# BYLAW 24-2019

A BYLAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING AN AREA STRUCTURE PLAN.

AS:

A. section 633 of the *Municipal Government Act*, RSA 2000, c M-26, as amended, enables council to adopt by bylaw an area structure plan for the purpose of providing a framework for subsequent subdivision and development of an area of land; and

B. it is deemed advisable to adopt a new area structure plan for Lot 1A, Block 1, Plan 052 6143; Lot 1B, Block 1, Plan 062 1933; and part of the SE 2-53-22-W4.

THEREFORE Council enacts as follows:

1. This Bylaw may be cited as the "Ardrossan East Area Structure Plan".

2. The document entitled "Ardrossan East Area Structure Plan" attached to this Bylaw as Schedule "A" is hereby adopted as an area structure plan pursuant to the *Municipal Government Act*, RSA 2000, c M-26, as amended.

Read a first time this ___ day of _____, 2019.

Edmonton Metropolitan Region Board Approval this _____ day of _____, 2019.

Read a second time this ___ day of _____, 2019.

Read a third time this ___ day of _____, 2019.

Signed this ___ day of _____, 2019.

_____
Mayor

_____
Director,
Legislative and Legal Services


# ARDROSSAN EAST

## AREA STRUCTURE PLAN

STRATHCONA COUNTY

JULY 2019

# ARDROSSAN EAST

## AREA STRUCTURE PLAN

Prepared for:
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Strata Developments

Prepared by:

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development management + advisory

JUNE 2019

# Contents

# 1.0 Introduction

## 1.1 Vision

Ardrossan East is envisioned to be a sustainable residential community that connects residents and respects its natural features and open spaces as key assets in the community. The neighbourhood has been designed to provide exceptional amenities, a range of active and passive recreational opportunities and establishing a place in which to live, work, and shop.

## 1.2 Planning Context

The Ardrossan East Area Structure Plan (ASP) should be read in conjunction with Strathcona County's MDP, supporting technical documents, as well as other Strathcona County policies and documents. Additionally, regional plans as well as provincial acts and regulations apply, such as the Municipal Government Act and the Edmonton Metropolitan Region Growth Plan.

## 1.3 Purpose

The purpose of this ASP is to provide a statutory framework for land use planning, provision of municipal services and infrastructure, development staging and amenities in conformance with various planning policies, regulations, bylaws and requirements of Strathcona County.

**This Area Structure Plan is to be read in conjunction with**

## 1.4 Policy Structure

This document uses specific terminology within policies as outlined in Table 1, to ensure that they have clear intentions that are designed to be achieved through actions. All policies must contain one of the following actions:

**Require** – these policies as compulsory and must be met in order to receive County administration support for a proposal. Require policies are always paired with ensure. Require is the compulsory obligation and ensure explains the result that is to be achieved.

**Encourage** – proposals should be consistent with all applicable encourage policies in order to be supported by County administration. Proposals which do not meet an applicable encourage policy must provide justification to the satisfaction of County administration as to why the applicable encourage policy cannot be met. Encourage policies are always paired with promote. Encourage is what is expected and promote shows active County encouragement for the result that is to be achieved.

**Consider** – proposals that fall under a consider policy will be evaluated on a case-by-case basis and may or may not be supported enacted by County administration based on the specifics of the proposal and how it aligns with the goals and objectives of this plan. Consider policies are always paired with support. Consider is followed by criteria for when an action may be suitable, and support shows passive County support through the conditional consideration of the result that is to be achieved.

| ACTION | | INTENTION | |
|---|---|---|---|
| **Require** | Is a compulsory obligation. | **Ensure** | To make sure of a result through a requirement. |
| **Encourage** | Provides direction for what is expected. | **Promote** | Shows active County encouragement. |
| **Consider** | Provides criteria for when actions may be suitable. | **Support** | Shows passive County support through conditional consideration. |

## 1.5 Interpretation

All map symbols, locations, and boundaries contained within the Ardrossan East ASP shall be interpreted as approximate unless otherwise specified in the plan, or coincide with clearly recognizable physical features or fixed (e.g. legal) boundaries.

### Permissive Premise

This document is intended as a permissive document. Where direction on an item is not provided, the item should not be considered.

### Definitions

Terms not defined within Appendix C of this document may be given their meaning from the following documents in order of priority:

- Municipal Government Act.
- Edmonton Metropolitan Region Growth Plan.
- Municipal Development Plan.

Other terms shall be given their usual and customary meaning.

## 1.6 Location

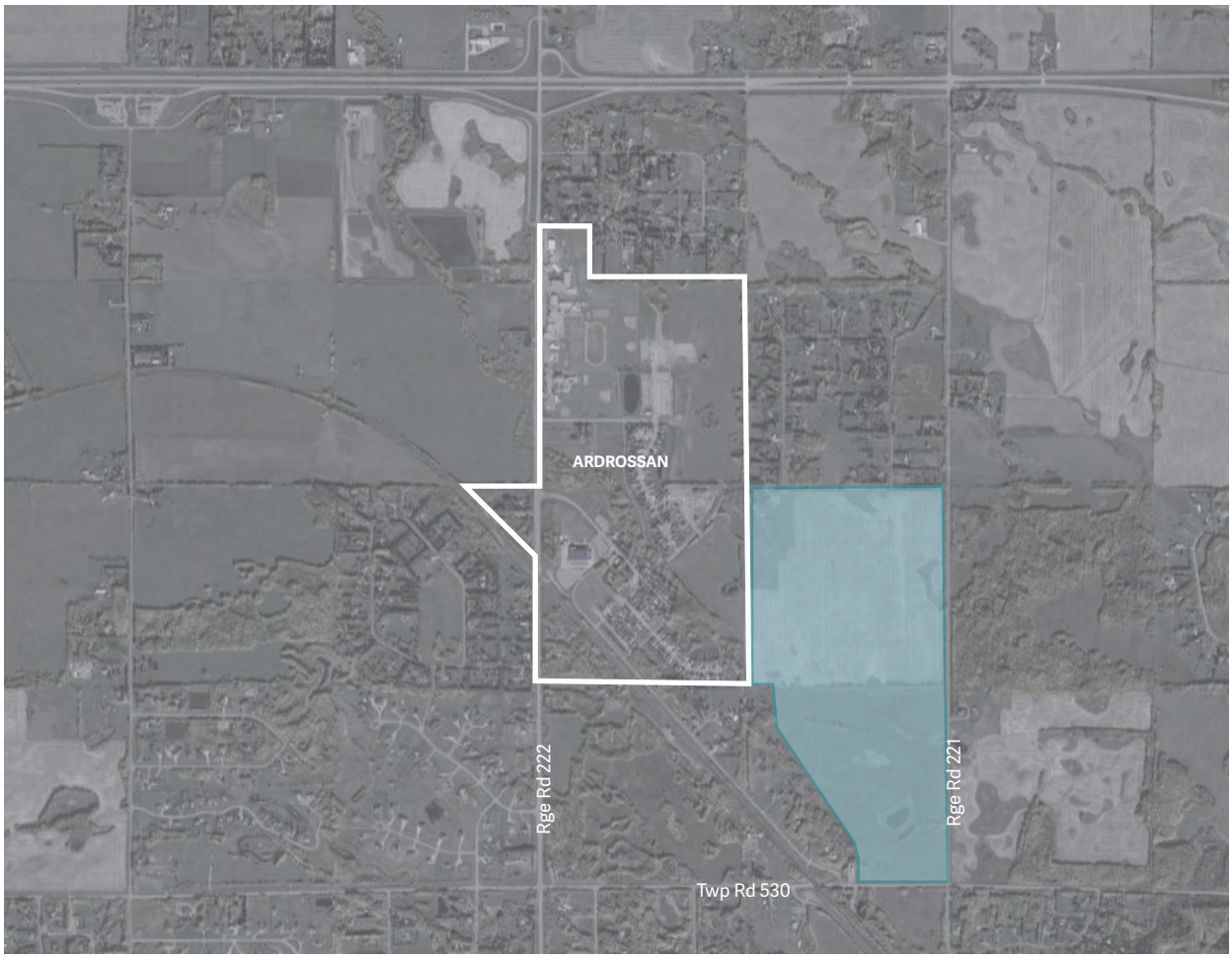
The Ardrossan East ASP is located on the eastern edge of the existing hamlet boundary encompassing approximately 103 hectares consisting of three separately titled parcels. The ASP is defined by the following boundaries (see **Figure 1: Location Plan**):

**Western Boundary**: Pointe-aux-Pins creek and the eastern property line of NW 2-53-22-W4M

**Southern Boundary:** Township Road 530

**Eastern Boundary:** Range Road 221

**Northern Boundary:** Township Road 531


ARDROSSAN
Rge Rd 222
Rge Rd 221
Twp Rd 530

# 2.0 Land Use Concept

## 2.1 Overview

Ardrossan East neighbourhood is designed to provide a high quality environment for residents and visitors to Ardrossan. The community is predominantly residential, providing a mix of low and medium density residential opportunities within a unique hamlet setting (see **Figure 3.0: Land Use Concept**).

The neighbourhood landscape is defined by various natural areas which includes the Pointe-aux-Pins creek and two wetlands. These natural features offer a diversity of vegetation and wildlife habitat that significantly contribute to the ecological integration into the community, as well as providing a means of flood protection, aesthetic benefits, and recreational enjoyment. Furthermore, the ASP proposes the development of naturalized stormwater management facilities (SWMFs), which will further enhance local biodiversity.

At the intersection of Township Road 530 and Range Road 221, the plan provides an opportunity for commercial and medium density residential uses to create a place for people to shop, work and congregate.

The ASP includes a school site that is located within the central portion of the community. The site maintains frontage along two collector roadways and is connected to the adjacent greenway network which provides convenient and enhanced accessibility.

The following sections provide a policy framework to achieve the land use concept illustrated on Figure 3.0:

## 2.2 General

The following objectives and policies apply to all components of the ASP.

### Objectives

1. Accommodate development that contributes to the establishment of a **complete community.**
2. Provide development that is **accessible** for residents and visitors.
3. Utilize **environmental reserves** to conserve environmentally significant areas and features where they qualify under the Municipal Government Act.
4. Provide **municipal reserves** land for open space and community services for all ages, incomes and abilities.
5. Develop an aesthetically pleasing community by incorporating high quality **urban design and architecture** practices.

### Policies

**Complete Community**

1. **Require** compact development to be arranged in an efficient manner to **ensure** the creation of a sustainable, strong and resilient community.
2. **Require** new zoning districts are created for all residential, commercial and mixed use areas to **ensure** the diversity, density and design intent of this Plan is implemented.

**Accessible**

3. **Require** a contiguous network of greenways, walkways and multi-use trails that provide connections to and between parks, open spaces, and commercial and mixed -use areas within the ASP and adjacent neighbourhoods to **ensure** an active, connected and healthy community.

**Environmental Reserves**

4. **Require** Pointe-aux-Pins creek and wetlands as identified within the Biophysical Assessment be dedicated as environmental reserve to **ensure** priority wetlands and creeks are conserved.
5. **Require** the boundaries of environmental reserves and development setbacks to be determined utilizing a combination of technical studies such as top-of-bank survey, slope stability/geotechnical assessment, floodplain/flood hazard report, and site-specific biophysical report to **ensure** the continued health of natural ecosystems.
6. **Require** minimum development setbacks from the property line of environmental reserve to be established at the time of subdivision to **ensure** protection of unstable slopes, floodplains, hazard lands, and retained waterbodies.
7. **Encourage** public access points to environmental reserve at regular intervals to **promote** public enjoyment of the areas for all residents.

