

Riverside Area Structure Plan

Bylaw 1/2012

Consolidated by Bylaw 02/2020

(Approved March 2, 2020)

Riverside Area Structure Plan Amendments

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1.0 INTRODUCTION

1.1 Purpose

- (1) This plan establishes the conceptual land use, transportation, and servicing patterns for the Riverside neighbourhood to implement the *Municipal Development Plan (MDP)*, which designates this sector of the city as residential, small scale commercial, and parks/open space.
- (2) The plan works in concert with the *Red Willow Park Master Plan* and the Grey Nuns White Spruce Park (GNWSP) Management Plan, and the implementing policies to provide for appropriate pedestrian access, preservation of natural areas, and land management adjacent to the Sturgeon River and to the GNWSP.
- (3) Servicing standards, population analysis, and other details supporting this Area Structure Plan (ASP) are referenced in the *Timberlea Area Structure Plan Technical Report* (Technical Report), dated May 2005, the Riverside Technical Report dated June 2019, which was prepared by Select Engineering Consultants Ltd. These documents were used to prepare this Bylaw.

1.2 Authority of the Plan

This Riverside ASP Bylaw 1/2012 was renamed by Bylaw 2/2012. It was originally known as the Timberlea ASP. The *Timberlea ASP Bylaw 26/2005* was repealed and replaced by Bylaw 1/2012, which was passed by Council in accordance with the *Municipal Government Act (MGA)*.

The MGA identifies an ASP for the purpose of providing a framework for subsequent subdivision and development of the area. The ASP is to describe sequence of development, land use purposes, population density, and general location of transportation, public utilities, and other matters Council considers necessary. The approval of the Riverside Area Structure Plan does not guarantee development rights. At the time of subdivision, detailed engineering drawings and plans of subdivision will be reviewed and the City will then determine if development can proceed. In order to encourage development

within the City of St. Albert, Council, by approving this Area Structure Plan, acknowledges the following limitations:

- That final approval of any servicing agreements remains subject to a review of plans of subdivision and detailed engineering drawings as per the City Engineering Standards, Utility Master Plan (UMP), Transportation Master Plan (TMP), Transportation System Bylaw (TSB), Municipal Development Plan (MDP), Land Use Bylaw (LUB), and any other documents, Municipal or otherwise, the City determines relevant to the development. The approval of this ASP does not mean approval of any servicing agreement, future districting, subdivision, development agreement, development permit, or building permit.
- That the City reserves the right to apply any additional infrastructure servicing specification to the lands covered by this ASP in order to provide quality services to the citizens.
- That all development expenses and other costs, of every nature and kind, are expended at the developer's sole risk, and that any additional expenses incurred by the development as a result of any modification resulting from the aforesaid Engineering Standards are at the developer's expense.
- The City is not responsible financially or otherwise, to provide infrastructure to support development of this ASP.

1.3 Timeframe of the Plan

The Area Structure Plan is future-oriented and depicts how Riverside is expected to be developed over a 15-year period of time (2030) and through a series of public and private sector initiatives. The completion of the Riverside neighbourhood is dependant on servicing capacities and market demand. While the plan envisions a desired future, changes to the plan may be required to respond to new circumstances. Thus, to ensure that it remains current and relevant, the plan may be reviewed and updated either generally or in regard to a specific issue as determined necessary by Council, or when the *Municipal Development Plan* (MDP) is updated.

1.4 Interpretation of the Plan

1.4.1 Map Interpretation

Due to the scale of the ASP maps, the boundaries or locations of any symbols or areas shown on a map within the ASP are approximate and not absolute, and are to be verified at the time of subdivision. With the exception of surveyed delineations, boundaries and symbols on the maps are not intended to define exact locations except where they coincide with clearly recognizable physical features or fixed boundaries such as existing road or utility rights-of-way. Minor deviations on the boundaries between land uses may be allowed, at the discretion of Planning and Development Department Administration, as long as the general location of land uses does not change or create potential impacts to surrounding land uses (existing or proposed), and the overall statistics for the neighbourhood are still achieved. While proposed roads and walkways are shown in order to illustrate possible alignments, the local road alignments and walkway locations are subject to verification and possible realignment at the time of subdivision.

1.4.2 Application of the Plan

The *Riverside ASP* shall apply to the area shown on Figure 1. The area is located in the northwest quadrant of St. Albert and is bounded by:

- Canadian National (CN) Sangudo subdivision railroad to the north and northeast;
- Sturgeon River to the south; and
- Ray Gibbon Drive to the west and southwest.

The ASP area encompasses a gross area of 284.4 hectares± and a net developable area of 217.7 hectares±. Approximately 45 hectares of land in Riverside has been dedicated and registered as Environmental Reserve; in addition, approximately 10 hectares has been dedicated and registered as Municipal Reserve.

1.5 Objectives

The objectives of this ASP are to:

- create a land use plan that maximizes the amenity value of a location near the Sturgeon River;
- integrate the land use and circulation pattern with Ray Gibbon Drive;
- offer a wide range of housing options reflecting present and future market and demographic conditions in St. Albert;
- create a satisfactory interface with Red Willow Park, Grey Nuns White Spruce Park, and Heritage Park;
- provide a framework for an innovative neighbourhood development that will anticipate future demographic, market, and economic factors;
- incorporate the natural areas as a place for nature-lovers and future generations;
- develop a strong pedestrian orientation and linked network of walkways, trails, and public green spaces; and
- establish a neighbourhood activity centre that will provide a safe, accessible, focal point of commercial and higher density nodes in the heart of the neighbourhood.

1.6 Property Ownership Patterns

In the past, lands within the boundary of Riverside were described using the early River Lot settlement pattern, where the narrow river lots extended perpendicular to the Sturgeon River, which were officially surveyed in 1883, see Figure 14, Former Historic River Lots. In October 2015, the River Lots in the central and west portion of the Plan Area were consolidated and subdivided; thus, changing the river lots to parcels with plan, block, and lot numbers.

In 2019, the lands within the Plan Area had five (5) different landowners. The Plan Area also includes the road allowances for Meadowview Drive, Hogan Road, and the roadway known locally as Meadowview Lane. Some portions of these roadways will be closed, and the land integrated into the overall fabric of the neighbourhood. Other portions will be retained for uses such as roads,

open space, and walkways, as described later in this document. Figure 7 provides the legal descriptions of the parcels of land within the Plan Area.

1.7 Planning Context

The ASP has been prepared within the context of the statutory planning system in St. Albert, as well as other non-statutory master planning and servicing initiatives, which provides guidance for the future land use and development options of Riverside.

1.7.1 *Edmonton Metropolitan Region Growth Plan*

St. Albert is one of 13-member municipalities that must conform to the Growth Plan of the Edmonton Metropolitan Regional Board (EMRB). St. Albert is part of the Metropolitan area, encompassing the highest concentration of existing and future urban development. St. Albert statutory plans must align with policies within the Growth Plan, including but not limited to, greenfield densities of a minimum of 40 dwelling units per net residential hectare (du/nrha).

The Riverside ASP proposes an unchanged net residential density of 32 dwelling units per net hectare. Since the Riverside ASP predates 2017, the density requirement of 40 dwelling units per net hectare does not apply. The Riverside ASP, however, does meet the minimum density of 30 dwelling units per net hectare which was the required density by the Capital Region Board at the time the existing ASP was approved. This application was not required to be referred to the EMRB since it met all the requirements of the EMRB Growth Plan.

1.7.2 *Municipal Development Plan*

The City of St. Albert *MDP*, Bylaw 15/2007, as amended, Future Land Use Policy, Map 2, designates the Plan Area as residential, commercial, and park/open space. A corridor of land along the north shore of the Sturgeon River is designated as Red Willow Park, with Residential designation to the north. The Grey Nuns White Spruce Park is identified on the Parks & Open Space, Map 3.

The Transportation Network, Map 5, includes the alignment of Ray Gibbon Drive, McKenney Avenue, and the portions of Meadowview Drive to be closed and realigned.

1.7.3 Existing Area Structure Plan

The original Timberlea Area Structure Plan Bylaw 26/2005 was adopted on November 21, 2005 and repealed and replaced by Bylaw 1/2012 adopted January 23, 2012. It was later amended to be known as the Riverside ASP by Bylaw 2/2012. Bylaw 4/2016 amended the Riverside ASP to adjust the west boundary, land uses, and statistics. Bylaw 02/2020 amended the Riverside ASP to improve the road network, adding a second school site, relocating medium/high density land uses, and adding a commercial site north of McKenney Avenue.

1.7.4 Land Use Bylaw

The City's *Land Use Bylaw*, Bylaw 9/2005, as amended, controls development of the lands within the neighbourhood. The Urban Reserve District is a holding district for orderly transformation to future urban expansion or intensification development. Changes to the land use district will be required through an amendment to the Land Use Bylaw (redistricting), ahead of subdivision and development.

The ASP Figure 2, Future Land Use, demonstrates the base land uses and descriptions within this document describe the expected uses and densities. Land uses anticipated are - neighbourhood commercial; public and private service such as schools; low density residential; medium and high density residential with opportunity for supportive housing; public parks; trails and walkways; and stormwater management facilities (as public utility lots).

The lands districted Direct Control (DC) include: the lands located east of Meadowview Lane, lands owned by the Oblates, and the Heritage Park site consisting of the Métis Farm and the future French-Canadian Farm. Lands districted Public and Private Service (PS) include: The Grain Elevator Park and Train Station as well as the future Interpretive Centre for the Heritage Park. Lower portions of the Heritage Park, on River Lots 23 and 24, are natural areas that will have trails as part of the

future development of the Heritage Park. The Meadowview Ball Diamonds are adjacent to the Heritage Park with a land use district of Public Park (P). Portions of River Lots 19, 20, 21, and 22 have been districted for residential uses.

All privately owned lands located below the Designated Flood Line were designated as Environmental Reserve or Municipal Reserve in 2010 with the exception of Plan 822 2288, Lot A (20 Meadowview Drive) and a portion of River Lot 22 (27 Genstar Annex). The designated land includes 9.25 hectares± of the White Spruce Forest, which is within the Grey Nuns White Spruce Park. Environmental Reserve will need to be dedicated on River Lot 22 (27 Genstar Annex) and Plan 822 2288, Lot A (20 Meadowview Drive). Municipal Reserve is owed on River Lot 22 (27 Genstar Annex and 10 Meadowview Lane); and Plan 822 2288, Lot A (20 Meadowview Lane).

1.7.5 *Transportation Master Plan (TMP)*

The Transportation Master Plan (2015) prepared by Associated Engineering for the City of St. Albert applies to these lands. The TMP shows road patterns at various population horizons. The Riverside neighbourhood arterial roadway is McKenney Avenue, which connects to Ray Gibbon Drive on the west and eastward to St. Albert Trail.

One of the strategies identified in the TMP is “Complete Streets”. The City of St. Albert approved the Complete Streets Guidelines and Implementation Strategy in August 2018. The Complete Streets Guidelines provides vision, principles, and objectives to support St. Albert’s priority of creating a community designed to promote safety and connectivity through a transportation network that accommodates all types of development. Any proposed subdivision applications within this ASP should be in conformance with the TMP and the Complete Streets Guidelines and Implementation Strategy.

1.7.6 Utility Master Plan (UMP)

The Utility Master Plan (2014) for the City of St. Albert is a general framework for providing utility services to future developments (water, wastewater, and stormwater management). The timeframe for extending services is based on the pace of development and the ability of front ending parties to design and construct necessary infrastructure components.

The current stormwater management release rate is 2.5 litres per second per hectare (L/s/ha) for the Sturgeon River. Should release rates be altered, additional studies showing the impact on downstream stormwater facilities must be completed.

1.7.7 Red Willow Park West Master Plan Update (2018)

The Red Willow Park West (RWPW) Master Plan Update (2018) provides a long-term vision and comprehensive plan for the development and management of Red Willow Park West. The overarching objective of the 2018 update was to create a clear vision for future park development through an innovative, user friendly and achievable RWPW Master Plan.

The guiding principles provide clear direction for maintaining ecological integrity RWPW while providing opportunities for low impact outdoor recreation. The guiding principles are as follows:

Ecological Integrity - managed to conserve environmental biodiversity and ecological integrity.

Ecosystem Management - management will recognize that is part of a larger ecosystem/watershed.

Integration - future land decisions will strive to integrate conservation, outdoor recreation, tourism, and heritage appreciation.

Shared Stewardship - through partnerships private sector, landowners, other governments, not -for -profits groups, and individual citizens.

The plan also defines the development of the Grey Nuns White Spruce Park which is designed to protect and manage the forest as a Municipal Historic Resource, while allowing appropriate public access for enjoyment and education.

Where urban development is in proximity to the tree stands, careful consideration will be given to relative elevations and surface drainage to ensure that the tree stands are not negatively affected. Design approaches may include the creation of naturalized buffers between the tree stands and adjacent roads or residential lots.

Pedestrian access to Red Willow Park will be controlled, with no individual access points from adjacent residential areas; meaning no gates will be allowed onto the GNWSP and Red Willow Park from individual properties. A future access point is conceptually located to the west of the existing Hogan Road right-of-way, which may provide for future parking opportunities, bus turn-around, and entrance area for persons wishing to use the trail system.

1.7.8 *Grey Nuns White Spruce Park Recommended Management Plan (May 2014)*

The Grey Nuns White Spruce Park (GNWSP) is a larger area that contains the White Spruce Forest that is designated as a municipal historic resource through Bylaw 31/2011, because of its ecological and historical significance. The Management Plan provides recommendations to preserve and maintain the forest and the larger area of the GNWSP for the enjoyment of its residents for generations to come. The GNWSP is located within the boundaries of the Red Willow Park West Master Plan Updated (2018).

1.7.9 *Guidelines for the Protection of Natural Areas in the Timberlea Neighbourhood*

The *Guidelines for the Protection of Natural Areas in the Timberlea Neighbourhood (2007)* document provides best management practices to be used during construction activities within the Riverside area to avoid or mitigate potential impacts on natural areas. This plan requires an Environmental Construction Operations (ECO) Plan be submitted to

the City prior to the approval of a Development Agreement or Development Permit.

1.7.10 St. Albert Heritage Site Functional Plan

The *St. Albert Heritage Site Functional Plan (January 2010)* provides the long-term vision and plan for restoration of the Heritage Site located on the eastern edge of the Riverside ASP area. The Historical concept plan is shown on Figure 13A. Changes to the St. Albert Heritage Site Functional Plan do not require an ASP amendment.

2.0 SITE ANALYSIS

2.1 Natural and Cultural Features

2.1.1 Topography and Drainage

The area has level to gently sloping terrain, sloping south towards the Sturgeon River. The land falls gradually from an elevation of 665 metres above sea level at the northwest corner to 650 metres at the Sturgeon River. Natural site drainage is generally to the south to the Sturgeon River.

