

# Horizons North Area Structure Plan

Bylaw : 2-2015

Date of Adoption: July 3, 2015

## Legend

- Light Industrial
- Medium Industrial
- Park
- Public Utility Lot
- Buffer

- Environmental Reserve
- Canadian Pacific Railway
- Existing Homesite
- SWMF
- Future Interchange

- Rail Spur
- Industrial Collector Road
- Arterial Road
- Potential Access
- Planned Interchange
- ASP Boundary

BYLAW 2-2015

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

WHEREAS it is deemed advisable to adopt the Horizons North Area Structure Plan;

NOW THEREFORE, the Council of Strathcona County, duly assembled, pursuant to the authority conferred upon it by the *Municipal Government Act, R.S.A. 2000, c. M-26*, and amendments thereto, enacts as follows:

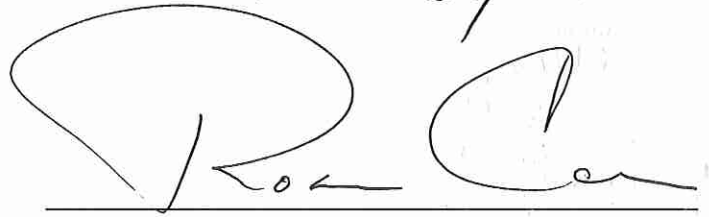
1. That this Bylaw 2-2015 is to be cited as the "Horizons North Area Structure Plan".
2. That Schedule "A" attached hereto is hereby adopted as part of this Bylaw.
3. This Bylaw comes into effect after third reading and upon being signed.


Read a first time this 20th day of January, 2015.

CAPITAL REGION BOARD APPROVAL this 22nd day of April, 2015.

Read a second time this 26 day of May, 2015.

Read a third time and finally passed this 26 day of May, 2015.

  
\_\_\_\_\_  
Mayor

  
\_\_\_\_\_  
Director, Legislative and Legal Services

Date Signed: July 3, 2015



# Horizons North Area Structure Plan (ASP)

December 2014





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## 1 Introduction

### 1.1. Purpose

The purpose of the Horizons North Area Structure Plan (ASP) is to provide a statutory framework for land use planning of the subject lands and the provision of municipal infrastructure, staging and development, services and amenities in conformance with established planning policies and regulations, objectives and requirements of Strathcona County (the County), as well as the characteristics and opportunities contained within the site.

### 1.2. Location

The Horizons North ASP encompasses approximately 256 hectares consisting of a portion of the east half of Section 26-53-23-4 and all of Section 2553-23-4, located north of Sherwood Park. The ASP is generally bound by the existing Township Road 534, between the realigned Range Road 231 and Highway 21 (**Figure 1: Location Plan**). A major east-west pipeline corridor forms the northern boundary of the ASP.

In the regional context, The Horizons North ASP is ideally located between Highway 21 and Anthony Henday Drive, the regional ring road. Respectively, these two major transportation corridors provide convenient access northward to Alberta's Industrial Heartland as well as a direct route to Highway 2, the main north-south connection between Calgary and Edmonton and part of the CANAMEX Corridor.

### 1.3. Background

The Horizons North ASP has been planned concurrently with the West of Highway 21 Area Concept Plan (ACP), in accordance with Section 633 of the Municipal Government Act. This ASP has been prepared in conformance with the Strathcona County Municipal Development Plan and other relevant municipal planning and policy documents.

The majority of the plan area is currently used (2013) for agricultural purposes with several farmsteads and rural acreages. An aggregate extraction operation is located in the southeast portion of the plan area. These lands are expected to be reclaimed and utilized as park and open space within the ASP area. None of these uses pose any particular constraints to future development. Future development of any and all properties within the plan area is at the discretion of the respective landowners.

### 1.4. Policy Influences

The policies of the Capital Region Growth Plan, Strathcona County Municipal Development Plan, Land Use Bylaw, West of Highway 21 Area Concept Plan and other policy documents and guidelines, direct the development of the ASP. This ASP is in compliance with the above mentioned documents.

#### 1.4.1. Capital Region Growth Plan

The Capital Region Growth Plan: Growing Forward was approved by the Government of Alberta on March 11, 2010. The Growth Plan provides a vision for how the Capital Region will grow in the future, minimizing the Region's footprint by identifying priority growth areas within the region. The Horizons





North ASP is located within the Capital Region's Priority Growth Area "F", intended to allocate and intensify new development in the region to use land and resources more efficiently.

The purpose of the Capital Region Growth Plan is to manage sustainable growth in a manner that protects the region's environment and resources, minimizes the regional development footprint, strengthens communities, increases transportation choice and supports economic development. This ASP meets the purpose and intent of the Capital Region Growth Plan, and will be reviewed by the Capital Region Board.

Capital Region Growth Plan	Horizons North ASP
<b>I. Protect the Environment and Resources</b>	
<b>Principle A – Preserve and Protect the Environment</b>	The Horizons North ASP preserves and protects Old Man Creek and significant ecological areas such as wetlands and natural areas that have been identified.
<b>II. Minimize Regional Footprint</b>	
<b>Principle B – Concentrate New Growth within Priority Growth Areas</b>	The Horizons North ASP is located within Priority Growth Area "F" and therefore has been identified as an area for expansion of more intense urban development. The ASP will provide prime economic and employment uses, while extending infrastructure and services in a logical manner.
<b>III. Strengthen Communities</b>	
<b>Principle B – Support Healthy Communities</b>	The Horizons North supports the preservation of natural corridors. Greenways and trails are planned for the area, providing opportunities for residents to safely walk or cycle to work as well as providing connections to Old Man Creek.
<b>IV. Increase Transportation Choices</b>	
<b>Principle A – Integrate Transportation Systems with Land Use</b>	The opportunity for extending bus transit into this employment area will better support the neighbouring communities providing additional modes of transportation. Linkages from shared use paths are also provided within/adjacent to natural areas and stormponds to sidewalks and pedestrian connections which will increase the likelihood of commuters choosing sustainable transportation methods, such as biking or walking.
<b>V. Ensure Efficient Provision of Services</b>	
<b>Principle A – Design Integrated Physical Infrastructure within the Region.</b>	The Horizons North ASP is the logical extension of physical infrastructure and services. Potable water connections extend existing infrastructure northward. The sewage system connects to existing sanitary trunk located northwest of the
<b>Principle B – Maximize Utilization of Existing Infrastructure.</b>	





	ACP lands, and will flow southeast to northwest. Avoiding leap-frog development reduces the burden of costs to maintain underutilized infrastructure.
<b>VI. Support Regional Economic Development</b>	
<b>Principle A – Ensure a Supply of Land to Sustain a Variety of Economic Development Activities</b>	The Horizons North ASP plan area supports a variety of industrial and business uses that will support regional prosperity. Locating industries and businesses in close proximity improves logistical and integration considerations, creating opportunities to share resources or create economically feasible partnerships between industries. The Horizons North ASP is located in close proximity to the Alberta's Industrial Heartland with opportunities for synergies and compatible uses at a smaller scale. The provision of additional types of industrial lands will also help in attracting different types of skilled workers to the Capital Region.
<b>Principle B – Attract and Retain Individuals and Families with a Diverse Range of Skills to the Capital Region to Satisfy the Region's Economic Development Goals</b>	
<b>Principle C – Support Regional Prosperity</b>	
<b>Principle D – Position the Capital Region Competitively on the World Stage</b>	

#### 1.4.2. Strathcona County 2030: Powering Our New Tomorrow

The Municipal Council of Strathcona County regularly reviews its Strategic Plan which provides a framework for governing and decision making. In April of 2013, Strathcona County Council approved its most recent Strategic Plan, *Strathcona County 2030: Powering our New Tomorrow*. The Horizons North ASP aligns with the Strategic Plan, particularly by aiming to attract and diversify industrial and commercial development, providing regional employment opportunities, generating tax revenue, and strengthening the County's economic prosperity.

