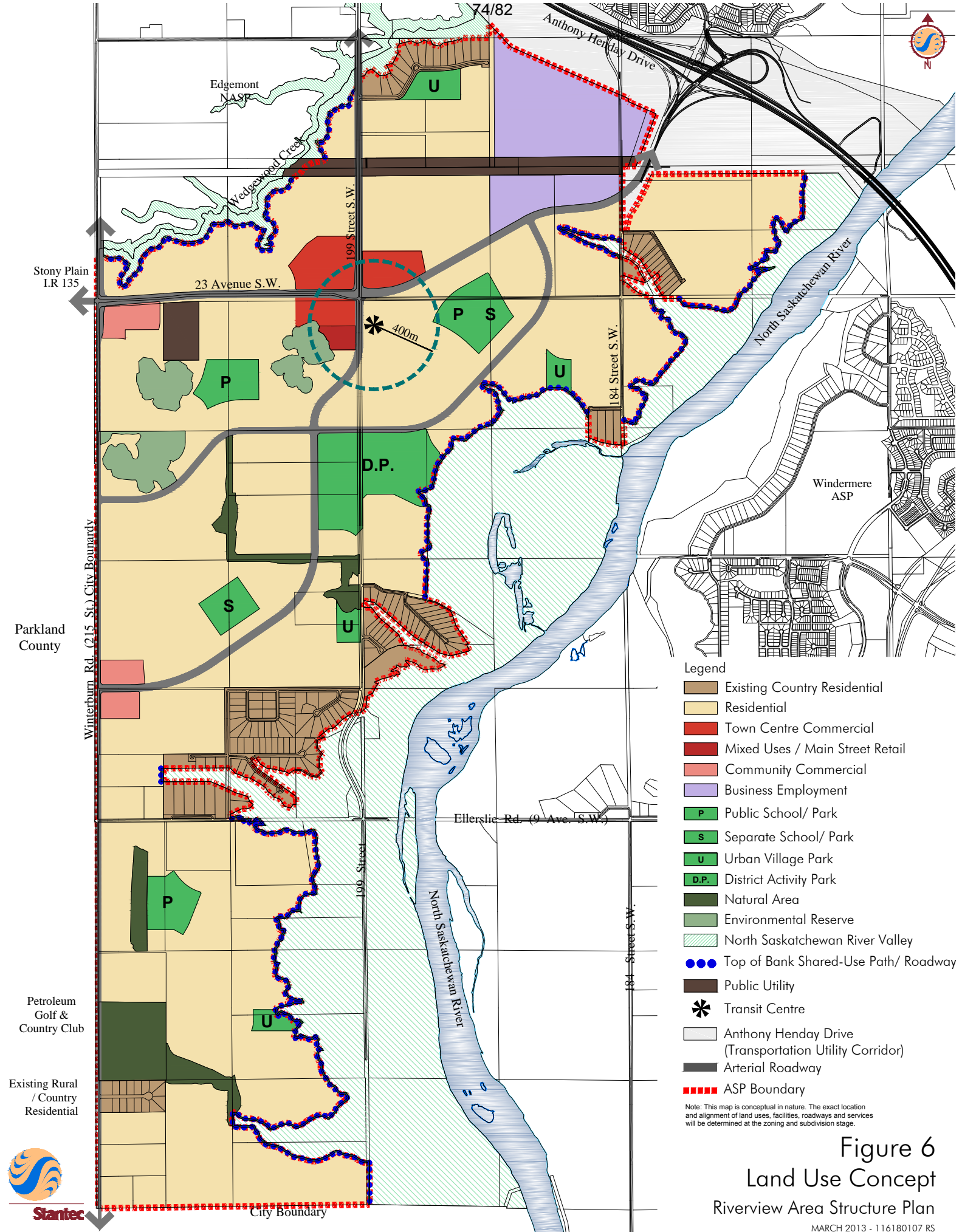


Figure 6
Land Use Concept
 Riverview Area Structure Plan

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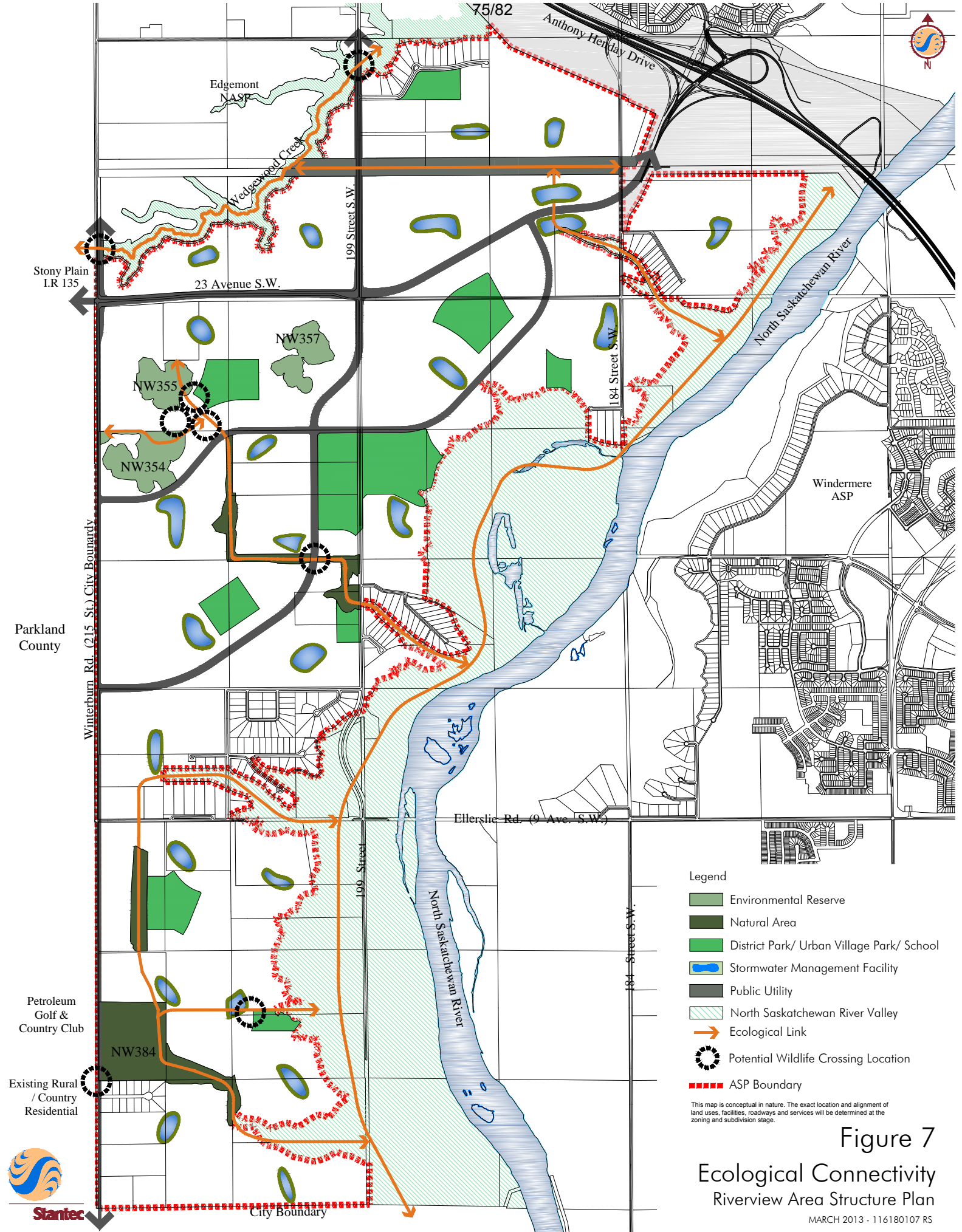


Figure 7
Ecological Connectivity
 Riverview Area Structure Plan

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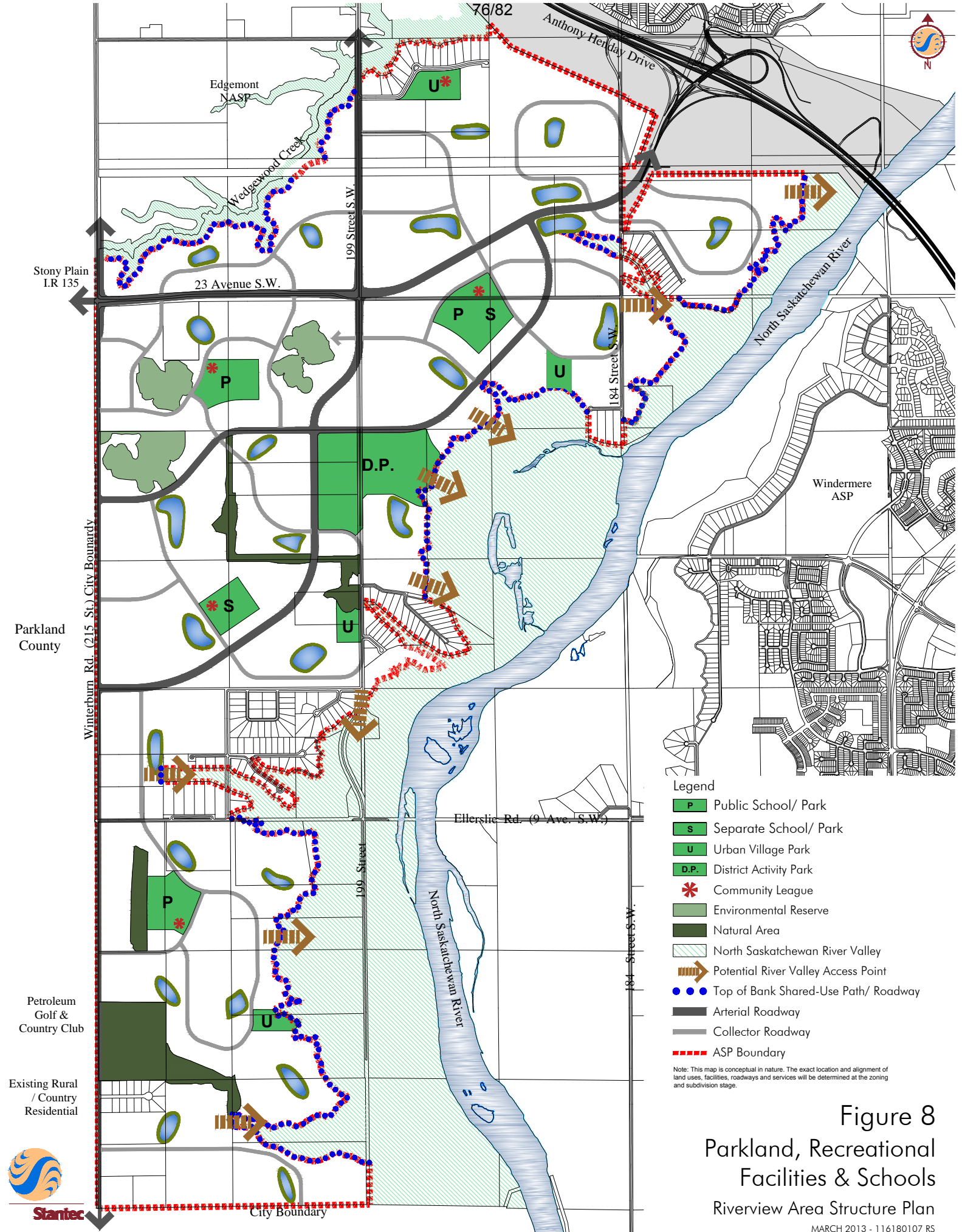


Figure 8
Parkland, Recreational
Facilities & Schools
Riverview Area Structure Plan

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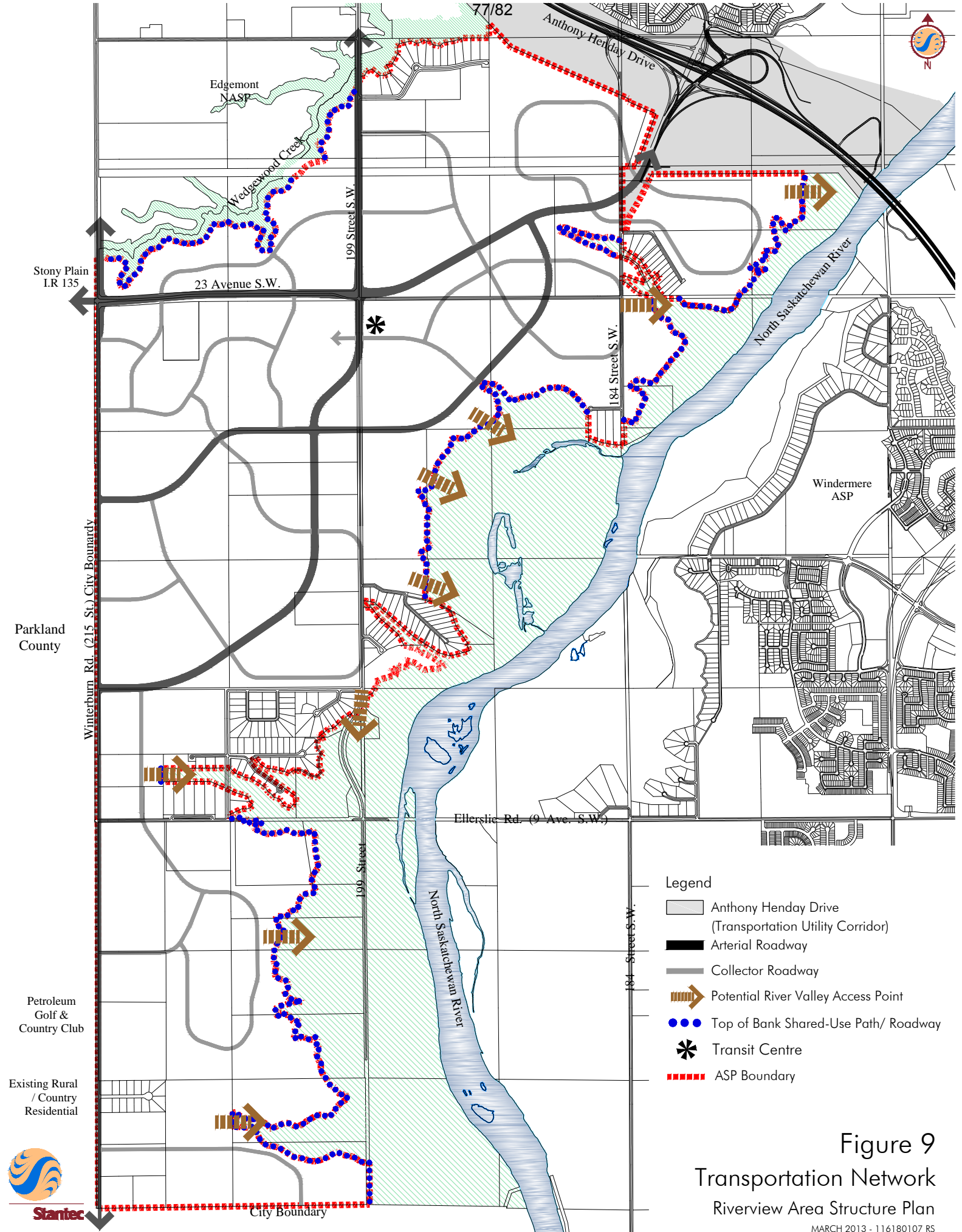