### Municipal Reserves

8. **Require** all municipal reserve owing to ultimately be dedicated as land within Ardrossan East to **ensure** the maximization of open space for residents.
9. **Encourage** municipal reserve sites to be designed to facilitate multiple uses to **promote** the maximization of County owned land for the community.
10. **Consider** the use of money in place of municipal reserve, at the County's discretion, where the funds are used to purchase municipal reserves in subsequent development phases or within other parts of Ardrossan East to support municipal reserve land being located where is has the greatest value to the community.
11. **Consider** municipal reserve dedication above 10%, where permitted under the Municipal Government Act, to **support** a connected open space network.

### Urban Design and Architecture

12. **Require** development to be in conformance with the Hamlet Design Guidelines within Appendix B to **ensure** the intent of the policy within this Plan is achieved.

## 2.3 Residential

The Mixed Residential land use designation will allow a variety of housing typologies consisting of single-family, semi-detached housing and limited townhousing primarily concentrated along or adjacent to collector roadways.

Medium Density Residential land use will allow for residential uses such as townhousing, stacked townhousing or apartment housing.

### Goals

To accommodate residents within a variety of housing forms, typologies and densities to create a sustainable neighbourhood that supports a variety of residential and ancillary uses over the long term.

### Objectives

1. Establish **residential densities** that utilize developable land and municipal infrastructure and services in an efficient and sustainable manner.
2. Accommodate the development of a variety of **housing types and built forms** to support a range of household profiles, demographics and incomes.
3. Provide an appropriate **land use transition** between future urban development and existing rural and country residential uses.

### Policies

**Residential Densities**

1. **Require** a minimum overall residential density of 20 dwelling units per net residential hectare (du/nrha) to **ensure** compliance with the Regional Growth Plan.
2. **Encourage** a minimum of 25 dwelling units per net residential hectare (du/nrha) by incorporating townhousing in the mixed residential area to **promote** efficient utilization of land and infrastructure.

**Housing Types and Built Forms**

3. **Require** that the Mixed Residential area contain variety of housing types consisting of single-detached, semi-detached, and townhousing to **ensure** consumer choice and a range of affordability options.
4. **Require** townhousing to be located along collector roadways to **ensure** they can be appropriately serviced.
5. **Encourage** medium density residential housing that is adjacent to low density residential is designed to be context sensitive to **promote** the positive integration of diverse forms of housing.
6. **Encourage** the development of seniors housing within Medium Density Residential and Mixed Use areas to **promote** residents to stay within the community.
7. **Encourage** the incorporation of community housing throughout the community to **promote** the development of an inclusive community.
8. **Consider** alternative housing types to **support** innovative housing choices where the proposal:
    - is consistent with the character of the community;
    - maintains or increases overall density of the plan area;
    - contributes to a variety of housing choice; and
    - contributes to housing affordability.

**Land Use Transition**

9. **Require** development to provide buffers adjacent to existing multi-parcel Country Residential developments through the use of increased setbacks, landscaped buffers, building siting and/or lot sizes to **ensure** a cohesive and integrated community.

## 2.4 Commercial

Commercial uses provide local employment opportunities and the ability for residents to live, work and shop within their own community. The intent of the commercial site is to create a high quality, multi-purpose commercial development. It is envisioned to include a variety of commercial uses that will serve the needs of the community and surrounding rural area.

The location of the commercial site at the intersection of Township Road 530 and Range Road 221 ensures easy accessibility to the neighbourhood and from adjacent rural areas. The site is further accessible via the greenway and walkway network developed along Range Road 221.


### Goals

To establish community and business commercial uses for the neighbourhood and surrounding rural area.

### Objectives

1. Provide an opportunity to develop a **variety** of commercial land uses to satisfy the needs of Ardrossan and the surrounding rural areas.
2. Provide commercial land uses that is high visibility and has convenient **access.**
3. **Minimize impacts** of commercial sites on adjacent land uses.

## Policies

### Variety

1. **Require** zoning for the commercial site to contain business commercial and community commercial uses to **ensure** the opportunity for residents to work and shop within their own community.

### Access

2. **Require** the commercial site to be located along arterial and/or collector roadways and connected by multi-use trails and walkways to **ensure** easy access and visibility.
3. **Require** the commercial site to provide the opportunity to incorporate a future transit controlled location to **ensure** the ability to access commercial by multiple modes of transportation.

### Minimize Impacts

4. **Encourage** commercial sites to be developed in a more compact manner to **promote** clustering of buildings, improve walkability and minimize large parking lots.
5. **Require** commercial sites to be developed in accordance with the hamlet design guidelines in Appendix B to **ensure** they are developed in a manner that is compatible with adjacent residential in that plan area and minimizes impacts on adjacent country residential development .
6. **Require** commercial sites located adjacent to country residential development to provide screening in the form of landscaping and/or berms to **ensure** the reduction of visual impact on country residential existing uses.

## 2.5 Mixed Use

The Mixed Use designation allows for the development of medium density residential (townhousing or apartment housing forms) and community commercial, business commercial and/or local community services uses vertically or horizontally integrated on site. The Ardrossan ASP provides a Mixed Use site in the central portion of the neighbourhood and the intersection of two collector roadways.

### Goals

To establish a mixed use site within the central portion of the neighbourhood that provides a variety of commercial opportunity in a walkable environment.

### Objectives

1. Provide a **mixed use** area to accommodate medium density residential and small-scale community commercial, business commercial and/or local community services.
2. The mixed use area is **designed** and built to be compact and highly walkable in all seasons.

### Policies

**Mixed Use**

1. **Require** a variety of community commercial, business commercial and/or local community services to be vertically integrated within a single building or horizontally integrated within multiple buildings on a site to **ensure** a range of commercial options.
2. **Encourage** medium density residential uses above ground floor commercial or community service uses to **promote** an active centre.

**Design**

3. **Require** the mixed use site to be developed in accordance with Section C. of the hamlet design guidelines provided in Appendix B to **ensure** the site is compact and pedestrian oriented.

## 2.6 Open Space and Schools

An integrated open space network comprised of existing environmental features, a School site, and four neighbourhood parks have been incorporated into the ASP (see **Figure 4.0 – Parks and Open Space**). The greenways contribute to an extensive active transportation network and provide multi-modal connections throughout the ASP

### School Site

A school site has been located in the central portion of the community and has been appropriately sized to accommodate a school building and associated playfields. The site has collector roadway frontage on two sides that will accommodate drop-off parking and traffic to/from the site. The site will remain as open space until such time that the student population requires the construction of a school. The central location of the school site provides an opportunity to develop the site within the initial stages of development.

### Neighbourhood Park

Four neighbourhood parks have been planned in the ASP. These parks are located with frontage along a local or collector roadway and are connected to the multi-use trail network to ensure that all residents have convenient access to park space for passive/active recreation activities.

### Greenways

Greenways are linear open spaces linking other open spaces providing active modes connections for recreational purposes. There are several greenways within the community that seamlessly connect the school site, neighbourhood parks, stormwater management facilities, the Pointe-aux-Pins creek, environmental features and other key destination areas.

### Stormwater Management Facilities

Stormwater management facilities (SWMF's) are considered neighbourhood amenities and form part of the overall open space network. SWMF's add to the neighbourhood's character and image as a pedestrian-friendly community. All SWMFs are linked by the greenway network and complement the open space system by providing additional areas for passive recreation and amenity space.

## Goals

To establish a comprehensively planned network of open spaces, parks and stormwater management facilities to serve as amenities for the community.

## Objectives

1. Develop **open spaces** to support active and passive recreation purposes.
2. Maximize enhanced pedestrian and bicycle **access** to open spaces from surrounding areas.
3. Provide a site for a **school**.

## Policies

### Open Space

1. **Require** a Park Master Plan be prepared for the ASP to **ensure** that the design of open spaces meets the immediate and long term needs of the community.
2. **Require** that open spaces are designed for a variety of passive and active recreational activities to **ensure** multiple recreational options for the community.
3. **Require** open spaces to be designed using Crime Prevention Through Environmental Design principles to **ensure** open spaces are safe and comfortable.
4. **Require** that a contiguous greenway loop is developed within the community to **ensure** multi-modal access to parks and open space.
5. **Require** that stormwater management facilities are developed to provide a community amenity to **ensure** a dynamic and comprehensive open space system.
6. **Encourage** that playground infrastructure is provided within neighbourhood parks larger than 2.0 acres to **promote** the park as a destination for passive recreation and exercise.

7. **Encourage** open spaces to be designed to include urban agriculture **promote** the establishment of community gardens, public orchards and food forests.
8. **Encourage** open spaces to include education opportunities through signage and viewing decks to **promote** interaction and connection with the natural habitat.

**Access**

9. **Require** every dwelling unit to be within close proximity of a park or open space network access point to **ensure** convenient access to open spaces.
10. **Require** multiple neighbourhood parks throughout the community to **ensure** residents have convenient access to recreation areas.
11. **Require** neighbourhood parks to have large street frontage adjacent to collector roadways to **ensure** highly visible recreation areas.

**School**

12. **Require** the dedication of a school site that is centrally located to **ensure** convenient access and enhanced accessibility.
13. **Require** a Park Master Plan be prepared for the school site to **ensure** that the design of the school site and associated open space meets the immediate and long-term needs of the community.
14. **Encourage** school sites to be designed to **promote** appropriate building frontage to accommodate flexible building design and access to parking, drop off/pick up areas, and school bus zones.
15. **Encourage** joint use of school sites and buildings with community services or complimentary uses to **promote** an integrated community and better utilization of land and buildings.

## 2.7 Environment

The Ardrossan East ASP encourages implementing innovative and sustainable ideas such as green building design and environmentally conscious landscaping techniques into neighbourhood development.

**Environmental Features**

The Pointe-aux-Pins creek is a significant environmental feature within the ASP. This feature provides an opportunity to be used for passive recreation and educational purposes. A greenway will be developed along the full extent of the top-of-bank to allow for uninterrupted access to the creek. The creek will have safe and appropriate access for the community through various greenway and open space connections.

There are two wetlands situated within the plan area. The wetland located in the southern portion of the community will be retained and integrated with adjacent urban development. A second wetland is located in the northwestern portion of the plan area. The majority of this wetland is located outside of the ASP boundary. Both wetlands will be connected to the community by a system of greenways and walkways.

### Goals

To conserve environmental features in an appropriate manner.

### Objectives

1. Conserve the **Pointe-aux-Pins creek.**
2. Conserve **priority wetlands** and incorporate them into the open space and stormwater management network.
3. Conserve **environmentally significant areas and features.**

### Policies

**Point-aux-Pins Creek**

1. **Require** a 10 metre greenway along Pointe-aux-Pins creek that creates a top-of-bank development setback to **ensure** the integrity of the creek is maintained.
2. **Require** a greenway with a multi-use trail along the length of the Pointe-aux-Pins creek to **ensure** proper public access.

**Priority Wetlands**

3. **Require** the conservation of priority wetlands to **ensure** the resiliency o Pointe-aux-Pins Creek and natural drainage systems after development.
4. **Encourage** the inclusion of priority wetlands into the open space network to **promote** a connected green network.
5. **Encourage** open space connections adjacent to priority wetlands and environmental features to **promote** active transportation within the ASP.