<b>Economy</b>	
Effective and efficient municipal infrastructure	The Horizons North ASP plans for growth in industry and business that requires the extension and improvement of municipal infrastructure. The ASP policies encourage an efficient development pattern by implementing the logical extension of services and staging development in an effective manner.
<b>Governance</b>	
Cooperative partnerships with community, business, industry and neighbouring governments	The intent of the Horizons North ASP is to utilize the area's prime location to encourage synergies with industrial development to the north (Alberta's Industrial Heartland) and west (City of Edmonton) as well as provide employment opportunities to the region. Collaboration is necessary to ensure transition between uses while



	respecting the natural features and adjacent residential communities.
<b>Social</b>	
Healthy and active community & Helping, caring, and safe community	The Horizons North ASP promotes a diversity of employment opportunities with unique natural amenities, such as Old Man Creek and naturalized stormponds. Natural features will be made accessible to the public and enhanced with trails, sidewalks and landscaping for the enjoyment of employees, nearby residents and visitors. Several parks are also proposed within the plan area, providing for additional open space for both passive and active recreation. Protection services and crime preventative neighbourhood design will ensure the safety of community members. The ASP will be serviced by an appropriate level of fire protection and police service. CPTED Principles will be utilized to inhibit opportunities for criminal activities.
<b>Culture</b>	
Vibrant, creative community	The Horizons North ASP provides residents access to the County's natural resources such as the Old Man Creek and the North Saskatchewan River Valley through trail systems.
<b>Environment</b>	
Protect our environment and preserve our agricultural heritage	Careful consideration has been given to the Horizons North ASP in ensuring the natural amenities are identified in the plan for retention and protection. The development of this employment area also carefully allocates transitional uses between more sensitive uses to mitigate impacts on land and air quality. The proximity of the ASP area to residential communities also decreases travel time and provides opportunities for alternative modes of transportation such as walking or biking. Locating businesses in close proximity to other businesses also encourages shared facilities and resources to reduce energy consumption and material waste. Natural features, such as the Old Man Creek and some larger wetlands, will be maintained by providing adequate buffers, setbacks, and erosion control measures, which will be provided at time of subdivision/detailed design stage. The incorporation of these features will ensure water





	quality, important wildlife habitat, and diverse flora are preserved throughout the plan area. Ground water penetration and retention measures will also be identified for preservation at subdivision/detailed design stage and vetted through the County.
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### 1.4.3. Municipal Development Plan (Bylaw 1-2007)

The Strathcona County Municipal Development Plan (MDP) provides an overarching set of policies that guides the future development of Strathcona County. This ASP area is designated Transition Urban Reserve Policy Area. This policy identifies this area for future urban growth that is intended to provide a transition from the heavy industrial development to the west (City of Edmonton) and residential uses to the east.

The MDP fosters the four principles of sustainability that are considered by decision makers to guide the County's future growth and development. The Horizons North ASP has been prepared with these principles as a guiding framework to reduce our ecological footprint and improve the lives of Strathcona County residents.

Carbon – reduce dependence upon fossil fuels;	The ASP policies support the implementation of green initiatives such as renewable energy generation and by-product synergies between businesses within the plan area.
Transport – use of alternative forms of transportation and a reduction in single car usage	The land use concept identifies multi-use trails and greenways to support active modes of transportation within the plan area and to provide connections to the regional active transportation network.
Land use – introduction of mixed use, higher density developments	The ASP policies support an urban-standard of industrial and commercial development, promoting a more efficient use of land resources.
Materials – use of healthy building design and construction materials	The ASP policies support the implementation of green roofs and high-standard urban design.
Waste – utilizing waste as a resource	The Horizons North ASP supports implementation of an eco-industrial parks and waste stream sharing.
Economy – supporting locally based and eco-industrial businesses	The Horizons North ASP supports the implementation of an eco-industrial park.





Water – conservation of water through reduced water consumption and retention of natural infrastructure	The Horizons North ASP policies promote low impact development principles to manage stormwater runoff and improve groundwater quality.
Food – local food production and value added opportunities	The land use concept identifies the locations of parks and open spaces within the plan area, providing opportunities for local food production.
Natural Habitat – conservation of natural habitat	The land use concept conserves the Old Man Creek corridor and significant wetlands within the plan area, providing natural amenities and passive recreation opportunities for Strathcona County residents.
Well-Being – design buildings and amenities to promote inter-generational interaction and cohesion	The Horizons North ASP proposes both light and medium industrial land uses, accommodating a variety of businesses and a supporting a diversity of opportunities for residents to work close to where they live.
Equity – access to affordable housing, amenities and every day needs for all residents	The land use concept provides multi-use trails through the plan area and public access to the Old Man Creek corridor for area residents.
Culture – celebrate cultural heritage	The land use concept conserves the Old Man Creek corridor and significant wetlands within the plan area, providing natural amenities and passive recreation opportunities for Strathcona County residents.

The MDP emphasizes that new growth will be fiscally responsible in the use of land, infrastructure and services and promote sustainable development practices, among other strategies. The Horizons North ASP supports the MDP's policies for developing a strong, diversified and sustainable economy by accommodating development in an efficient manner and by providing for a range of employment opportunities that continue to retain, expand and attract new industry and business to Strathcona County. The Horizons North ASP specifically complies with the following policies of the MDP:

MDP Policy	Horizons North ASP
7.1 Support industrial development as a means of providing Strathcona County citizens with a greater choice of employment opportunities;	The Horizons North ASP proposes both light and medium industrial land uses, accommodating various businesses and a diversity of opportunities for residents to work close to where they live.
7.4 Promote synergistic relationships between industries, such as those that make use of the waste products of neighbouring facilities;	The Horizons North ASP encourages synergistic relationships within the plan area, as well as with other industrial areas and in close proximity, including Alberta's Industrial Heartland and the City of Edmonton.
7.5 Ensure the North Saskatchewan River Valley is protected from industrial activities by requiring adequate setbacks from the top of bank;	Old Man Creek corridor is to be dedicated as Environmental Reserve in accordance with the Municipal Government Act. Park space has been identified adjacent to the creek to provide both a buffer and access to the creek. Further assessment in regards to adequate setbacks will be completed as adjacent lands are developed.
7.6 Require industrial uses to have an adequate setback distance from lakes, drainage courses, environmentally significant and sensitive areas;	A Biophysical Assessment and Design Brief have been completed in support of the Horizons North ASP to ensure adequate setbacks to ecologically significant areas.
7.7 Ensure minimal impact on the natural and built environment in terms of wildlife habitat and water contamination/consumption due to industrial initiatives;	Buffers, open space and less intrusive uses such as light industrial have been placed adjacent to environmental features to minimize impacts. Linkages of open spaces and natural features are maintained through a series of linear park spaces or corridors to provide connectivity for wildlife.
7.9 Encourage existing and future industries to implement green initiatives which will maintain or enhance the quality of air, water and land resources, to reduce greenhouse gases;	The Horizons North ASP encourages green initiatives to be explored with the Strathcona County.
7.15 Maintain and/or enhance the quality of life of citizens by providing a buffer between industrial development and other land uses to minimize the risks to public safety and nuisance associated with heavy industrial development and to facilitate	A buffer as well as open space is proposed between industrial uses and the existing country residential subdivisions within Akenside Estates and Old Man Creek Estates.





emergency management in the event of an industrial incident;	
7.18 Continue to allow agricultural production on lands that provide a buffer between industrial land uses and other, more sensitive land uses;	The Horizons North ASP provides a framework for future development of the area. Agricultural uses are permitted and encouraged to continue until such time the landowner wishes to redevelop their lands. Linear open spaces are also proposed in between industrial and existing residential uses.

#### 1.4.4. Industrial Land Strategy

On May 21, 2013, Strathcona County Council approved the Industrial Land Strategy. The purpose of the Industrial Land Strategy is to provide a high level forecast of industrial supply needs for Strathcona County through 2044 to both maintain and expand the present tax base.

The Industrial Land Strategy indicates that from 2012 to 2044, industrial lands are expected to accommodate 46% of the County's employment growth. The Horizons North ASP, which is predominantly light and medium industrial, will contribute to providing additional employment opportunities to current and future residents of Strathcona County.