Figure 9
 Transportation Network
 Riverview Area Structure Plan

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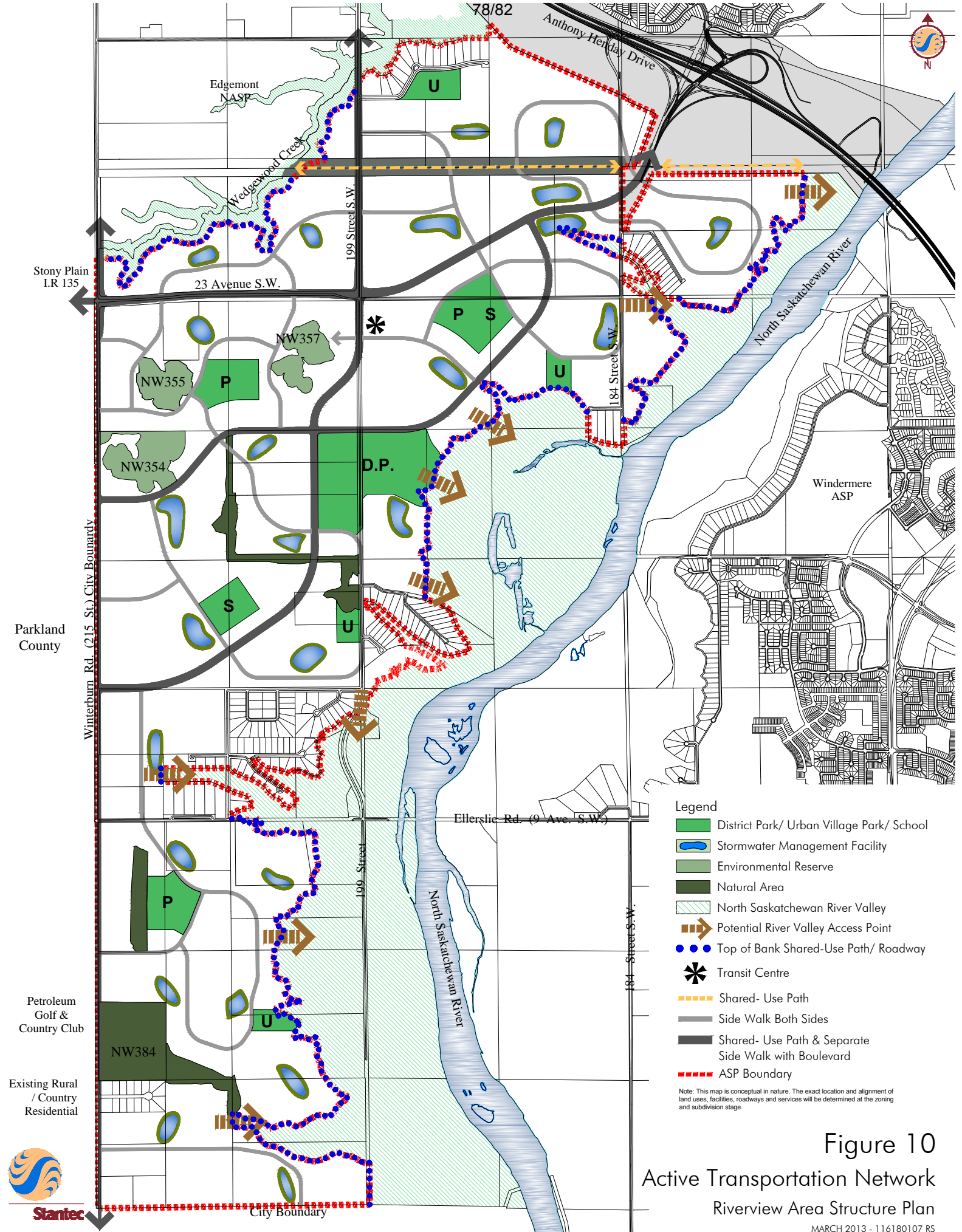
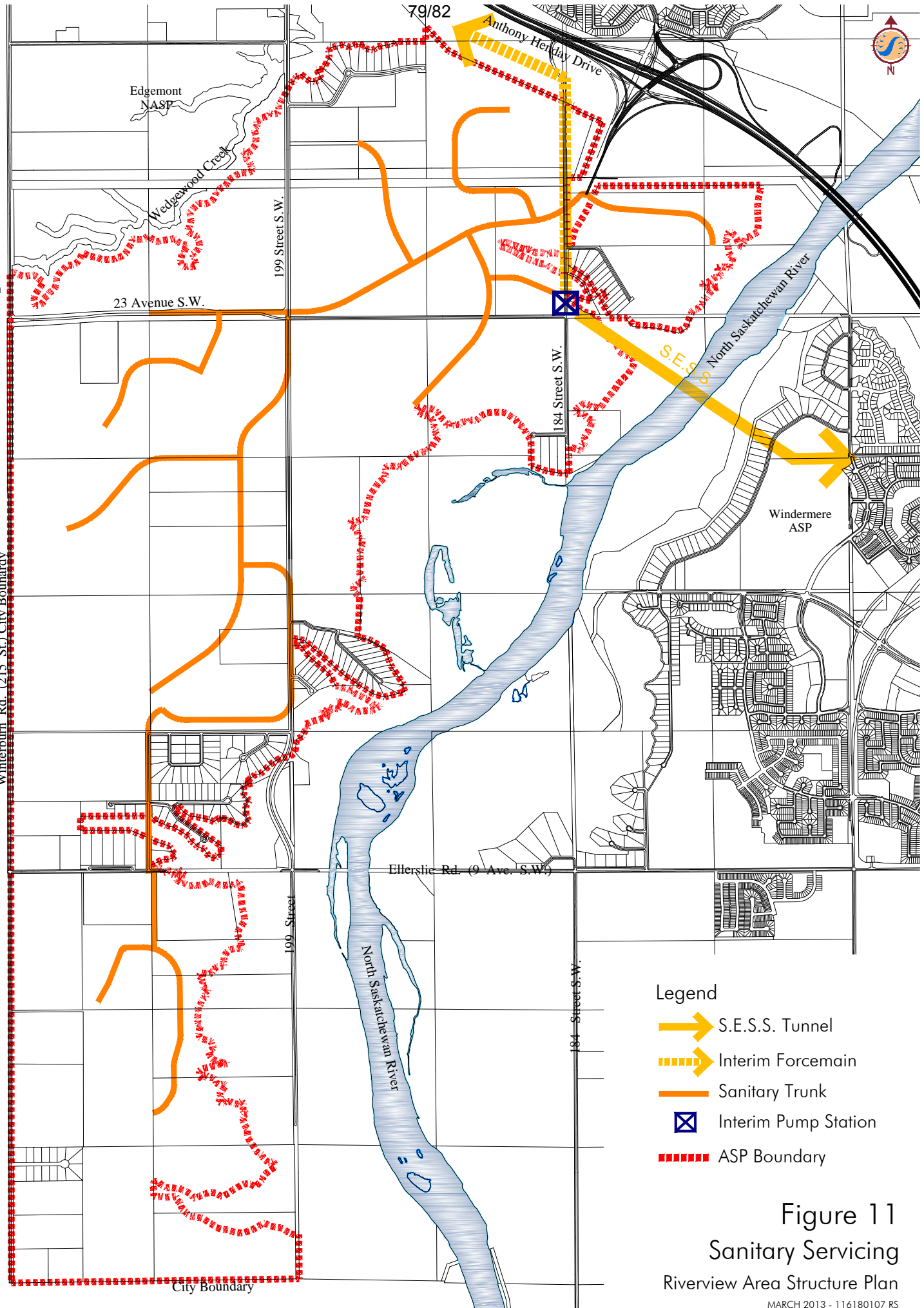


Figure 10
Active Transportation Network
Riverview Area Structure Plan

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Stantec








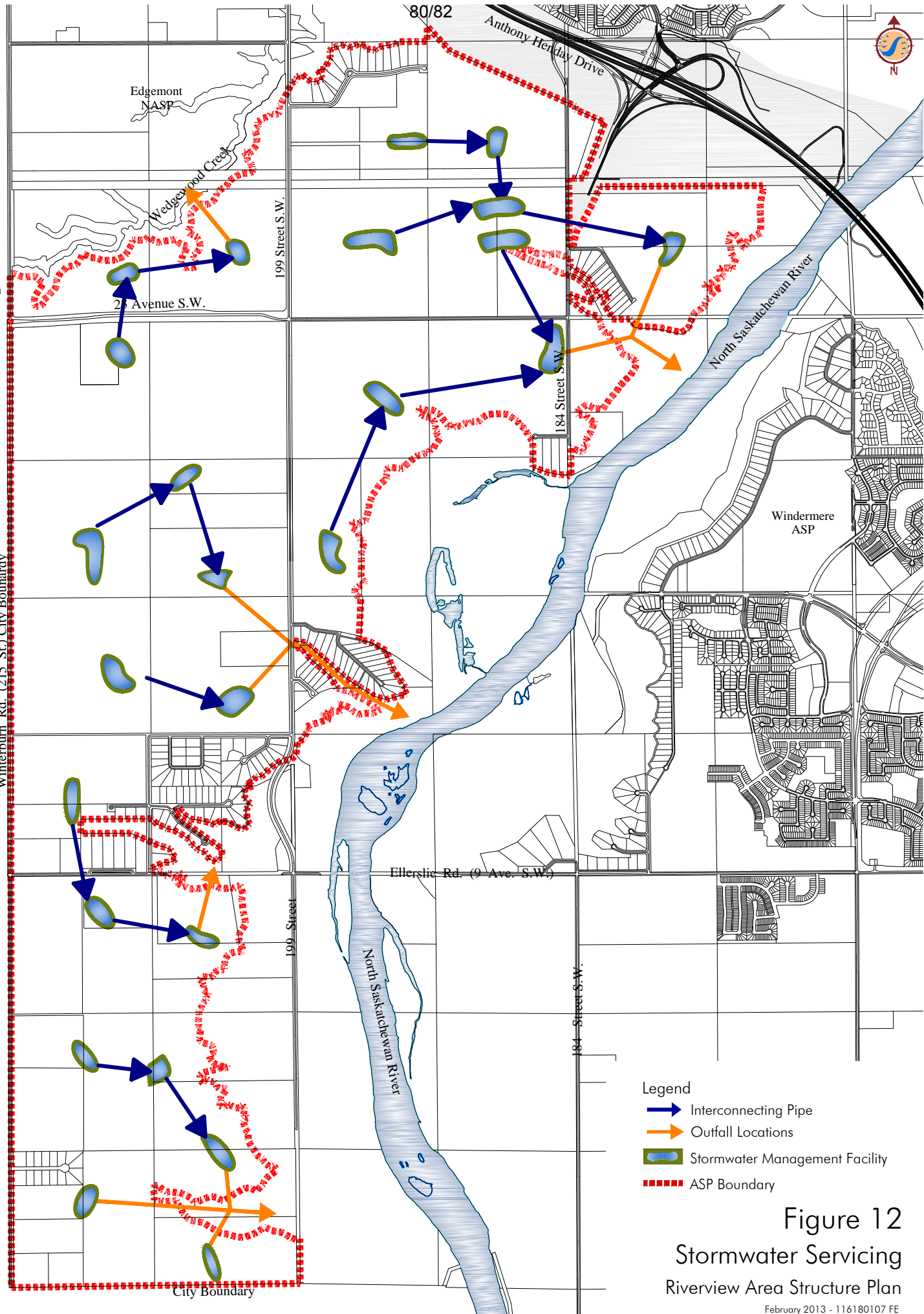
- Legend**
-  S.E.S.S. Tunnel
 -  Interim Forcemain
 -  Sanitary Trunk
 -  Interim Pump Station
 -  ASP Boundary