**Environmentally Significant Areas and Features**

6. **Require** environmental features are incorporated with development to **ensure** that appropriate land use transitions, buffers, and landscaping are provided.
7. **Require** Environmental Reserves to be dedicated to **ensure** the wetlands in the northwest and south portion of the plan are retained.
8. **Encourage** the incorporation of natural or constructed wetlands as stormwater management facilities to **promote** the long-term health of the wetland system and natural drainage patterns.
9. **Encourage** the inclusion of wetlands and naturalized greenways into the open space network to **promote** wildlife connectivity, viability of the ecological network, active transportation and outdoor activities within the community.

## 2.8 Land Use and Population Statistics

| PROPOSED LAND USE | Area (ha) | % of GA | % of GDA |
|---|---|---|---|
| **Gross Area** | 103.80 | 100.0% | |
| Arterial Roadway | 0.38 | 0.4% | |
| Environmental Reserve | 4.70 | 4.5% | |
| **Gross Area** | **98.72** | | **100.0%** |
| Municipal Reserve (School/Parks/Greenways) | 10.15 | | 10.3% |
| Circulation | 19.74 | | 20.0% |
| Stormwater Management Facility | 7.40 | | 7.5% |
| Commercial | 1.70 | | 1.8% |
| Mixed Use Commercial (25% of site area) | 0.06 | | 0.1% |
| **Total Non Residential Area** | **39.10** | | **39.6%** |
| **Net Residential Area (NRA)** | **59.62** | | **60.4%** |

RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION

| Land Use | Area (ha) | Units/ha | Units | % of NRA | People/Unit | Population |
|---|---|---|---|---|---|---|
| Mixed Residential | 58.18 | 25 | 1,454 | 97.6% | 2.80 | 4,072 |
| Medium Density Residential | 1.25 | 60 | 75 | 2.1% | 1.90 | 143 |
| Mixed Use Residential | 0.19 | 90 | 17 | 0.3% | 1.50 | 26 |
| **Total** | **59.62** | | **1,547** | | | **4,240** |

| SUSTAINABILITY MEASURES | |
|---|---|
| Population Per Net Hectare (pu/nrha) | 71.2 |
| Dwelling Units Per Net Residential Hectare (du/nrha) | 25.9 |

| STUDENT POPULATION | Public | Separate |
|---|---|---|
| Elementary | 572 | 186 |
| Senior High | 201 | 31 |
| **Totals** | **773** | **217** |

| STUDENT GENERATION*** | Public | Separate |
|---|---|---|
| Elementary | 0.37 | 0.12 |
| Senior High | 0.13 | 0.02 |

# 3.0 Transportation

A sustainable neighbourhood requires a comprehensive, well-connected transportation network to facilitate the safe and efficient movement of vehicles, pedestrians and cyclists (see **Figure 6.0 - Transportation)**. An efficient and continuous active modes network connecting key destination areas/focal points (e.g. schools, parks and open spaces, and commercial uses) will promote safe pedestrian access within and external to the neighbourhood.

A hierarchy of roadways are intended to facilitate the efficient movement of vehicular traffic. Township Road 530 will provide major access from the ASP to the surrounding areas and highways. This roadway between Range Road 222 and Range Road 221 is classified as a Class I rural roadway. This roadway is an unimproved Class I rural road and currently requires upgrades in order to meet current standards. These upgrades would accommodate additional traffic demand from the ASP.

Range Road 221 between the east/west minor collector in Ardrossan East and Township Road 530 will be developed as a semi-urban collector roadway. Allowances for enhanced traffic control at the intersections, such as roundabouts or turning lanes with future signals may also be accommodated where required.

The collector roadway network has been designed to allow for the safe, efficient and convenient access for the public travelling to and within the ASP. The semi-urban collector is intended to include a multi-use use trail and curb and gutter on the west side of the roadway and a rural ditch on the east side. The road will transition to the existing rural cross section north of the intersection with the east-west collector roadway. Township Road 531 between Main Street in Ardrossan and the north/south collector within the ASP is intended to be developed as a semi-urban collector. A shared use path will be located on the south side of Township Road 531. The roadway will transition to the existing rural cross section east of the intersection with the north-south collector roadway.

There are two internal collector roadways within the ASP. The north-south collector roadway provides access between Township Road 531 to the north and Range Road 221 to the east. An east-west collector roadway will provide access from the north-south collector roadway and Range Road 221. The internal collector roadways will be constructed to a full urban standard with separate sidewalks on both sides.

Pedestrian crossings will be clearly marked using appropriate signage in order to minimize conflicts between vehicles, bicycles, and pedestrians. Traffic calming measures will be considered at the design stage and may include road narrowing at select pedestrian crossings and intersections and/or other measures as deemed appropriate.

Ardrossan East has been designed to accommodate future public transit. The neighbourhood has been designed to maximize the number of residents within walking close proximity to a transit controlled location. Transit will be accommodated within the collector roadway network. Future transit routes will be established on the basis of the proportion of trips, which are expected to be generated from within the neighbourhood and adjacent areas.

## Goals

To develop a balanced, safe and connected transportation network.

## Objectives

1. Provides **access, connectivity, and mobility** to residents by all modes of transportation.
2. Provides **active transportation** options for residents.
3. Supports **transit** access to residents.
4. Provides **streetscapes** that support active building frontages and human-scale built form.

## Policies

**Access, Connectivity and Mobility**

1. **Require** the development of a highly connected roadway network for all users to **ensure** reduced travel distances for people walking, cycling and taking transit.
2. **Require** a multi-modal transportation network to include transportation options for all trips to **ensure** access for users of all ages, abilities and incomes.
3. **Require** an interconnected street network to **ensure** the maximization of walkability and transit compatibility.
4. **Require** roadway designs that include separated facilities (multi-use trails and sidewalks) within the right-of-way on all arterial and collector roadways to **ensure** a highly connected active transportation network within access to key destination areas and focal points.
5. **Consider** design solutions and practices that make use of or manage snow on-site or nearby (versus hauling it off-site) where it is complementary to the street design to **support** environmentally friendly snow storage.

**Active Transportation**

6. **Require** an active transportation infrastructure network that includes an internal network of multi-use trails and sidewalks with connections across the neighbourhood to **ensure** access for people walking and cycling.
7. **Require** design and maintenance of active transportation infrastructure to be safe and accessible year-round to **ensure** there are opportunities for cycling and walking in all seasons.
8. **Require**, where barriers cannot be avoided, the use of mitigation measures for active transportation access to the school site that is safe, efficient, unobstructed, and accessible to **ensure** walking and cycling to school is a safe and viable option.

9. **Consider** providing sidewalk on one side of a local road, where the following exist for each lot whose lot line does not abut a sidewalk to **support** the separation of active modes of transportation from vehicular traffic, connecting residents with the natural environment, and reduction of long term maintenance:
    - the affected lot's lot line abuts a municipal reserve, environmental reserve or public utility lot containing a multi-use trail;
    - the affected lot's lot line is in close proximity (30 meters) to the multi-use trail; and
    - the affected lot has direct, unimpeded linear access from the affected lot's lot line to the multi-use trail.

**Transit**

10. **Require** that transportation design and the pedestrian network provide an opportunity for all residential units to be within close proximity of a transit controlled location to **ensure** accessibility to alternative modes of transportation.

**Streetscapes**

11. **Encourage** streetscapes to be designed to **promote** a positive relationship with the adjacent buildings.

# 4.0 Utility Infrastructure

A significant amount of investment has recently occurred in Ardrossan including upgrades to the sanitary and water infrastructure systems. These investments have positioned the hamlet to accommodate new growth and development. These upgrades have been designed to support a population of roughly 3500 residents. Ardrossan East will be a fully serviced neighbourhood designed and constructed in accordance with County servicing standards. Expansion of the County's infrastructure will be necessary to accommodate full development of the ASP. Development staging and extension of infrastructure will be contiguous, efficient, and economical while having regard for 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 approaches.

Additional details on the sanitary, water and stormwater services have been provided in the Preliminary Services Report submitted under separate cover.

**Sanitary System**

Recent upgrades to the Ardrossan offsite sanitary system have been completed with existing capacity to support the majority of Ardrossan East area. Based on the Ardrossan Wastewater Model Update (AECOM, December 2017), full development of Ardrossan East may eventually trigger upgrades to both the downstream collection and transmission pump stations. These facilities have provision to accommodate future upgrades.

Ardrossan East will be serviced by a conventional gravity sewer trunk main running within the north-south collector road right-of-way (See **Figure 6.0 – Sanitary Servicing**). The trunk line will tie into an oversized-trunk line provided through the existing hamlet to the west. The proposed sanitary sewer system and its effects downstream are described in greater detail in the Preliminary Services Report.

**Water Distribution**

The Ardrossan East ASP will be serviced with a water distribution system that will provide both full domestic municipal water service and flows for fire protection. Recent upgrades to the water reservoir and pumping facilities were designed with capacity to support this expansion.

Figure 7.0 – Water Servicing illustrates the larger mains ranging from 250mm to 400mm in diameter of the proposed ultimate water network for the Ardrossan East ASP. The offsite 400mm diameter main will be constructed by others.

The Preliminary Servicing Report includes a detailed network analysis to demonstrate the capabilities of the proposed system during interim and ultimate development scenarios in addition to pipe sizing to support the full built-out of the community. The analysis indicates that all peak domestic and fire flows can be met at full build-out while providing the minimum pressure requirements in accordance with Strathcona County Standards. Development of land use types requiring higher fire flows may require the installation of the 400mm diameter main to satisfy servicing requirements. It is anticipated these land uses will occur late in the development of the ASP.

An updated network analysis will be required at each stage of development to verify the pipe size requirements until the 400mm diameter main is constructed.

**Stormwater System**

The Ardrossan East ASP falls within the Pointe-aux-Pins Creek tributary drainage basin, which ultimately flows northwest towards the North Saskatchewan River. The existing topography of the ASP features a ridge that diagonally bisects the plan. The area northeast of the ridge drains to the north towards a tributary stream that ultimately drains into the Pointe-aux-Pins Creek. The area southwest of the ridge takes a more direct path draining into Pointe-aux-Pins Creek. A dugout in the adjacent southeast quarter section has an emergency overflow route that transects the ASP and ultimately towards Point-aux-Pins creek.

The proposed stormwater management system design is based on an existing ridge that bisects the ASP (See **Figure 8.0 – Storm Water Management**). Two stormwater management facilities (SWMFs) are proposed, one on either side of the existing ridge, at natural low spots. Minor storms (1:5 year return period or less) will be collected into catch basins and conveyed underground into a storm sewer system. The underground storm sewer system ultimately discharges into the two SWMFs, which are proposed to be constructed wetlands and will attenuate major storms (greater than the 1:5 year return) and provide water quality treatment. The two stormwater management facilities will be interconnected and discharged at a controlled rate via an outfall located at the Pointe-aux-Pins Creek.

An existing wetland within the southern portion of the ASP will be retained and supplied by directing drainage into it from adjacent development proportionate at pre-development rates. To mitigate the risk of flooding, a major storm overflow culvert is proposed to convey overflow from the existing wetland to the Pointe-aux-Pins Creek.

**Alternative Development Practices**

Engineering and design standards establish a baseline for construction that provides safe and reliable municipal infrastructure. Recent trends and improving technology provide ample opportunities for alternative standards to reduce construction and maintenance costs. The ASP encourages the exploration of alternative development standards as a way of stepping toward increased sustainability.

Low Impact Development (LID) is an approach that uses simple ecological principles to reflect natural ecosystem processes with respect to managing stormwater in a developed area.