2.1.2 Sturgeon River Designated Flood Line

The southern fringe of the ASP area lies below the Designated Flood Line of the Sturgeon River. No development is allowed below the Designated Flood Line. All development in the Riverside ASP must conform to Schedule G of the Land Use Bylaw as amended (the Designated Flood Line Map and General Regulations). Previously two fill sites were permitted (permit numbers DP-2006-00463 and DP-2006-000462), but no further fill sites will be permitted in the Riverside neighbourhood. These sites are shown in Figure 12, Natural Areas.

2.1.3 Geotechnical Conditions

Geotechnical investigations within the Plan Area are documented in the report *Red Willow Subdivision – Geotechnical Investigation*, March, 2001 and in a report *Timberlea Subdivision Development*, June 2006, both prepared by UMA for Genstar Development Company Ltd. The reports provide a summary of the general soil and groundwater conditions and an assessment of conditions for site development, site grading, residential construction, the construction of roadways, the installation of sewer and water systems, and the construction of stormwater management facilities. Nine test holes were drilled to augment information from nine test holes drilled previously in 1993. An additional 16 test holes were drilled in 2006.

Generally, the soil profile consists of topsoil and surficial organic and clay fill overlying glaciolacustrine clay. The report presents guidelines and standards for the construction of all components of urban development.

The water table depths were between 1.2 metres to greater than 5 metres below ground surface.

Areas of high groundwater levels in the Plan Area may require further investigation at the time of subdivision, Development Permit, and building construction stage to identify mitigation measures addressing hydro-geological concerns. If an acceptable strategy cannot be obtained, then the land may be deemed unsuitable for development.

Geotechnical studies were not conducted on River Lot 22 (27 Genstar Annex and 10 Meadowview Lane) and Plan 822 2288, Lot A (20 Meadowview Lane), and should be completed prior to development of these lands.

2.1.4 Vegetation Resources

Much of the land within the Plan Area has been extensively cultivated for many years. A number of natural and man-made planted tree stands and two low areas with intermittent water are distributed throughout the Plan Area. In addition, a zone of riparian vegetation extends continuously along the north shore of the Sturgeon River.

Eight natural areas are identified in the *MDP*, Map 4, Natural Areas Inventory 2007, based on the *St. Albert Natural Areas Review and Inventory, 1999* prepared by Spencer Environmental Management Services Ltd. A detailed description of the eight natural areas, along with direction as to their integration into the neighbourhood, is provided in the Technical Report 2005. Four major natural areas within the ASP area, comprising more than 38.5 hectares± are being proposed for partial or full retention and integration and will be registered as Environmental or Municipal Reserves.

The proposed stormwater management facilities provide opportunities for the creation of additional wetlands and wildlife habitat to enhance the natural resources of the Plan Area.

2.1.5 Natural Areas Assessment

In accordance with Policy 10.7 of the *MDP*, a report entitled *Natural Areas Assessment for the Timberlea Area Structure Plan* was prepared by Westworth Associates Environmental Ltd. in May 2004. The Natural

Areas Assessment (NAA) addressed natural areas A through F, as shown on Figure 12, Natural Areas of this ASP, focusing on sustainability of these areas that are proposed for preservation. Areas A through H are described generally as follows:

- Area A:** The riparian fringe along the north shore of the Sturgeon River comprised of riparian sedge, willow, and balsam poplar. Much of this area is located below the Designated Flood Line of the Sturgeon River. Most of the lands have been registered as Environmental Reserve and include a 20-metre buffer along the northern edge of the Sturgeon River riparian fringe.
- Area B:** This is a prominent white spruce forest, 9.25 hectares± (22.86 acres±) in size. This parcel was officially designated as Municipal Reserve and named as the “Grey Nuns White Spruce Forest” in 2011. This Municipal Reserve includes a 50-metre vegetated buffer around the white spruce stand, as recommended by the Natural Areas Assessment.
- Area C:** This is a balsam poplar forest with a successional understory of white spruce located above the riparian fringe of the Sturgeon River and partly below the Designated Flood Line. It is 3.27 hectares± (8.08 acres±) in size, and is designated for retention to define the interface between the residential area and Red Willow Park. This area is registered as Environmental Reserve and includes a 20-metre vegetated buffer along the northern edge of the mixed wood stand, as recommended by the Natural Areas Assessment.
- Area D:** This 1.19 hectares± (2.94 acres±) stand of mature and young balsam poplar, aspen poplar, and white spruce is designated for integration as a natural feature. Portions of the poplar stand will be reduced in size to allow road access to residential lots. The remaining treed portion is located above the Designated Flood Line, and will be designated as Municipal Reserve.
- Area E:** Two stands of trembling aspen, balsam poplar, and spruce are located in the eastern portion of the Plan Area. They lie partly

below and partly above the Designated Flood Line. Those portions below the Designated Flood Line are eligible for protection as Environmental Reserve. The areas above the Designated Flood Line are located on smaller, individual lots which may preclude preservation of the majority of the trees. The efficacy of incorporating these existing trees within future development will be determined at the time of subdivision.

Area F: This is an extensively modified area of low lying land, drainage channels and fringe woodland of willow and red osier dogwood occurring in the central portion of the Plan Area. The area has received stormwater from Mission Park and Lacombe Park for almost 30 years. In addition, a natural gas pipeline has been constructed through the area.

Portions of the low lying area will be retained in modified form for continued stormwater management. The resulting stormwater management facility in this area will be naturalized, acting as a man-made wetland. The stormwater management facility will be connected to Red Willow Park by a north-south vegetated open space corridor that will also extend north to Lacombe Lake Park.

The provincial government has reviewed this area, and has determined that it does not meet the criteria for a permanent water body, and therefore will not claim the area under Section 3 of the Public Lands Act. Mitigation requirements for removal of the wetland will be determined by Alberta Environment and Parks at the time of subdivision of the area.

Area G: This roadside shelterbelt has a limited size and attenuated shape, making integration of this natural area into the fabric of the neighbourhood particularly difficult. The existing shelterbelt provides for an avian connection between Natural Areas F and H. Because Area H is proposed to be removed as part of the development of Riverside, the habitat value of Area G is greatly diminished. Given the other Municipal Reserve needs in the area, this area will not be retained in favour of preserving other natural areas.

Area H: This low lying area is too limited in size to warrant consideration for retention and integration into the urban development pattern. If preserved, the sustainability of the natural area is questionable without significant buffers and other mitigation measures. Because this area is not as ecologically valuable as other areas planned to be preserved within the Plan Area, and given the limited Municipal Reserve resources for the area, Area H is proposed to be removed and developed.

The provincial government has reviewed this area, has determined that it does not meet the criteria for a permanent water body, and therefore will not claim the area under Section 3 of the Public Lands Act. Mitigation requirements for removal of the wetland will be determined by Alberta Environment and Parks at the time of subdivision of the area.

2.1.6 Natural Areas Assessment Recommendations

The Natural Areas Assessment (NAA) includes several recommendations that will improve the sustainability of the preserved natural areas. The following recommendations from the NAA have been incorporated into the neighbourhood design concept, as shown on Figure 2, the Future Land Use Map:

- Reclaim the portion of Hogan Road that divides the white spruce stand;
- Maintain a portion of Natural Area
- Maintain the natural drainage pattern and flow regime to the Sturgeon River (naturalization of existing north-south drainage ditch); and
- Design all stormwater ponds as wildlife habitat; and

In addition to the above mitigation measures, the NAA recommends that the City create a management plan for retained natural areas, particularly those within Red Willow Park, to reduce the indirect effects of urban development on natural areas. In response, the City has developed a management plan entitled “*Guidelines for the Protection of*

Natural Areas in the Timberlea Neighbourhood” to guide development and construction practices in Riverside. The Grey Nuns White Spruce Park (GNWSP) Recommended Management Plan was prepared in May 2014 to provide guidance on preserving and maintaining the GNWSP.

2.1.7 Environmental Site Assessment

Phase 1 Environmental Site Assessments (ESA), based on the CSA Standard Z768-94, Phase 1 Environmental Site Assessment (1994), was completed in December 1999 for all Genstar lands in Northwest St. Albert. In June 2014, Genstar updated the Phase 1 ESA within Riverside including the 12.96 hectares expansion area adjacent to Ray Gibbon Drive. An ESA was conducted in May 2006 for the portion of River Lot 21 and 22 within the Plan Area. There are no environmental concerns within the lands owned by Genstar and Reid Worldwide Corporation within the Plan Area.

The Phase 1 Environmental Site Assessment is recommended for the balance of the lands not owned by Genstar, prior to redistricting and/or subdivision approval.

There are three (3) wellheads within the Plan Area. Figure 9, Constraints, provides the location of wells, and licence numbers. These oil wells each require a reclamation certificate and a determination if a 5-metre radius setback is sufficient. Setback requirements are determined and regulated by Alberta Energy Regulator (AER). The wellheads should remain as privately held lands with appropriate physical access, according to all pertinent standards and legislation. The City will not assume ownership or liability for a wellhead.

2.1.8 Heritage Resources

A Historical Resources Inventory of Genstar lands in northwest St. Albert was completed by Aresco Ltd. in 1978. Of the five sites located within the Plan Area, three were recommended for further work “in the event of development impact” (Aresco, 1978, p. 20).

All three sites are located in the floodplain (Aresco, 1978, pp. 12 & 13) of the Sturgeon River and Big Lake. Therefore, these sites will not be subject to residential development proposed under this ASP.

Western Heritage submitted a Statement of Justification to Alberta Culture in April 2015, which included the 12.95 hectares expansion area in the west portion of the Plan Area. Historical Resources Act clearance was granted by Alberta Culture on May 15, 2015.

2.2 Current Development Patterns

The Plan Area is bordered by residential urban development to the north and east. The Mission, Ville Giroux, and Lacombe Park neighbourhoods are located immediately north of the CN Sangudo Rail right-of-way. Riel Business Park occupies land immediately to the south of the Sturgeon River. Residential and roadway development has begun in this neighbourhood. Any development (construction or excavation) within proximity to high-pressure gas pipelines shall follow guidelines of the National Energy Board.

On the east side of Meadowview Lane is a mixture of land uses, including the Public Works satellite yard (site of the future Heritage Park Interpretive Centre), the Meadowview Ball Diamonds; plus, two restored grain elevators (designated Provincial and Municipal Historical Resources), accessory buildings to the heritage site, and replica train station. The Cheviny House and Brosseau Granary will form the French Canadian Farm, which moved from River Lot 24 to River Lot 23 in 2016.

The Cunningham and Hogan residences, located on River Lot 24, will form the nucleus of the Métis Farm. The *St. Albert Heritage Site Functional Plan (January 2010)* addresses the heritage concept. The Heritage Park is part of the Red Willow Park, as designated within the *Red Willow Park: West Master Plan Update*.

On the west side of Meadowview Lane are two small holdings that include the Missionary Oblates' property, and a private homestead.

A high-pressure gas line runs east-west through the southern portion of the Plan Area. A gas regulating station is located immediately east of the Grey Nuns White Spruce Park. Another gas line runs north from the station to Lacombe Park. These lines will run, in large part, through areas designated for open space, and may be used as trail links.

Three rural roads are located within the Plan Area. Hogan Road runs north-south, while Meadowview Drive runs east-west, linking St. Albert with Sturgeon

County to the west. Meadowview Lane runs north-south in the eastern portion of the Plan Area. The connection to Mission Avenue on the north side of the CN Rail was closed in 2016, but will be re-opened in this ASP amendment.

The CN right-of-way defines the northern limit of the ASP area. According to CN, four trains within a 24 hour period travelled the CN Sangudo Rail right-of-way in July 2013 with additional local railway traffic due to use of the tracks for switching and customer needs. Rail traffic has increased by two trains a day since 1997.

3.0 LAND USE CONCEPT

3.1 Future Land Use Map

The Future Land Use Map for Riverside is shown on Figure 2. This map consists of a series of areas and symbols that define expected future land use and roadway patterns for the subject lands.

3.2 Land Use Concept: Major Development Patterns

Two major factors affect the urban form of the future Riverside Neighbourhood: the major transportation routes, and the open space system. Ray Gibbon Drive defines the western boundary of the neighbourhood, and extension of McKenney Avenue through the neighbourhood separates it into northern and southern residential precincts. McKenney Avenue will be the primary arterial road for the neighbourhood, with collector roads looping off McKenney Avenue, which will separately serve the north and south residential areas. The Neighbourhood Activity Centre designated along both sides of McKenney Avenue in the central Plan Area will serve both precincts. The commercial and higher density land uses concentrated in this area will become a major destination for residents within the community and beyond. Other smaller sites for medium density residential housing forms are also identified within the Plan Area.

Riverside proposes to integrate urban development with the existing natural features to create a unique residential environment, in concert with the *Red Willow Park Master Plan*. The registered environmental and municipal reserve boundaries create a natural transition between the residential land uses proposed in Riverside and Red Willow Park. A north-south trail along the linear stormwater channel, and pedestrian walkways on McKenney Avenue will link Red Willow Park with Lacombe Lake Park to the north, providing an opportunity for pedestrian and bicycle links with the rest of St. Albert. More active neighbourhood parks are also designed into the Plan Area.

The existing heritage buildings will form the nucleus of a Heritage Park in the eastern portion of the Plan Area. **A new neighbourhood connection of Rankin Drive to Mission Avenue is proposed – by extending Rankin Drive to the east of Meadowview Lane and providing a north-south connection from Rankin Drive to**

Mission Avenue, with a proposed neighbourhood intersection accommodated northwest of the St. Albert Grain Elevator Park (future Heritage Sites) on Mission Avenue. This new roadway shall provide service and improved connectivity to the Riverside community to the west, as well as access to the Meadowview Ball Diamonds and Heritage sites to the east.

3.3 Residential Land Use

3.3.1 Low Density Residential

Low density residential land use will comprise of 104.6 hectares± of land within the Plan Area. Low density residential land use may include single-detached house, single-detached house with a secondary suite, semi-detached, duplex housing, and townhousing forms, or any combination thereof, provided the low density built forms conform to the Land Use Bylaw requirements. The maximum density for low density residential is 39 dwelling units per net hectare. The number of low density residential units anticipated is 2,513 dwelling units. The total number of dwelling units proposed, approximately 63.3% of the dwelling units proposed, will be low density residential dwelling units.

As of 2018, the Land Use Bylaw and Complete Streets guidelines allows for limited amount of public laneways to be incorporated into the low density residential districts. Laneways allow vehicular access and parking to the rear of lots. These lots front onto a public street, and such streetscape enables on-street parking and pedestrian connection without conflicting with driveways.

A portion of the land for River Lot 22 (27 Genstar Annex) and Plan 822 2288, Lot A (20 Meadowview Lane), and the Heritage Park are below the designated flood line. The Land Use Bylaw has regulations about development and the designated flood line.

Any residential development backing onto the CN Rail Line must consider noise impacts from the adjacent rail corridor.

3.3.2 Medium Density Residential

Medium density residential sites are located on, or within walking distance of, transit routes and adjacent to a collector roadway. In addition, the sites are located near parks and other amenities in accordance with locational policies identified in the *MDP*. Medium density land uses include the development of three or more attached units that may include housing types such as townhouses and apartment buildings with density range of 40 to 94 dwelling units per net residential hectare. The number of units anticipated is 652 units, which is approximately 17% of the dwelling units.