Figure 11
Sanitary Servicing
Riverview Area Structure Plan

MARCH 2013 - 116180107 RS









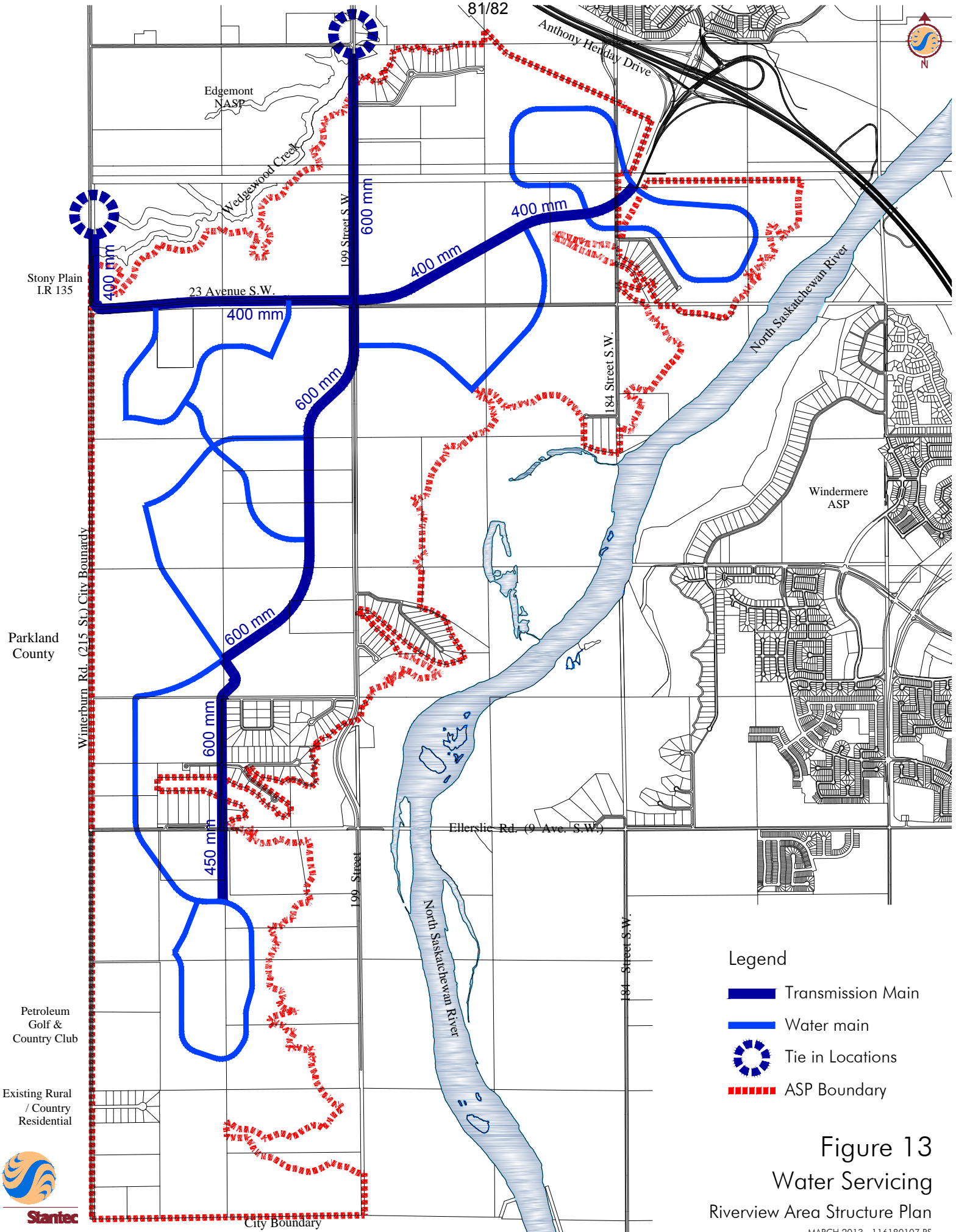
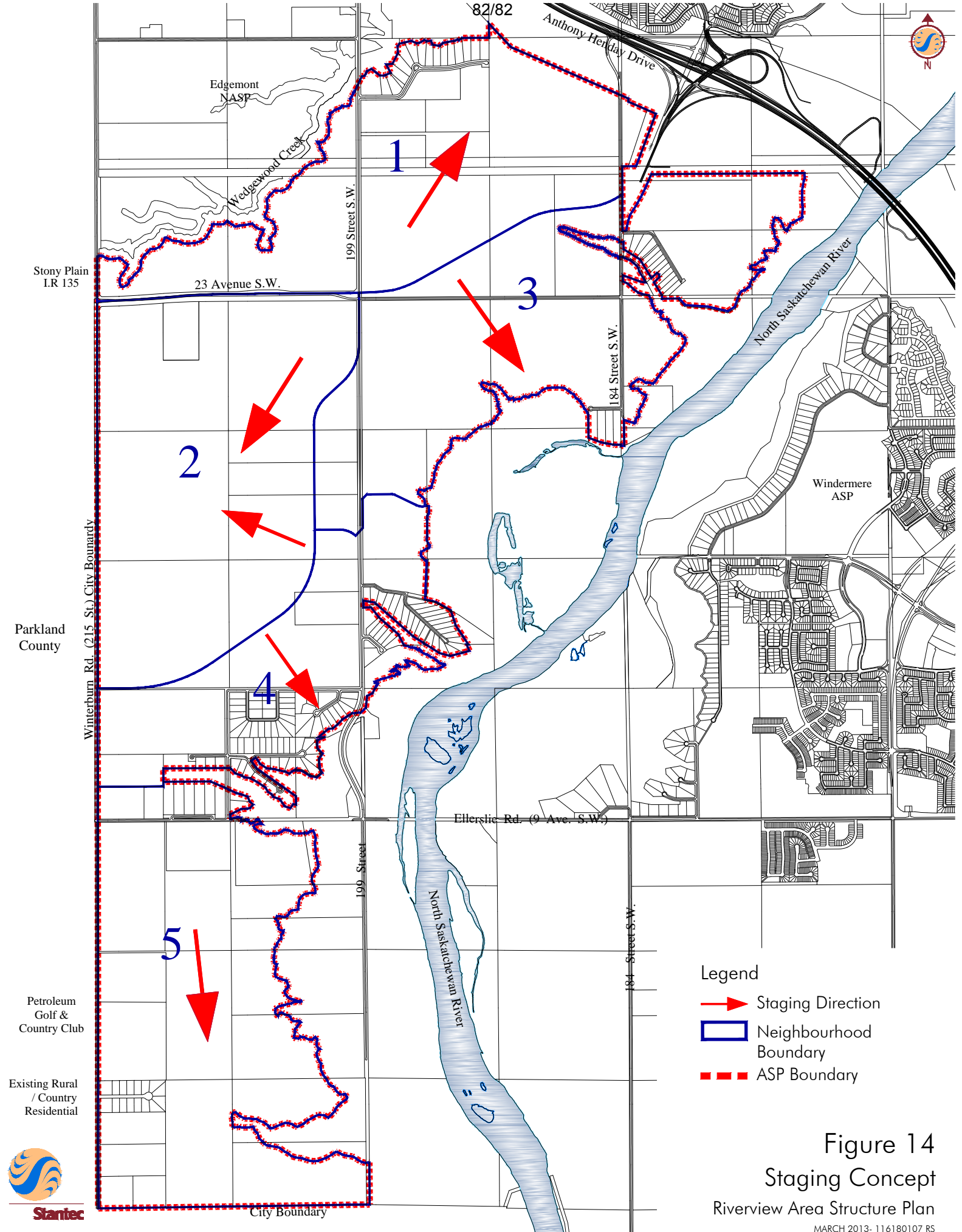
- Legend
-  Interconnecting Pipe
 -  Outfall Locations
 -  Stormwater Management Facility
 -  ASP Boundary

Figure 12
 Stormwater Servicing
 Riverview Area Structure Plan

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Legend

-  Staging Direction
-  Neighbourhood Boundary
-  ASP Boundary

Figure 14
Staging Concept
Riverview Area Structure Plan

MARCH 2013- 116180107 RS



**ATTACHMENT 2
BYLAW 16407
FILE: LDA11-0447
RIVERVIEW**

DESCRIPTION: ADOPTION OF THE RIVERVIEW AREA STRUCTURE PLAN

LOCATION: South of Anthony Henday Drive and the Wedgewood Creek Ravine, east of Winterburn Road (215 Street SW), north of 41 Avenue SW (Township Road 512A) and west of the North Saskatchewan River Valley

APPLICANT: Stantec Consulting Ltd.
10160-112 Street
Edmonton, AB T5K 2L6

OWNER: Walton International Group Inc., Qualico, City of Edmonton and multiple private owners and private corporations.

ACCEPTANCE OF APPLICATION: December 20, 2011

EXISTING DEVELOPMENT: Agricultural and undeveloped land, Utility uses and Existing residential uses

SUSTAINABLE DEVELOPMENT'S RECOMMENDATION: That Bylaw 16407 to adopt the Riverview Area Structure Plan be APPROVED.

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DISCUSSION

1. The Application

Bylaw 16407 proposes to adopt the Riverview Area Structure Plan (ASP) for the lands located south of Anthony Henday Drive and the Wedgewood Creek Ravine, east of Winterburn Road (215 Street SW), north of 41 Avenue SW (Township Road 512A) and west of the North Saskatchewan River Valley in the southwest corner of Edmonton.

The Way We Grow identifies the three remaining areas of the City - the Northeast, Southeast and Southwest as “Urban Growth Areas”. The proposed Riverview ASP is the second ASP to be prepared and advanced to Council for consideration in accordance with recently approved City of Edmonton policies: the Growth Coordination Strategy, *fresh:* the City Wide Food and Agriculture Strategy and the Integrated Infrastructure Management Planning (IIMP) Strategy.

The purpose of the Riverview ASP is to establish a framework for future land use planning and the provision of municipal infrastructure, services and amenities based on established planning principles, requirements of the City of Edmonton, and the characteristics and opportunities contained within the site. The Area Structure Plan describes the land uses and their general locations, the proposed density of residential development, the general location of major transportation routes and utilities and the general sequence of development proposed for the area.

The proposed Riverview ASP area is approximately 1470 ha with a proposed population of over 48,000 people living in five (5) Neighbourhoods. The proposed Neighbourhoods range in size from approximately 190 ha to 335 ha. Each will require the preparation of a Neighbourhood Structure Plan (NSP) prior to proceeding with rezoning and any land development.

The proposed land use concept recognizes and incorporates existing residential, utility, recreational and open space uses with a variety of proposed land uses that are intended to develop over the next 30-40 years.

Key features of the Riverview ASP include:

- allows for the integration of existing country residential uses with urban development;
- allows existing country residential developments to be developed to a full urban standard as development proceeds;
- distributes public open spaces, schools and parks throughout the ASP area to ensure maximum accessibility for residents;
- provides opportunities for innovative approaches to housing;
- encourages innovation in sustainability, low impact development, ecological networks, green infrastructure provision and food systems;

- locates commercial sites to ensure high visibility and convenient pedestrian, transit and automobile access;
- provides future potential access points to the North Saskatchewan River Valley system;
- provides a key focal point, the Town Centre, that includes a “Main Street”, the District Activity Park site, and a Business Employment area;
- provides a District Activity Park site that is centrally located and adjacent to the North Saskatchewan River Valley to accommodate a recreation centre, public and catholic high schools, associated play fields and parking; and
- allows for the preservation of natural systems through the design of open spaces and identifies natural areas for protection.

2. Site and Surrounding Area

Lands located within the Riverview ASP area contain existing land uses that consist of agricultural and rural residential uses. The North Saskatchewan River Valley and the Wedgewood Creek Ravine borders the ASP to the east and north, respectively. Lands contained within these valley and ravine systems are excluded from the ASP area as they are accounted for through the North Saskatchewan River Valley Area Redevelopment Plan (NSRVARP). The Edgemont Neighbourhood Area Structure Plan was approved by Council in May 2011, is located immediately to the north of the Riverview ASP area and is in the early stages of development. The ASP recognizes the prominence of the River Valley and ravines systems relevant for this area, and ensures strong linkages to this feature as a component of the ASP’s ecological network. Anthony Henday Drive and it’s 23 Avenue interchange borders the ASP area to the northeast. Design and construction of an interchange adjacent to the ASP is already completed that will connect to the future realigned 23 Avenue. West of 215 Street NW (Winterburn Road) and south of 41 Avenue NW is Parkland County in which there is a mix of agricultural and country residential uses, and the Petroleum Golf and County Club.

ANALYSIS

1. Compliance with Approved Plans

a) Capital Region Growth Plan: Growing Forward

The main purpose of the Capital Region Growth Plan: *Growing Forward* is to ensure the sustainability of the region for future generations, through the management of growth to protect the region’s environment and resources, minimize the regional development footprint, strengthen communities within the regions, increase choice of transportation and encourage economic growth. The proposed ASP supports these objectives by coordinating planning and development decisions in the Region and identifying a regional development pattern to complement existing infrastructure, services and land uses.

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The proposed Riverview ASP area is located in Priority Growth Area Cw, which has a minimum density target of 30-40 units per net residential hectare (upnrha). The proposed Riverview ASP achieves this target by proposing a residential density of 31 upnrha.

b) Municipal Development Plan: *The Way We Grow*

The application to adopt the Riverview ASP supports policies contained in Edmonton's Municipal Development Plan, the Way We Grow, which designates the area as an "Urban Growth Area". As part of the Urban Growth Area policies, the proposed Plans are required to adhere to the Growth Coordination Strategy, the Integrated Infrastructure Management Plan and the City Wide Food and Agriculture Strategy. These strategies have been incorporated into the ASP through the means described below.

This Plan supports the *Way We Grow*, through policies that provide for a mix of land uses that support healthy lifestyles and social interaction for people, provides the services necessary for liveability, and allows for the contiguous development of land and infrastructure to accommodate growth in an orderly fashion. In addition, the proposed Plan also:

- provides for a variety of housing types to accommodate a variety of needs and incomes;
- locates commercial sites to ensure high visibility and convenient pedestrian, transit and automobile access;
- distributes public open spaces and parks throughout the ASP area to ensure maximum accessibility for residents, as directed by the Urban Parks Management Plan (UPMP);
- provides for a District Activity Park Site that is accessible to the North Saskatchewan River Valley, and meets the UPMP requirements;
- allows for the reduction and mitigation of environmental impacts of new neighbourhoods by encouraging and allowing for Low Impact Development (LID); and
- allows for the preservation and enhancement of natural systems through the design of open spaces and identifying natural areas for protection.

i) Growth Coordination Strategy

The Growth Coordination Strategy provides a new way of integrating internal processes and work with external partners to accommodate expected growth while managing future public obligations triggered by that growth. This will be accomplished through:

- Annual Growth Monitoring Report;
- Growth Coordination Committee;
- Information Requirements for new NSPs;
- Integrated Infrastructure Management Planning Framework; and

- Corporate Integration.

The proposed ASP complies with the Strategy by providing information and data required to inform residential growth and development in the City. This information and data will be input into the Integrated Infrastructure Management Planning Framework Annual Growth Monitoring Report, and the information requirements for the authorization of new NSPs. The Plan also outlines the policy and information requirements regarding the authorization to prepare new NSPs. To ensure coordination between infrastructure and servicing needs for the ASP area, there will be on-going discussions between the proponents and the City through the Growth Coordination Committee.

ii) Integrated Infrastructure Management Planning (IIMP) Strategy

The framework for Integrated Infrastructure Management Planning (IIMP), approved by Council in the fall of 2012, is designed to provide appropriate and timely insight for Council, Administration, and the Development Industry regarding the provision of infrastructure to the three Urban Growth Areas.

IIMP provides Council with information about the infrastructure required for development, how it relates to existing infrastructure, timing and implications to the City's operations. Broad-based, high-level analysis performed at a conceptual stage can help to inform high-level decision-making that do not result in specific budget approvals but provides a general indication of future cost implications and revenue potential.

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 IIMP, prepared by the Office of Infrastructure and Funding Strategy, completed with this review (Attachment 2c to this report) considers two development scenarios: the first based on the CRB population projections which suggest approximately a 100-year build-out of the area. The second scenario is based on the applicant's projections and suggests a 35-year build-out. The report presents relevant infrastructure information and perspective to provide a broad-level financial context for the proposed ASP within these two scenarios.

iii) fresh: the City Wide Food and Agriculture Strategy

fresh, the City's Food and Agriculture Strategy was approved by Council on November 14, 2012. The Strategy recognizes the interconnectedness between food production, sustainability, energy consumption, land use and community development.

There are nine Strategic Directions that make up the overall Strategy. They are:

1. Establish the Edmonton Food Council;
2. Provide Food Skill Education and Information;
3. Expand Urban Agriculture;
4. Develop Local Food Infrastructure Capacity;
5. Grow Local Food Supply and Demand;
6. Enliven the Public Realm Through a Diversity of Food Activities;
7. Treat Food Waste as a Resource;
8. Support Urban Farmers and Ecological Approaches to Farming; and
9. Integrate Land Use for Agriculture.

While the proposed ASP does not identify specific lands for the exclusive use of Agriculture, it contains policy in Section 3.4.9 – Urban Agriculture and Food, which provides a framework to guide the future location of community gardens and other sustainable urban agricultural practices.

c) The Way We Green

The Way We Green was approved by Council July 2011. The twelve goals in *The Way We Green* pertaining to Land, Water, Air, Energy & Climate Change, Food, Solid Waste, and Foundations for Success are addressed in the proposed ASP preserving natural areas and wetlands, encouraging the exploration of LID techniques, encouraging walkable neighbourhoods with convenient access to transit and LRT service, and by promoting existing City of Edmonton waste reduction policies, as well as other sustainable living practices.

d) The Way We Live

The Way We Live was approved by Council in July 2010 and states that Edmonton:

- a) *is a Vibrant, Connected and Welcoming Community*
- b) *celebrates life*
- c) *a Caring, Inclusive, Affordable Community*
- d) *is a Safe City*
- e) *is an Attractive City*
- f) *is a Sustainable City*

The proposed ASP complies with *The Way We Live* by providing:

- a variety of housing types and transportation options;
- complete communities;
- innovation in servicing;
- opportunities for green infrastructure;;
- linkages with the North Saskatchewan River Valley and ravine system; and
- encouraging Crime Prevention Through Environmental Design (CPTED) practices in the provision of emergency response services.

e) *The Way We Move: Transportation Master Plan*

The Way We Move is the framework to guide the City's future transportation needs and the policies within it aim to achieve an integrated transportation network. The proposed ASP complies with *The Way We Move* by:

- ensuring the town centre will contain a mixture of uses at medium and high densities to support public transportation services;
- ensuring the land use concept provides the opportunity for a town centre that is integrated with bus transit;
- provides a logical and well-connected roadway network;
- ensuring the proposed ASP area is well-designed to be as walkable as possible;
- promoting a multi-modal transportation network to encourage healthy and active lifestyle; and
- providing linkage with the North Saskatchewan River Valley and Ravine System.

f) *The North Saskatchewan River Valley Area Redevelopment Plan*

The North Saskatchewan River Valley Area Redevelopment Plan (NSRVARP) was adopted by Council in February 1985. The intent of the Plan is to preserve and protect the North Saskatchewan River Valley and Ravine System as part of Edmonton's valuable open space heritage and to establish the principles for future implementation plans for Parks. The Riverview ASP is bounded by two areas that are contained within the NSRV ARP. They are the Wedgewood Creek Ravine, to the north and the North Saskatchewan River Valley, to the east. Neither of these areas are included within the proposed Riverview ASP; however, lands contained within each of these Plan areas are closely linked. Refining the boundary between the ASP and the NSRV ARP will precede development of the Riverview area. Geotechnical studies will be required for the provision of linkages and access to the North Saskatchewan River Valley and Ravine System and to confirm the stability of the slopes and top-of-bank polices, which will be determined at the neighbourhood planning stages.