Strathcona County currently has an insufficient supply of light, medium and prestige industrial lands within the Urban Service Area to meet the long-term needs to 2044. The Strategy identifies the Transition Urban Reserve Policy Area, which covers the boundaries of the Horizons North ASP plan area, to be appropriate for urban industrial uses.

#### 1.4.5. Cumulative Risk Assessment

Strathcona County is currently completing a Cumulative Risk Assessment for this area. Once approved, any future subdivision and or development permit will be subject to the Cumulative Risk Assessment and any applicable setbacks as set out by Strathcona County's Land Use Bylaw. Section 10 of Strathcona County's Municipal Development Plan outlines Industrial risk management practices adopted by the County. Buffers between heavy industrial development and other land uses must be utilized to reduce the risk to the public and minimize nuisance associated with heavy industrial development and facilitate emergency management in the event of an industrial incident. Any development shall meet or exceed MIACC criteria as determined through Strathcona County's Cumulative Risk Assessment. Safety, risk and environmental management issues associated with potential recreational and trail development within, or in proximity to, heavy industrial areas, pipeline/utility corridors, well sites and seismic operations be addressed to the satisfaction of the County, other regulatory agencies, and industry.

Prior to rezoning, proprietors must ensure that the proposed use is compatible with adjacent land uses. Land uses within Strathcona County's Urban Service Area discourage large assemblies of people from locating within the first 1.5 kilometers of heavy industrial development.



#### **1.4.6. West of Highway 21 Area Concept Plan (ACP)**

This ASP represents the southeast quadrant of the West of Highway 21 Area Concept Plan (ACP), supporting a logical extension of municipal services and infrastructure from the south and west. This ASP intends to identify the subject lands designated within the West of Highway 21 ACP in more specific terms, with consideration to the goals and objectives set out in the ACP.

The Horizons North ASP has been prepared in accordance with the policies and objectives expressed in the Municipal Development Plan and West of Highway 21 Area Concept Plan.

#### **1.4.7. Strathcona County Land Use Bylaw**

The land use designations detailed in this ASP, assume that the industrial uses proposed are in compliance with Strathcona County's Land Use Bylaw (8-2001). Where there are discrepancies between land uses described in the Land Use Bylaw and this ASP, this ASP shall be amended to remain in compliance. The ASP predominantly designates for Light and Medium Industrial land uses, which are anticipated to be developed under the (IA) Agri-Business, (IE) Eco-Business, (ILT) Light Industrial, and (IM) Medium Industrial Zones.

### **1.5. Interpretation**

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

### **1.6. Amendments**

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

Any change to policy, text or mapping information contained within the Horizons North ASP shall be in accordance with the *Municipal Government Act* and the *Municipal Development Plan (Bylaw 1-2007)*.

### **1.7. Orientation**

This document contains three sections and two appendices:

- Section 1 provides administrative information and describes the overall plan context.
- Section 2 describes the public consultation component for the Horizons North ASP.
- Section 3 describes the land use, transportation and servicing concepts for the Horizons North ASP
- Appendix 1 contains the development statistics
- Appendix 2 contains oil and gas pipeline information



## 1.8. Plan Area

### 1.8.1. Boundaries

The Plan area is defined by the following general boundaries:

- Northern boundary: The northern property boundaries of the N ½ of Section 25-53-23-4
- Eastern boundary: Highway 21
- Southern boundary: Township Road 534 (existing alignment)
- Western boundary: The western property boundary of 25-53-23-4 and realigned Range Road 231

These boundaries are identified in Figure 1.0: Location Plan.

### 1.8.2. Land Ownership

As of 2013, the plan area is comprised of nine (9) titled parcels of land owned by seven (7) different private landowners (see Figure 2.0: Land Ownership).

	Owner	Legal Description	Area (ha)
1	Private Corporate	NW 25-53-23-W4	64.70
2	Private Non-Corporate	NE-25-53-23-W4	59.80
3	Private Non-Corporate <sup>NP</sup>	SW-25-53-23-W4	61.40
4	Private Non-Corporate <sup>NP</sup>	Plan 4628RS, Lot A	3.24
5	Private Non-Corporate	SE-25-53-23-4	54.78
6	Private Corporate <sup>NP</sup>	Plan 690E0, Block RLY, Lot 53	1.02
7	Private Corporate <sup>NP</sup>	Plan 2500E0, Block OT	0.69
8	Private Corporate <sup>NP</sup>	NE, SE-26-53-23-W4	79.96
9	Private Non-Corporate <sup>NP</sup>	Lot H, Plan 5998MC	15.8
10	Road Rights-of Way		10.96
*Total area represents the land within the ASP boundary only.			266.60

<sup>NP</sup> Indicates a non-participating landowner.

### 1.8.3. Existing Land Uses

The Horizons North ASP is predominantly districted for Agricultural uses under AG – Agricultural General, as illustrated in Figure 3: Existing Land Use Districts. An existing aggregate extraction operation is currently operating in the east half of the plan area and is to be reclaimed once operation is concluded. In addition, the southeast corner of the plan area is currently districted DC (2007-9) – Direct Control, for the purpose of operating a landscaping business.

A major public utility corridor intersects the southeast corner of the plan area, consisting of oil and gas pipelines and overhead electrical corridor. A CP railway also intersects the southeast corner of the plan area, parallel to the utility corridor. These utility corridors isolate a triangular piece of land in the southeast corner of the Plan. The viability of these lands is dependent on the road right of way requirements for the new intersection of Highway 21 and realigned Township Road 534, a portion of which may be required to be dedicated for future construction of the Highway 21 interchange south of the plan area.





#### 1.8.4. Surrounding Land Uses

A number of rural residential acreages (Akenside and Oldman Creek Estates) are situated south of the plan area, across the existing Township Road 534, within the North of Yellowhead ACP. The Horizons North ASP is bordered on the west by agricultural uses further across Range Road 231. To the north, a major utility corridor abuts the northern boundary consisting of a number of oil and gas pipelines. Further north of the pipeline corridor and further east of Highway 21, the remaining surrounding lands are predominantly undeveloped agricultural uses.

#### 1.8.5. Existing Transportation Network

Provincial Highway 21 flanks the eastern boundary of the plan area with access to Highway 16 via an interchange. In terms of its importance to the development area, Highway 21 provides regional access to the City of Fort Saskatchewan and Alberta's Industrial Heartland. Local access to Highway 21 is currently provided from Township Road 534 which borders the plan to the south, and one public access service roads located in the northern portion of the plan boundary. These existing access points are illustrated in **Figure 8: Transportation Plan**. It is anticipated that these access points will be upgraded to facilitate functional interim access points for the ASP until permanent infrastructure can be constructed as development progresses.

Township Road 534 currently abuts the southern boundary of the plan area, however it is anticipated that this roadway will be realigned and upgraded as a future regional connector road to link Highway 21 and Anthony Henday Drive. The proposed new alignment for Township Road 534 will run along the southern boundary before curving south of Akenside and Oldman Creek Estates and then north toward its proposed interchange at Highway 21, south of the plan area.

Currently, access to Township Road 534 is provided by the existing Range Road 231 which borders the plan to the west. Range Road 231 is also planned to be realigned to the west, upgraded to an arterial roadway standard and will provide a future connection to the realigned Township Road 534. The planned realignment of Range Road 231 and Township Road 534 can be found in **Figure 8: Transportation Plan**.

Within the City of Edmonton, between Anthony Henday Drive and the east City Limit, Township Road 534 (Aurum Road) is identified as an arterial roadway. It has been protected as a 6 lane divided urban arterial roadway that serves the Cloverbar and Aurum Plan areas. The roadway is currently constructed to a 2 lane urban arterial standard between Range Road 232 and 17 Street NE.