## Goals

To accommodate the extension and expansion of municipal sanitary, water and stormwater infrastructure to support urban development, and use of sustainable development techniques and conservation measures to support the development of a low impact community.

## Objectives

1. Develop **sanitary, water and stormwater systems** to an urban standard and in an efficient, contiguous and staged manner.
2. Provide public access to **stormwater** management facilities.
3. Utilize Low Impact Development principles in the design of the **stormwater** management systems, including bioswales and naturalized wetlands.

## Policies

**Sanitary, Water and Stormwater Systems**

1. **Require** all developments to connect to municipal sanitary, water and stormwater services to **ensure** they are designed and constructed in accordance with County Standards.
2. **Require** controlled release rates for stormwater management facilities discharging into the Pointe-aux-Pins creek to **ensure** stormwater drainage is accommodated while protecting the integrity of the creek.
3. **Require** stormwater management facilities to be connected to walkways to **ensure** they are publicly accessible and integrated with adjacent land uses.

**Low Impact Development**

4. **Encourage** the implementation of low impact development practices to **promote** stormwater infiltration, retention, filtering, evaporation, in addition to the detention of runoff close to the surface.
5. **Encourage** low impact development principles for cold weather climates to **promote** winter efficiency.
6. **Encourage** the use of naturalized stormwater management facilities to **promote** stormwater infiltration, filtering, storage, and evaporation .
7. **Encourage** the use of increased top soil depths and native plant species in the design of parks and open spaces to **promote** sustainable and durable landscaping.

# 5.0 Implementation

The following items are required to implement the Ardrossan East ASP.

| IMPLEMENTATION ITEM | JUSTIFICATION |
|---|---|
| Complete a Parks Master Plan. | A Parks Master Plan will be required to achieve this plan. |
| Update the Land Use Bylaw to include zoning districts which accommodate the intent of this plan. | New zoning districts are required in order to achieve the density, diversity and design intent of the plan. |
| Complete further environmental studies on the lands legally known as Lot 1, Block 1B, Plan 062 1933. | The Phase 1 Environmental Site Assessment indicates that a Phase 2 Environmental Site Assessment will be required to be submitted to the County prior to rezoning or subdivision of an area that contains Lot 1, Block 1B, Plan 062 1933. |
| Provide a Site Filling Report as part of any subdivision application for an area which contains the flood fringe area of Pointe-aux-Pins Creek. | The Preliminary Servicing Report submitted in support of this ASP indicates the a Site Filling Report is required. |

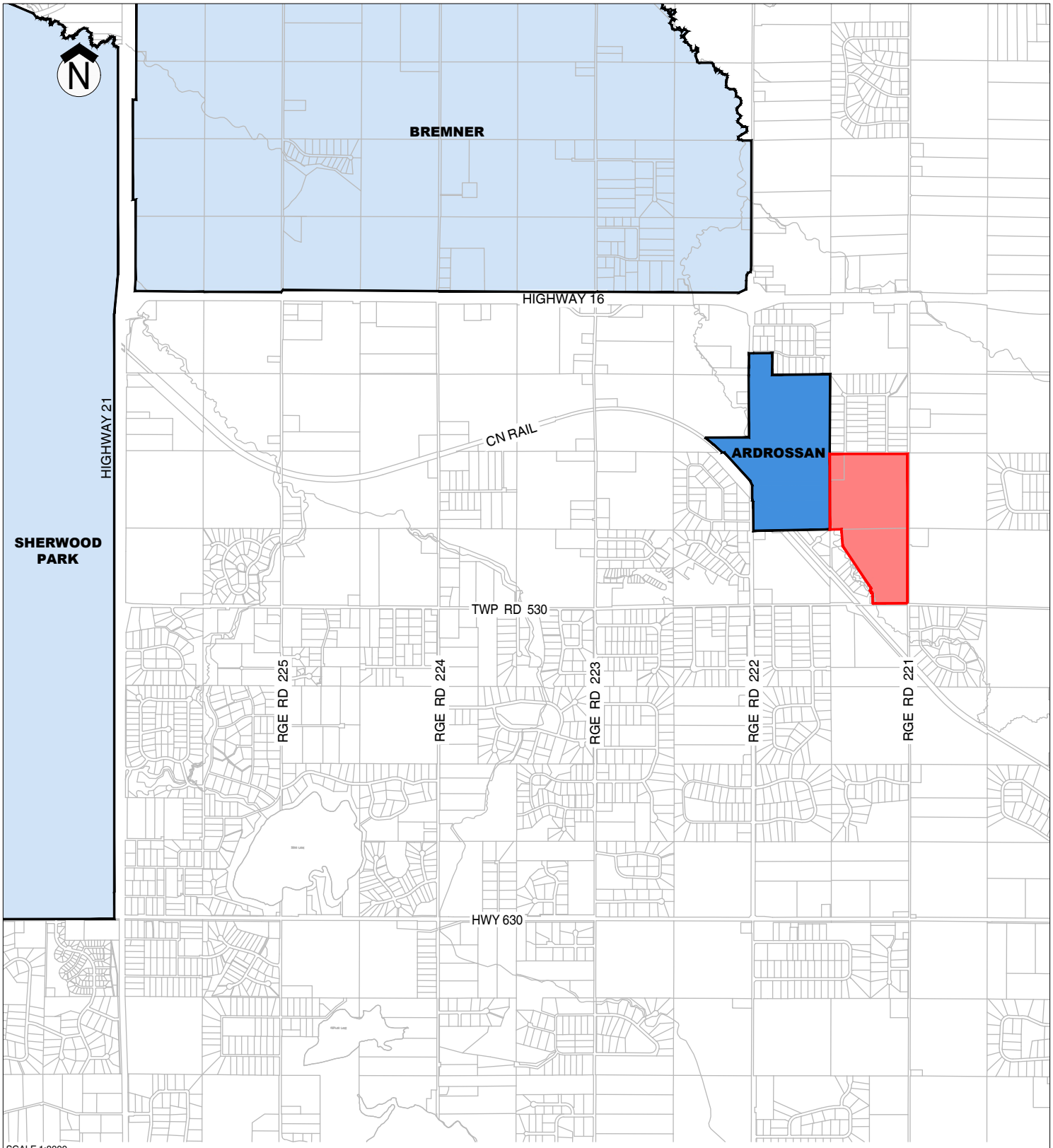
## 5.1 Amendment

Policies, text and mapping information contained within the ASP may be amended from time to time in order to remain current and relevant in response to broader or more specific issues affecting the ASP area. Any amendments to policy, text or mapping information contained within the Ardrossan East ASP shall be in accordance with the Municipal Government Act, Edmonton Metropolitan Region Growth Plan, Municipal Development Plan, and relevant County Policies.

## 5.2 Phasing

Phasing of development is expected to proceed as generally shown on **Figure 9.0 - Phasing Plan.** Phasing may be influenced by overall market demand, staging of infrastructure and participation of landowners. Variations in the phasing shall be coordinated with Strathcona County and subject to development agreements entered into between the developer and the County.

# ASP FIGURES




LEGEND

- ARDROSSAN EAST AREA STRUCTURE PLAN LOCATION
- EXISTING ARDROSSAN BOUNDARY
- URBAN SERVICE AREA

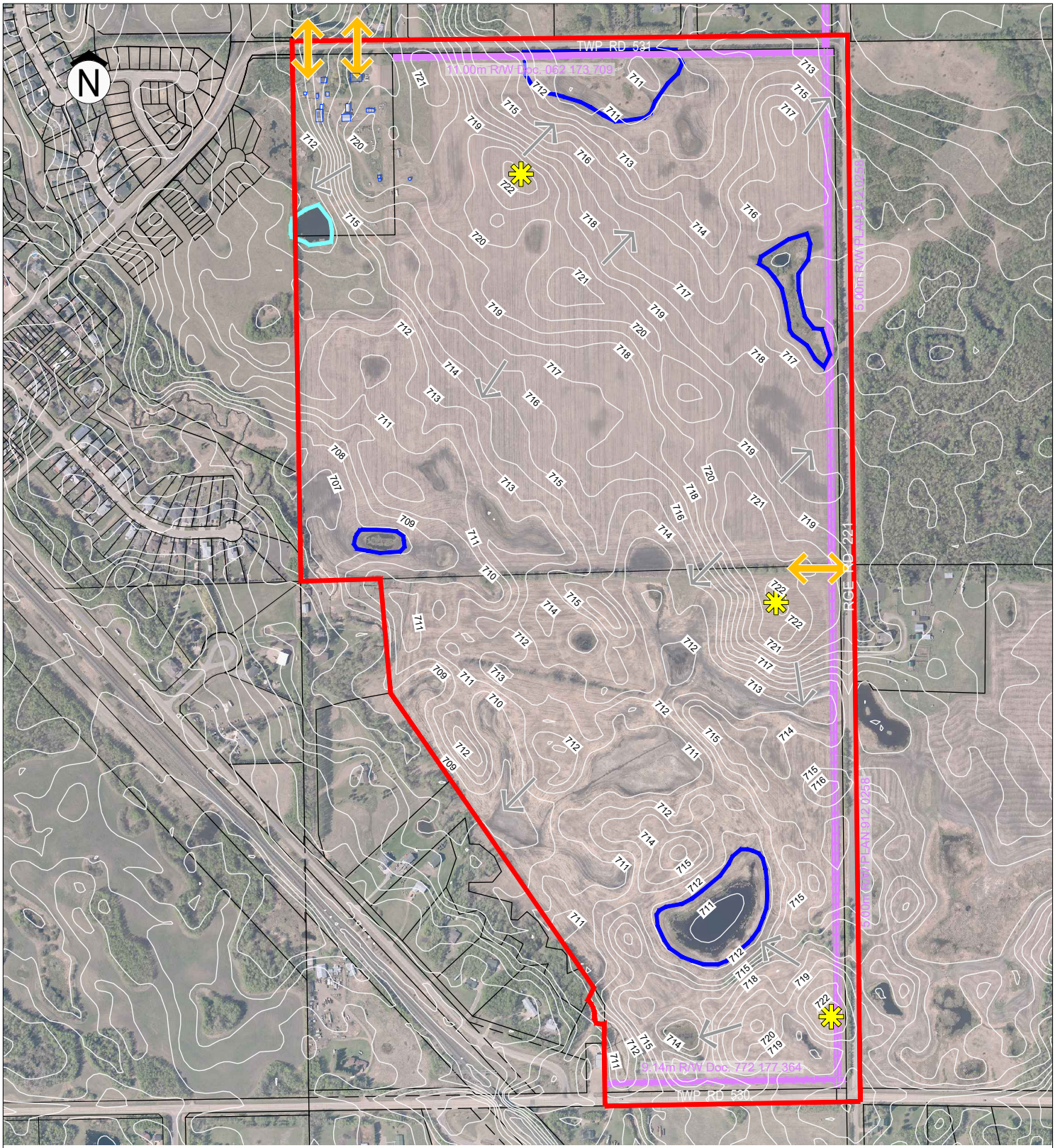
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 1.0

# LOCATION PLAN

STRATHCONA COUNTY




SCALE 1:8000
SHEET - 8.5X11

June 6, 2019

LEGEND

- EXISTING BUILDING
- EXISTING ACCESS
- DIRECTION OF DRAINAGE
- HIGH POINT
- LOW LYING AREA
- DUGOUTS
- PIPELINE/RIGHTS OF WAY
- AREA STRUCTURE PLAN BOUNDARY