Townhouse: Townhouse development is generally designated along collector roadways and /or in transition to medium-high density residential land uses. Townhouses may be developed as fee simple or private site specific street-oriented townhouses with rear access. The projected densities applied to townhouses is approximately 40 dwelling units per net hectare.

Townhouse / Apartment: There are three medium density residential sites located within the Neighbourhood Activity Centre which may be developed with a mix of townhouse and/or apartment. The site location will provide residents with convenient access to commercial businesses and the Red Willow Park. The projected densities applied to townhouse/apartment buildings is approximately 65 dwelling units per net hectare.

Townhouses and apartment buildings should be designed to have presence on the streetscape. This may be achieved by locating the building closer to the street and using a variety of architectural design features and building articulation to enhance the streetscape. Vehicular access for ground oriented medium density built form such as townhouses is only allowed from a rear lane.

A portion of the land for River Lot 22 (27 Genstar Annex and 10 Meadowview Lane) and Plan 822 2288, Lot A (20 Meadowview Lane) have medium density residential designation. An ASP amendment may be necessary to create a developable parcel for medium density developments.

3.3.3 High Density Residential

Three high density residential areas are proposed within the Neighbourhood Activity Centre. These sites are located south of McKenney Avenue on either side of Rankin Drive.

High Density residential developments include housing types such as townhouses and typically include apartments style development with densities above 94 dwelling units per net residential hectare. The number of dwelling units proposed is 780 units, which would comprise of approximately 20% of the total number of residential units in the Plan Area.

Site layout and building placement for high density built forms should also consider maximum frontage and visibility from public streets. High density developments, where possible, should front onto and be located close to the higher order neighbourhood roadways. High density developments should also use architectural design features to address the streetscape. Building design should incorporate articulation and transition to reduce impact from building massing, shadowing, noise, and privacy onto adjacent buildings.

To ensure improved connectivity and traffic operational consideration, a possible future east-west neighbourhood road may be required. This possible future road would connect the road network between the high-density sites south of Rankin Drive. Other options may be considered with the final configuration for roadway connections at the time of subdivision or site development.

3.3.4 Supportive Housing

Supportive housing that includes assisted living is a residential use that may be located within the neighbourhood activity center. Supportive housing provides support services such as meals and laundry within a group living arrangement. This means the sleep units do not have a full kitchen. The site being considered for supportive housing is 1.9 hectares± and is adjacent to the commercial site. Should supportive housing not be obtained on the site; the site can be developed as high density residential. The statistics have included the number of residential units and population as medium to high density residential

and should the supportive housing with sleeping units be developed, then the statistics could be adjusted to reflect the difference in the number of dwelling units.

3.4 Commercial

The overall commercial use is approximately 2.6% of the developable lands, which is 5.7 hectares±. Two commercial sites are designated, located on either side of McKenney Avenue in the heart of the Neighbourhood Activity Centre. These sites may provide sale of goods and services for the whole community.

Commercial uses located within the neighbourhood shall be complementary to the surrounding residential uses in terms of scale and compatibility. The commercial area borders a multiple family residential site. There is no physical separation such as a roadway from the proposed commercial uses. Mitigation measures may be required to address noise, light, and odour issues created by the commercial uses, to ensure that the adjacent multiple family dwelling units are not negatively impacted.

Connectivity for active transportation such as walking, and cycling should be considered through the provision of walkways surrounding commercial sites. Where commercial uses abut residential uses, walkways should be incorporated into the site layout and proposed building design to enable walkability between commercial and residential uses and reduce dependency on vehicular trips.

3.5 Neighbourhood Activity Centre

A Neighbourhood Activity Centre (NAC), as identified in the *MDP*, is a compact area that has a mix of amenities, housing choices, and services. Riverside's NAC is located in the central portion of the Plan Area and extends north of McKenney Avenue and south to the Grey Nuns White Spruce Park. This node will become the social and economic heart of Riverside and provide an attractive, vibrant, and desirable place to live, work, play, and shop. This pedestrian oriented area could have a mix of commercial, higher density residential, supportive housing, with pedestrian linkages to the neighbourhood and parkland areas. The NAC is shown on Figure 2, Future Land Use with a dashed circle.

3.6 Parks and Open Space

The parks and open space system will comprise five major components: the Red Willow Park that includes the Grey Nuns White Spruce Park, north-south open space linkages, two school/park sites, neighbourhood parks, and stormwater management facilities.

The *Municipal Government Act* and the *Municipal Development Plan* requires that 10% of the developable land area to be dedicated as Municipal Reserve (MR), which can be used as schools, parks, woodlots, and trails that are not associated with Public Utility Lots.

Parcels that are deficient in the minimum required MR dedicated are noted in section 1.7.4 – Land Use Bylaw of this Plan, and also reflected in Figure 8.

The City of St. Albert Parks and Open Space Standards and Guidelines should be followed for the development of parks, open spaces and trail systems.

3.6.1 Red Willow Park

Red Willow Park will comprise an open space corridor along the north bank of the Sturgeon River, incorporating its riparian zone, adjacent tree stands, and some formerly cultivated farm land below the Designated Flood Line. The Red Willow Park boundary is consistent with the registered northern limit of the Red Willow Park.

The Grey Nuns White Spruce Park (GNWSP) is a major landscape feature wholly located within Red Willow Park boundaries. The GNWSP is designated as Municipal Reserve.

Red Willow Park may also include those portions of three adjacent tree stands above the Designated Flood Line, which will be designated as Municipal Reserve. Where urban development is in proximity to the tree stands, careful consideration will be given to relative elevations and surface drainage to ensure that the tree stands are not negatively affected. Design approaches may include the creation of naturalized buffers between the tree stands and adjacent roads or residential lots.

Pedestrian access to Red Willow Park will be controlled, with no individual access points from adjacent residential areas; meaning no gates will be allowed onto the GNWSP and Red Willow Park from

individual properties. A future access point is conceptually located to the west of the existing Hogan Road right-of-way, which will provide future parking opportunities, a bus turn-around, and an entrance area for persons wishing to use the trail system. The City has developed the *Guidelines for the Protection of Natural Areas in the Timberlea Neighbourhood* as a natural areas management plan for Red Willow Park, which addresses best management practices during construction, buffers, and the transitioning between natural areas and urban uses. The policies adopted in this management plan will be incorporated into the conditions of adjacent subdivision or development permit approvals, as appropriate.

3.6.2 Heritage Park & Meadowview Ball Diamonds

A portion of the Plan Area east of Meadowview Lane is designated as the Heritage Park within the *Red Willow Park: West Master Plan Update* (2003).

The Heritage Park and Meadowview Ball Diamonds is a 16.7 hectares± site. The Meadowview Ball Diamonds consists of four fields and a club house. The Heritage Park includes a number of historically significant buildings: two restored grain elevators designated Provincial and Municipal Historical Resources, a replica of the original St. Albert Train Station, the Cunningham House, the Hogan House, the Chevigny House, and the Brosseau Granary, as shown on Figure 13A, Heritage Sites Functional Plan Concept. Significant investment is being made to restore the buildings and site as a tourist attraction and multi-use park area. The restoration plans for the site and buildings are further detailed in the *St. Albert Heritage Site Functional Plan Final Report (January 2010)*.

Plans for the site also include a public amenity area suitable for public and private events, festivals and celebrations, as well as the possibility of developing a Métis and French Canadian Farm in the future.

A new neighbourhood connection of Rankin Drive to Mission Avenue is proposed – by extending Rankin Drive to the east of Meadowview Lane and providing a north-south connection from Rankin Drive to Mission Avenue, with a proposed neighbourhood intersection accommodated northwest of the St Albert Grain Elevator Park (future Heritage Sites) on Mission Avenue. This new roadway shall provide service and improved connectivity to the Riverside community to the west, as well as access to the Meadowview Ball Diamonds and Heritage sites to the east.

3.6.3 Open Space Linkages

In the north-central portion of the Riverside ASP, adjacent to the CN Rail and McKenney Avenue is stormwater management facility (SWMF) 1 and its associated channel that provide a stormwater link between Lacombe Park Lake and the Sturgeon River. The channel for overland flow will provide opportunities for local ponds to add interest, variety, and habitat. The north-south linkage will also include the current easement for the intermediate pressure gas line. The stormwater linkage will be designated as a public utility lot (PUL).

This open space linkage will be a naturalized landscape to improve connectivity for wildlife movement and to minimize maintenance costs. Careful attention will be given to the gradient of the stormwater conveyance channel to provide positive drainage and avoid stagnant water wherever possible.

Other trails will connect with the north-south open space linkage, including both on-street sidewalks and off-street trail systems, in order to provide a comprehensive trail network throughout the neighbourhood. A portion of Natural Area D, which is an east-west running mixed-woods stand, will be retained as Municipal Reserve, and a trail is proposed within the tree stand. Routine assessment will need to be completed to assess the health and life of the tree stand. Trails developed within a Public Utility Lot (PUL) provide public linkages, but no Municipal Reserve designation is provided in these instances. The trails must be installed, by the developer, at the time of subdivision so that future residents are aware of trail alignments. The conceptual neighbourhood trail network is shown on Figure 2, Future Land Use and Figure 3, Transportation

3.6.4 School/Park Sites

Two school/park sites are proposed within the Plan Area as part of the required Municipal Reserve dedication. A school/park site of 3.89 hectares± is proposed north of McKenney Avenue. Two neighbourhood roadways are adjacent to the school site with a proposed pedestrian linkage on the south-east corner. The proposed low density residential may have private rear access to reduce the number of driveways; thus, minimize pedestrian and vehicle conflict that occurs at a school site. At the time of subdivision approval and the development permit, traffic calming mitigation measures on the neighbourhood roadways adjacent to the school sites shall be considered.

A second school/park site of 3.8 hectares± is proposed east of the Neighbourhood Activity Center. This school/park site will have frontage onto both Riverside Drive and Rankin Drive. Low density residential developments will back onto this site.

Parks shall be designed to maximize frontage onto public streets for better access and visibility. Increased visibility will create safer public spaces natural surveillance from adjacent pedestrian and vehicular traffic.

Design of school sites should consider more than one access point into the school site. Bus layby pick up/drop off area, on and off-loading area and parking areas should be accommodated within the school property. Placement and design of school buildings, sports fields, playgrounds, and parking areas should consider impact onto adjacent residential developments with regards to privacy, noise, and traffic. Emphasis shall be placed on connectivity of the school sites with integrating walkways to allow pedestrian connectivity within the school site, as well as, between the school and the park site. Consideration should be given to site design, with proactive placement of pedestrian crossings aligning with desired paths of school access points. Traffic calming and reduction of conflict between road users (i.e. – no pedestrian crossings accommodated within drop off bays) should also be considered in site design. Pedestrian connectivity should be included to connect the school/park site to the rest of the adjacent neighbourhood. Design

elements should consider the use of cross walks, signage, depressed curb, and tactile surfaces to facilitate accessible pedestrian connectivity.

Table 3-1: Student Population Projection

Age	Grades	% of 2018 City of St. Albert Census age composition population 62,842	Student Generation Riverside Population 9,861
5-9	K-4	6.5%	640
10-14	5-9	6.9%	680
15-19	10-12	6.6%	650
Total			1,970

The anticipated number of students in the Riverside neighbourhood at full build-out is approximately 1,970 students between the ages of 5 to 19 years. This is based on the City of St. Albert 2018 Census Age Composition population of 62,842, the anticipated population of 9,861 for Riverside, and the percentage of each age/grade category. At the time of development, the most current Census for St. Albert and consultation with school boards will be taken into consideration to better anticipate student population, and determine appropriate park amenities for the community and school needs.

3.6.5 Neighbourhood Parks

In addition to Red Willow Park, the open space linkages, the school/park sites, and neighbourhood parks will be distributed through the residential area to provide passive and active recreational opportunities within walking distance of all residents. These neighbourhood parks will range in size from 0.5 hectares± to 2.0 hectares±. The linear parks will have a minimum width of 20 metres.

3.6.6 Stormwater Management Facilities

Six stormwater management facilities are proposed within the Plan Area. While these facilities provide a utility function, they also are integral parts of the open space system. The location and size of each facility is conceptual at this time, subject to further analysis and design prior to redistricting and subdivision. The size of each will meet the required release rates in the *Municipal Engineering Standards*.

The design of the facilities will maximize the opportunities to complement or enhance natural areas and habitat corridors (such as the north-south open space corridor). All of the stormwater management facilities will have a naturalized shoreline. Stormwater management facilities provide opportunities to create and enhance wildlife habitat, add visual amenity, and provide for a variety of passive recreational opportunities. At the time of subdivision, a stormwater management facility will be provided as a Public Utility Lot (PUL); therefore, no Municipal Reserve credit will be given for PUL uses. Two stormwater management facilities will be located below the Designated Flood Line, and are subject to Alberta Environment and Parks standards and City approval and standards. Municipal Reserve credit may be provided to upland areas of stormwater management facilities, based upon City policies, to be determined at the time of subdivision.

3.7 Institutional Uses

3.7.1 Institutional Uses

At the request of the Missionary Oblates, their existing property in the northeast portion of the Plan Area has been designated for future low- and medium-density residential land use. The current institutional use will continue in the interim.

Under the Land Use Bylaw, limited institutional uses are allowed in medium density land use districts as discretionary uses, including supportive housing and long-term care housing. In addition, group homes are allowed in low density residential land use districts. These uses may be incorporated into the Riverside neighbourhood without requiring amendments to the ASP.

3.8 Development Statistics

The development statistics for the Plan Area are shown, quantitatively, in Table 3-2.

The titled area for the boundary of the Riverside Area Structure Plan is 284.4 hectares±. Environmental Reserves in the amount of 45 hectares± have been dedicated and 3.5 hectares± still needs to be dedicated for a portion of River Lot 22 (27 Genstar Annex) and Plan 822 2288, Lot A (20 Meadowview Lane). The residential area is 122.2 hectares±, which is 58%± of the developable area. The commercial area is 5.7 hectares±, which is 2.6%± of the developable land.

The population per household fluctuates depending on the type of dwelling unit, as indicated in the City of St. Albert Census 2018. In the low density units, of which 2,513 units are projected, 2.90 persons per household are anticipated. In the medium density residential (R3) areas, 112 units are projected, and the number of persons per household is 2.45. In the medium (R3A) and high density (R4) residential areas, 1,333 units are projected at 1.77 persons per household. There is potential in the medium/high density residential area to have 1.9 hectares± developed as supportive housing that has sleep units instead of dwelling units. Sleep units are not counted as part of the number of dwelling units per net residential hectare. However, at the time of writing the ASP, development of the 1.9 hectares± site was considered as dwelling units.

Policy 4.11, Neighbourhood Design Principles, of the *MDP* requires a minimum of 30 dwelling units per net residential hectare. Overall, the Riverside ASP will have approximately 32 dwelling units per net residential hectare. The policy also requires a minimum of 30% medium density and medium/high density residential units. The total number of residential units is 3,945, of which 112 are medium density and 1,320 medium/high density units, and 2,513 are low density units. This indicates close to a 40% split between low density and medium and medium/high density units.