Alberta Transportation retains a degree of influence over lands within the vicinity of highways. All development within 300 m of the Highway 21 boundary, or within 800 m from any intersection of Highway 21 with another public roadway, will require a Roadside Development Permit from Alberta Transportation. Alberta Transportation also restricts all access and egress to the Highway from adjacent lands, controls arterial roadway access points within 400 m of highway interchanges and controls directional and commercial signage adjacent to highways. A Traffic Impact Assessment has been completed in support of the Horizons North ASP. In addition to the TIA, a traffic sensitivity analysis has been completed at the request of AT for a roadside development permit for the ASP. The plan





proponents will work with Strathcona County to finalize the future Township Road 534/Highway 21 intersection/interchange location.

### 1.9. Biophysical Assessment

A biophysical assessment was completed for the Horizons North ASP to identify the ecological features present within the plan area to determine suitability for conservation. The assessment included a desktop review of available literature, vegetation mapping using stereo imagery and the HD-MAPP system for areas that lacked land access and a field assessment for the land within the ASP. The natural features identified in the ASP area include fifteen wetlands, a large dugout, several windrows and two upland areas. These natural features are identified in **Figure 4.0: Site Features**.

The wetlands identified in the Biophysical Assessment consisted of six Class II Temporary Ponds, six Class III Seasonal Ponds, and three Class IV Semi-Permanent Ponds. The wetlands within the ASP were relatively small and ranged from 0.03 ha to 0.57 ha in area. The Class II and Class III wetlands have been disturbed by agriculture activities and contain a mixture of native and agronomic species including foxtail barley, bog yellowcress, Canada thistle, dock species, sloughgrass and canola. Of the Class IV wetlands, the largest (W6 and W7) were located adjacent to the train tracks in the southeast corner of the property. Cattail and sedges dominated these wetlands with agronomic and non-native species around the perimeter. The other Class IV wetland (W8) is partially modified by agriculture activities in the outer wetland zones and was dominated by cattail, sloughgrass and foxtail barley. The dugout contained permanent open water and is surrounded by steep banks with heavily grazed vegetation. The upland area T2 is located around W6 and W7. Small trembling aspen with an understory of smooth brome dominated this area. Snags were present and the trees showed signs of wind damage. The upland area WL1 is part of the Old Man Creek corridor. It is dominated by white spruce and appears to be a healthy stand.

Of the natural features identified within the ASP, WL1 is ranked as having high value for conservation based on size, species diversity, wildlife connectivity and low anthropogenic disturbance. The remaining features within the ASP area are ranked as having low and moderate value for conservation based on their small size, which influences sustainability and wildlife habitat potential, level of anthropogenic disturbance and low connectivity to the large scale ecological network. From dialogue with County staff, the Horizons North ASP supports wildlife movement. Ungulate and predator use will be assessed at time of subdivision/detailed design stage. The necessary assessments to could be undertaken in conjunction with the geotechnical study and should inform buffering requirements of the Horizons North ASP lands.

The biophysical assessment recommended that WL1 be conserved as Environmental Reserve and that appropriate buffers and setbacks shall be incorporated around Old Man Creek to minimize root damage, provide areas for surface water infiltration and reduce edge effects for wildlife. The size of buffers and setbacks shall be outlined at time of subdivision and detailed design stage. The wetlands within the ASP are small in area and post-development sustainability would be a challenge. Compensation for these wetlands will take place in the form of four stormwater management facilities. It is recommended that



these features be designed as constructed wetlands to provide stormwater treatment and a diversity of wildlife habitat.

Old Man Creek is a fish bearing stream that feeds into the North Saskatchewan River. Considerations pertaining to the quality of water entering the ravine system will be required to protect fish habitat including treatment of stormwater and appropriate erosion protection during construction to prevent the release of sediment. Erosion control measures and outfall construction will be outlined at time of subdivision/ designed design stage.

Strathcona County may in the future require an update to the Biophysical Assessment for additional information regarding (but may not be limited to): type and size of buffers to protect water quality of creeks and creeks as corridors, ungulate and predator movement, buffer width requirements, and connectivity to Cambrian, Beaver Hills and Bremner.

### 1.9.1. Geology and Soils

A desktop review of the Horizons North ASP has been conducted and evaluates the following. The surficial geology of the area consists of glacial till deposits overlying Disturbed Saskatchewan gravels and sands to approximately 20 m in depth. The underlying bedrock, known as the Edmonton Formation, consists of interbedded bentonic shales and sandstones with intermittent coal seams.

The plan area consists of a mixture of soils, which are generally dominated by Othic Black Chernozems on uplands sites, Solonchic soils on lowland sites, and Humic and Orthic Gleysols in the wetland areas.

Natural Regions are the broadest levels of ecological classification of Alberta's landscape and are areas that have similar physical qualities and attributes. A Natural Subregion is defined on the basis of landscape patterns, notably vegetation, soils, physical features, climate, topography and geology. This area is located within the Central Parkland Natural Subregion. Generally, this subregion's combination of good climate and rich soil has been suitable for agriculture (Class 1 and 2). As a result, this area has been predominantly cultivated for agricultural purposes, leaving very little of the natural vegetation. It is anticipated that these lands will typically remain in production until they are required for development.

### 1.9.2. Topography

The topography of the Horizons North ASP was reviewed using the map of Quaternary Geology, Central Alberta (Shetsen 1990) and the 2013 Atlas of Canada, Toporama Map. The local topography is described as flat to gently undulating with almost no topographic relief. The majority of the plan area is used for agricultural purposes with some low lying areas, though generally sloping to the north toward the North Saskatchewan River.

The geology in the area was reviewed using the Urban Geology of Edmonton (Kathol and McPherson 1975). The surficial geology contains glacial till deposits (expected at a depth of approximately zero to 12 m) overlying Disturbed Saskatchewan gravels and sands (expected at a depth of approximately 12 to 20 m). The underlying bedrock, known as the Edmonton Formation, consists of interbedded bentonic shales and sandstones with numerous coal seams. According to Kathol and McPherson (1975), the





bedrock is expected at a depth of approximately 20 to 50 m. Information on local geological conditions was not available in the documents reviewed.

The Old Man Creek corridor, designated as Environmental Reserve in the development concept, (**Figure 5: Development Concept Plan**) is currently under private ownership and subject to further study as the plan proponents do not have access to those lands for survey or study. These lands will require a slope stability study and detailed top-of-bank survey to be submitted prior to rezoning or subdivision, in accordance with Strathcona County policies and procedures. The development concept designates the adjacent lands as Park, with frontage onto a collector roadway. A stormwater management facility (SWMF) is located further across the collector roadway. The completed ASP design brief indicates that SWMFs are to be no less than 100 m in distance from the creeks top-of-bank. Therefore, the proposed adjacent land uses and location of the SWMF will not have an effect on the slope stability prior to this study being completed.

### 1.9.3. Hydrology

The Old Man Creek intersects the Study Area in the southwest portion of the plan area before entering the North Saskatchewan River west of the West of Highway 21 ACP boundary. Due to the elevation changes within the plan area, the surficial water is expected to drain east to west, and to the north away from the creek.

### 1.9.4. Environmental Site Assessments

An Environmental Site Assessment evaluates the types and location of surface and subsurface impacts that may be present on the subject site and adjacent areas. At the time of preparation for this ASP, the plan proponents have completed the requirements for environmental review of 25-53-23-W4M (Stantec Consulting Ltd, 2013). The subject lands have historically been used for agricultural purposes and have been identified as having no environmental contamination or concerns. The recommendation states that not further environmental investigation is required. For all non-participating landowners, an Environmental Site Assessment and any other supporting information shall be required to be submitted and approved prior to rezoning.

## 1.10. Encumbrances

The locations of any pipelines, railway, and utilities within the plan area are identified in **Figure 4.0: Site Features** with detailed pipeline data provided in **Appendix II**. All future development adjacent to these pipelines, utility and railway corridors will be in compliance with the relevant Federal, Provincial and Strathcona County regulations and policies.