2. Land Use Analysis

a) Residential Land Uses

The proposed Riverview ASP designates approximately 611 ha or 48% of the Gross Developable Area (GDA) for residential uses. Residential uses are planned to be located in close proximity to natural features, walkway corridors, school, parks and opens spaces.

Existing residential uses within the ASP area shall remain in place, however no new large lot country residential development or rural residential developments will be permitted. Larger lot residential housing may be considered only as a transitional use to existing country residential.

Detailed locations and densities of land to be designated for Low, Medium and High Density Residential Uses will be further determined at the NSP stages. Higher residential densities are encouraged in proximity to the proposed commercial sites.

b) Commercial Uses

Approximately 47 ha or 8.6% of the GDA is designated for commercial uses in the proposed ASP. The proposed ASP land use concept plans for three types of commercial /retail sites: Town Centre Commercial, Mixed Uses/Main Street Commercial and Community Commercial. Commercial areas proposed for the ASP are located at major intersections for accessibility for vehicles and the proposed Land Use Concept locates Commercial Uses within walking distance to residential areas.

A 26 ha Town Centre is proposed to be located centrally in the ASP area distributed between Neighbourhoods 1, 2 and 3. The town centre includes a 2.8 ha Main Street Retail/Mixed Use area intended to provide a pedestrian focused destination. A Transit Centre is located in close proximity to these sites. Three Community Commercial sites, totaling 14.5 ha, are located on the western portion of the ASP area to service local residents.

The location of neighbourhood convenience commercial sites will be further determined at the NSP stage.

c) Business Employment

The ASP's Business Employment area is proposed to be approximately 63 ha in size and located at the northeast edge of the Plan area, south of Anthony Henday Drive and north of the future realigned 23 Avenue, to maximize frontage to the Anthony Henday Drive for accessibility, visibility and buffering. This area is not intended to serve any major retail function, and will integrate business and office related uses to encourage economic diversification and employment.

d) Mixed Use

Opportunities for higher density and mixed use developments will be located around the proposed Transit Centre and developed in accordance with the City of Edmonton Transit Oriented Guidelines. The proposed Riverview ASP envisions a mixed use area to be developed centrally in the Plan area, in proximity to Major commercial sites and Mail Street Retail areas. Mixed use may also be developed under a Direct Control Provision to ensure a high quality of urban design in these areas.

e) Parks, Public Open Space and Natural Areas

Schools, parks and open space opportunities account for approximately 205 ha (or 18% of the GDA) within the proposed ASP area. Further refinement of the exact location and configuration of school sites, parks and natural areas will be determined at the neighbourhood-level planning stages.

District Activity Park

A 34.86 ha District Activity Park is centrally located within the ASP area in Neighbourhood 3, between the future realigned 199 Street NW and the North Saskatchewan River Valley, and south of a future arterial roadway. Its location has been sited to ensure frontage along arterial roadways and purposely adjacent to the North Saskatchewan River Valley relating to the prominent feature. The District Activity Park will contain both catholic and public high schools, a recreation centre, associated playfields and parking. Its strategic location adjacent to the North Saskatchewan River Valley also allows this site to serve as a staging area for future direct access to the River Valley System.

Schools and Community Parks

The proposed ASP contains approximately 40 ha of land designated for school and community park uses, including five school sites in Neighbourhoods 2, 3 and 5. The size and configuration of school sites have been determined according Catholic and Public School Board requirements, in consultation with the Parks Planning Section. There may also be an opportunity for a francophone school site within the ASP. This will be determined at a future date, once the Francophone Board has determined their specific service needs. Should a Francophone school be located within the ASP area at a site not currently identified for a school, an ASP Amendment will be required.

Urban Village Parks

The ASP proposes four Urban Village Parks to be distributed through Neighbourhoods 1, 3, 4 and 5. The park located in Neighbourhood 1 (approximately 5 ha) already exists and the others are all approximately 3 ha in size (for a total of 9 ha, or 0.8%). These parks are being proposed in proximity to the North Saskatchewan River Valley, adjacent to collector roadways. They are not intended to accommodate community league buildings, however the existing 5 ha site in Neighbourhood 1 may be considered for this use.

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Several pocket parks will also be required in each neighbourhood. The location of the Urban Village Parks and pocket parks will be further determined at the NSP stage. All park sites have been configured in accordance with the City of Edmonton Urban Parks Management Plan (UPMP).

Natural Areas

Significant natural features were identified from the 2006 State of Natural Areas Report as well as a preliminary desktop survey of wetlands and crown claimed water bodies. The ASP acknowledges that additional natural areas may be retained as Environmental Reserve, Municipal Reserve dedication or other means. The proposed ASP allocates approximately 74 ha for natural areas and open space uses.

Administration will require Phase II Ecological Network Reports (ENR) upon submission of the Neighbourhood Structure Plans. A policy is contained within the ASP stating this requirement. The applicant has submitted an ENR, which identifies three local Natural Areas and Environmentally Sensitive Areas (NW 354, NW 357 and NW 355), one Significant Natural Area (NW 384), and several smaller Natural Areas within the subject area. With the preparation of NSPs, further study is required on this documentation to confirm all components of the ecological network.

Opportunities to restore and enhance deteriorated portions of the natural areas will be explored as NSPs are prepared and development occurs. Pursuant to Policy C531 (Natural Area Systems Policy), Natural Site Assessments (NSA) are required as part of any development application that may possibly impact natural areas as identified in the 2006 State of Natural Areas Report.

Approval of required NSAs shall occur at the zoning and subdivision stages of development for final approval of these practices.

Stormwater Management Facilities

The land use statistics for the proposed Plan identify 90 ha or 7.7% of the GDA being designated for stormwater management facilities. In addition to storing stormwater, these facilities also provide opportunities to improve linkages between portions of the open space system by way of the neighbourhood pedestrian trail system, and may provide passive recreation opportunities.

River Valley and Ravine System

Though not part of the ASP boundary, the ecological network will be connected to the North Saskatchewan River Valley and creek system through the TOB walkways, parks and vistas, which shall be determined at the NSP stage.

Connectivity

Linkages between park/school sites, natural areas, stormwater management facilities, the TOB walkway and the river valley will be provided through shared use path corridors, as

well as sidewalks located along local and collector roadways, as determined at the NSP stage.

3. Civic Departments and Utility Agencies

Transportation Services does not object to the proposed Riverview ASP.

A Traffic Impact Assessment (TIA) was completed in support of the Riverview Area Structure Plan. It was completed for a full development scenario of the ASP area and accounted for external traffic growth in the surrounding areas. The scenario analysed includes over 18,000 residential units with a potential population of over 47,000 people, along with over 1.3 million gross floor area of commercial space and 63 hectares of business employment. The TIA indicates that with full build-out of the area, most of the intersections along the 23 Avenue corridor, including the Anthony Henday interchange ramp intersections, will operate under congested conditions during peak hours. Other intersections in the plan area are expected to operate within the City's current Level of Service Guidelines. The development of the Riverview area will also contribute to congested conditions at Lessard Road and 199 Street intersection in the Edgemont area to the north.

Access to the Riverview area is constrained with only three main access points into and out of the area including the Cameron Heights /Anthony Henday Drive Interchange, 199 Street, and 215 Street. The limited access to /from the area intensifies the traffic volume and level of congestion on the favoured access to the area, 23 Avenue.

The Riverview area is bounded on the northeast edge by Anthony Henday Drive and the plan area will have access to the Cameron Heights interchange. The 23 Avenue arterial is a Highway Penetrator, which extends west of the City limits as Secondary Highway 627. At the time this response was prepared, Transportation had not yet received formal comments from Alberta Transportation on the ASP and the ASP Traffic Impact Assessment (TIA). Their response is expected to be received prior to the Council Public Hearing date. A verbal update on the Province's comments will be presented as part of the Administration's Public Hearing presentation.

In order for the area to meet goals of The Way We Move, the City's Transportation Master Plan, and to improve roadway operating conditions, the City and area developers will work collaboratively to develop a strategy to promote and realize a transportation mode shift in the area. The area's mode shift initiatives will be refined and addressed in more detail in the Neighbourhood Structure Plans (NSP). The initiatives may include the implementation of Transportation Demand Management measures, the provision of premium transit service, and/or active mode strategies.

Roadway capacity and access constraints in the area as well as the timing and funding of roadway improvements may necessitate development constraints in the Riverview area,

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when traffic levels reach the limit of the City's Level of Service Guidelines. Transportation Services will work with area developers and the Province to outline an arterial road staging and interchange improvement strategy for the Riverview area. Traffic will be monitored as development progresses within the area. Through the NSP and land rezoning process, City Council will have an opportunity to be updated on the status of traffic conditions and timing of relevant roadway projects prior to approvals. Should funding of improvements not be in place to meet demands, neighbourhoods or zonings may not be recommended for approval until such time as satisfactory access can be provided. The City may need to advance a funding strategy for arterial or interchange improvements or for premium transit service into the plan area in order to ensure that full development of the area can be supported.

An Arterial Roadway Assessment (ARA) Bylaw will be brought forward prior to or concurrently with the first NSP in the plan area to create a new basin for the Riverview area. The Riverview ARA basin will include the construction of all the area arterials and dedication of the right-of-way.

Bus service will be accommodated on all arterial and collector roadways in the plan area. It is anticipated that the majority of the new residential areas will be within 400m walking distance of transit. The ASP indicates that opportunities for developer funded transit will be explored at the NSP stage.

The Drainage Services Branch of Financial Services and Utilities has expressed no objection to the proposed ASP and advises that the Area Management Plan (AMP) must be submitted and approved prior to any neighbourhood level planning. At the NSP stage, a Neighbourhood Design Report (NDR) will be required for each neighbourhood. The Neighbourhood level report must be approved prior to the rezoning stage of development.

EPCOR Water Services has expressed no objection to the application, and advises that the developer must extend water services into the area, and meet the standards of water supply under the City of Edmonton Design and Construction Standards and must be in accordance with an approved hydraulic network analysis. EPCOR Water does not have existing water mains adjacent or within the area which may be utilized to service this area. Water service to this area will be provided through extensions from the developing area north of the Riverview ASP area.

EPCOR Distribution and Transmission Inc. has no objections to the proposed ASP and has advised that as the area develops, the need for a new power substation will be required. It has been suggested that this would not be required for at least 10 years in the future and that the preferred location of such a facility would be adjacent to the AltaLink transmission right-of-way that is located in the north Plan area. The ASP acknowledges the consideration for the facility in Section 3.4.13 Infrastructure, Servicing and Staging policy of the ASP.

No other Civic Department or utility agencies expressed concern regarding the proposed ASP.

4. Parks, School Boards and Office of Biodiversity

The Parks Section of Sustainable Development has expressed no objection to the proposed ASP. A Parkland Impact Assessment (PIA) has been provided in support of the proposed ASP. The total municipal reserves for the area require confirmation as the NSPs move forward. Municipal Reserve allocation and top-of-bank requirements along the extent of the North Saskatchewan River Valley for privately owned property of non-participating owners will be determined at the NSP stage.

A Community Knowledge Campus Needs Assessment (CKCNA) has also been provided with the proposed ASP. School/park sites have been located and sized based on the requirements provided by the Public and Separate School Boards. The Edmonton Public School Board (EPSB) and Edmonton Catholic School Board (ECSB) expressed no objections to the proposed ASP, and support the locations and configuration of the school sites within the ASP boundary. Both population figures and school needs will be reviewed with each NSP. Amendments to the Area Structure Plan may be required as more detailed planning takes place.

The Office of Biodiversity expressed no objection to the Riverview ASP. An Ecological Network Report (ENR) was submitted in support of the ASP and advises that upon the submission of the subsequent NSPs, Phase II ENRs will be required. A number of significant natural features have been identified in the Plan from the Geowest Study (1993) and a desktop survey of the area. How to protect and preserve these sites and other sites as well as identify potential connections between natural and/or significant areas and the River Valley will be clarified as the planning for the area moves forward.

The Top-of-Bank Policies are recognized at the ASP level and will be applied at the NSP level. Geotechnical analysis along the River Valley and Creek system will be required to determine the top-of-bank (TOB) roadways and appropriate setbacks. The TOB roadway will be determined in accordance with City of Edmonton Policy C542: Development Setbacks from the River Valley and Ravine Crests.

5. Environmental

An Environmental Overview for the participating landowners in the preparation of the ASP was submitted with this application.

Phase I Environmental Site Assessments for participating owners at the NSP and rezoning stages will be required. All properties within the ASP area will require Phase I ESA to be completed and approved by Sustainable Development prior to rezoning approval.

6. Historic Sites

An Historical Resource Overview for the participating landowners was submitted to the Province. The Historical Resources Overview summarizes the parcels that were included in the study and found three sites of historical and/or archaeological significance.

Landowners that have not obtained *Historical Resources Act* clearance will be required to do so at the NSP stage and land owners must submit their Statement of Justification (SoJ) prior to rezoning. Historical Resources Impact Assessments (HRIA) will be required at the NSP stages for the affected parcels.

7. Oil, Gas and other Facilities

Within the ASP area, there are 22 abandoned oils well sites, 10 actively flowing wells, 23 pipeline/ or pipeline corridors and 2 flowing gas well heads. The active oil and gas well heads are concentrated within the northeast sections of Neighbourhood 3. An electrical transmission corridor passes through the north portion of the Plan area running east-west. Development surrounding abandoned and operating well sites shall comply with the City of Edmonton Policy C515 (2007), “Policy Guidelines for the Integration of Resource Operations and Urban Development” (1985) and Energy and Resource Conservation Board (ERCB) regulations.

Risk Assessments may be required at the NSP and rezoning stages.

8. Adjacent Municipalities

Leduc County, Parkland County and Enoch Cree Nation were notified that an Area Structure Plan was in process for the Riverview Area. Sustainable Development heard from Enoch Cree Nation that they have interest in participating in development adjacent to their lands and would like to have greater cooperation in working with the City. Parkland County neighbours the Riverview ASP area to the west and south. Parkland County had expressed concerns regarding acknowledgment of their statutory plan, buffering of incompatible uses and impact of traffic. These concerns have been addressed and Parkland County has expressed no objection to the ASP. No expression of concern was received from Leduc County.