Table 3-2: Development Statistics

	Area (ha)±	% of NDA	Units	Pop.
Gross Area	284.4			
Hogan Road within GNWSP	1.5			
Environmental Reserve (ER) (Future)	3.6			
Environmental Reserve (ER) (includes 4.0 ha± for two SWMF as a PUL within ER) (Registered)	45.0			
Heritage Park & Meadowview Ball Diamonds	16.7			
Subtotal Non-developable Area	66.8			
Net Developable Area (NDA)	217.6	100.0%		
Other Uses				
N-S Gas Line Public Utility Lot (PUL)	0.9	0.4%		
Lift Station / Service Connections / Walkways (PULs) (not included 1.9 ha± PUL (utility right-of-way) within registered ER & MR)	2.1	1.0%		
Municipal reserve (includes trails not over utilities, park, school, 50% trail around SWMF not in ER) (Future)	10.6	4.9%		
Municipal Reserve (Registered)	10.0	4.6%		
Stormwater Management (PUL) (not included 4.0 ha± of two SWMFs within ER)	16.0	7.3%		
Arterial Road - McKenney Avenue	7.8	3.6%		
Internal Circulation (non-arterial)	42.3	19.4%		
Subtotal Other Uses	89.7	41.2%		
Commercial	5.7	2.6%		
Subtotal Commercial	5.7	2.6%		
Residential				
Low Density Residential	104.6	48.1%	2,513	7,288
Medium Density Residential (R3)	2.8	1.3%	112	250
Medium Density Residential (R3A)	8.3	3.8%	540	950
Medium/High Density Residential	6.5	3.0%	780	1,373
Subtotal Residential	122.2	56.2%	3,945	9,861

The following density figures were used to forecast population growth shown above:

- 24 du/ha for low density residential
- 40 du/ha for medium density residential (R3)
- 65 du/ha for medium density residential (R3A)
- 120 du/ha for high density residential

Table 3-2 Notes:

- May not add up to 100% due to rounding.
- Overall, 32 dwelling units per net residential hectare, MDP Policy 4.11 requires 30 dwelling units per net residential hectare with a minimum of 30% medium and/or high density residential.
- Residential breakdown on lands developed prior to the February 2018 Land Use Bylaw 2/2018 update consisted of:
 - 20 du/ha for low density residential;
 - 35 du/ha for medium density residential (R3);
 - 143 du/ha for mixed-use commercial with residential based on an estimated residential area footprint of 0.84 ha.
 - 141 du/ha for medium/high density.
- The new Residential breakdowns consist of:
 - 23-33 du/ha for low density residential
 - 37-39 du/ha for low density residential mix
 - 35-42 du/ha for medium density residential, could go to 54 du/ha if meet design criteria in the Land Use Bylaw
 - 40-94 du/ha for medium density residential, could go to 125 du/ha if meet design criteria in Land Use Bylaw
 - 94-141 du/ha for high density residential, could go higher if meet design criteria in Land Use Bylaw
 - 143 du/ha for mixed-use commercial with residential based on an estimated residential area footprint of 0.84 ha
- Expected population per residential unit based on St. Albert's 2014 Census is:
 - 2.90 persons per low density dwelling unit;
 - 2.45 persons per medium density dwelling unit (R3); and
 - 2.23 persons per semi-detached, duplex, and townhouse; and
 - 1.76 persons per medium/high dwelling unit (R3A) (R4).
- *Supportive Housing sleep units should not be part of the dwelling units count.
- Population statistics include supportive housing population.

4.0 TRANSPORTATION

4.1 Boulevard Crosstown and Collector Road Network

The Transportation network for Riverside is shown on Figure 3, Transportation. This map consists of a series of coloured roadways and trails that define roadway classifications to accommodate expected future transportation patterns for the subject lands. Ray Gibbon Drive is a Boulevard Roadway in the immediate vicinity of Riverside ASP. McKenney Avenue is the major east-west Crosstown (arterial) road through the ASP area, providing connections to Ray Gibbon Drive and St. Albert Trail. Ray Gibbon Drive, located on the west boundary of the ASP, provides connections to Edmonton via Anthony Henday Drive and connections north to Villeneuve Road. In addition, St. Albert Trail (Hwy 2) provides connections to Edmonton to the south and Sturgeon County to the north.

Ray Gibbon Drive and McKenney Avenue, as designated boulevard/crosstown, will be part of the truck route/dangerous goods route network.

4.2 Neighbourhood and Local Road Network

A looped neighbourhood roadway will provide two north accesses off McKenney Avenue. The proposed school site with a park north of McKenney Avenue is located on two collector roadways. The proposed access for the townhouse product, in the area of the school site, may have private rear access to reduce conflict with the traffic generated by the school. Alternative road intersection design such as roundabouts should be considered at the intersection of neighbourhood to neighbourhood roadways.

There are three neighbourhood roadways connecting parcels located south of McKenney Avenue. Riverside Drive is one of the south oriented neighbourhood roadways that provides access to the second school and park site from the crosstown roadway - McKenney Avenue. The second school and park site is located at the intersection of Riverside Drive and Rankin Drive and provides east-west roadway connection. Rose Gate leads south and is adjacent to the commercial site and connects to Rankin Drive. The third neighbourhood roadway, on the west portion of the Plan Area, provides access to the residential portion located in the southwest. On the west side of the Grey Nuns White Spruce Park is a north-south neighbourhood roadway to provide bus access to the park parking area. The parking area will accommodate bus

turnarounds, because the looped roadway to the west narrows to a local roadway that is not designed for bus traffic.

A new neighbourhood connection of Rankin Drive to Mission Avenue is proposed – by extending Rankin Drive to connect with Meadowview Lane to the east. This proposed roadway will provide a north-south connection from Rankin Drive to Mission Avenue, with an intersection accommodated northwest of the St Albert Grain Elevator Park (future Heritage Sites) on Mission Avenue. This new roadway shall provide service and improve connectivity to the Riverside community to the west, and access to the Meadowview Ball Diamonds and heritage sites to the east.

The majority the Meadowview Drive right-of-way will be closed and integrated into the overall development plan. The majority of the roadway of Meadowview Drive is now called Rankin Drive. Hogan Road will be closed and the lands integrated into the overall development plan. The portion of Hogan Road within the GNWSP is not part of the gross developable area and its future will be determined as part of the Red Willow West Master Plan update in 2016. The road names for remaining Meadowview Drive, Meadowview Lane, and Hogan Road may have different names in the future.

For the development located on the south side of the Rankin Drive (near the high density sites), additional roadway layout improvements to address traffic operation and access are required. These improvements will ensure compliance with the principles of Complete Streets, by addressing the access challenges to the high density residential site, and conformance to the design standard regarding cul-de-sacs. This may result in the need for a possible future east-west roadway connection to enable improved connectivity, traffic flow and adequate access to the high-density sites. The final location and design of the site access, along with future roadway connections, will occur during subdivision, and/ or, site development.

Design of the proposed roadway network is based on overall population density and trip generation of 32 dwelling units per net hectare. Any increases to development density or intensity of uses could have impacts to functional operations of the roadway network. Future amendments will require an updated Traffic Impact Assessment to address this parameter.

4.3 Transit

It is anticipated that the transit system will follow the crosstown road network, with loops through the neighbourhood following the collector roadway system. Transit stops are typically proposed along connector and neighbourhood roadways, and done in consultation with the City's Transit Department. Transit route planning and development must occur at the earliest stages of the neighbourhood development with the expectation that services will be introduced as per Transit Services Policy C-TS-01, as amended.

4.4 Rail

There are two existing at-grade rail crossings of the CN rail line: one crossing at McKenney Avenue and one crossing at Meadowview Drive. The proposed new neighbourhood roadway, connecting Rankin Drive to Mission Avenue, utilizing the road right of way of Meadowview Lane, will require a closure of the existing Meadowview Drive at-grade crossing, and design and construction of a new at-grade rail crossing to the northwest of the Heritage Sites along the new proposed roadway (west of Mission Avenue).

The CN rail line runs along the north boundary of the Plan Area. CN is federally regulated. In May 2013, CN issued Guidelines for new Development in Proximity to Railway Operations. CN recommends a number of noise attenuation, setback and vibration mitigation measures for new development along rail lines. These guidelines will be reviewed and applied to development in Riverside at the time of subdivision, and executed at the Development Agreement stage.

In the future, the CN rail line will be temporarily rerouted slightly southwards to enable Ray Gibbon Drive to be lowered and the existing tracks to be above Ray Gibbon Drive. The temporary rerouting is 0.192 hectares± on the northwest corner of the Plan Area, and 0.236 hectares± on the west side of Ray Gibbon Drive, which is not within the Plan Area, see Figure 3, Transportation. These two areas are legally registered as roadway.

4.5 Pedestrian/Bicycle Links

The open space system and roadway system provide opportunities for an extensive network of trails to extend the Red Willow Park trail system throughout the neighbourhood. Opportunities will be created for external links

along the Sturgeon River and north to Lacombe Lake Park, and other neighbourhoods.

Pedestrian connectivity in low density areas should be promoted through the provision of mid-block connections, and to connect cul-de-sacs to connector and neighbourhood roadways.

Medium and high-density developments should be placed closer to the public street to promote accessibility using walkways to connect to the public street.

Consideration, design, and implementation of pedestrian accommodation crossing the rail corridor at the new proposed at-grade rail crossing (for the proposed new roadway connecting Rankin Drive to Mission Avenue) will be made to promote and support active accommodation to the east of the community.

4.6 Noise Attenuation

Noise attenuation from Boulevard and Crosstown routes (Ray Gibbon Drive and McKenney Avenue) and rail line (CN railway) will be provided by the developer as per City standards at the time of development. In addition, noise and vibration mitigation, as per CN Rail standards for development near rail operations, will be provided by the developer. Provision of noise attenuation amenities would be required as part of the Development Agreement process and will be reviewed at the time of subdivision, Development Agreement, or Development Permit stage. Additional requirements may be needed for residential developments adjacent to, or within, a commercial or mixed-use development so that noise, odours, and light impacts from the commercial area to the residential area are addressed prior to, or at the time of, Development Permit.

4.7 Off-Site Levies

The Riverside neighbourhood is subject to Off-Site Levies. Off-Site Levies will be calculated, assessed, and collected at the time of subdivision or upon execution of Development Agreement, in accordance with Council policies and approved bylaw.

Should a subdivision or Development Agreement not be part of the development process, levies will then be collected at the time of Development Permit.

In addition to Off-Site Levies, additional costs may need to be borne by the developers to facilitate the near term plan of infrastructure capacity improvements.

4.7.1 Notes

As upgrades are required to the water supply and distribution system, to the wastewater collection system (sanitary), to the stormwater management facilities, and the transportation roadway infrastructure identified within the Off-Site Levy Bylaw, required to support a development stage, may be required to be front-ended by the developer to enable that development stage. Front-ending and recovery processes shall be consistent with approved Council Policies.

Should a developer choose to oversize without a request from the City, the oversizing will be at the cost of the developer, and the cost will not be recoverable. In addition, the City will take ownership of such oversized infrastructure and will determine how the capacity will be used.

Interim solutions are not eligible for reimbursement through the Off-Site Levy program.

4.8 4.8 Complete Streets

The Riverside neighbourhood will implement Complete Streets Guidelines that were adopted and approved by Council on October 22, 2018.

Complete Streets Guiding Principles are noted below:

1. Streets should safely accommodate users of all ages and abilities.
2. The street network should be well-connected, provide direct paths of travel, and should not act as barriers.
3. Streets should provide mobility, access to homes, businesses and schools, civic space for leisure, recreation, and other activities.
4. Streets should provide choices for all users, and be fair in their allocation of space for all users.
5. Streets should be aesthetically attractive, reflecting St. Albert's application of nature, unique architecture, and the botanical theme.
6. Streets should support the land use, economic development, environmental sustainability, personal security, public health, cost-effectiveness, and other objectives.

4.9 Crime Prevention Through Environmental Design (CPTED)

Decisions relating to transportation design, street patterns, access, noise barriers, public open spaces, parks, multi-use trails, walkways, stormwater management facilities, and the built environment shall use CPTED principles to create a safe and secure neighbourhood. The following basic strategies, respecting existing City standards, will be used during the development of the Riverside neighbourhood:

- Use of natural surveillance strategies to increase visibility and awareness of public and private space;
- Use of natural access control techniques to guide/direct person within the natural and built environments; and
- Promotion of territorial reinforcement by increasing definition of space and local stewardship.

4.10 Timing of Development – McKenney Avenue Crossing

All development in Riverside shall be accessed from McKenney Avenue. Development may occur on Meadowview Drive only at such time as McKenney Avenue connects with Meadowview Drive such as via Riverside Drive or another north-south roadway. A new neighbourhood connection of Rankin Drive to Mission Avenue is proposed – by extending Rankin Drive to the east of Meadowview Lane and providing a north-south connection from Rankin Drive to Mission Avenue, with a proposed neighbourhood intersection accommodated northwest of the St Albert Grain Elevator Park (future Heritage Sites) on Mission Avenue. This new roadway shall provide service and improved connectivity to the Riverside community to the west, as well as access to the Meadowview Ball Diamonds and Heritage sites to the east. Interim construction closures of Meadowview Drive may occur to support utility servicing.

4.11 Potential Future Roadways and Intersections

Future potential roadway connections and intersections are shown with dashed linework in Figure 3 – Transportation, to depict the location of such roadways within the ASP. The roadways will improve connectivity and access to high density sites and access into the neighbourhood. The alignment and design

details of these roadways and intersections will be determined at the subdivision stage.

4.11.1 Roadway Connection for High Density Sites

Refer to Section 3.3.3 – High Density Residential, for details on the roadway connection for high density sites.

4.11.2 Mission Avenue Access

A new neighbourhood connection of Rankin Drive to Mission Avenue is proposed – by extending Rankin Drive to the east of Meadowview Lane and providing a north-south connection from Rankin Drive to Mission Avenue, with a proposed neighbourhood intersection accommodated northwest of the St Albert Grain Elevator Park (future Heritage Sites) on Mission Avenue. This new roadway shall provide service and improved connectivity to the Riverside community to the west, as well as access to the Meadowview Ball Diamonds and Heritage sites to the east. The new roadway will largely incorporate existing road right of way designated area, however, will be dependent upon finalized design and approval of the relocation of the current at-grade Meadowview Drive railway crossing, to a new proposed at-grade rail crossing (west of Mission Avenue) and closure of the existing Meadowview Drive rail crossing.

5.0 Utility Services

5.1 Water Servicing

Water will be provided to the Riverside neighbourhood by the extension of existing or future water mains along the northern and eastern edges of the ASP as shown on Figure 4, Water Servicing. These extensions are from the Ville Giroux, Lacombe Park, and Mission neighbourhoods. Internal looping may be necessary as staged development occurs. As development occurs, analysis will be required to determine pipe size for adequate level of service and to ensure that sufficient pressures for fire protection can be achieved. Pressure Release Valves (PRVs) will be required to provide the recommended pressure range to service Riverside. Water mains of the appropriate sizes will be required to be carried through the development and connections will extend to the edge of the ASP boundary or acceptable termination points as determined by the City. The Heritage Park will have a looped waterline to Meadowview Lane.