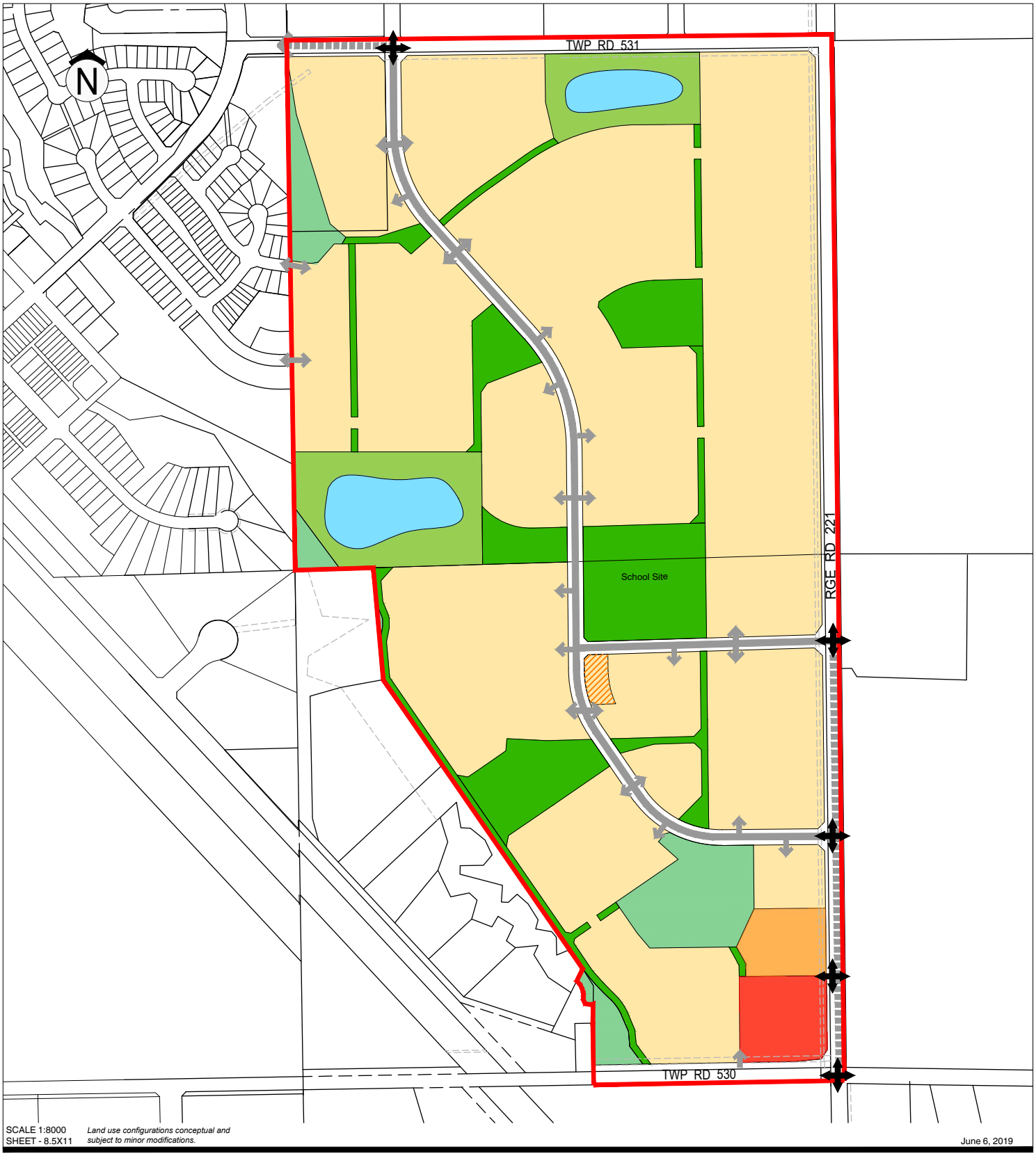
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 2.0

# EXISTING CONDITIONS

STRATHCONA COUNTY




LEGEND

- MIXED RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- MIXED USE
- COMMERCIAL
- ENVIRONMENTAL RESERVE
- MUNICIPAL RESERVE
- STORMWATER MANAGEMENT FACILITY
- COLLECTOR ROAD
- SEMI-URBAN MAJOR COLLECTOR ROAD
- POTENTIAL ACCESS
- ALL-DIRECTIONAL ACCESS
- AREA STRUCTURE PLAN BOUNDARY

Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 3.0

# LAND USE CONCEPT

STRATHCONA COUNTY


SCALE 1:8000
SHEET - 8.5X11

*Land use configurations conceptual and subject to minor modifications.*

June 6, 2019

LEGEND

- ENVIRONMENTAL RESERVE
- MUNICIPAL RESERVE
- STORMWATER MANAGEMENT FACILITY
- GREENWAY
- MULTI-USE TRAILS
- TRAIL CONNECTIONS
- AREA STRUCTURE PLAN BOUNDARY

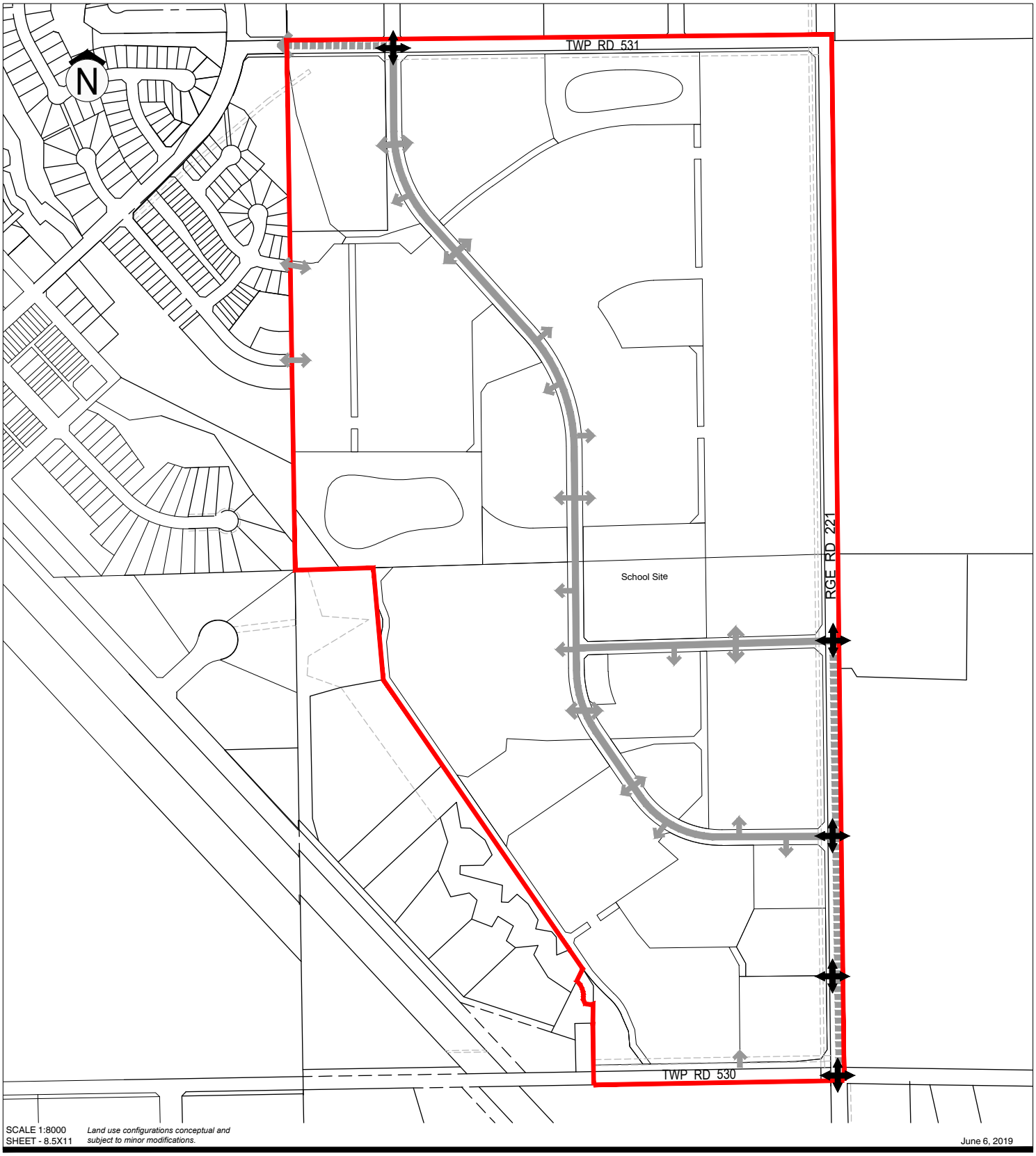
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 4.0

# PARKS AND OPEN SPACE

STRATHCONA COUNTY




LEGEND

- COLLECTOR ROAD
- SEMI-URBAN MAJOR COLLECTOR ROAD
- POTENTIAL ACCESS
- ALL-DIRECTIONAL ACCESS
- AREA STRUCTURE PLAN BOUNDARY

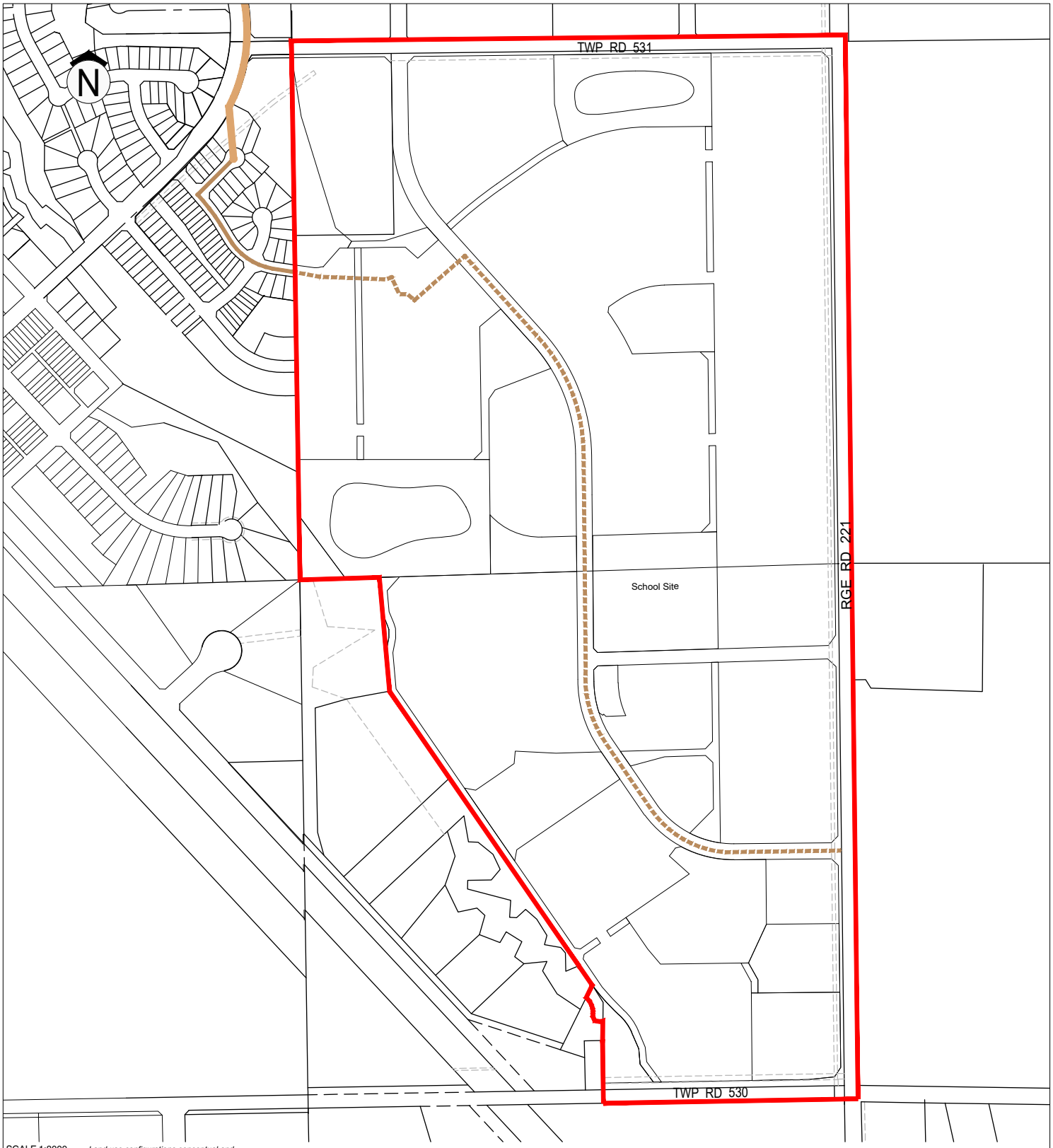
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 5.0