9. Surrounding Property Owners’ Concerns

The preparation of the Riverview ASP underwent extensive public consultation, as detailed in Section 2.5.2 of the proposed Area Structure Plan. Prior to the application being made, two open houses were held by the applicant in March and October of 2011. Between the open houses, a Stakeholder Advisory Group (SAG) was formed and a three day Visioning Charette was conducted in August 2011 with this group. The SAG members consisted of local landowners and residents, developer landowners and other

interested stakeholders and groups. The SAG provided advice in the development of the vision, principals, objectives and design concepts alternatives, which served as the foundation for the draft Riverview ASP.

An advance notification of this application was sent to surrounding property owners, the Presidents of the Cameron Heights, Greater Windermere, Hodgson, and Wedgewood Ravine Community Leagues, the West Edmonton Communities Area Council, Parkland County, Leduc County and Enoch Cree Nation on May 25, 2012.

As a result of the advance notification and the notice for the open house, Sustainable Development received about ten (10) communications (either phone calls or emails). Most of the respondents contacted Sustainable Development for more information on the location of their property on the proposed ASP Land Use Concept, estimated timing of approval and process related questions. Concerns and questions raised included:

- location and number of roadways through the area;
- how will the development of the top-of-bank roadway/shared use path happen in proximity to existing country residential housing clusters;
- location of stormwater management facilities;
- placement of top-of-bank walkways;
- acknowledgement of neighbouring statutory plans; and
- adequate buffering of possible conflicting agricultural uses.

An Open House was held by the Sustainable Development on February 20, 2013 to review the proposed ASP with interested residents and to provide an opportunity to ask questions and provide comments. The open house was attended by approximately seventy (70) people. Ten (10) open house questionnaire forms were received. All written responses indicated that the open house was informative, the ASP is supportable and should move forward, and collectively provided the following comments:

- At the NSP stage, it would be preferred if access were limited to Woodbend Road and to ensure sensitivity of commercial uses and higher density residential uses adjacent to Woodbend Road;
- staging of transportation infrastructure was hard to understand;
- ensure access to existing residents is maintained;
- cost to bring water and sewer servicing to the existing residential areas;
- ensure adequate staging area with adequate parking for river valley access; and
- minimize impacts of development on existing residents.

Administration spent time explaining the intent of the ASP as a very high level plan. The planning hierarchy was used to explain where in the process of development this ASP fits, and the next steps for neighbourhood planning in this area. Administration has continued to provide information to individuals who requested updated maps or updates on timing and progress throughout this application review process.

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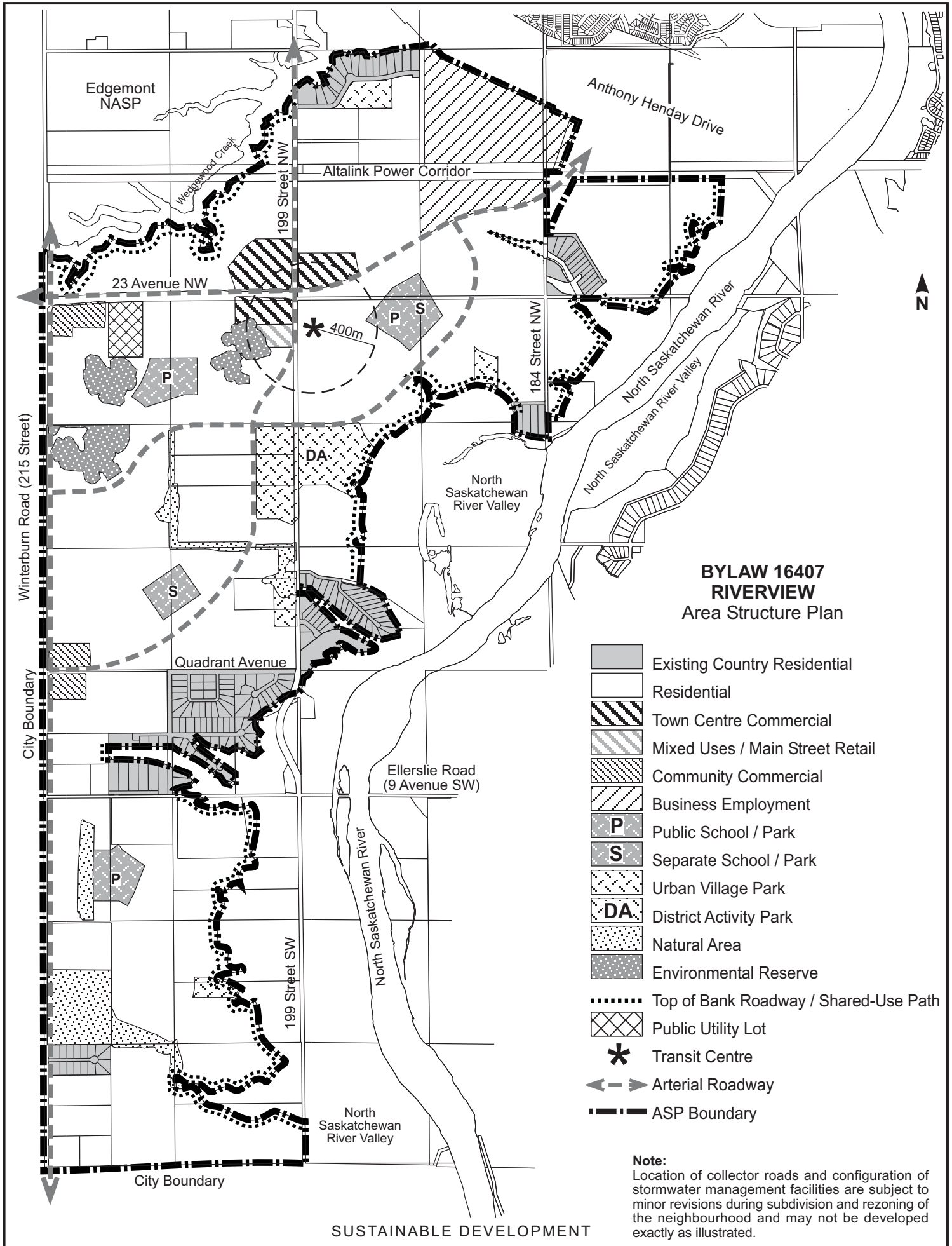
JUSTIFICATION

Sustainable Development recommends that Bylaw 16407 to adopt the Riverview Area Structure Plan be approved on the basis that it complies with the Capital Region Growth Plan: *Growing Forward*, and the Municipal Development Plan: *The Way We Grow*, provides for future residential, commercial, institutional, recreational and open spaces uses within complete communities in the Plan area, facilitates orderly and compatible development of this urban growth area, and addresses the technical requirements of affected City Departments and utility agencies.

ATTACHMENT

- 2a Proposed Riverview Area Structure Plan – Bylaw 16407
- 2b Integrated Infrastructure Management Planning report – Riverview ASP

Written by: Claudia Wong-Rusnak
Approved by: Cathy Raftis
Sustainable Development
April 22, 2013



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Area Structure Plan**

- Existing Country Residential
- Residential
- Town Centre Commercial
- Mixed Uses / Main Street Retail
- Community Commercial
- Business Employment
- Public School / Park
- Separate School / Park
- Urban Village Park
- District Activity Park
- Natural Area
- Environmental Reserve
- Top of Bank Roadway / Shared-Use Path
- Public Utility Lot
- Transit Centre
- Arterial Roadway
- ASP Boundary

Note:
Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.

Integrated Infrastructure Management Planning

Riverview ASP

1.1 Purpose

Integrated Infrastructure Management Planning (IIMP) 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. Information in the Riverview ASP IIMP document is based on initial information provided by the applicant on March 1, 2013 and supplemented with information provided on March 20, 2013.

The intent of the Integrated Infrastructure Management Plan is to provide Council information about the infrastructure required for the development, how it relates to existing infrastructure, timing, and implications to the city's operations.

1.2 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. Additionally, secondary benefits accrue from the expenditures of those individuals deriving income directly or indirectly from the development industry. Economic impacts can be estimated by calculating expenditure multipliers. An expenditure multiplier estimates the final value of an incremental dollar spent once the direct and follow-on effects are included. By way of illustration, Alberta's economic multiplier for construction is 1.6¹. This means that a dollar of construction activity generates a gross gain of \$1.60 of economic activity for Alberta once direct and follow-on impacts are included. For the Riverview Area Structure Plan, this equates to approximately \$2.7 Billion dollars over the construction time of the development, based on a \$1.7 Billion investment in public infrastructure (See Table 2). Private investment in housing and commercial areas is over and above this.

The challenges facing the City are in balancing development costs with the strategic benefits of sustainable growth, in order 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.

1.3 Methodology

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

A range of development projections are determined utilizing demographic data from both development applicant and the City of Edmonton's Sustainable Development Department.

Infrastructure requirements are analyzed using data supplied by applicant 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.

1.4 Section A: Scenario Analysis

Section A provides infrastructure information related to the Riverview Area Structure Plan. For the purpose of this study, two scenarios are presented in the report. Section A will provide data resulting from the analysis of the proposed development based on two demographic build-out scenarios. Section B will provide context to the data.

1.4.1 General Area Information

The applicant supplies information with the Area Structure Plan that is used for Integrated Infrastructure Management Planning. This includes information on

- The allocation of a range of land uses,
- Counts of housing units and
- Total population at build out.

This information forms the basis for the calculations and justifications for required infrastructure in the proposed communities.

Complimenting the applicant's base data, the City provides data on current service standards relating to population and land use. Infrastructure projections are then calculated and take into both the City's long term planning and capacity of existing facilities nearby.

1.4.1.1 Gross Area Breakdown

The basic breakdown of the proposed Riverview Area Structure Plan is shown in Figure 1.

Out of a total area of 1,427.64 ha, 43%, (611.2ha) is residential. Other uses include Commercial/Business Employment and Municipal /Environmental Reserve.

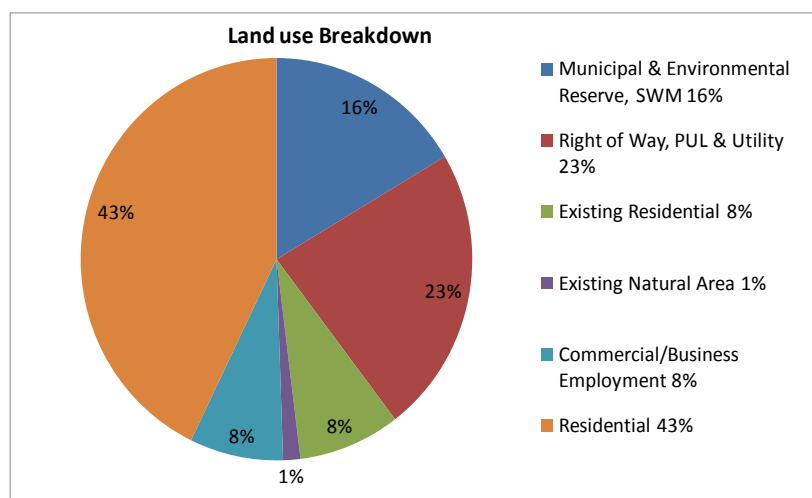


Figure 1

1.4.1.2 Net Residential Area Breakdown

There are four general residential land use types in planned neighbourhoods and area structure plans. Development traditionally called “low density” includes singles and semi-detached housing, “Medium density” includes row housing, triplexes and low-rise apartments up to 4 stories. “High density” includes medium to high rise apartment complexes 5 stories and higher.

Figures 2, 3, and 4 depict the breakdown of residential land use by the above described types.

Figure 2 shows a breakdown in hectares

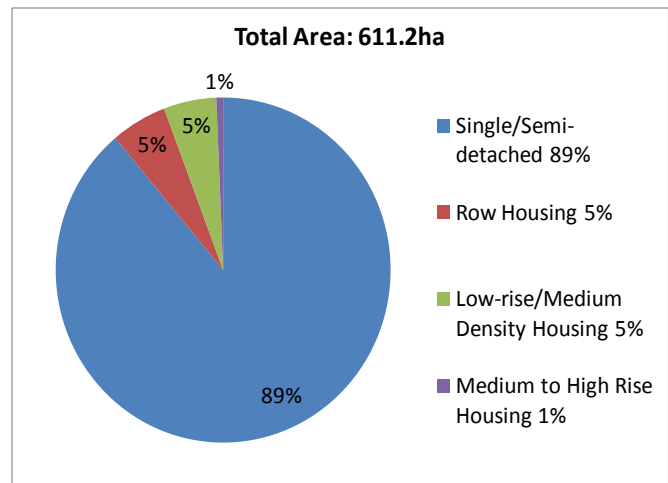


Figure 2

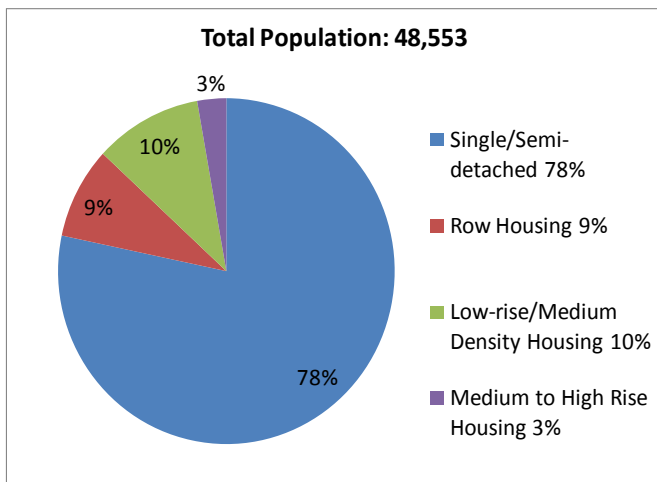


Figure 3

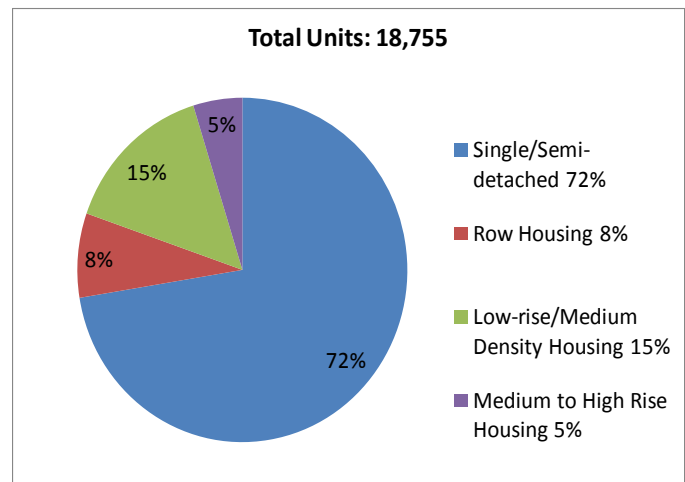


Figure 4

Figure 3 shows the breakdown by population and figure 4 shows the breakdown by individual units.

Figure 2, 3 and 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

	Area (ha)	Units	Population	Inhabitants per Unit	Average Market Value	Units/ha
Single/Semi-detached	543.2	13,580	38023	2.8	\$ 532,061.00	25.0
Row Housing	33.0	1,485	4158	2.8	\$ 257,116.00	45.0
Low-rise/Medium Density Housing	31.0	2,790	5022	1.8	\$ 333,321.00	90.0
Medium to High Rise Housing	4.0	900	1350	1.5	\$ 323,099.00	225.0
Commercial/Business Employment	110.3	N/A	N/A	N/A	\$ 5,418,529.00	N/A
Total	611.2	18,755	48,553			

Table 1

1.4.1.3 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 details the amount of infrastructure required for the proposed community, its approximate cost in 2012 dollars, and the party responsible for its construction.