5.2 Wastewater Collection System

Three lift stations are proposed within the Riverside ASP. The Heritage Park will have its own lift station to service only the Heritage Park that connects to the North Interceptor line on Mission Avenue. The remainder of Riverside will be gravity serviced by one lift station, located south of Rankin Drive on Redwing Wynd. The flows are directed from north-west to south-east, draining to the lift station. Force mains will be required to discharge the flows to the major sewer main constructed along St. Vital Avenue and the CN rail line that parallels Morgan Crescent. A third lift station may be required to service the Riverside neighbourhood, and it would be located on the west side of the GNWSP in the southwest portion of the Plan Area. The required wastewater collection system for the Plan Area is as per Figure 5, Wastewater Collection System.

5.3 Stormwater Management

UMA Engineering Ltd., on behalf of Genstar Development Company Limited, submitted the “Northwest St. Albert Drainage Master Plan” (Drainage Master Plan) to the City of St. Albert and Alberta Environment.

Figure 6, Stormwater Management, shows the six (6) stormwater management facilities (SWMF) and one open drainage channel within the Plan Area. The required release rates at the time of writing this document is 2.5 litres, per second, per hectare (L/s/ha) as per the Big Lake Stormwater Management Plan Report May 2004. The location and size of each facility is conceptual and subject to analysis and design approval at time of subdivision.

The SWMFs may provide opportunities for enhanced wildlife habitat, added visual amenity, and some passive types of recreational opportunities. The shorelines of the SWMFs will be naturalized. Naturalized planting may be installed to provide a riparian edge to the ponds.

SWMF 1 is located south of the CN Railway and west of McKenney Avenue and supports 40.50 hectares± of low density residential. SWMF 1 also carries the release flows from existing upstream developments in North Ridge and Lacombe Park neighbourhoods. The south outlet discharges SWMF 1 through a drainage channel. The drainage channel provides a Low Impact Development (LID) conveyance system. A concrete box culvert carries the stormwater under Rankin Drive. This channel connects to SWMF 2 and 3 at the south portion of the Plan Area. SWMF 4 is located on the north side of McKenney Avenue and will service 63.7 hectares±. SWMF 4 will release to SWMF 5 located in the south west portion of the Plan Area. SWMF 5 will service an area of 29.8 hectares±. A portion of SWMF 5 is located within the environmental reserve. SWMF 6 will service the eastern portion of the Plan Area and is located within the environmental reserve.

The Heritage Park will utilize surface drainage that retains the existing contours of the land. Most of the surface area will be permeable with fields, gardens, and natural areas.

The intent is to incorporate part of the Sturgeon River flood fringe area to construct two SWMFs. Discharge to the Sturgeon River or Big Lake would consist of either a piped system or open channel flow. Either system would require a controlled discharge and Alberta Environment and Parks approval.

The stormwater management concept has been discussed with Alberta Environment and Parks, and the SWMF located within the flood fringe area is acceptable. Specific details on the SWMF operation and discharge requirements will be addressed during detailed design and modelling to support the initial stage of development. Sediment control measures will be incorporated into the overall stormwater management system. Storm ponds, strategic settling ponds or mechanical settling devices such as an oil and grit intercept (OGI), will be used to allow removal of suspended solids, as per the City of St. Albert Engineering Standards.

There are four stormwater outfalls from the Riverside neighbourhood. Outfalls are located at SWMF 3, 6, and at the south end of Meadowview Lane. The SWMF 5 outfall is to Big Lake through a pipe under Ray Gibbon Drive.

Low Impact Development (LID) may include bio-retention rain gardens, bio-swales, green roofs, permeable pavements, naturalized drainage ways, and rain-way harvesting.

5.4 Shallow Utilities

Power, gas and communication franchise systems will service the area through agreements established with the developers by the providers or through existing facilities along Rankin Drive, Hogan Road, and McKenney Avenue. Shallow utilities may be located within a public utility lot (PUL) or through a utility right-of-way agreement

Any existing overhead must be relocated and placed underground at the time of Development.

5.5 Public Utility Lots (PULs)

A Public Utility Lot is where services such as water, wastewater, stormwater pipes, and shallow services are located. The size of a PUL will vary based on the number of utility services and pipe sizes accommodated. PULs can typically range between 6 metres to 9 metres in width. PULs do not receive Municipal Reserve credit. Emergency access to a site will be classed as a public utility lot, and width of access will be determined in consultations with City Engineer and Public Works. Where services are shared or required, provisions of utility rights-of-way will be required to allow passageway for

utilities from landowner/developer to enable development by other landowner/developer to proceed.

5.6 Design Brief

Any proposed development on a portion of the land for River Lot 22 (Genstar Annex and 10 Meadowview Lane) and Plan 822 2288, Lot A (20 Meadowview Lane) will require a design brief to be completed to the satisfaction of City Engineering Services to demonstrate sufficient capacity for water, sanitary and stormwater management services.

A design brief may also be required for any amendment to this ASP that affects water, sanitary and stormwater services.

6.0 IMPLEMENTATION

6.1 Development Staging

Construction and development access must be from McKenney Avenue.

This development area will allow some water main looping opportunities within a short period of time to the east and west sides of McKenney Avenue.

Development could then proceed to the east, west or south in response to demand. Water main looping, site access, interim stormwater management, interim sanitary lift stations, and sanitary trunk sewer extensions will be required.

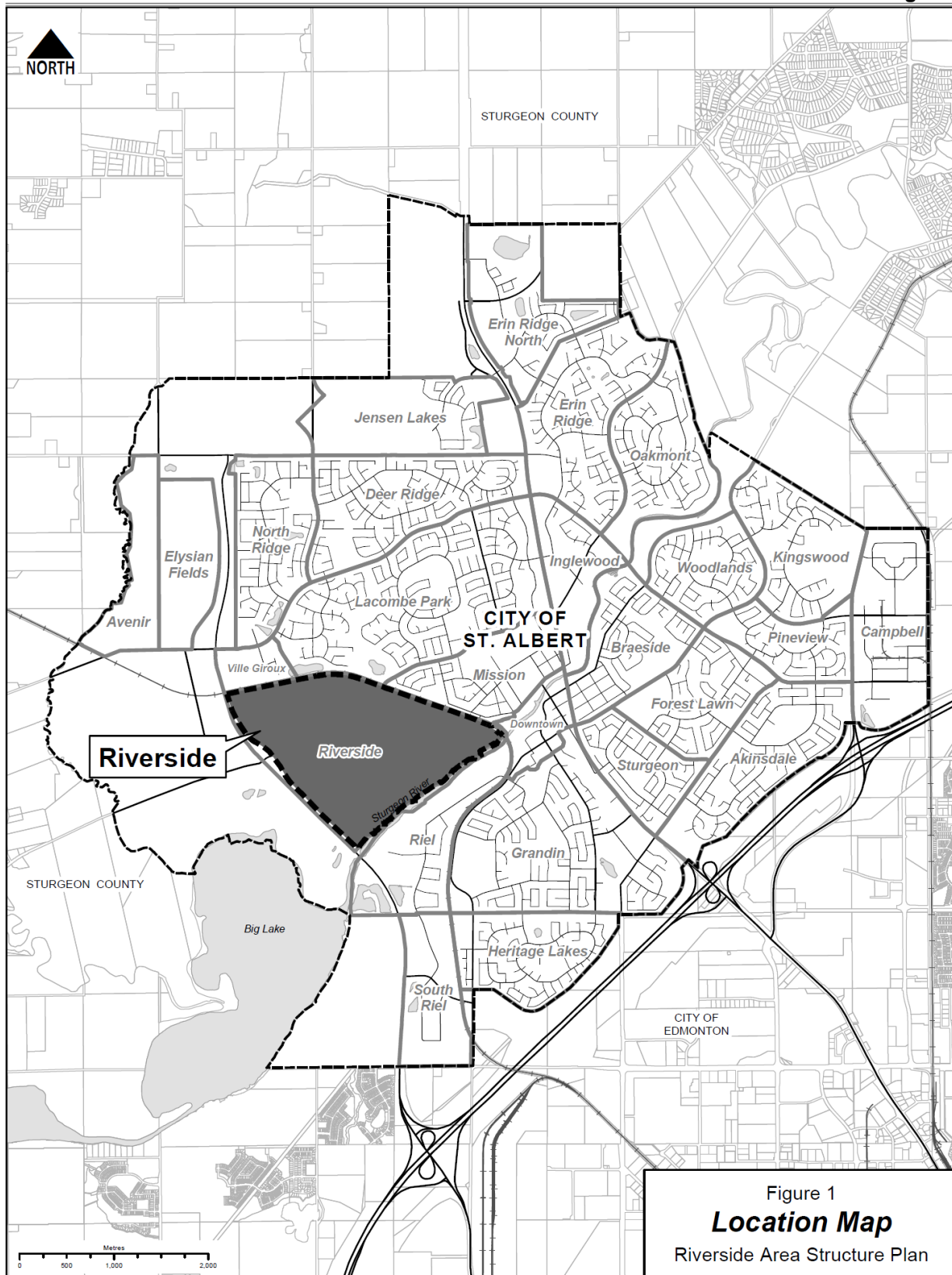
6.2 Redistricting and Subdivision

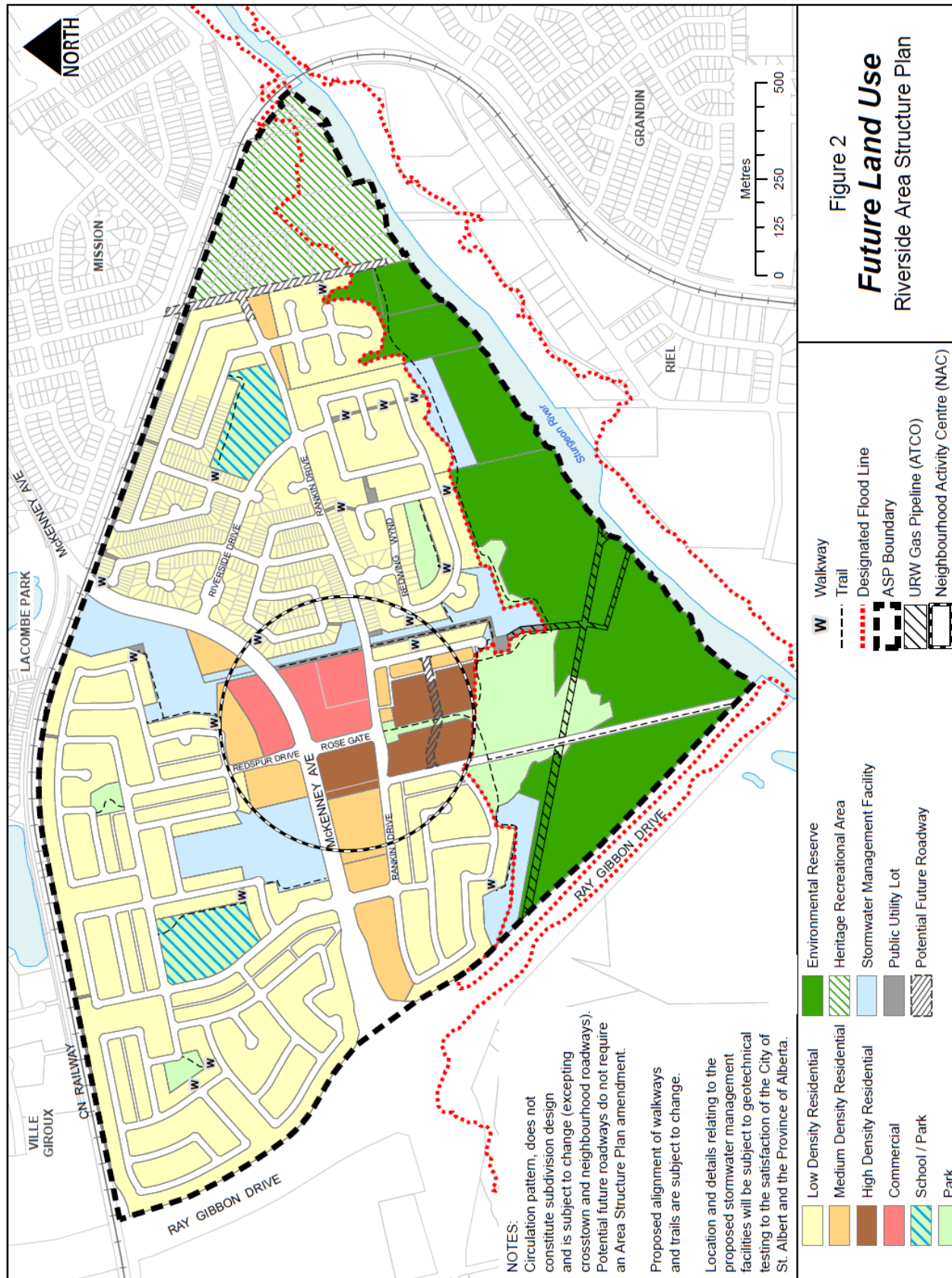
Timing of redistricting and subdivision applications will be processed in response to servicing capacity, agreements, and market need. Staging of development will be reviewed at time of subdivision to consider serviceability, and in a contiguous and sequential manner.

6.3 Building Inspections

The geotechnical investigations within the Plan Area indicated there are soft and wet soils. The developer, as part of the purchase package to builders, needs to identify soil issues and indicate that further geotechnical study may be required at building permit stage.