TRANSPORTATION

STRATHCONA COUNTY




SCALE 1:8000
SHEET - 8.5X11

*Land use configurations conceptual and subject to minor modifications.*

June 6, 2019

LEGEND

- EXISTING SANITARY LINE 450mm
- EXISTING SANITARY LINE 375mm
- FUTURE SANITARY LINE 375mm
- AREA STRUCTURE PLAN BOUNDARY

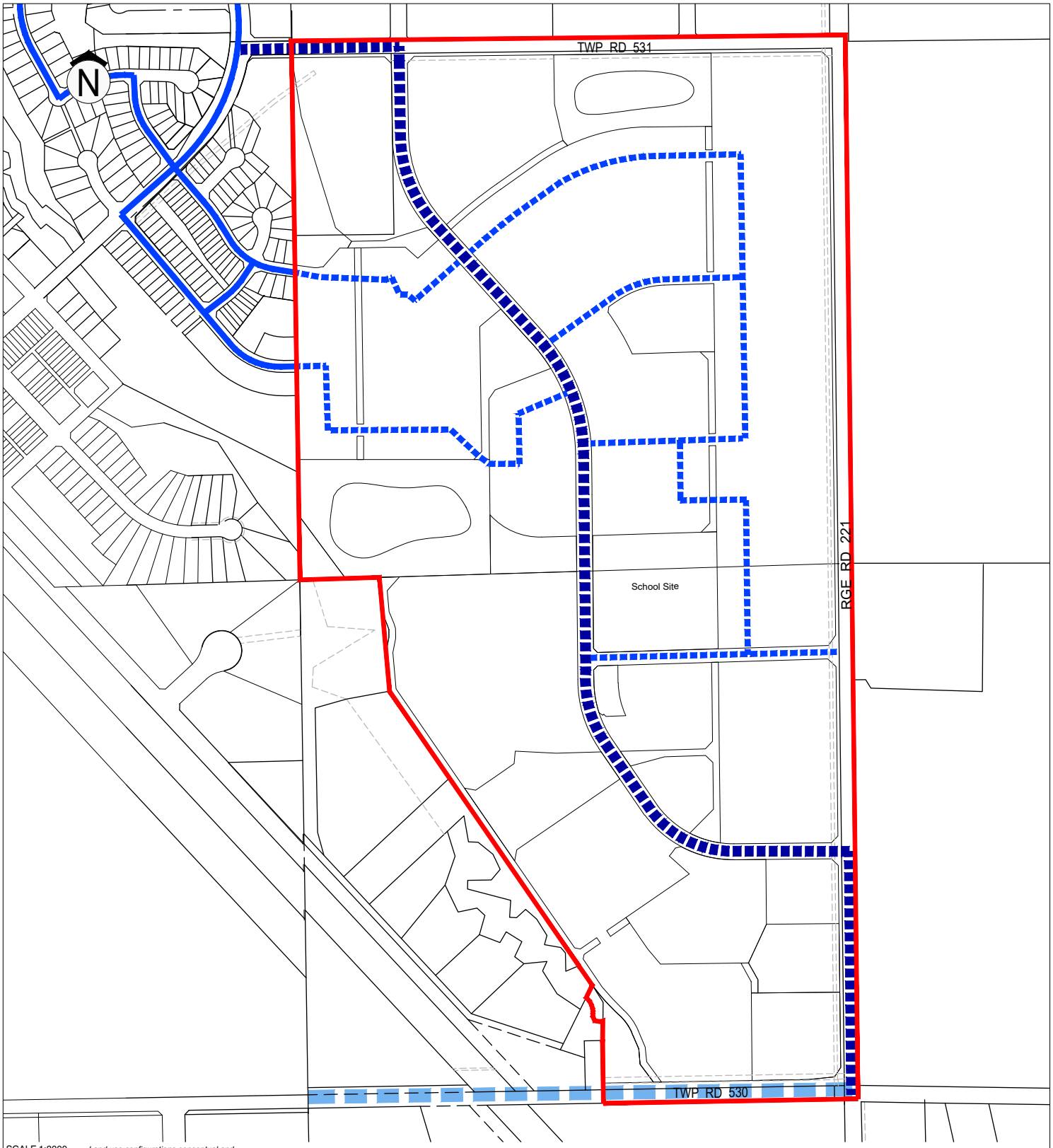
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 6.0

# SANITARY SERVICING

STRATHCONA COUNTY




SCALE 1:8000
SHEET - 8.5X11

*Land use configurations conceptual and subject to minor modifications.*

June 6, 2019

LEGEND

- EXISTING WATERMAIN LINE 250mm
- FUTURE WATERMAIN LINE 250mm
- FUTURE WATERMAIN LINE 300mm
- FUTURE WATERMAIN LINE 400mm (BY OTHERS)
- AREA STRUCTURE PLAN BOUNDARY

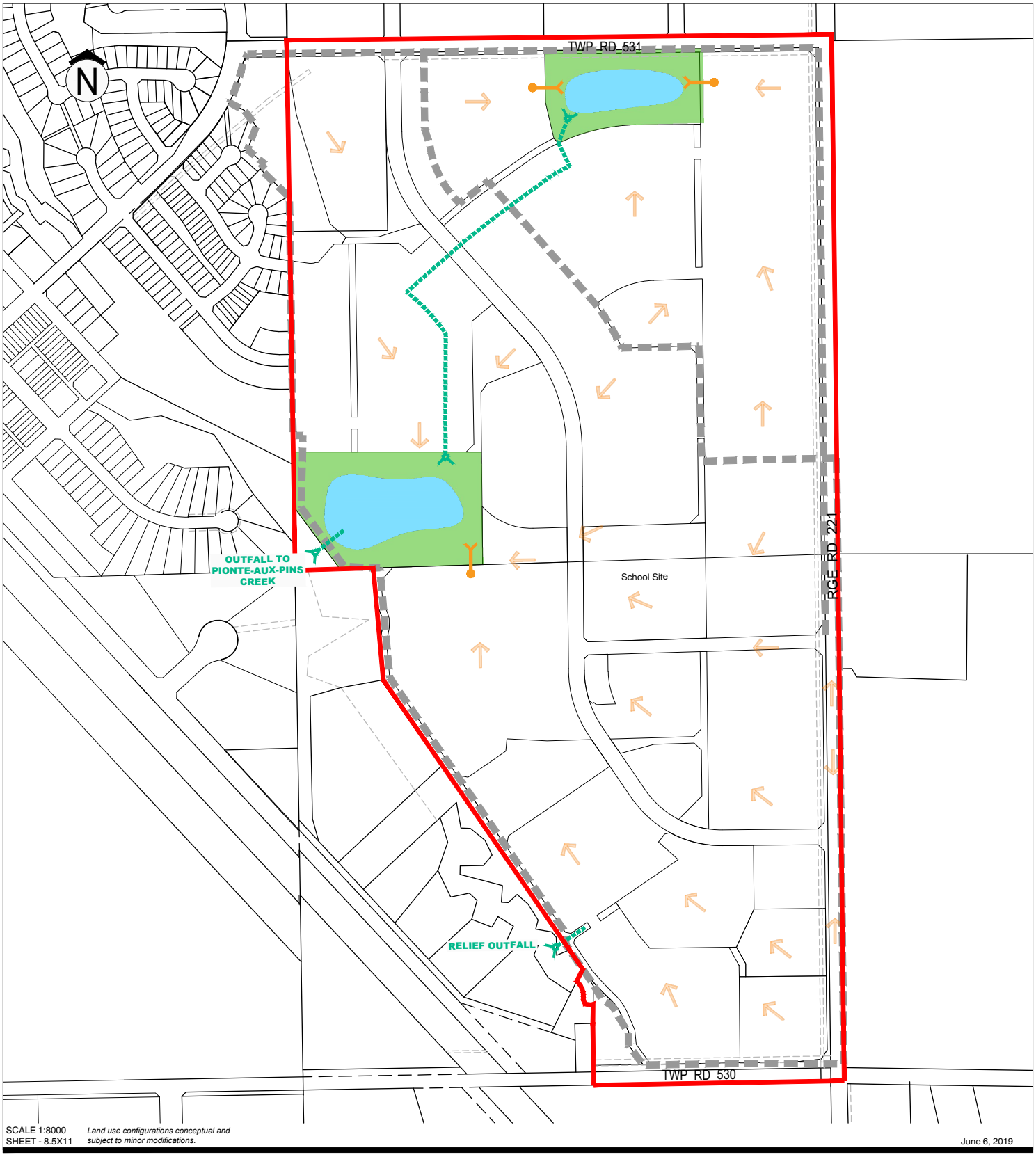
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 7.0

# WATER SERVICING

STRATHCONA COUNTY




LEGEND

- STORMWATER MANAGEMENT FACILITY
- APPROXIMATE STORM BASIN BOUNDARY
- POND INLET LOCATIONS
- INTER-CONNECTION PIPES
- GENERAL DIRECTION OF MAJOR FLOW
- AREA STRUCTURE PLAN BOUNDARY