Developer Contributed Assets

Infrastructure Type	Quantity	Cost (2012 Dollars)
Local Road (Lane km)	214	\$149,800,000
Collector Road (Lane km)	52	\$46,500,000
Arterial Road (Lane KM)	54	\$186,000,000
Local Storm Sewer (km)	107	\$271,600,000
Local Sanitary Sewer (km)	107	\$99,400,000
Service Connections (#)	16,539	\$147,000,000
Outfalls (#)	10	\$27,359,500
Trunk Sanitary Sewer (km)	17	\$321,000,000
Storwater Management Facilities (#)	26	\$93,233,000
Storm/San Misc	N/A	\$38,700,000
Total		\$1,380,592,500

City Built Assets

Infrastructure Type	Quantity	Cost (2012 Dollars)
Transit Facilities (#)	1	\$7,500,000
Libraries (#)	1	\$21,100,000
Recreation Facilities (#)	1	\$100,000,000
Parks (ha)	92	\$26,000,000
Fire Stations (#)	2	\$22,000,000
Arterial Road Widening (km)	20	\$55,000,000
Buses (#)	50	\$27,000,000
Waste Collection		\$31,700,000
Total		\$290,300,000

Table 2

As shown in table 2, out of a \$1.67 billion capital investment in infrastructure, the developers share is \$1.38 billion (or 83% of total) and the City's share is \$280 million (or 17% of total).

Qualifications to Table 2

The following is offered to help qualify and explain the infrastructure quantities and costs in Table 2. This information is derived from consultations with the areas responsible for its provision and maintenance.

Drainage Services

The draft Riverview Area Master Plan (AMP) dated March 4, 2013 was used to identify costs of interim servicing infrastructure (i.e. pumping station and storage), trunk and collector sewers, outfalls, and stormwater management facilities. The modeling provided quantities and costs for local sanitary and storm sewers. The Riverview area will be ultimately serviced via the South Edmonton Sanitary Sewer (SESS). Because the current schedule for SESS has it reaching the Riverview ASP around 2030, an interim pumping solution with on-site flow storage has been proposed by the applicant.

The model recognizes that capital costs associated with the interim solution will be borne by the developer; however Drainage Services will have to absorb O&M costs (approximately \$20-25 million assuming SESS arrives in the year 2030). The developers will be required to pay the Expansion Assessment as development occurs within Riverview, regardless of the status of the SESS.

The exact interim forcemain and pump station size and where this system discharges to will be determined based on consultations with Drainage Services during the neighbourhood design stage. The estimated \$84 million SESS cost will be funded from the Sanitary Sewer Strategy Fund (SSSF). This fund is a pool of money funded through contributions by the City, developers and home builders. The construction schedule is developed by a committee made of internal and external stakeholders, with priorities decided on a city wide basis.

Transportation – Transit

Long-term bus service requirements have been identified within Riverview. These include service necessary to provide local access within Riverview and the buses and services required to transport passengers to existing or future transit/LRT hubs for travel to areas throughout the city.

It is anticipated that the transit facility will be required in the north end of the Riverview ASP to facilitate passenger transfers for travel to different areas of the city.

Transportation – Roadways

Costs for local, collector and arterial roads were supplied by the applicant. As 215 Street in Riverview borders Parkland County, the City's Arterial Road portion includes widening and cost sharing. Modifications will be required to the Cameron Heights/23 Avenue interchange along Anthony Henday Drive prior to full-build out of the Riverview area. Interchange modification costs were not included in the analysis as the timing and cost-sharing of the improvement are unknown at this time.

Fire Rescue Services

Based upon the proposed Area Structure Plan, Fire Rescue Services will require two fire stations within the Riverview Area. This is based on projections of population density as well as response times to the area. The Riverview area represents unique response requirements due to limited accessibility through municipal and natural boundaries.

Fire Rescue Services had already anticipated one fire station servicing Riverview in the current Station Master Plan for service within the next ten years (currently unfunded), however based on the current projections for population growth within this area, development of this station may be required sooner than anticipated.

Community Facilities

The current plan proposes one large recreation facility integrated with the District Activity Park. The Recreation Facility Master Plan, 5-Year Review/Update, defines new facility development based on key facility triggers including dedicated land, base infrastructure in place prior to development and reaching population thresholds (which in this case is approximately 50% of the population).

The timing of the facility would be contingent on funding availability and District Park site land assembly completion.

Edmonton Public Libraries

Edmonton Public Library has identified one library that would serve the Riverview ASP community and is envisioned to be integrated into the recreation facility site within the District Park to create a Community Meeting Centre type of development. Timing therefore is relational to the recreation facility.

Edmonton Police

The Riverview area does not have any police station planned as it is assumed that the new South West Station will serve this area. Police planning for facilities considers the City as a whole. In the second quarter of 2013, the Edmonton Police Service will be opening a new South West Division Station. This facility will provide service to areas west of Gateway Boulevard and south of Whitemud Freeway, encompassing the area proposed under the Riverview ASP.

This station is expected to accommodate growth needs of the Edmonton Police Service based on anticipated population growth for a significant period. Current planning anticipates the need for an additional station or expansion of the existing station sometime after 2043 in this area.

Parks

The Riverview ASP identifies 91.83 ha of park space in the form of District Activity Parks, School/Park Sites, Urban Village Parks, Pocket Parks, and Greenways. The capital cost identified for these areas include the grade level and seed, trees, parking, and servicing. The development of the park spaces is contingent on several factors included population, funding availability, land assembly, school board prioritization and community involvement.

The ASP identifies an additional 25.05 ha as natural areas, however these areas are not included in the capital cost estimations as natural areas expenditures are defined through the Natural Area Management Plan, which is later in the planning process. In addition, park amenities such as trails, playground equipment, special facilities (such as washrooms) and river valley access were not included in the analysis at this time. It is therefore anticipated that the capital expenditures for parks will be higher than that indicated in Table 2.

Waste Management

The cost of additional infrastructure for Waste Management Collection Services is depicted in Table 2. This cost includes additional waste collection vehicles and depots.

Waste Services has identified that at this time there is no need of having an Eco-Station in Riverview. The Ambleside Eco-Station is anticipated to accommodate Riverview's population growth.

1.4.2 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 centres, 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.

The analysis considers two population scenarios:

1. Scenario 1, which is based on a population projection supplied by Sustainable Development's Growth Analysis Unit, and
2. Scenario 2, which is based on the applicant's population projection

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 defensible assumptions, it is important to consider that the eventual build out of the neighbourhood may well be different than that shown in this analysis.

The two scenarios solely examine the effects of changes in the build out timing. They do not consider alternative land use concepts, the effects of a departure from existing development guidelines or patterns, and different density.

1.4.2.1 Scenario 1 – based on City's population projection

1.4.2.1.1 Demographics

Although the Capital Region Board (CRB) population projections for the Riverview ASP area did consider growth to occur incrementally in this area, an approved ASP and access from the Anthony Henday in this area will increase the expected rate of growth from the 2009 projections. Historical growth patterns of other areas within the City of Edmonton were used to develop the population projection for the Riverview ASP area.

For the purpose of this study, the City of Edmonton's up to date population projections were used (Figure 5). In this scenario, the development will be completely built out in 40 years (2056).

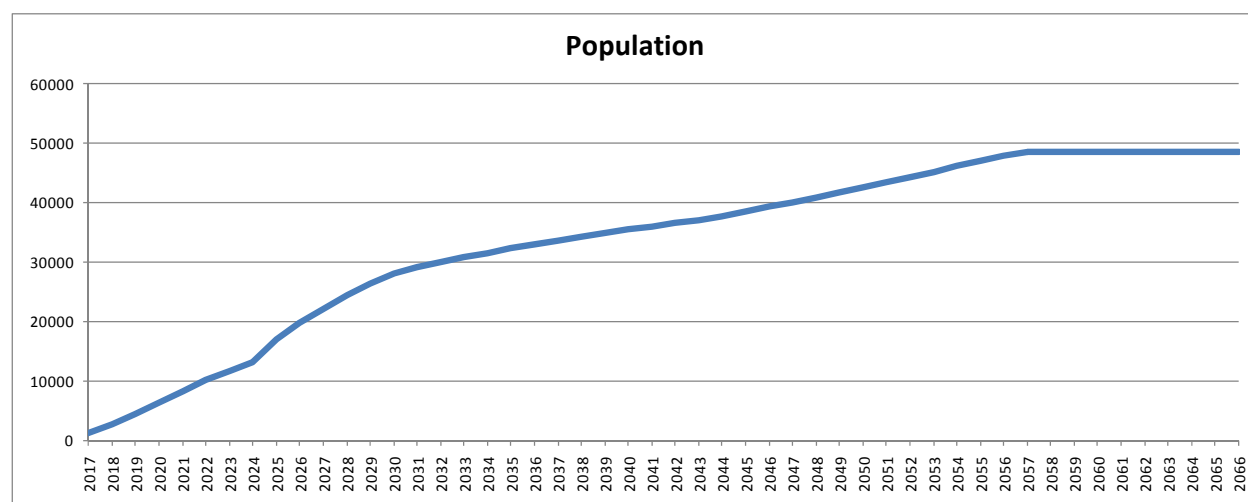


Figure 5

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

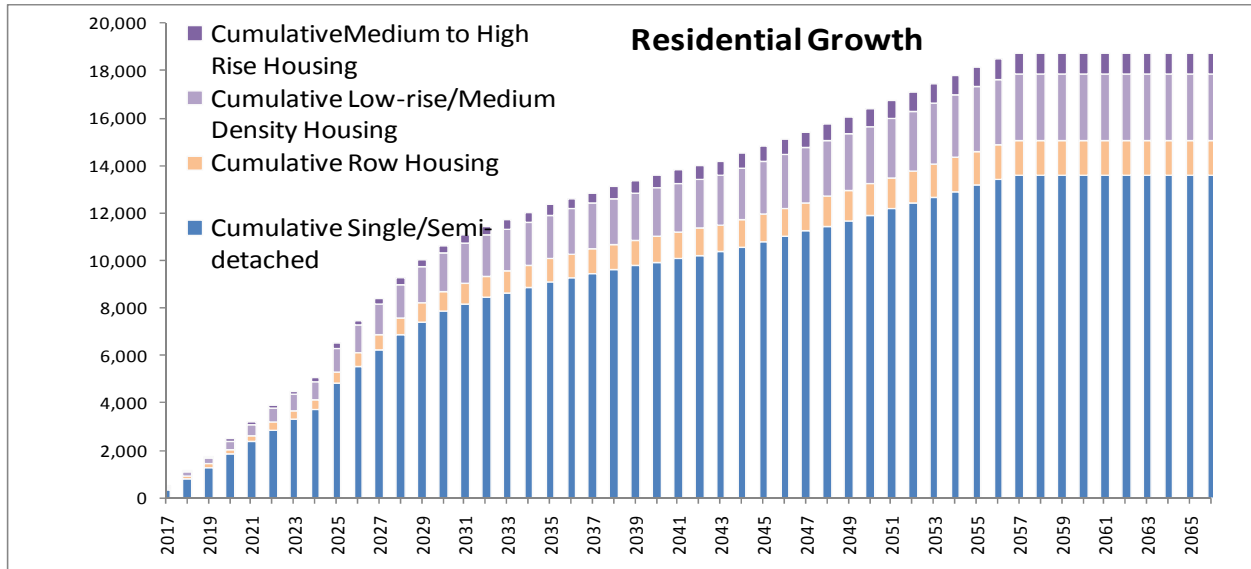


Figure 6

1.4.2.1.2 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.

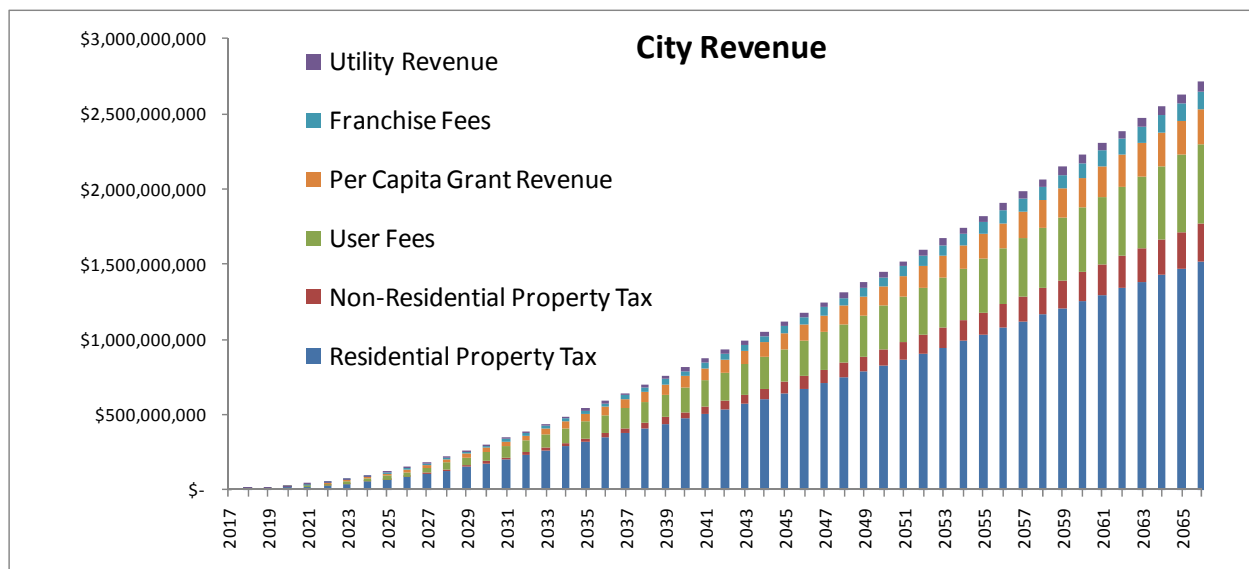


Figure 7

Figure 7 depicts the expected revenues over 50 years and identifies revenues by one of five sources:

- **Utility Charges:** The City Waste and Drainage utilities receive revenue resulting from the use of their services. This revenue is included in the analysis.
- **Franchise Fees:** The City receives revenue from ATCO Gas and EPCOR Electric customers for the use of public road allowances for their distribution networks.
- **Per Capita Grant Revenue:** The City of Edmonton relies on provincial and federal grants for a portion of its capital program. Without them, the City is not sustainable given its limited revenue generation options and increasing obligations and service expectations. Although it is difficult to model Grant funding as it varies by program, a general observation is that it increases proportionately with population. A per capita revenue allocation was developed based on existing grants and applied to the model.
- **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. They also contribute to the City's tax base, and therefore projected revenues from these areas are 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.

1.4.2.1.3 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.