A CP railway intersects the southeast corner of the plan area, intersecting Township Road 535 at grade and crossing Highway 21 via an underpass. The orientation of the railway isolates a small triangular piece of land near the future interchange location of Highway 21 and the existing Township Road 534. It is envisioned that the extension of railway spurs may be accommodated into the Area Structure Plan to provide multi-modal transport options to Medium Industrial uses.



A major pipeline corridor abuts the northern boundary of the plan accommodating several oil and gas pipelines (see **Appendix II**). A utility corridor intersecting the southeastern corner of the Plan area, parallel to the CP railway, accommodates several oil and gas pipelines and a major power line corridor (138/144 kV). All developments adjacent to a pipeline shall adhere to Section 6.7 Setbacks from Pipelines, in Strathcona County's Land Use Bylaw and the Risk Assessment completed by Strathcona County.

## 2 Public Consultation

### 2.1. Consultation Process

In November of 2012, the West of Highway 21 Area Concept Plan (ACP) and Horizons North ASP were initiated on behalf of two major land owners within the plan area. All landowners in the West of Highway 21 subject area were notified prior to plan initiation and invited to participate in the process. Stantec prepared a Public Information Program (PIP) which sets out the means by which key stakeholders and the public were to be engaged in the preparation of the ASP and ACP. The PIP was approved by Strathcona County Council.

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

#### 2.1.1. Public Information Program #1

An Open House was held on December 6, 2012, inviting the public to view, discuss and provide input on two potential options for the development concept. The event was advertised in the Sherwood Park Strathcona County News, on Friday November 23, 2012 and Friday November 30, 2012. A notice was also mailed to the affected landowners, as well as landowners within 100m of the Plan area. Approximately 50 people attended the public open house.

#### 2.1.2. Public Information Program #2

A public meeting hosted by Stantec was held on June 6, 2013 to review the submitted ASP. The purpose of the meeting was to provide an update on the proposed plan and planning process followed to date, and to hear from attendees regarding their questions, comments and concerns. Mailed notification letters were sent to landowners in the plan area as well as within a larger notification area over and above the standard 100 m surrounding the ASP area advising of this meeting.

Two additional meetings were held with adjacent landowners (June 25, 2013 and October 10, 2013) (City of Edmonton and Akenside residents) to provide information and receive feedback from the landowners.

#### 2.1.3. Public Information Program #3

A public meeting hosted by Strathcona County was held on November 27, 2013. The purpose of the meeting was to provide clarification about the proposed land uses as well as provide an opportunity and to hear from stakeholders regarding their questions, comments and concerns.





Mailed notification letters were sent to landowners in the plan area as well as within a larger notification area over and above the standard 100 m surrounding the ASP area advising of this meeting.

#### **2.1.4. Public Hearing and Capital Region Board**

In accordance with the MGA, a public hearing was held on January 20, 2015, in order to hear representations made by parties affected by the proposed bylaw and to receive a decision by Council. Council approved first reading of the West of Highway 21 ACP, and the application was forwarded to the Capital Region Board (CRB) for review. On April 22, 2015, the CRB gave final approval to the application pursuant to the Regional Evaluation Framework (REF).



## 3 Development Concept

### 3.1. Vision

The intent of this ASP is to facilitate responsible industrial development that encourages business synergies and partnerships, accommodates efficient infrastructure systems and multi-modal transportation, integrates environmentally sensitive features, and provides local employment opportunities. This ASP envisions a range of industrial business uses that are appropriately integrated into the primarily agricultural landscape, conserving natural areas and ecologically significant wetlands, and cognizant of sensitive residential land uses within Akenside Estates and Oldman Creek Estates.

The Horizons North ASP is located at the confluence of Township Road 534 and Highway 21 which provides easy and convenient access to Alberta's Industrial Heartland to the north and Anthony Henday Drive to the west. The hierarchy of industrial land use designations provides appropriate transition between the existing and proposed land uses to the west and to the south. Existing acreages are buffered with parks and open space to the north with Light Industrial planned to separate the Medium Industrial development from residential.

The land use designations illustrated in **Figure 5: Development Concept** portray the allocation of light and medium industrial uses, identifies the existing home sites, and lays out a network of parks and open space anticipated to be utilized by business employees and active recreational linkages for adjacent communities. The development concept provides a comprehensive design with an orderly and compatible combination of land uses for future business development.

### 3.2. Land Uses

The development concept consists of primarily light and medium industrial uses, although other land uses include stormwater management facilities, parks, public utilities, and existing country residential uses. The Horizons North development concept statistics can be found in **Appendix I**. The following policies have been developed to provide direction for implementing the development concept, illustrated in **Figure 5.0: Development Concept**.

#### 3.2.1. Existing Country Residential

This ASP is consistent with the West of Highway 21 ACP, which envisions a transition from primarily agricultural to industrial uses by not permitting any new residential development. Existing residential development will be retained and protected with appropriate buffering and protection from industrial nuisances and impacts. Buffering strategies are described in Section 3.2.2.

Within the plan area, one country residential acreage continues to exist north of the existing Township Road 534. This residential parcel is to remain until such time that the landowner chooses to redevelop, requiring an amendment to this plan along with any necessary technical studies. Further south of the existing Township Road 534, outside the boundaries of the ASP, it is anticipated that Akenside Estates and Oldman Creek Estates will continue to exist in perpetuity. Adjacent park space abutting the existing Township Road 534 shall be provided in addition to transitional buffering, including amenities such as berms, landscaping, or a combination thereof between the proposed industrial uses and the existing





country residential. Medium Industrial uses shall not be permitted adjacent to the existing residential or transitional buffer to ensure an appropriate land use transition which reduces impacts and nuisances on existing residential uses.

- Policy 1.** A landscaped open space shall be constructed along the northern edge of existing Township Road 534, to minimize visual and noise impacts including noise and light pollution, from surrounding Light Industrial/Business uses on existing residential development. The landscaped open space shall be dedicated as Municipal Reserves.
- Policy 2.** The landscaped buffer shall be a minimum of 50.0 m in width. A noise attenuation study will determine the height and composition of the noise attenuation and is to be submitted prior to an amendment to the Land Use Bylaw, or at time of subdivision.
- Policy 3.** Medium Industrial uses shall not be permitted to abut the landscaped buffer along the existing Township Road 534.

### 3.2.2. Industrial

This ASP plans for predominantly Light and Medium Industrial uses (see **Figure 5.0: Development Concept**), to establish an employment node that is ideally located in close proximity to Highway 21 and with potential access to CP railway.

#### Light Industrial

This ASP has been designed to allocate Light Industrial uses along the southern boundary of the plan area, in close proximity to more sensitive existing country residential development. Light Industrial development will typically be located along the internal collector roadway way and developed using light industrial districts of the Strathcona County Land Use Bylaw. Uses are expected to include business support offices, indoor manufacturing or assembly, warehousing, or other uses that do not generate noise, odour, earthborne vibrations, heat, intense light or dust nuisance factors outside of an enclosed building. Light industrial land uses will conform to Strathcona County's Land Use Bylaw, which currently requires a Minimum Lot Width of 30 metres, a Minimum Lot Depth of 35 metres, and Maximum Building Height of 15 metres. The Maximum Floor Area Ratio permitted in the Light Industrial District is 0.5.

#### Medium Industrial

The Medium Industrial designation is extensively used throughout the ASP. Typically, this type of development would be developed under the (IM) Medium Industrial Zone. These industrial uses may create nuisance factors (i.e. noise, odour, or visual impacts) that extend outside of the principal building and possibly beyond the property boundary. Permitted uses may include, but are not limited to, manufacturing, processing, distribution or repair services, and may also include unenclosed outdoor storage. Medium industrial land uses will conform to Strathcona County's Land Use Bylaw, which currently requires a minimum lot width of 50 metres, and a maximum building height of 18 metres. The current maximum Floor Area Ratio for the Medium Industrial Use is 2.

- Policy 1.** Provide a diversity of Light and Medium Industrial employment opportunities.
- Policy 2.** Prohibit Heavy Industrial uses within the plan area.
- Policy 3.** Encourage green initiatives, such as: renewable energy generation, green roofs/walls, or naturalized stormwater retention.