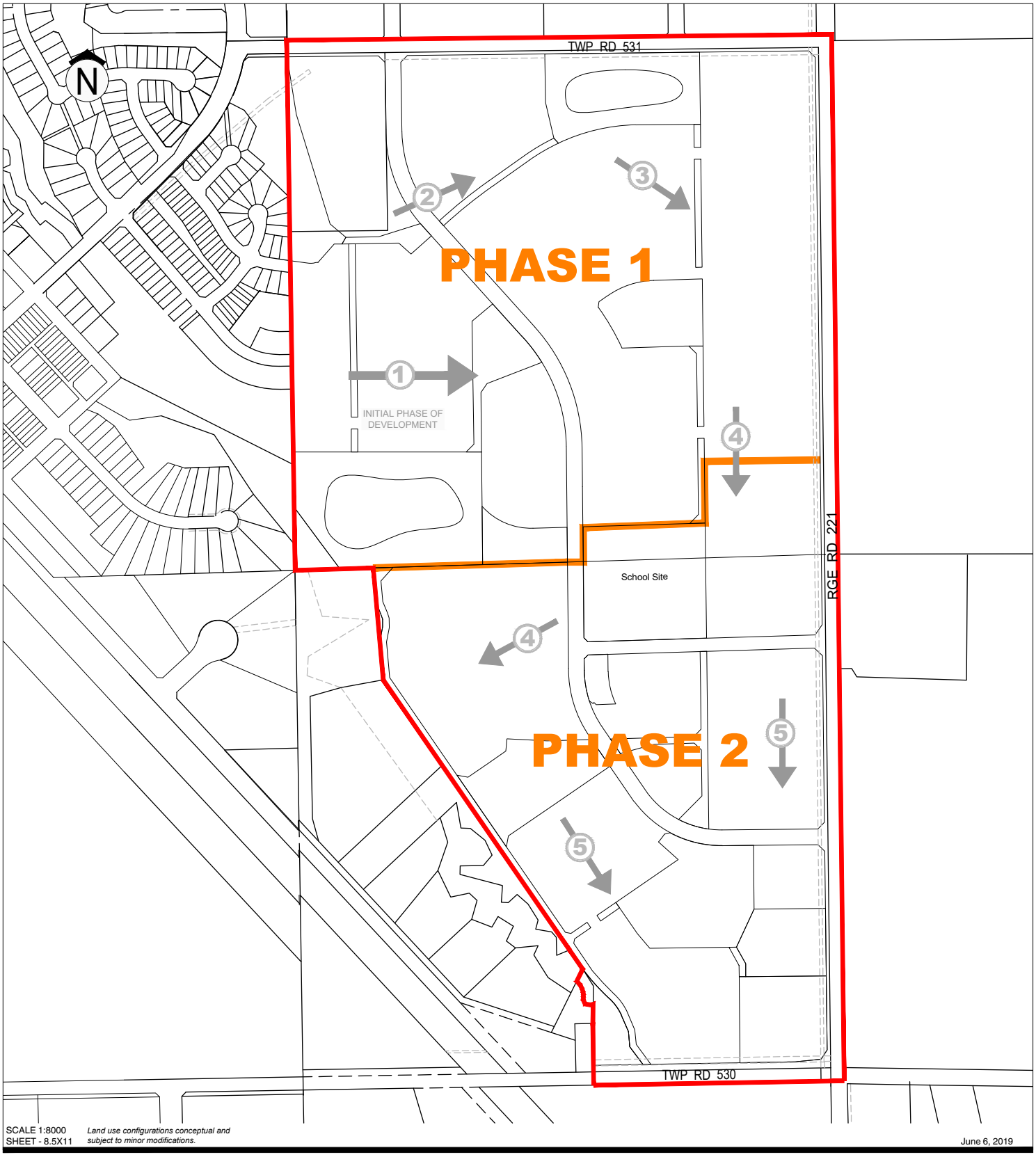
Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 8.0

# STORM WATER MANAGEMENT

STRATHCONA COUNTY

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SHEET - 8.5X11

*Land use configurations conceptual and subject to minor modifications.*

June 6, 2019

LEGEND

GENERAL DIRECTION OF DEVELOPMENT

AREA STRUCTURE PLAN BOUNDARY

Project

ARDROSSAN EAST
AREA STRUCTURE PLAN
STRATHCONA COUNTY

Figure 9.0

PHASING PLAN

STRATHCONA COUNTY

# APPENDICES

BACKGROUND AND REPORTS

HAMLET DESIGN GUIDELINES

DEFINITIONS

## Topography

The plan area is characterized by rolling hills and depressions, drainage courses, and slopes southwest towards the Point-aux-Pins creek (See **Figure 2.0: Existing Conditions**). Elevations range from 722m in the north, east-central and southeast portions of the ASP to 709m and 711m in the southwest and north respectively. Surface drainage flows towards the southwest to the Point-aux-Pins creek and northwest towards an existing drainage ditch.

## Soil and Groundwater Conditions

Soils within the Ardrossan East ASP consist of Class 3 and 4 soils, which are a lower quality soils for agricultural production. A geotechnical investigation was completed for the participating landowners of the property and has been submitted to the County of Strathcona.

## Natural Features and Ecological Resources

The plan area contains limited native vegetation given that the land have been farmed for a significant period of time. Thirty-eight (38) wetlands were identified within the ASP boundary. The majority of the wetlands (27 out of 38 total) were temporary marshes. Eight wetlands were seasonal marshes and to were ephemeral marshes. One wetland (W3) was a permanent open water wetland with a marsh fringe. Two streams were recognized within the ASP. A permanent, Strahler Order 3 stream (Pointe-aux-Pins Creek) crosses into the parcel in the southwest corner. Fish have been confirmed in this creek in past surveys. A small unnamed stream connects the permanent stream to wetlands W26, W27, and W3, but it does not have a defined bed or channel within the ASP.

## Public Consultation

All landowners within the plan area, the existing hamlet and within 800m beyond the existing hamlet and ASP boundaries were notified prior to the initiation of the ASP. A Public Engagement Program (PEP) was prepared by the applicant which outlined the means by which key stakeholders and the public were to be engaged in the preparation of the ASP. This program included contact with stakeholders and public engagement events. The County approved the PEP in November 2017.

All affected landowners in the area have been notified in accordance with the County's policies and application requirements for new statutory plans.

The following public engagement events were held as part of the consultation process:

### Public Information Meeting #1

The proponents held a Public Information Meeting in August 2015 to inform the public on a proposed amendment to the Municipal Development Plan, which contemplated expanding the hamlet boundary. Notices were sent out to all landowners in the hamlet of Ardrossan and within 800m of the proposed plan boundary. The meeting was advertised in two editions of the Sherwood Park News. The meeting was held at the Ardrossan Memorial Hall and was attended by approximately 66 people.

### Public Information Meeting #2

A second meeting was held in December 2017 to discuss the proposed ASP and amendment to the Municipal Development Plan. Notices were sent out to all landowners in the hamlet and within 800m of the hamlet boundary and proposed ASP boundary. The meeting was held at the Ardrossan Memorial Hall and was attended by approximately 30 people.

## Related Documents

A number of technical documents have been prepared and submitted to the County under separate cover in support of the Ardrossan East ASP, which include the following:

- Engineering Design Brief (Water Network Analysis, Sanitary and Drainage Concepts).
- Traffic Impact Assessment.
- Biophysical Assessment.
- Phase I Environmental Site Assessment.
- Geotechnical Report.
- Historical Resources Overview.
- Agricultural Impact Assessment.
- Commercial Needs Assessment.

### Servicing Studies

Al-Terra Engineering completed the engineering servicing studies for the proposed water, storm and sanitary system for the Area Structure Plan.

These reports are provided under separate cover.

### Traffic Impact Assessment

A traffic impact assessment (TIA) was completed by Al-Terra Engineering in support of the Ardrossan East ASP. The report analyses the traffic demands generated by the development and identifies the internal roadway network and offsite improvements.

- The key recommendations from the report include:
- All internal 4 legged intersections will be 2-way stop controlled, with the exception of the major collector intersection with Township Road 531, which will be 4-way stop.
- 3-legged intersections will be either stop or yield control on the intersecting approach road.
- The main north/south collector roadway (passing by the west side of the school site) will be designated as a 24.0m wide collector roadway.
- The main east/west internal roadway (passing by the south side of the school site) will be designated as a 20.0m wide collector roadway.
- All remaining roadways will be local residential roadways.

The full build out of the Ardrossan East ASP will contribute to increasing traffic ad therefore will proportionately contribute to offsite improvements to the adjacent roadways that may include the following:

- Closure of the intersection of Range Road 221 with Highway 16.
- Upgrade the intersection of Highway 824 and Main Street Ardrossan to a roundabout or signalization to address capacity shortfall.
- Upgrade the intersection of Highway 824 and Township Road 530 (Baseline Road) to a roundabout or signalization to address capacity shortfall.
- Upgrade the intersection of Township Road 530 and Range Road 221 to a roundabout or signalization to address capacity shortfall.
- Upgrade Range Road 221 to a semi-urban collector with a modified cross section to suit the boundary constraints and intersection turning movements.
- Upgrade Township Road 531 to a rural collector with a modified cross section to suit the boundary constraints

### Biophysical Report

A Biophysical assessment for the ASP was completed by Solstice Canada Corp. The report evaluated the environmental features to guide development of the lands and to determine the dedication of Environmental and Municipal Reserve lands, and to support the acquisition of necessary development and environmental approvals. The assessment was based on requirements under federal and provincial environmental legislation and requirements from the Strathcona County Municipal Policy Handbook.

The report proposes a number of conservation recommendations, which are outlined below:

- Naturalization of the stormwater management facilities, parks and greenways will replace some of the wetland and upland habitat lost due to urban development.
- Incorporate additional erosion and sediment control measures to prevent sediment release and minimize erosion to waterbodies.
- Monitor construction activities to identify risk of erosion as earthworks progress and implement mitigation measures as necessary.
- Consider implementing measures to control weed infestation and prevent the spread of noxious weeds during construction.
- This report has been submitted under separate cover.

### Phase 1 Environmental Site Assessment

A Phase 1 Environmental Site Assessment prepared by Hoggan Engineering has been submitted under separate cover. The purpose of a Phase 1 ESA is to evaluate the location and type of surface and/or subsurface impacts that may be present on the subject site and adjacent areas which may impact future development. Strathcona County requires that individual landowners provide Environmental Site Assessments (ESA) or disclosure statements prior to the rezoning stage. Additional ESA's may be required to further evaluate areas where contamination may be present. The report concluded that the past and previous uses and adjacent uses posed a low risk of environmental impact to the site.

### Geotechnical Report

A Geotechnical Report prepared by JR Paine to determine if the lands were suitable to support urban development. The contents of the report consist of an evaluation of the geological, social and water table characteristics of the site. The report concluded that the lands are suitable for urban development however further study is required in areas adjacent to the floor fringe and slope of the Pointe-aux-Pins creek.

The report included the following recommendations:

- All topsoil should be removed and used for landscaping purposes as it is unsuitable to support building footings and foundations and road subgrade.
- Engineering design should be kept high in areas with high water levels.
- Engineered fill should be considered in areas with low elevations.
- The majority of the native clay is suitable to support urban development.

This report has been submitted under separate cover.

### Historical Resources Overview

A Historic Resources Overview was completed and submitted to the Province in support of the ASP. The report did not identify any areas that warranted additional investigation. A barn located on Lot 1, Block 1B, Plan 062 1933 (non-participating landowner) is to be documented in accordance with the procedures outlined in the Requirements for Recording and Reporting Historic Structures (January 2017) by the Alberta Heritage Survey prior to demolition or removal.

### Agricultural Impact Asses

An Agricultural Impact Assessment was completed by Sercon to determine the agriculture impacts that would result if the lands were developed for residential uses. The report concluded that given the low quality of the soil, the small area of land affected by the ASP and the that the lands are not part of a larger contiguous parcel the agricultural impacts in the County of Strathcona are not significant.

### Commercial Needs Assessment

A Commercial Needs Assessment was completed by Colliers International to provide justification for the size and location of the commercial site within the ASP. The report also addressed the demand for commercial services within the context of the ASP, the existing hamlet and surrounding trace area. The report concluded there is a need for commercial lands within the ASP to satisfy consumer needs.