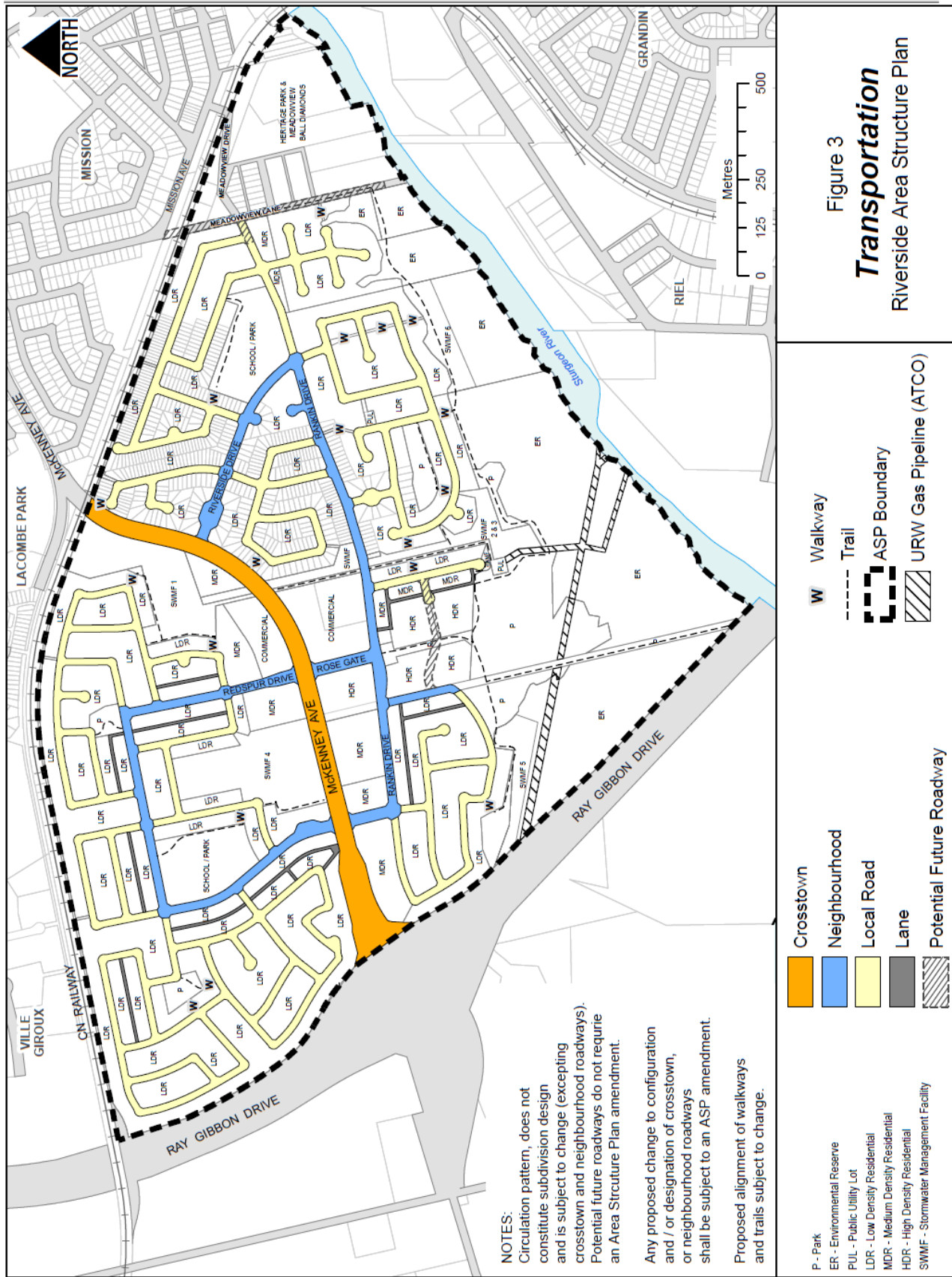
At time of subdivision, the developer and the City will consider restrictive covenants related to wet and soft soils that may impact development.





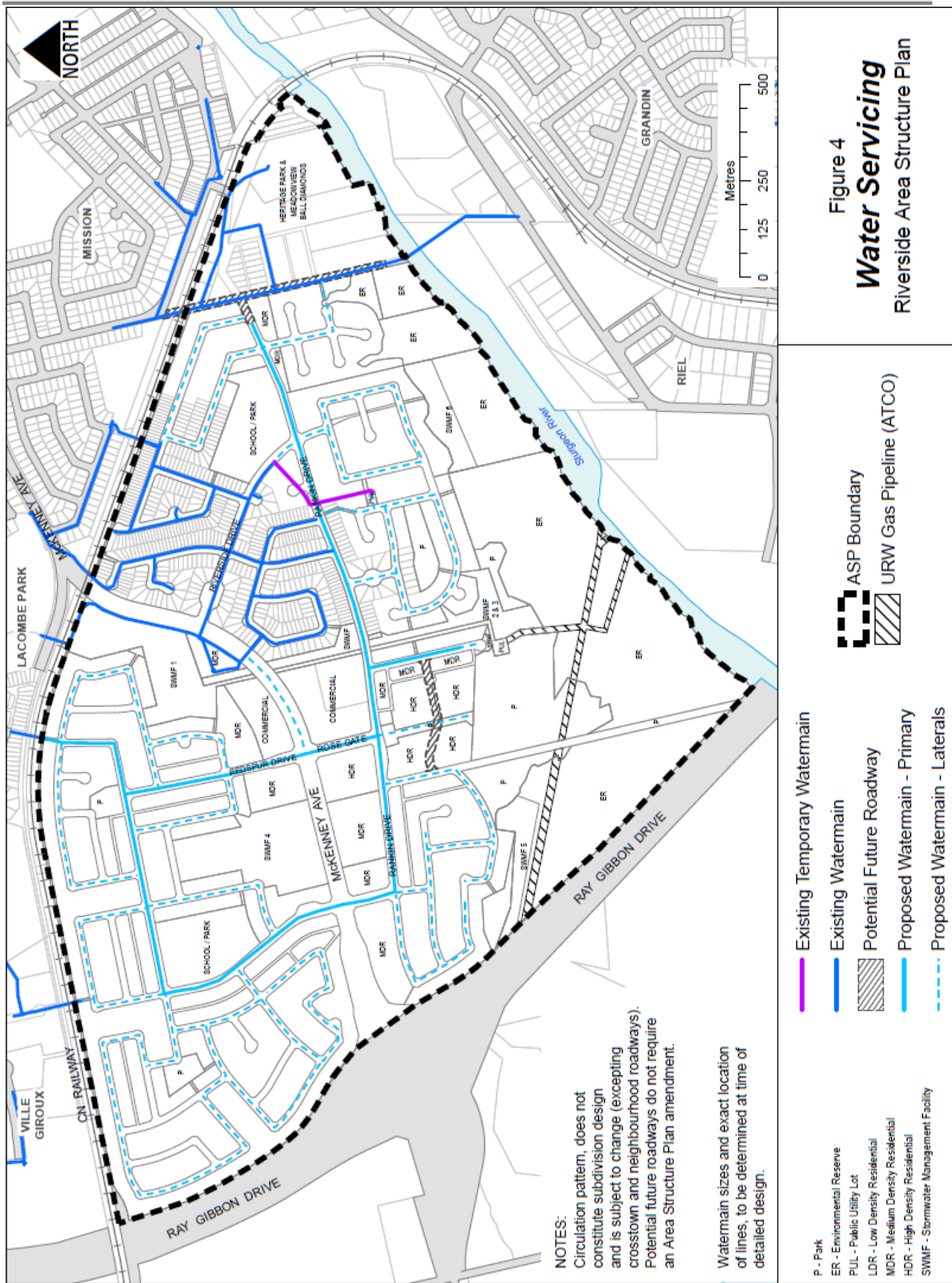
RIVERSIDE AREA STRUCTURE PLAN

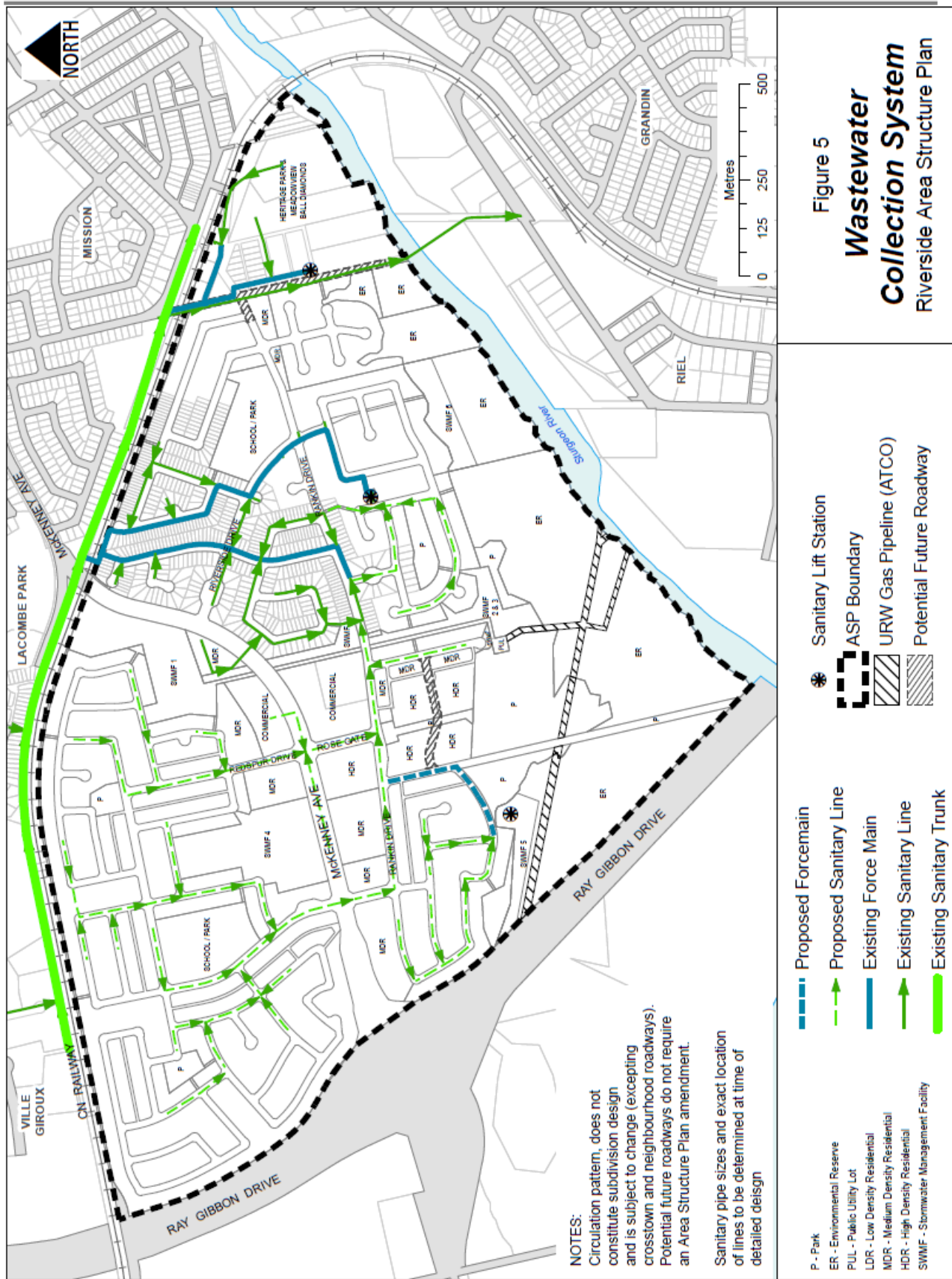
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RIVERSIDE AREA STRUCTURE PLAN

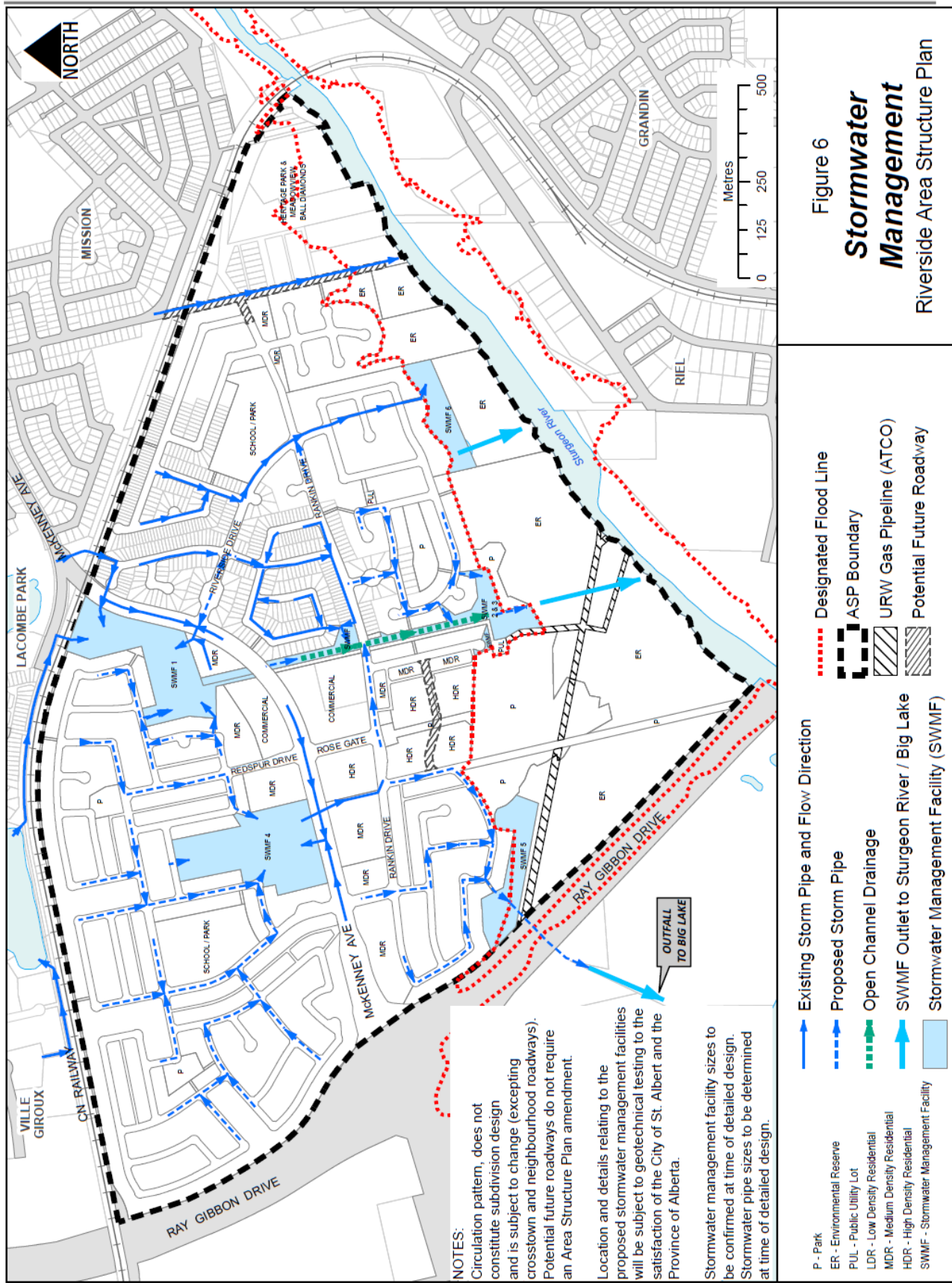
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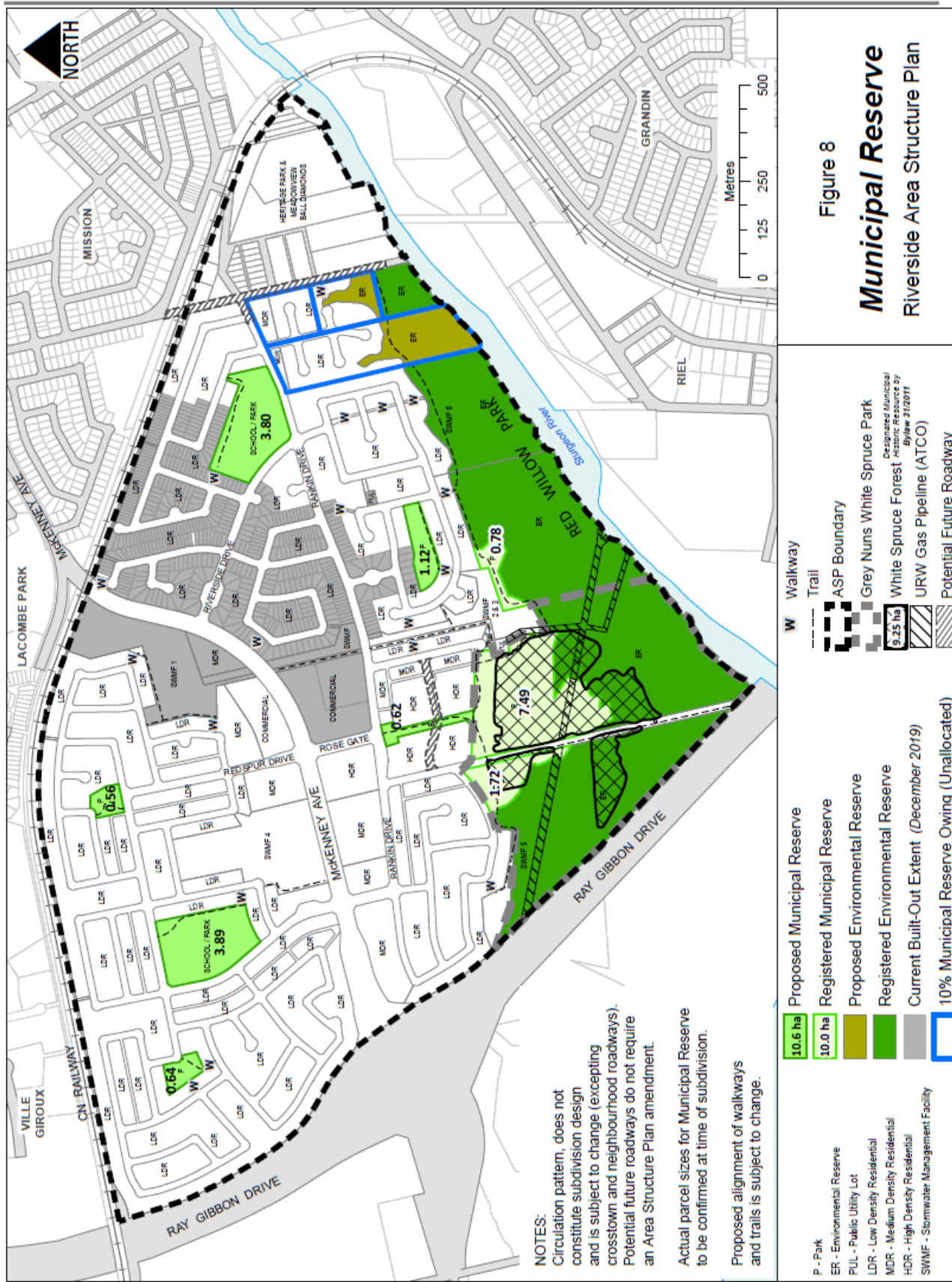