**Policy 4.** Encourage shared use synergies between businesses to share facilities, and exchange resources and/or by-products.

**Policy 5.** Industrial land uses shall incorporate enhanced architecture and urban design details to ensure the uses are compatible with adjacent uses and attractive when viewed from public areas:

- a. Industrial uses abutting Highway 21 shall provide high quality visual appeal through enhanced building facades, landscaping, or a combination thereof.
- b. Outdoor storage areas shall be screened from Highway 21 and existing residential uses through methods such as landscaping, berms, fencing, or a combination thereof.
- c. All loading and storage facilities shall be located away from any adjacent residential uses, where feasible, or appropriately screened from view through methods such as landscaping, berms, fencing, or a combination thereof.
- d. Exterior lighting shall be designed to reduce light pollution and minimize light trespass on any adjoining properties as per Strathcona County's Light Efficient Community Policy (SER-009-038), to the satisfaction of the Development Officer. Light pollution and trespass reduction strategies may include full cutoff light fixtures, directional lighting, low angle spotlights, and reduction of non-essential lighting (such as landscaping and building facades) levels during off-peak hours.
- e. A Noise Attenuation Study shall be prepared prior to subdivision. Appropriate noise attenuation facilities shall be constructed in accordance with the recommendations from the study to reduce the noise impacts of proposed industrial development.
- f. Architectural guidelines shall be submitted at the time of subdivision.

### 3.2.3. Parks, Open Space, and Natural Areas

In accordance with the Municipal Government Act, approximately 10% of the gross developable area is to be dedicated as Municipal Reserve. Active and passive park space will be created through way of dedication. Park space has been allocated throughout the plan area (see **Figure 5.0: Development Concept**) in accordance with typologies identified in Strathcona County's Open Space and Recreation Facility Strategy.

The Horizons North ASP has been designed to provide a variety of public open spaces and pedestrian linkages by capitalizing on the location of utility corridors, stormwater management facilities and the Old Man Creek. The area and percentage of gross developable area attributed to parks is shown in **Table 4 –Land Use and Population Statistics**.

Strathcona County's Tree Conservation Development Policy (SER-009-034) requires that all development initiated by a private developer must ensure the conservation of trees during the process of developing land and constructing buildings and infrastructure. This is accomplished by preparing a Tree Conservation Report and a Tree Protection Plan which will be submitted at the time of detailed design. Additionally, the Tree Management Policy (SER-009-035) ensures the conservation of trees after





development by establishing procedures to inspect and manage trees on County lands. This will help to conserve the urban and rural forests within Strathcona County based on municipal, community and environmental needs.

### Environmental Reserve

A portion of the Old Man Creek intersects the southwest corner of the plan area and is illustrated in **Figure 5.0: Development Concept**. In accordance with the Municipal Government Act, the Old Man Creek corridor is to be dedicated to Strathcona County using Environmental Reserve at the time of subdivision. A desktop review of the area topography has suggested the approximate Reserve area required for this location. These lands will require a slope stability study, top-of-bank walk, and detailed top-of-bank survey to be submitted prior to rezoning or subdivision, in accordance with County policies and procedures. The Old Man Creek provides a wildlife corridor for animal and fish species to coexist within the plan area and serves as a tributary to the North Saskatchewan River. Old Man Creek is also part of a larger area known as Beaver Hills, which consists of public and privately owned lands containing an array of natural landscapes, including wetlands and boreal mixed wood forest. Fish known to the area include Lake Sturgeon, Sauger, and Spoonhead Sculpin. The wildlife in the area includes Northern Leopard Frogs, Canadian Toads, Least Flycatchers, Peregrine Falcons, Short-eared Owls and Swainson's Hawks. This natural area shall be protected and preserved, maintaining the existing natural significance to the local water system and ecological connectivity. Strathcona County's Wetland Conservation Policy (SER-009-036) provides more details pertaining to development in proximity to wetlands. Where any wetlands are removed, compensation requirements will be enforced through Alberta Sustainable Resource Development and its Water Act.

### Parks

There are two park spaces planned for the Horizons North ASP that are to be dedicated as Municipal Reserve. These parks will be connected by pedestrian linkages and provide active recreation opportunities for area residents.

A Regional Park is located in the eastern midpoint of the plan area, abutting a stormwater management facility. This Regional Park utilizes an existing dugout as a central water feature and offers a visual buffer between the travelling public on Highway 21 and the planned industrial uses internal to the plan area. The Regional Park will include active recreation opportunities and may include ball fields or an off-leash dog park area. A Community Park is also planned in the southwest corner of the plan area, north of the Old Man Creek ravine and south of a collector roadway. This park space will assist in the preservation of Old Man Creek, provide significant additional buffering, and provide additional passive and active recreation opportunities and an aesthetically pleasing focal point in close proximity to the existing residential acreages.

### Trails and Linkages

Greenways within the ASP are centrally located within the plan area and are designed to link parks, natural areas, and stormponds into a cohesive recreation and open space amenity while providing multi-modal transportation opportunities. A greenway will typically be constructed with a multi-use trail and landscaping to provide a linear, safe pedestrian movement throughout the plan area with little vehicular



interruption, also acting as important wildlife corridors. Greenways traverse the Development Concept in each direction. A north-south greenway connects Akenside Estates and Oldman Creek Estates in the south to the major pipeline corridor to the north. An east-west greenway provides a pedestrian connection from the Community Park along Highway 21 to the southern stormpond in the west.

The pedestrian network in this ASP is designed to integrate sidewalks along the internal collector roadway to enhance pedestrian connectivity. Pipeline rights-of-way also provide potential opportunities for integrating trail and sidewalk connections to natural areas, greenways, stormponds, parks, and adjacent communities. The pipeline corridor adjacent to the CP Railway provides a pedestrian connection from the southern linear park to the Community Park adjacent to Highway 21. A second linear park connects this park to the major east-west pipeline corridor further north. Although pedestrians have no legal access to CP's rail right-of-way, there are potential conflicts between the pedestrian corridor and the proposed rail spurs. Mitigation strategies such as controlled accesses may need to be implemented at these locations. These requirements will be designed at the detailed design stage.

### Linear Open Space

In addition to the regional park and community park, the plan proposes a 50 m wide linear open space along the southern boundary of the plan area and another one along Highway 21. These linear open spaces are located to provide an adequate transition area, including appropriately sized berm and landscaping to reduce industrial noise and visual nuisances, protect privacy, and ensure a compatible transition in land use. Recognizing the existing residential development within the Akenside and Old Man Creek Estates, a Noise Attenuation Study will be required at the time of subdivision to determine the appropriate noise-barrier to minimize noise impacts from the light industrial development north of the existing Township Road 534, Akenside Estates and Old Man Creek Estates.

### Stormwater Management Facilities

Stormwater management facilities are considered an amenity area and integral part of the open space system. Three stormwater facilities in the neighbourhood will provide local amenities and passive recreational opportunities for nearby business employees. While the primary purpose of stormwater management facilities are to accommodate important utilities and drainage infrastructure, these lands can also serve as naturalized open space, creating additional habitat for a variety of plant, bird and small amphibian species

- Policy 1.** Lands within the Old Man Creek ravine that meet the criteria for Environmental Reserve (ER) under Section 664 of the Municipal Government Act, shall be dedicated to Strathcona County.
- Policy 2.** Public access to the Old Man Creek shall be physically accessible and provide active and passive recreation opportunities as well as pedestrian connectivity to surrounding communities. Active recreation is defined as leisure activities that result in a healthy increase in aerobic rates such as programmable sports, running, and biking. Passive





recreation refers to activities such as walking, sitting, socializing, and wildlife observation.