# Hamlet Design Guidelines Appendix B

Establishing a quality and comfortable urban environment is derived by designing attractive streetscapes supported by compatible uses, built forms and architecture that create a consistent mass and scale. Orienting buildings towards public spaces (e.g parks, public roadways, naturalized wetlands and stormponds) also plays a role in creating varied and animated streetscapes and increases a sense of awareness of neighbourhood activities and safety.

## A. Land Use Transitioning

## Neighbourhood Design

i. Provide a transition between residential uses of varying densities within the plan area through articulation, setbacks, stepbacks, compatible roof forms, and appropriate materials.

ii. Minimize the visual impact of residential development in the plan area along Range Road 221, Township Road 531 and Township Road 530 from adjacent country residential development through the use of berms, fencing and/or landscaping that provides a consistent and effective visual buffer.

iii. Commercial and medium density residential development along Range Road 221 and Township Road 530 will establish a land use transition with the adjacent country residential development through the use of landscaping, increased setbacks and/or fencing.

## B. Residential

# Pedestrian Oriented Building Design

i. Reduced front setbacks to allow residential buildings to be located closer to the property line with their primary frontage addressing the roadways.

ii. Buildings will create active facades through the use of windows, porches, canopies and verandas.

iii. Street-facing garages will be subordinate to the habitable portion of the dwelling utilizing size, setbacks or architectural features.

iv. Provide shared driveways for ground–oriented attached dwellings to maximize area for landscaping, utilities, on-street parking, and snow storage, and to minimize the interference with sidewalks.

v. Locate surface parking areas of multi-family residential buildings to the side or rear of the site.

vi. Orient medium density residential onto either:

a) a public street that is not a grid road; and/or

b) a private internal drive aisle that looks and functions like a public street.

## C. Commercial and Mixed Use

i. Buildings will utilize transparent glazing with multiple entrances to create an active and engaging facade.


ii. Continuous building facades will be broken up by incorporating design features that create visual interest, utilize a variety of materials and change in texture.

iii. Mixed Use buildings will provide human-scale proportions through vertical and horizontal articulation, material and façade differentiation.

iv. Mixed Use buildings shall include a distinct signage band on the first storey. All signs should be located in a manner to provide visual continuity.

v. Incorporate CPTED principles in the design of commercial and mixed use buildings to ensure the safety of all users by:

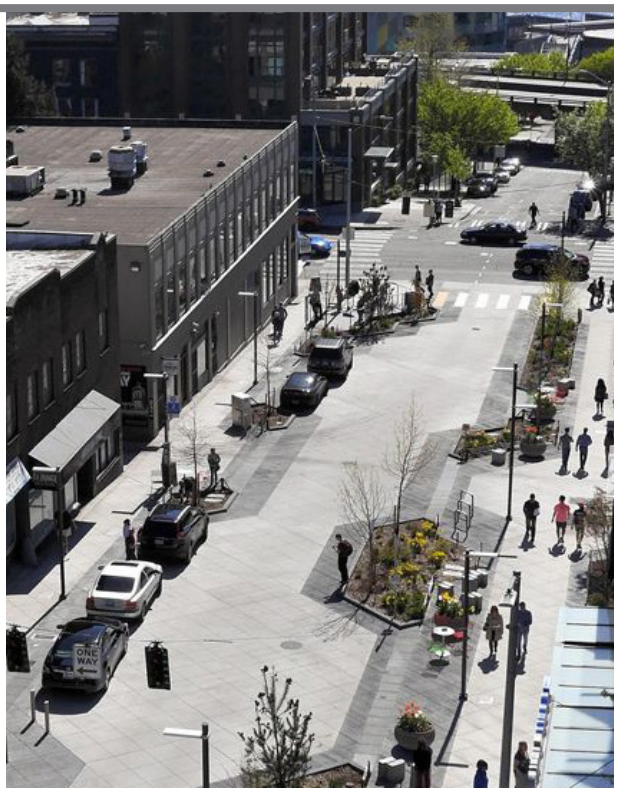
- Ensure building design at the ground level promotes natural surveillance of the public realm;
- Provide lighting to improve natural surveillance specifically at entrances, parking and loading areas;
- Incorporate building finishes that are resistant to vandalism and easy to replace and clean.

vi. Parking areas will be broken up through the use of landscaping and placement of buildings.

## D. Roadway and Block Patterns

i. Roadways at the entrances of the neighbourhood will create a sense of arrival with elements such as enhanced landscaping, decorative paving and entry features.

ii. The neighbourhood will be designed using blocks no greater than 250 meters in between intersections supported by a connected roadway pattern that creates a more walkable and human-scaled community.



iii. Provide mid-block walkways and connections where a block exceeds a length of 400 meters to provide more direct and convenient access between residential areas and parks and open spaces, school sites, and stormwater management facilities.

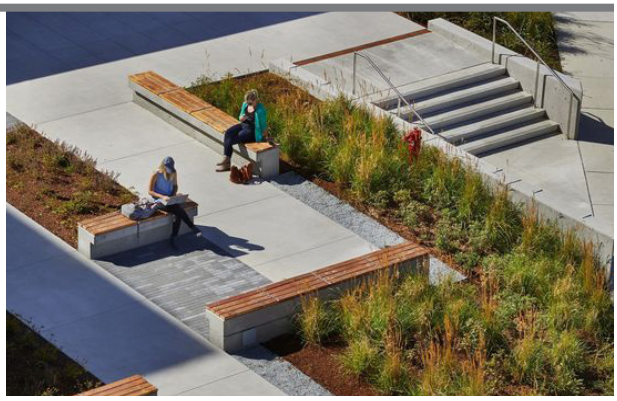
iv. Provide traffic calming along collector roadways such as curb extensions and raised crosswalks, specifically at major pedestrian crossings and school sites.

v. Crosswalks along collector roadways and major pedestrian crossings will be developed using different types and/or patterns of materials, signage and line markings to improve safety.

vi. Develop private internal roadways to resemble public streets by providing shared space for vehicles and pedestrians.

## E. Parks and Greenways

i. Incorporate design features in parks and open spaces that maximize access to sunlight and minimize microclimate effects.



ii. Incorporate CPTED principles in the design of public spaces to support the safety of all users by:

- Providing residential uses adjacent to or fronting onto park spaces;
- Ensuring residential and commercial uses are within close proximity;
- Providing direct and highly visible access points.

iii. Incorporate public agriculture such as community gardens and edible landscapes in parks and open spaces.

## F. Storm Water Management Facilities

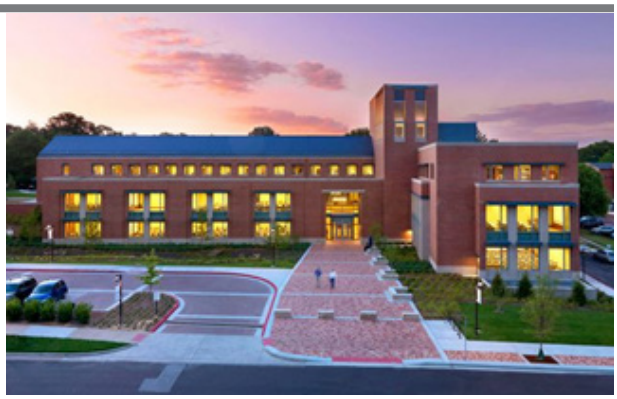
i. Stormwater Management Facilities and neighbourhood parks will include educational signage and wayfinding features that increase the usability of the area.

## G. Schools

i. School buildings should be located as close to the public roadways as possible in order to create a strong presence within the community.

ii. Parking areas and bus drop off areas should be located to the side or rear of the building so as not to dominate the streetscape.

iii. Pedestrian access to the school building will connect with adjacent public sidewalks and greenways.



iv. Buildings will be located to establish a vista from adjacent public roadways with architectural features to complement the community and establish a sense of place and identity.

## H. Environmental Features

i. Incorporate native landscaping and planting within retained natural features to reduce maintenance and improve its ecological value.

ii. Bioswales and bioretention areas will be considered in the design of parking lots and roadways to improve water quality treatment, reduce runoff and aid in infiltration.


iii. Greenways adjacent to environmentally significant areas will be incorporate naturalized landscaping.

## I. All Seasons

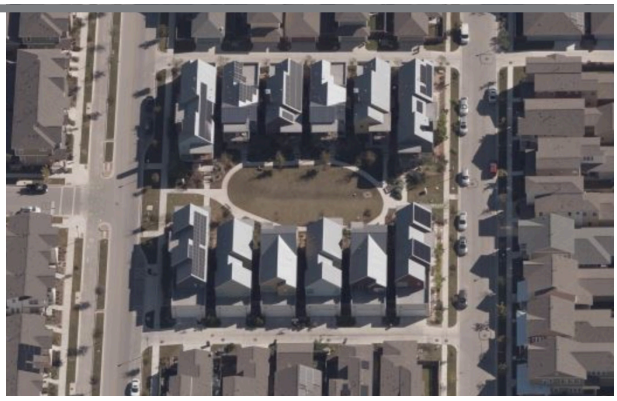
i. Parks, open spaces and entrance features should include design elements such as the use of colour and light to help animate the space year-round.

ii. Parks and open spaces should be designed to accommodate various winter activity hubs such as toboggan hills, skating rinks/paths, and cross-country ski routes within various part of the neighbourhood.

iii. Parks and open spaces will be designed and developed incorporating structures such as shelters or landscaping elements to provide shelter from wind, improve solar exposure and year-round appeal.

iv. Use "warm" materials such as wood, brick and/or vibrantly coloured materials to promote a lively building design for winter.

v. Consider placement of buildings that maximize exposure to sunlight and reduce shade onto open spaces that may be utilized during the winter months.



vi. Buildings shall incorporate design features such as canopies, overhangs and recesses to provide shelter and protection from sun, wind and inclement weather.

# Definitions

# Appendix C

**Active Transportation:** Means human powered travel, including but not limited to: walking, cycling, inline skating and travel with the use of mobility aids, including motorized wheelchairs and other power assisted devices moving at a comparable speed.*

**Alternative Housing:** Means housing forms that are not common within the region and may include reverse housing, co-housing, flex housing.

**Buffer:** Means a land use, feature or space that acts as a physical separation.**

**Business Commercial:** Means a commercial use mainly consisting of professional offices.**

**Community Commercial:** Means a commercial use mainly consisting or personal, retail, and food services of a limited scale that primarily serves day-to-day needs of a single neighbourhood.**

**Compact Development or Compact Form:** Means a land use pattern that reflects efficient use of land, walkable neighbourhoods, mixed land uses (residential, retail, workplace and institutional), multi-modal transportation access, and the efficient use of infrastructure. Compact development may include detached and semi-detached housing on small lots as well as townhouses and walk-up apartments, multi-storey commercial developments, and apartments or offices above retail.*

**Greenway:** Means an open space that is not contained within a Road Right-of-Way with a primary use of connecting Active Transportation Infrastructure.

**Mixed Residential:** Means a range of single detached, semi-detached and townhousing (maximum of 6 units) developed using a range of lot sizes and widths.

**Multi-use Trail:** Means typically an asphalt path at least 3.0 m wide with paint delineating a two-way travel pattern. Multi-use trails are share between users cycling and walking, as well as those using mobility aids or other recreational human powered vehicles (e.g. scooters, skateboards and rollerblades).

**Walkway:** Means a pedestrian connection between roadways or land uses that may accommodate a sidewalk or multi-use trail. Walkways may be used as an access for emergency and maintenance vehicles.

*As defined in the Edmonton Metropolitan Region Growth Plan
**As defined in the Strathcona County Municipal Development Plan Bylaw