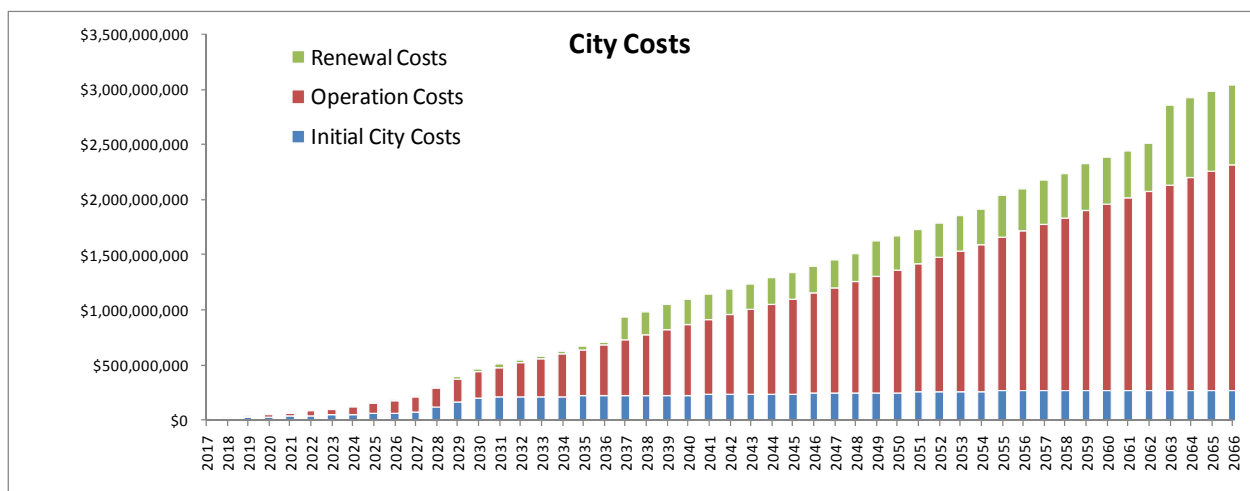


Figure 8

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.

1.4.2.1.4 Summary of Revenues and Expenditures

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

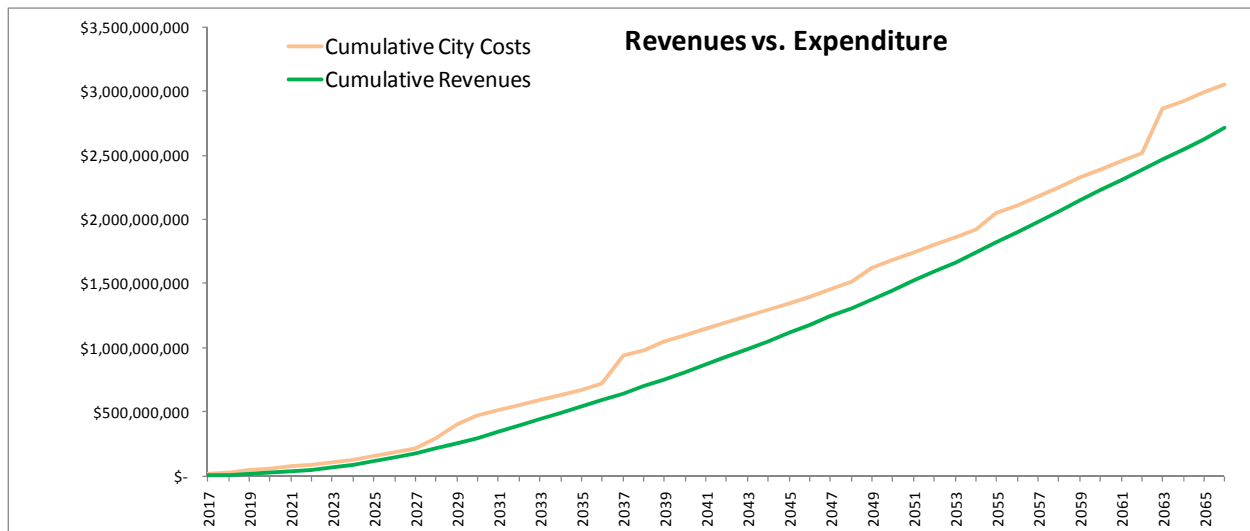


Figure 9

1.4.2.2 Scenario 2 – based on applicant’s population projection

1.4.2.2.1 Demographics

As part of the Riverview Area Structure Plan submission, the applicant supplied the City with a proposed demographic projection (Figure 10).

In this scenario, the development will be completely built out in 30 years (2044).

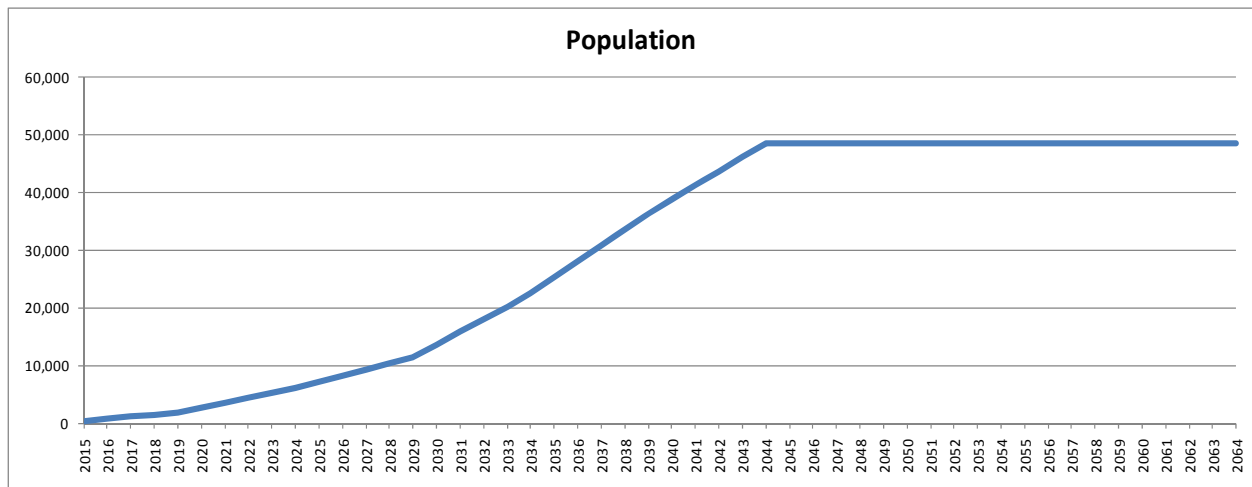


Figure 10

Figure 11 depicts how the projected population growth in Figure 10 translates into housing units of different density types. It is cumulative, and shows the relative distribution over time.

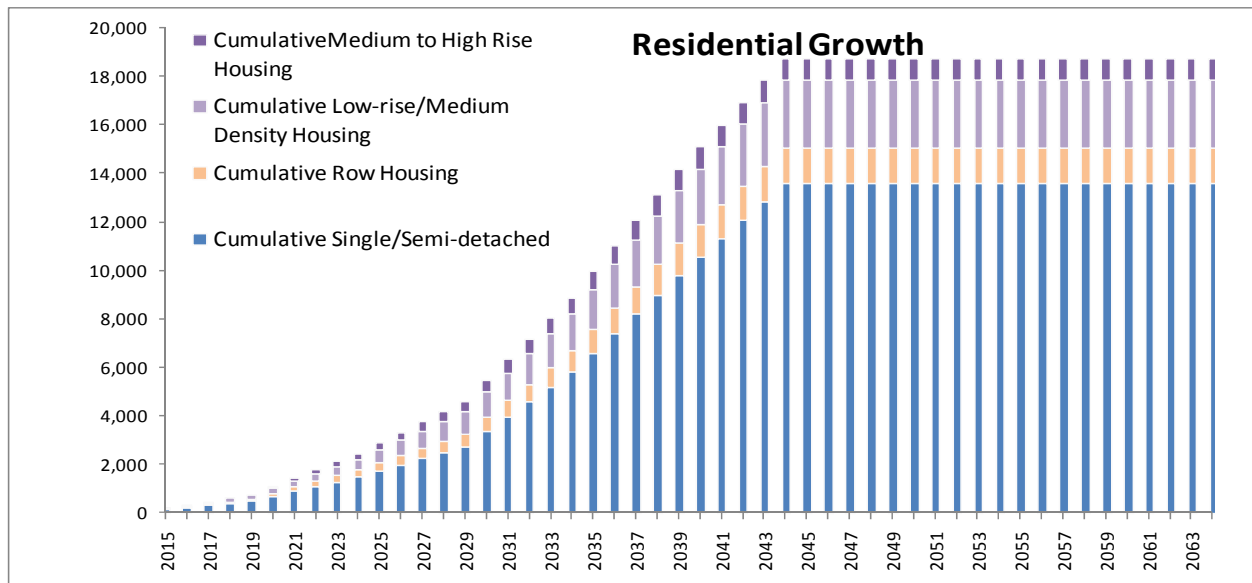


Figure 11

1.4.2.2.2 Revenue Expectations

Revenue expectations (in terms of types of revenues) are the same for both the scenarios. Please refer to 1.4.2.1.2 for details on types of revenue expectations. Figure 12 depicts the expected revenues over 50 years for Scenario 2.

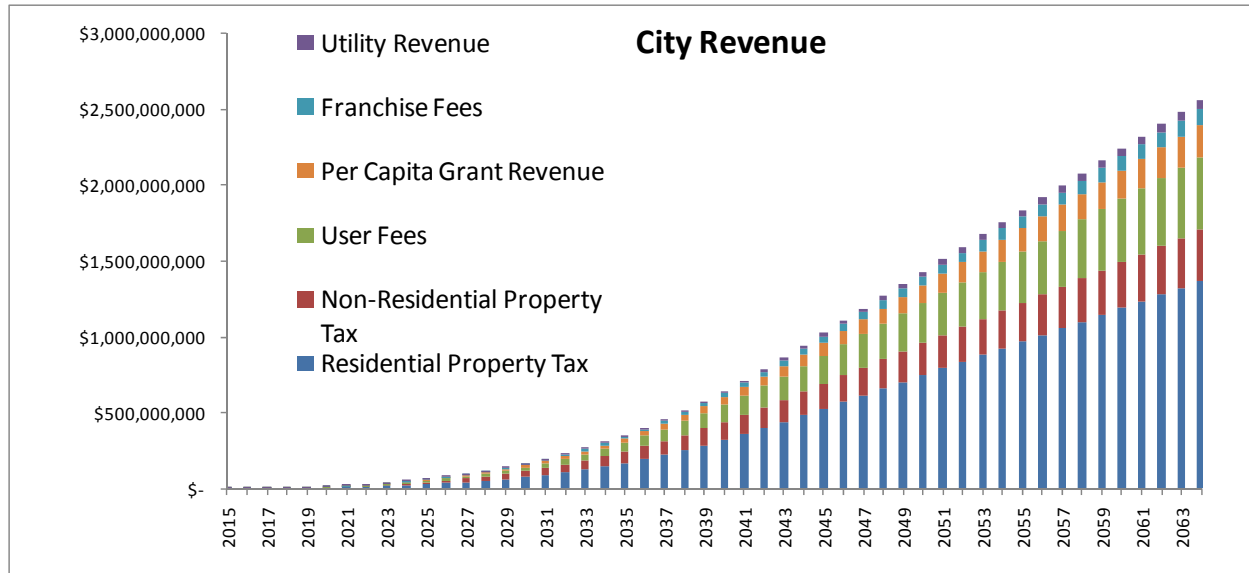


Figure 12

1.4.2.2.3 City Expenditure Expectations

City expenditures (in terms of type) are the same for both the scenarios. Please refer to 1.4.2.1.3 for details on types of City expenditure that are attributable to the Riverview ASP. Figure 13 depicts city costs over 50 years for Scenario 2.

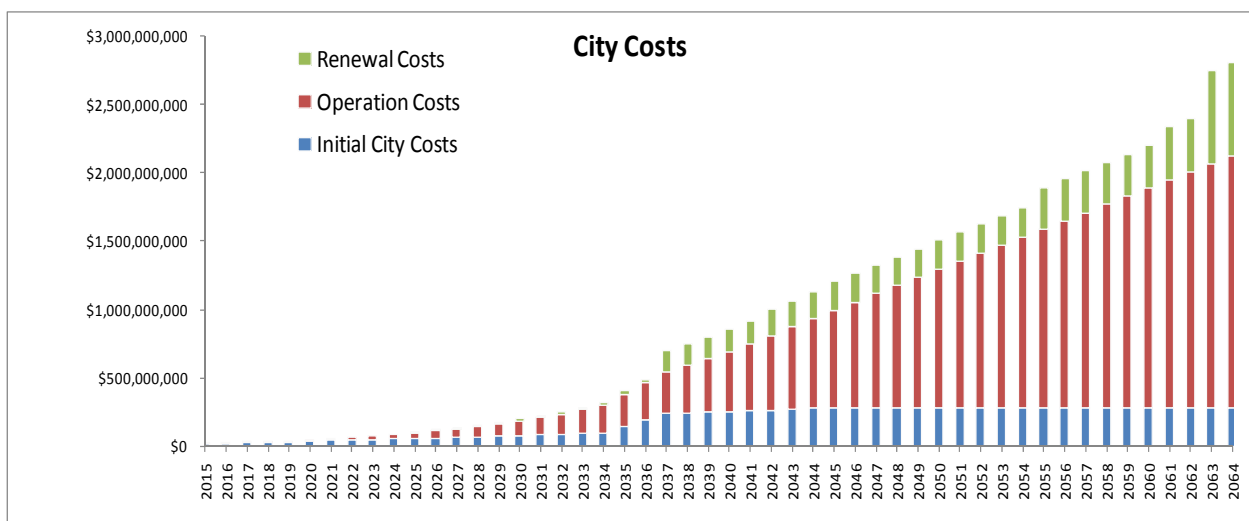


Figure 13

1.4.2.2.4 Summary of Revenues and Expenditures

Figure 14 shows the difference in direct expenditures and revenues 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.

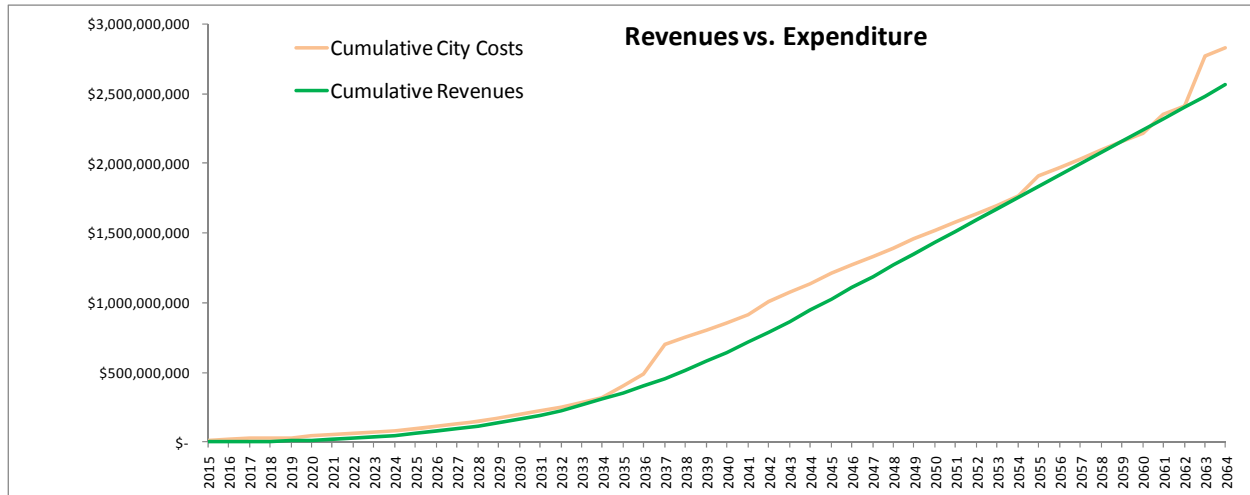


Figure 14

1.5 Section B: Building Perspective

1.5.1 Infrastructure Planning

The Riverview ASP is an excellent example of the need for, and benefit of, an integrated approach to infrastructure planning:

- Bordered by the Anthony Henday freeway, the North Saskatchewan River, and The City's boundary, the area requires special consideration of entrance and egress infrastructure needs. Services like Transit, Police, Fire Rescue, and Waste collection must carefully plan for, and should be considered in, the detailed layout and timing of entrance features.
- Access points into the River Valley must integrate not only with the park and trail systems within the proposed ASP, but also compliment the vision and overall plan for the River Valley.
- EPCOR requires the use of a roadway bridge to carry a large watermain required to service the area.
- The proposed recreation facility integrated with the district park site and the library allowing planners to take advantage of and benefit from the concentration and density of infrastructure and people to provide more effective and efficient services.