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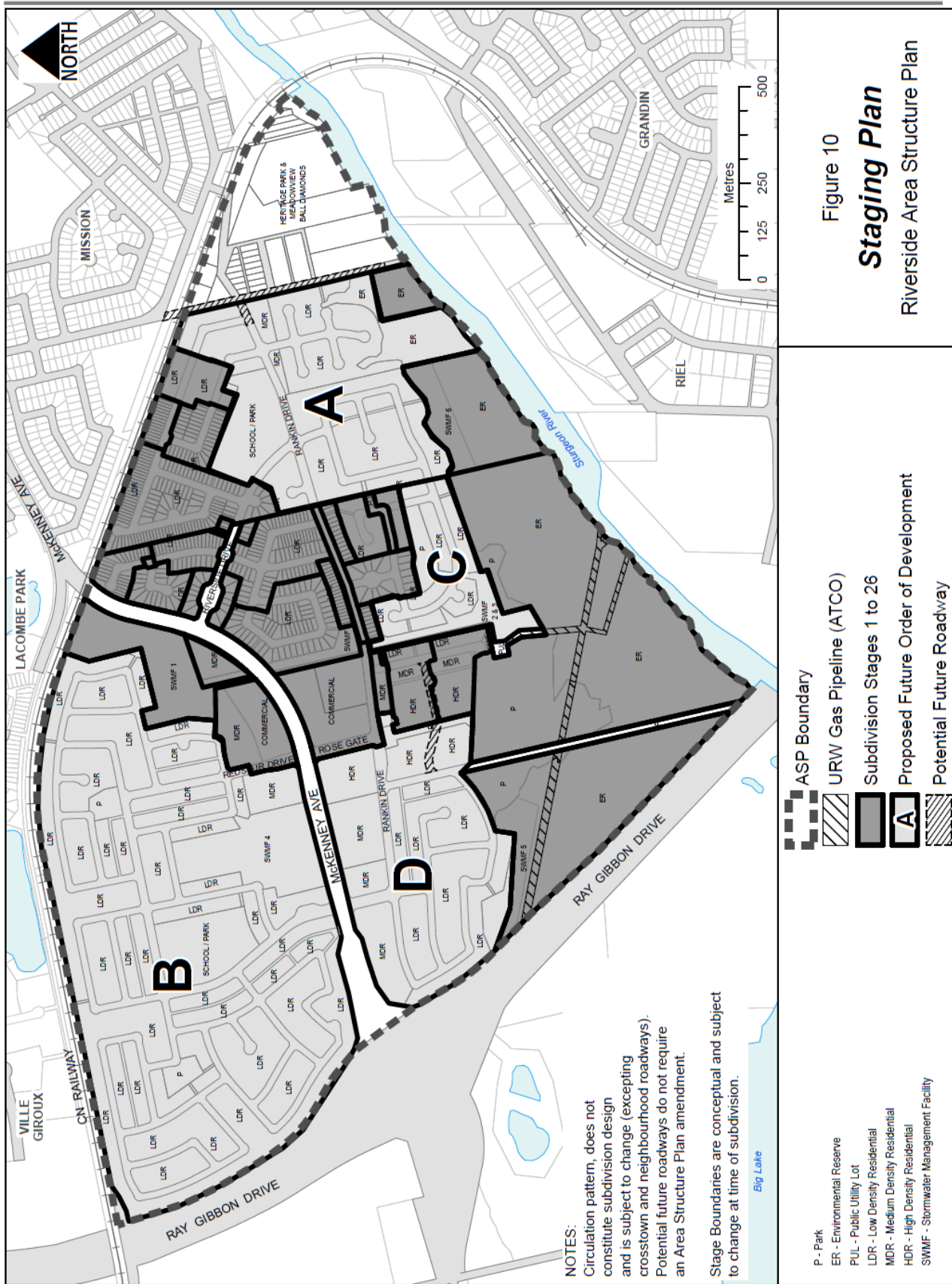
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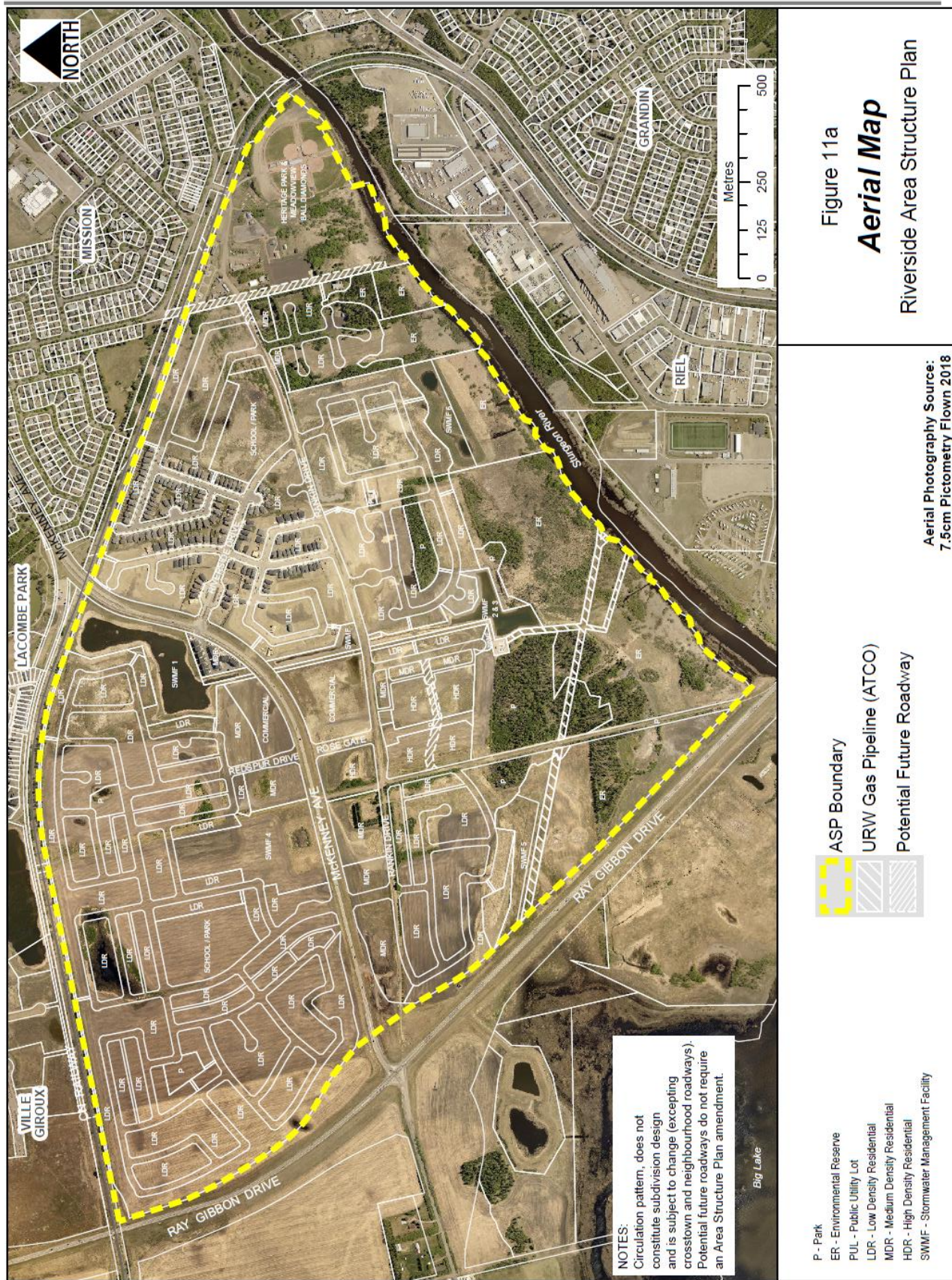
RIVERSIDE AREA STRUCTURE PLAN