- Policy 3.** Lands within the Horizons North ASP shall provide Municipal Reserve as a dedication of land in accordance with Section 666 of the Municipal Government Act and Strathcona County's policy SER-008-0015.
- Policy 4.** The park spaces provide space for active and passive recreational opportunities for employees and area residents, including walking, and cycling, and gardening. Programming for the park spaces will be determined through consultation with Strathcona County Recreation Parks and Culture and Planning and Development Services.
- Policy 5.** Linear parks shall be designed and constructed to minimize impacts using landscaping, berms, fencing, or a combination thereof, in accordance with the recommendations of a Noise Attenuation Study at the time of development permit approval.
- Policy 6.** Where Class II, III, IV, and V wetlands are not identified for retention, pursuant to the provisions of the Water Act, a compensation plan guided by Strathcona County's Wetland Conservation Policy (SER-009-036) shall be submitted and approved prior to subdivision approval. Compensation for wetland loss is paid at a 3:1 ratio.

### 3.3. Transportation

The ASP envisions a transportation system that is well connected, providing a logical hierarchy of industrial collector and industrial local roadways internal to the plan area. The transportation network is shown on Figure 8.0: Transportation Plan.

Township Road 534 and Range Road 231, in their current alignment, along with Highway 21 border the plan area. An access (Township Road 535) currently exists from the plan area to Highway 21, which has been approved by Alberta Transportation (AT) through 2015 for a specific, existing land use.

Township Road 534 is identified by Alberta Transportation as a regional connector, which will connect the future Anthony Henday Drive to Highway 21. Through the approval of the North of Yellowhead Functional Planning Study, Township Road 534 will be realigned south of Akenside and Old Man Creek Estates, with an interchange at Highway 21. The North of Yellowhead Functional Planning Study also requires the realignment of Range Road 231 (north), with the intersection of Township Road 534 relocated approximately 900 m to the west. The portion of the existing Range Road 231 south of the new alignment is planned to be closed and incorporated into the adjacent development.

A Transportation Impact Assessment (TIA) was completed to assess the impact of the Horizons North ASP on the surrounding road network. The TIA also looked at the existing Township Road 535 access point to Highway 21, and determined that 20 percent of development using Township Road 535 as an access would maintain an intersection Level of Service 'D' within a twenty year horizon. While AT has indicated this is an acceptable minimum standard, access into the plan area cannot solely rely upon Township Road 535, and access to Range Road 231 must be completed.



In addition to AT's requirements, any non-residential development within the plan area shall require the County to design and construct the realignment and construction of Township Road 534 and Range Road 231, including the relocation of the intersection of Range Road 231 and Township Road 534. This event shall require a number of undertakings through the establishment of a capital project, including but not limited to: land acquisition, roadway design, relocation of utilities, and construction of the realigned road. Funding of the capital project shall be recovered through developer contributions and levies, to be determined at the Land Use Bylaw amendment, subdivision, or development permit stage, whichever occurs first.

As such, the existing access to Highway 21 will remain in the interim, providing business/industrial traffic access into the plan area from Highway 21. The access to Highway 21 is to be improved and will provide access to the plan area until an ultimate roadway network is established. Alberta Transportation will continually be involved in the development of the ultimate access and intersection construction along Highway 21. As development occurs, additional access will be provided via the internal collector and local roadway network through to the realigned Range Road 231. Internal collector and local roadways and intersections will be constructed consistent with the standards specified by the County's Engineering Servicing Standards.

The CP railway intersects the southeast corner of the plan area, crossing Township Road 534 at grade at this time. With the realignment Township Road 534, this railway crossing will ultimately be eliminated. This ASP envisions future development of rail connections to this main line to support the intermodal capabilities of industrial businesses. Local road design including any proposed internal rail crossings will be established at time of subdivision. Increased rail traffic generated by new industrial development may require future rail crossing improvements and the appropriate technical studies to be provided. The plan area incorporates accessibility for alternative modes of transport, as per the Integrated Transport Master Plan (ITMP). The pedestrian network provides connectivity for cyclists and pedestrians access throughout the site via a series of linear greenways and sidewalks. There are greenway connections via the existing Range Road 231 and parallel to the CP Rail line to the, which provide access to lands outside the southern plan boundary. Western connections are made to the re-aligned Range Road 231 and Township Road 535. These connections will increase the transportation mode choice for the Greater Strathcona County area.

Local road design including any proposed internal rail crossings will be established at time of subdivision within the ASP Boundary. Parcel arrangements can then be tailored to meet the specific needs of the end users of the lands within the ASP Boundary. Access to residential uses west of Range Road 231 will be maintained at an equal or improved standard, while industrial traffic will gain access through the roadway network internal to the plan area. Should Alberta Transportation not approve the required intersection upgrades at Township Road 534 and Highway 16, alternative access can be provided to the ASP lands via the re-aligned Range Road 231, connecting to the re-aligned Township Road 534, as shown on Figure 8: Transportation.





Transit service into the plan area will continually be evaluated by Strathcona County. There will not be transit service provided to this employment node until such time that the employment and traffic generation reaches an appropriate level of need. At a suitable time, service will be accommodated along internal industrial collector roadways that are developed to a suitable standard to accommodate transit service and provide readily accessible service to businesses.

- Policy 1.** Public access from Highway 21 will be permitted from a service road to the north of the plan area (Township Road 535) in the interim, until Alberta Transportation requires this intersection to be closed and reconstructed.
- Policy 2.** Any development within the plan area shall require the County to undertake the project of realigning Range Road 231, including the relocation of the intersection of Range Road 231 and Township Road 534.
- Policy 3.** Construction of local and collector industrial roadways shall be per the Design and Construction Standards, Urban Service Area.
- Policy 4.** Railway linkages shall be subject to the required technical studies and regulations of the Alberta Government and Strathcona County.
- Policy 5.** Any new development adjacent to existing or future rail lines shall be developed with appropriate setbacks and buffers to minimize risk, in accordance with the Risk Assessment completed by Strathcona County and the Land Use Bylaw at the development permit stage.
- Policy 6.** Pedestrian trails and sidewalks shall be designed to connect Old Man Creek ravine, parks, SWMFs, collector roads and transit stops for maximum connectivity and accessibility.

### 3.4. Servicing

Servicing for the Horizons North ASP will be provided in accordance with Strathcona County's municipal requirements and standards. A Design Brief has been prepared by Stantec Consulting Ltd. (2013), which specifically identifies the location and minimum requirements needed to service the lands within the Horizons North ASP. Design and construction of all sanitary, water, and stormwater infrastructure will be designed based on Strathcona County's Engineering Servicing Standards.

#### Sanitary

The flow for the sanitary system designed for the ASP area will ultimately move from the southeast to the northeast. Sewage will be conveyed west to the existing sanitary trunk along Range Road 232 which flows to the Capital Region Sewage Treatment Plant located northwest of the ASP area. The sanitary servicing system is conceptually shown in **Figure 9.0: Sanitary Servicing Plan**.

#### Stormwater

The major storm drainage includes three constructed wetland stormwater management facilities to provide adequate storage volumes under the critical rainfall event as conceptually shown in **Figure 10.0: Stormwater Servicing Plan**. The facilities have been located on the basis of natural drainage patterns



and pre-development sub basin drainage boundaries in the ASP area. The ASP area is within three stormwater basins (Oldman Creek, Pointe-Aux-Pins Creek and North Saskatchewan River). A portion along the eastern boundary of the ASP drains east through a culvert under Highway 21 and then north to Pointe-Aux-Pins Creek. The southern portion of the ASP drains to the Oldman Creek, eastern portion drains to Pointe-Aux-Pins Creek and the western area drains through a wetland into the North Saskatchewan River. The ponds which are located in the proximity of rivers and streams may be relocated to accommodate slope stability setback distance from the river or creek subject to the slope stability requirements in the geotechnical report; this may require an amendment to the ASP.

### Water Services

Water services for the area will be extended from the south via a water main. An existing 16" water main exists along Range Road 232 and then follows the railway to Highway 21. Water servicing within the ASP area will be designed to provide peak hour flows and fire flows for light and medium density industrial uses. Water looping will be provided along the proposed collector roadway network. **Figure 11.1 and Figure 11.2: Water Servicing Plan** generally illustrates the servicing concept options for the plan area. The recommended option will be determined upon finalization of the design for the North of Yellowhead Offsite Servicing project. A Hydraulic Network Analysis will be submitted under a separate cover in support of this ASP.