Due to the high level nature of the Riverview Area Structure Plan, some assumptions were made that will be tested and perhaps reworked at the Neighbourhood Structure Plan Stage. It is anticipated that the information presented in this report will change as planning in the ASP progresses and more is known. The Integrated Infrastructure Management Planning Framework calls for further analysis at the neighbourhood structure plan level, presenting more refined information while placing the proposed neighbourhood in context with the rest of the Area Structure Plan and surrounding City development.

1.5.2 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 critical.

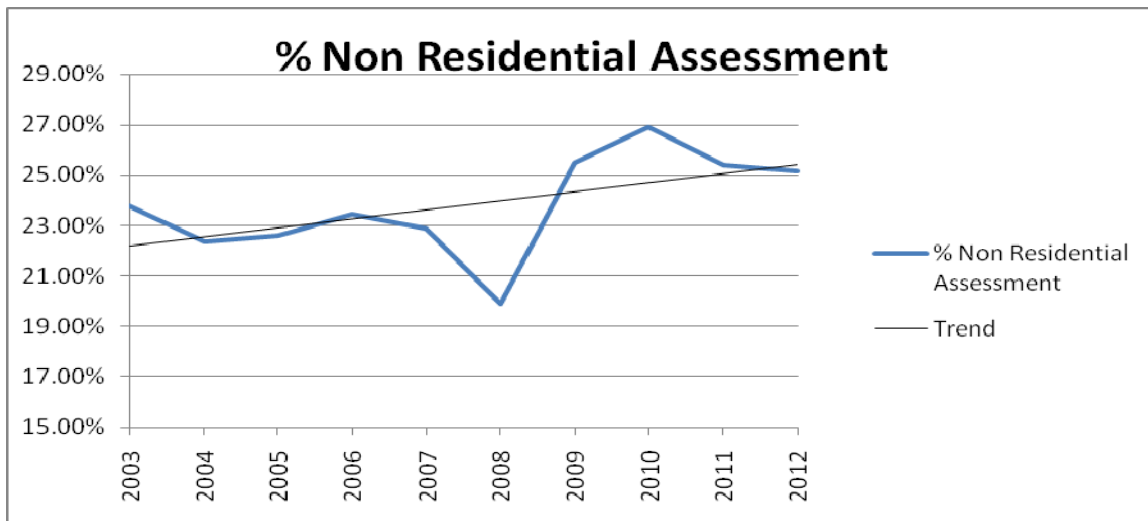


Figure 15

It is therefore important to consider how proposed development, in any form, contributes to the overall balanced growth of the City of Edmonton. Figure 15 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 made up approximately 25% of the total assessment base of the City in 2012.

How does the proposed development affect this balance? Generally, residential neighbourhoods have less than 25 % of their assessment base as non-residential, and the proposed Riverview Area Structure Plan is projected to have 6.3% of its assessment as non-residential. So as the City grows this and other 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.

Consider Figure 16 – Revenues Vs Expenditure including off-site commercial revenues for Scenario 1 and Figure 17 - Revenues Vs Expenditure including off-site commercial revenues for Scenario 2, each illustrates the importance of balanced growth and the benefit of maintaining the current non-residential assessment ratio under Scenario 1 and Scenario 2 respectively.

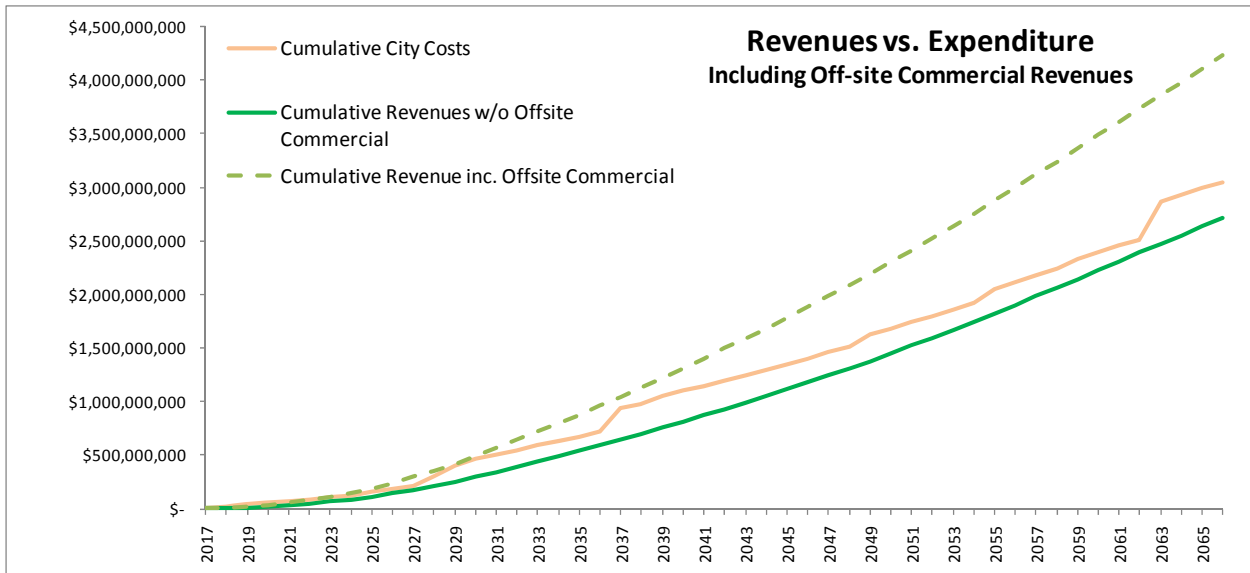


Figure 16

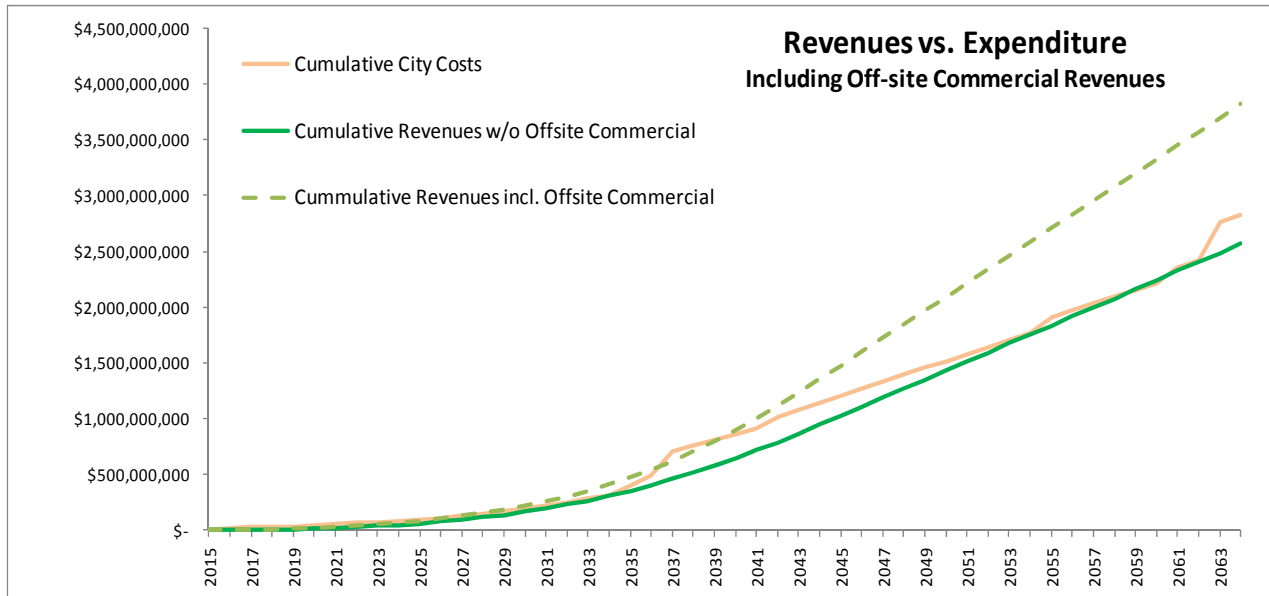


Figure 17

The figures are identical to Figure 9 and Figure 14, however they also show the affect on revenue outlook by including off-site commercial assessment. The premise in these figures is that if the City maintains its current balance of 25% non-residential assessment, by developing commercial areas throughout the City, this additional revenue helps to offset the fiscal imbalance indicated by looking at the Riverview ASP by itself.

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.

1.5.3 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 3 below shows the existing city wide commitment and financial obligations to already existing neighbourhoods in approved Area Structure Plans by sector. The Capital Cost indicated in Table 3 is for funding new infrastructure and does not include renewal or operations.

Approved Neighbourhoods and Area Structure Plans

Sector	Infrastructure Capital Costs - \$M		Population (2009 Municipal Census)		
	Current Funded	Future Funded	2009	Final Population	%
North	\$106.8	\$135.1	0	14,556	0%
North West	\$0.0	\$31.2	45,493	80,131	57%
North East	\$142.7	\$94.1	18,924	48,188	39%
South East	\$130.3	\$225.5	31,199	106,710	29%
South West	\$56.7	\$290.4	38,106	162,289	23%
West	\$42.1	\$414.4	30,376	90,304	34%
Total	\$478.5	\$1,190.6	164,098	502,178	33%

Table 3

Please note that infrastructure required for the Horsehills Area Structure Plan is not included in this table. At the time of authoring the Riverview ASP IIMP report, the Horsehills ASP did not receive third reading. When approved, it will add approximately \$830 million to the Northeast sector under the Future Funded column.

The 2009 column under Population represents the actual population of the developing neighbourhoods within the sector in 2009, and the final population in the neighbourhoods' column represents the projected final population when the sector is complete. It is important to note that the population figures provided relate to the developing neighbourhoods 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 neighbourhoods 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 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.

Historical and Projected Funding 2003-21
Showing Approved Projects and Projected Funding Levels

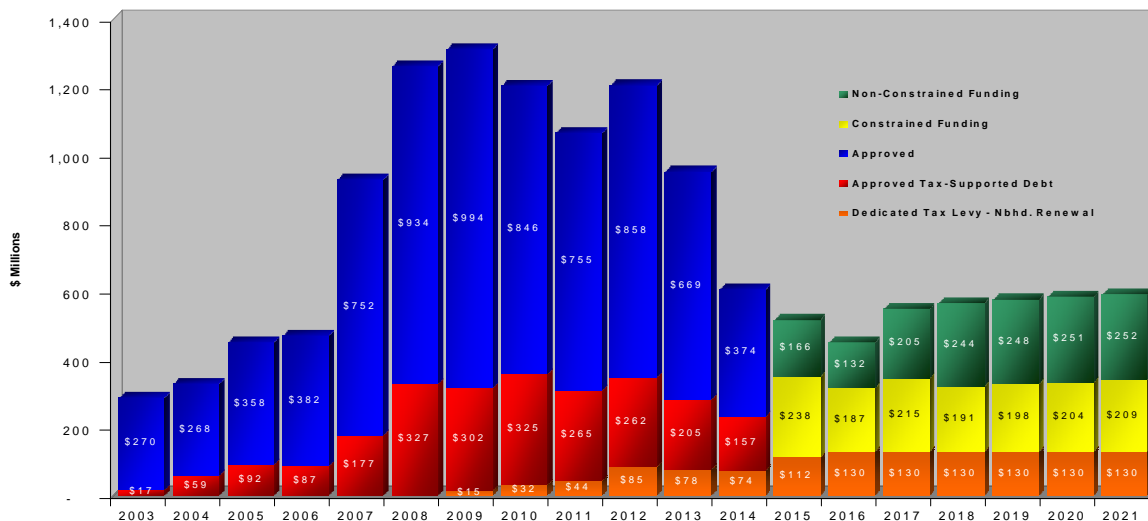


Figure 18

During the capital budgeting process, City departments evaluate infrastructure needs in new areas and make recommendations for funding to Council.

The figures in Table 3 are significant, but the City's commitment to its capital expenditure is even more significant. Funding for both growth and renewal infrastructure comes in different forms.

Figure 18, from the 2012-2014 Approved Capital Budget, shows historical and projected funding levels/breakdowns from 2003 to 2021 to provide a sense or scale to the size of the City's Capital Budget. In any event, administration does not make funding and budget recommendations on a neighbourhood basis, it makes them on a City basis. Prioritization considers all capital requirements throughout the City, and incorporates the strategy and objectives of The Way Ahead.

1.6 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)

1.6.1 Area Specific Assumptions

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

- The population was modeled to fill out independently of neighbourhoods.
- Assessment averages were calculated using 2012 residential and commercial data. Assessment values from newer areas in the south of Edmonton (specifically Ward 9) were chosen as the best representation of the type (and relative age with respect to the rest of the City) of development expected in the Riverview Area Structure Plan.
- The commercial area depicted in the Riverview ASP consists chiefly of a large Town Centre, coupled with smaller commercial sites distributed over the ASP. The Consultant provided information on the timing of this commercial development, which was integrated into the model.
- It is difficult to predict when, and in what order, the different types of residential housing forms (single/semi-detached, row housing, low-rise/medium density, and high rise) will be built. The Consultant supplied the timing for the density types for Scenario 2. The development pattern in Scenario 1 was modeled similarly, though adjusted for the longer timeframe.
- An assumption was made with respect to when all of the required infrastructure within a neighbourhood would be completed and in service. For modeling purposes it was assumed that when the neighbourhood reaches 95% of its ultimate population, all City and developer built infrastructure would be in place.

Other assumptions are identified in the qualifications following Table 2 in the report.

1.6.2 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, and the strength of its underlying assumptions. 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.

- Typically, area structure plan documents do not provide specific infrastructure quantities, rather general land areas for road right of ways and municipal reserve. 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 within this area plan.
- Operation, 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
 - Parks - \$ per hectare
 - All Others - \$ per capita
- Major rehabilitation and renewal costs are asset specific and are based on typical lifecycle costs and timetables.
- As the ASP does not propose industrial areas, they were not considered in the scenario analysis. Industrial areas are considered, along with commercial areas, as “non residential assessment” for the purposes of the perspective analysis in Section B.

¹ (Alberta Economic Multipliers 2006, Open Model Direct and Indirect Multipliers, pg 14. Edmonton, 2010)