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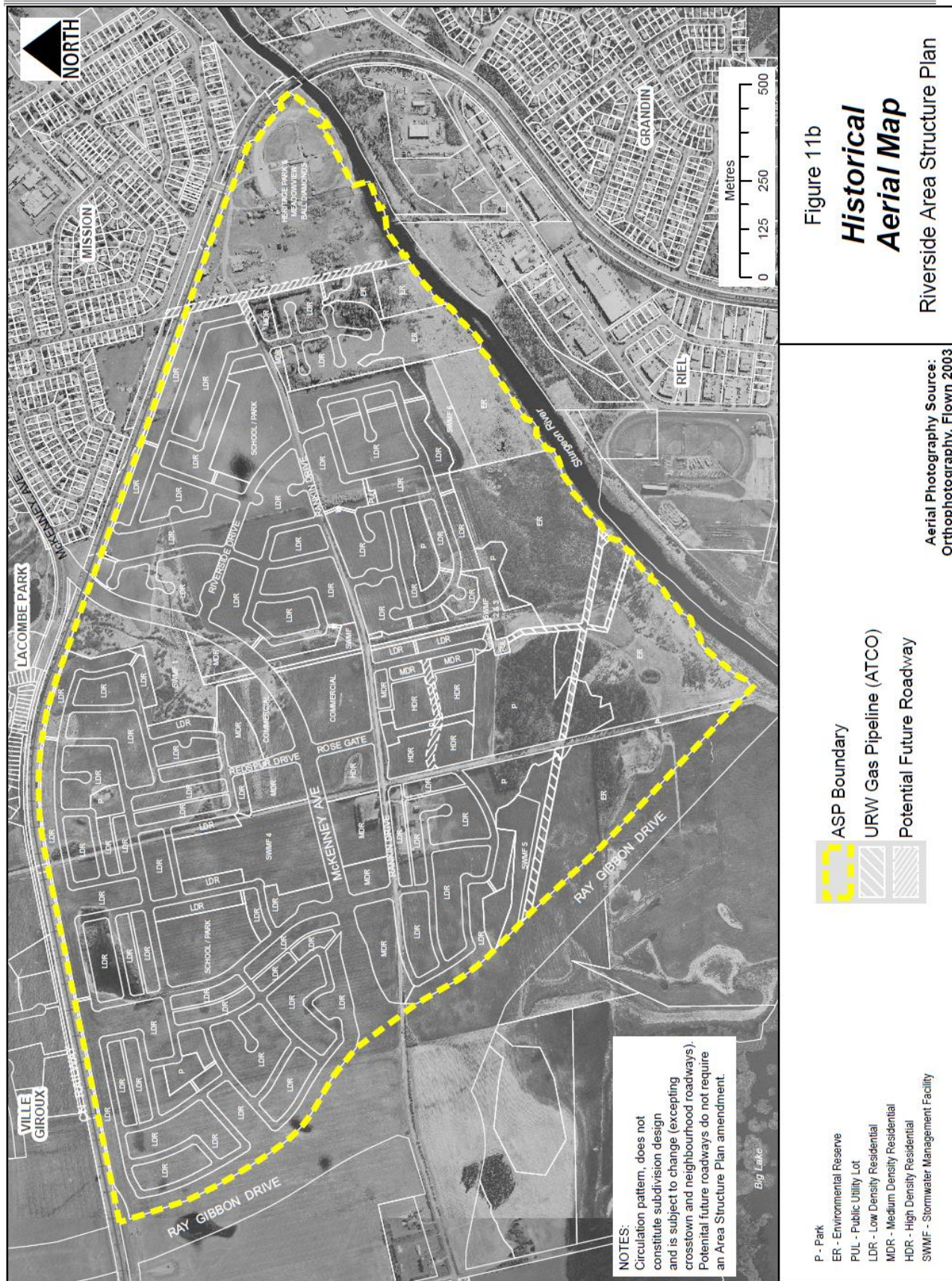
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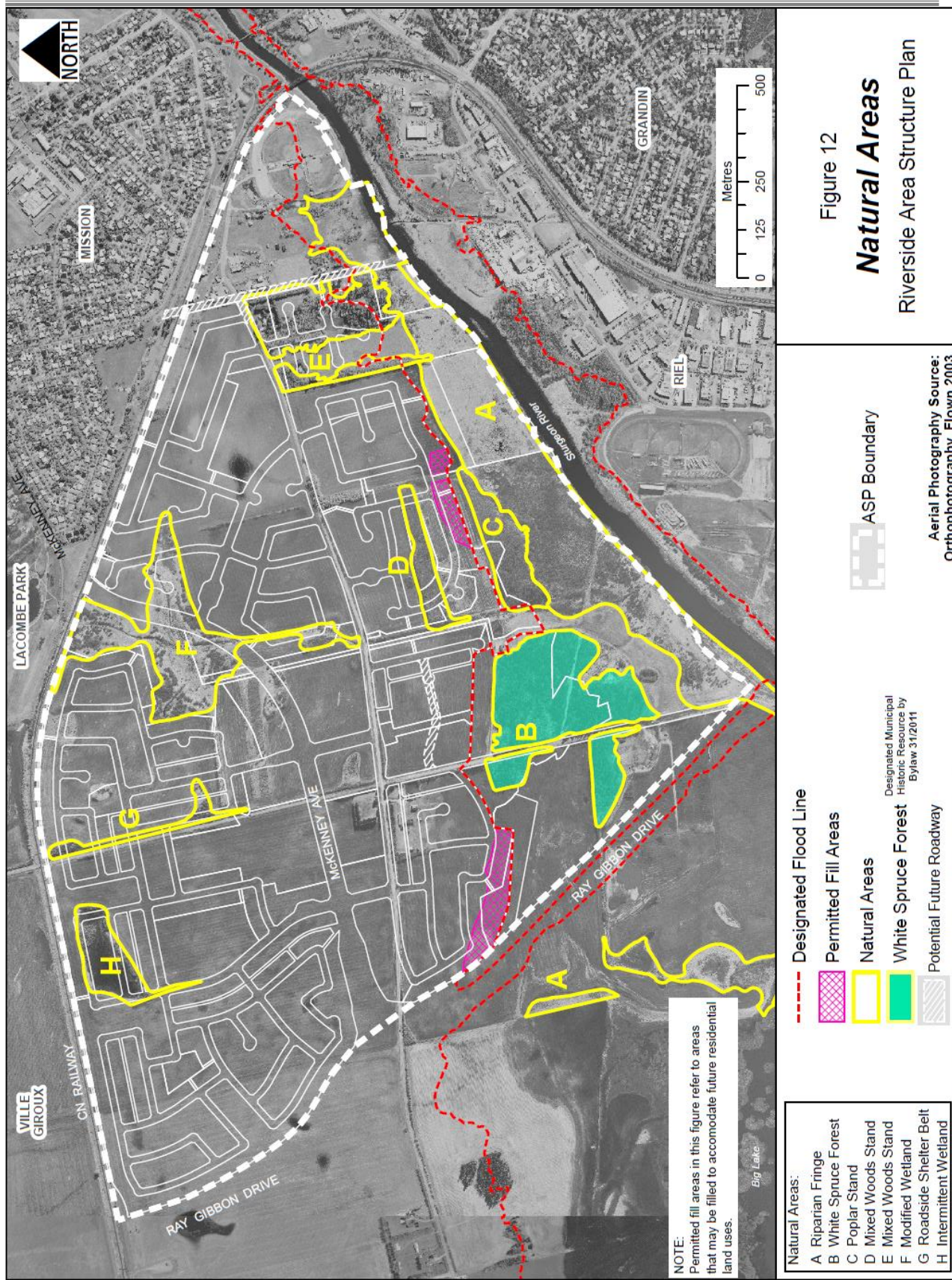
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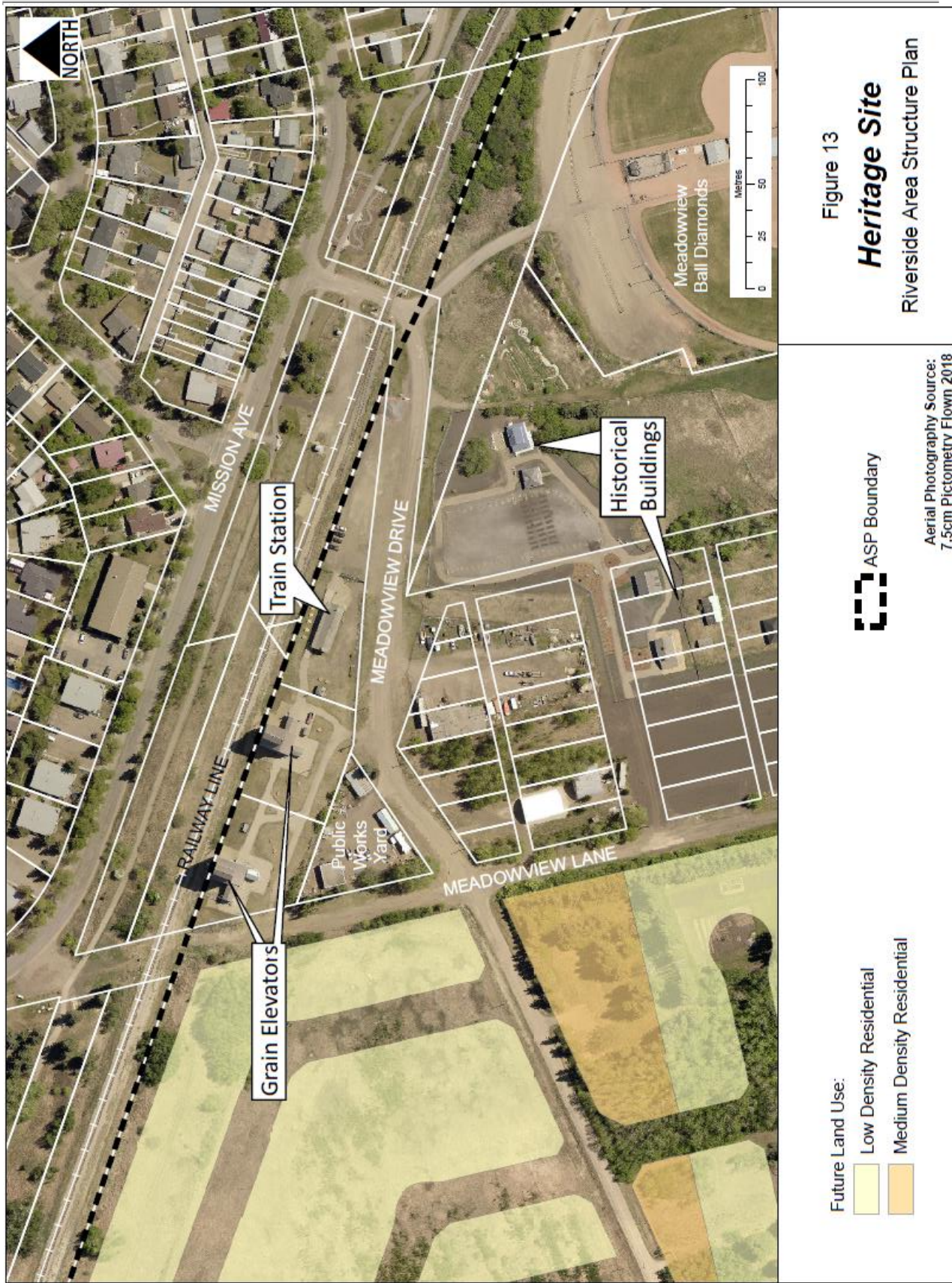
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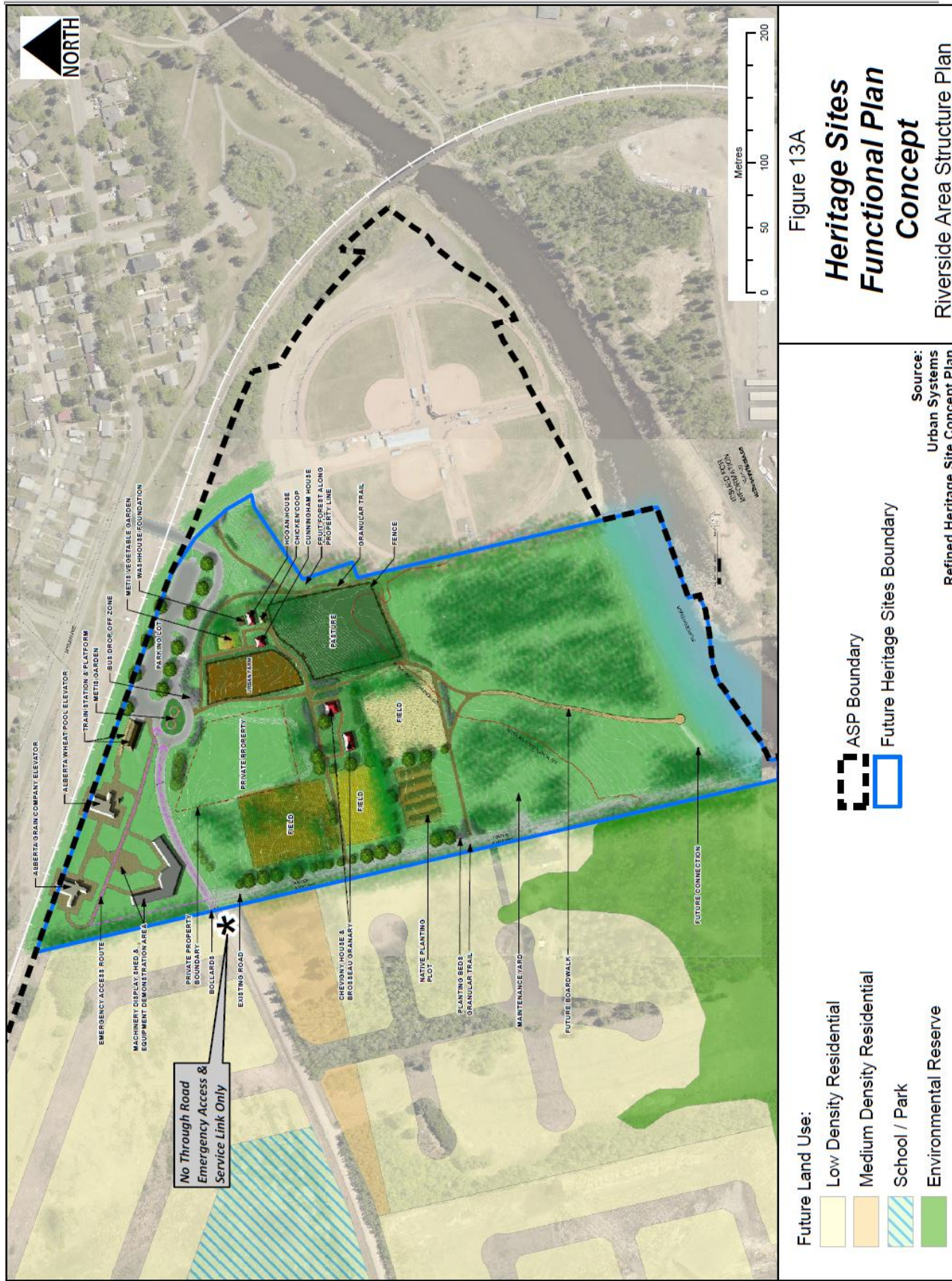


RIVERSIDE AREA STRUCTURE PLAN

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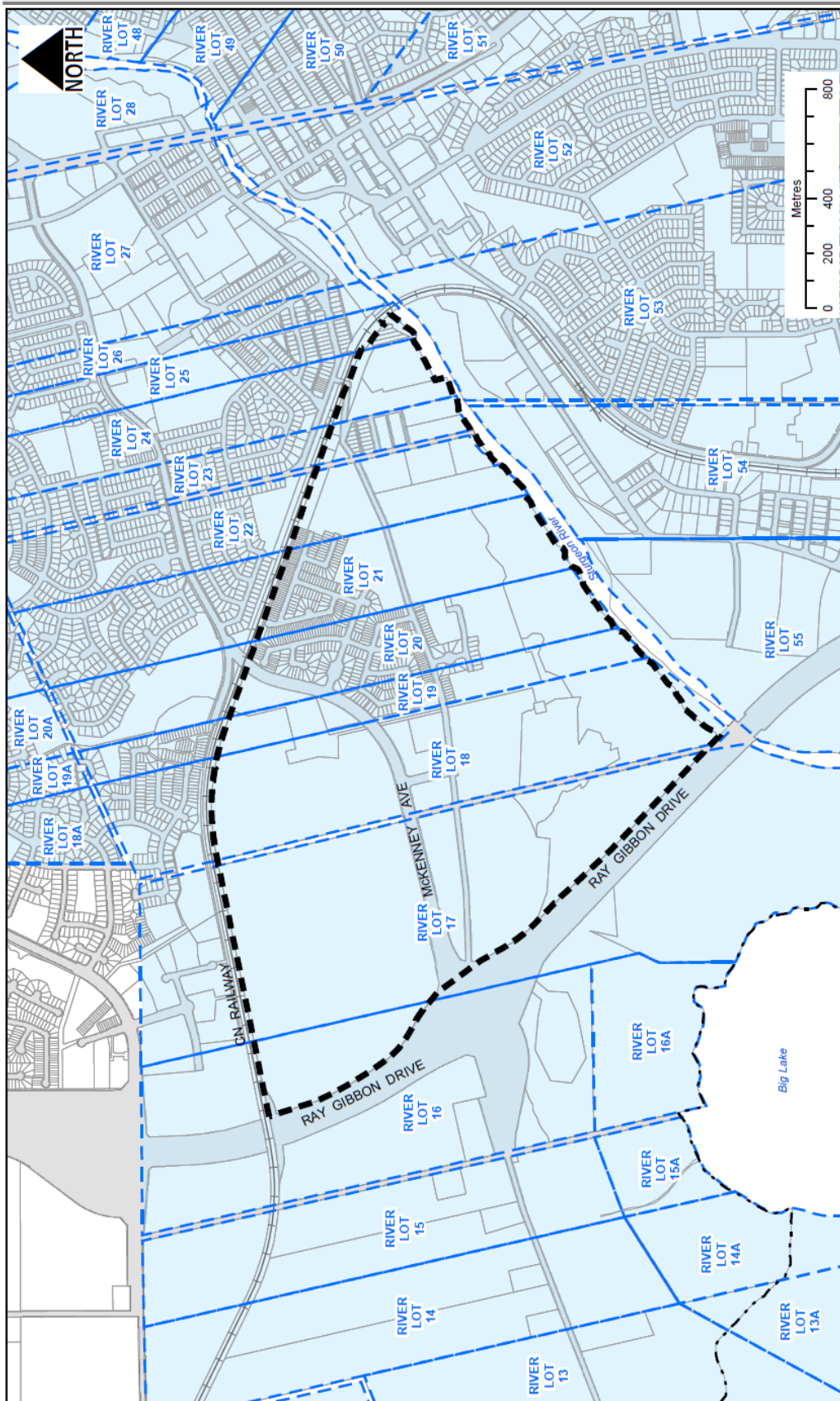




Figure 14

Former Historic River Lots

Riverside Area Structure Plan

-  ASP Boundary
-  City Boundary
-  Historic River Lots (St. Albert Settlement Plan)