### Shallow Utilities

All shallow utilities will be extensions of those already in place in adjacent developments. Adequate infrastructure is available to accommodate the proposed development.

- Policy 1.** Stormwater management facilities shall be designed as constructed wetlands to provide stormwater treatment and support a diversity of wildlife habitat.
- Policy 2.** All servicing infrastructure shall be constructed in accordance with an approved Design Brief.





### 3.5. Area Concept Plan Conformance

The Horizons North ASP has been prepared in conformance with the Strathcona County's MDP and the West of Highway 21 ACP, which designates the lands for light industrial, medium industrial, business employment / light industrial, stormwater management facilities, park and environmental reserve. This ASP has been prepared in compliance with the following overall goals of the ACP:

- ✓ To support existing agricultural uses and avoid the premature subdivision or fragmentation of agricultural land, and where appropriate, create synergies between new developments for agri-business opportunities.
- ✓ To transition to industrial land uses within the plan area by preventing new residential development within the plan area, and ensuring appropriate transitions are integrated into new developments adjacent to existing residential uses.
- ✓ To provide employment opportunities within medium industrial development uses located in areas that will minimize potential impacts on adjacent uses and major traffic corridors.
- ✓ To provide light industrial opportunities that does not create outdoor nuisances, are aesthetically pleasing, and conveniently located in high traffic areas.
- ✓ To provide employment opportunities within the plan area that minimizes noise and visual nuisances.
- ✓ To identify areas which could be conserved for future aggregate extraction operations while minimizing the potential for hazardous risk, nuisances, and environmental contamination.
- ✓ To provide limited commercial opportunities intended to support the surrounding industrial uses and employees in the Area Concept Plan, as well as the travelling public.
- ✓ To provide environmental conservation and recreational opportunities which integrate natural areas and wetlands to create a network of open space in the plan area as well as the region.
- ✓ To provide a logical hierarchy of roads creating an efficient transportation system, incorporating transit service considerations and providing opportunities for rail connectivity.
- ✓ To ensure that the plan area is serviced to a full urban standard, in an efficient, contiguous and staged manner.
- ✓ To ensure an appropriate level of police and fire protection and emergency services is provided to serve the proposed land uses.



## 4 Implementation

### 4.1. Development Staging

The majority of lands within the Horizons North ASP are owned by the proponents of this plan. It is anticipated that development will demonstrate the logical extension of municipal infrastructure and services. **Figure 12.0: Staging Plan** generally demonstrates the conceptual direction of development which may be adjusted as development applications are submitted and approved. Some development and/or servicing applications, especially adjacent to Highway 21, may require additional review and approval from Alberta Transportation. The initial Engineering Design Brief addresses the flexibility of staging and the implementation of water, sanitary, and stormwater facilities. The implementation process will require further planning, including rezoning, and subdivision approvals, as well as acquiring detailed engineering, development, and buildings permits.

### 4.2. Additional Requirements

A Development Officer may require any additional information required elsewhere by this Strathcona County's Land Use Bylaw or by the nature and magnitude of a proposed development or use. This may include, but not be limited to, information such as a geotechnical report in a potentially hazardous or unstable area, a biophysical assessment on the desirability of tree clearing, a hydrogeological report for a proposed intensive livestock agricultural use, a reclamation plan for aggregate extraction or site grading and excavation, an environmental site assessment to determine potential contamination and mitigation, or an environmental impact assessment for a development with potential significant environmental effects, or a flood plain impact study.

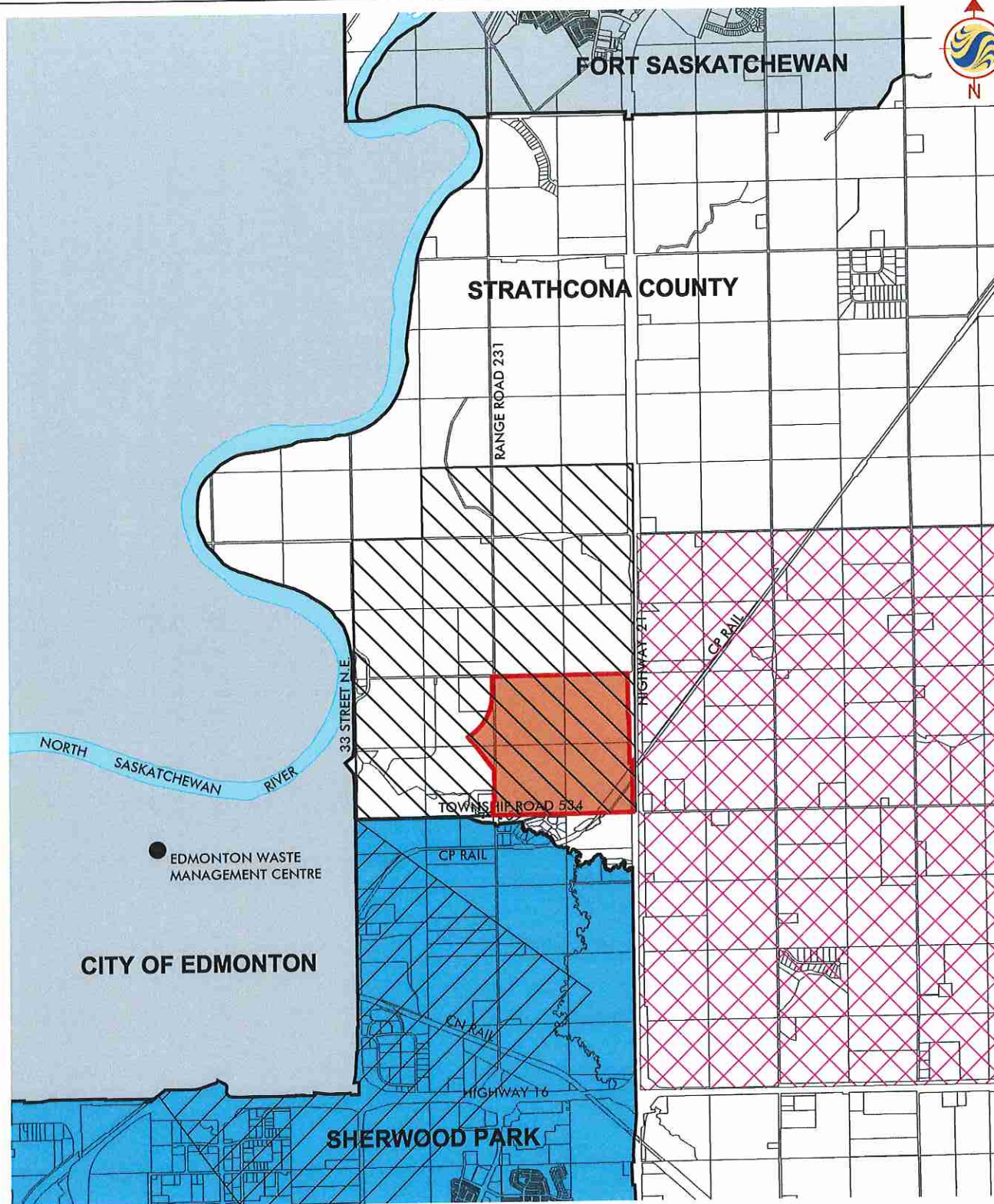
A Development Officer may increase any required setback or yard for any permitted or discretionary use where the regulation in the District would allow development that may be detrimental to the preservation of shore land or environmentally sensitive areas, may be affected by being in a floodplain or in proximity to steep or unstable slopes, or may increase the degree of hazard.





# Figures





October 8, 2014  
1161 101395

NOT TO SCALE

#### Legend

- |  |                              |  |                    |
|--|------------------------------|--|--------------------|
|  | Municipal Boundary           |  | Urban Reserve      |
|  | Area Structure Plan Location |  | Urban Service Area |
|  | Heliport Approach Zone       |  |                    |
|  | Transition Urban Reserve     |  |                    |

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

1.0

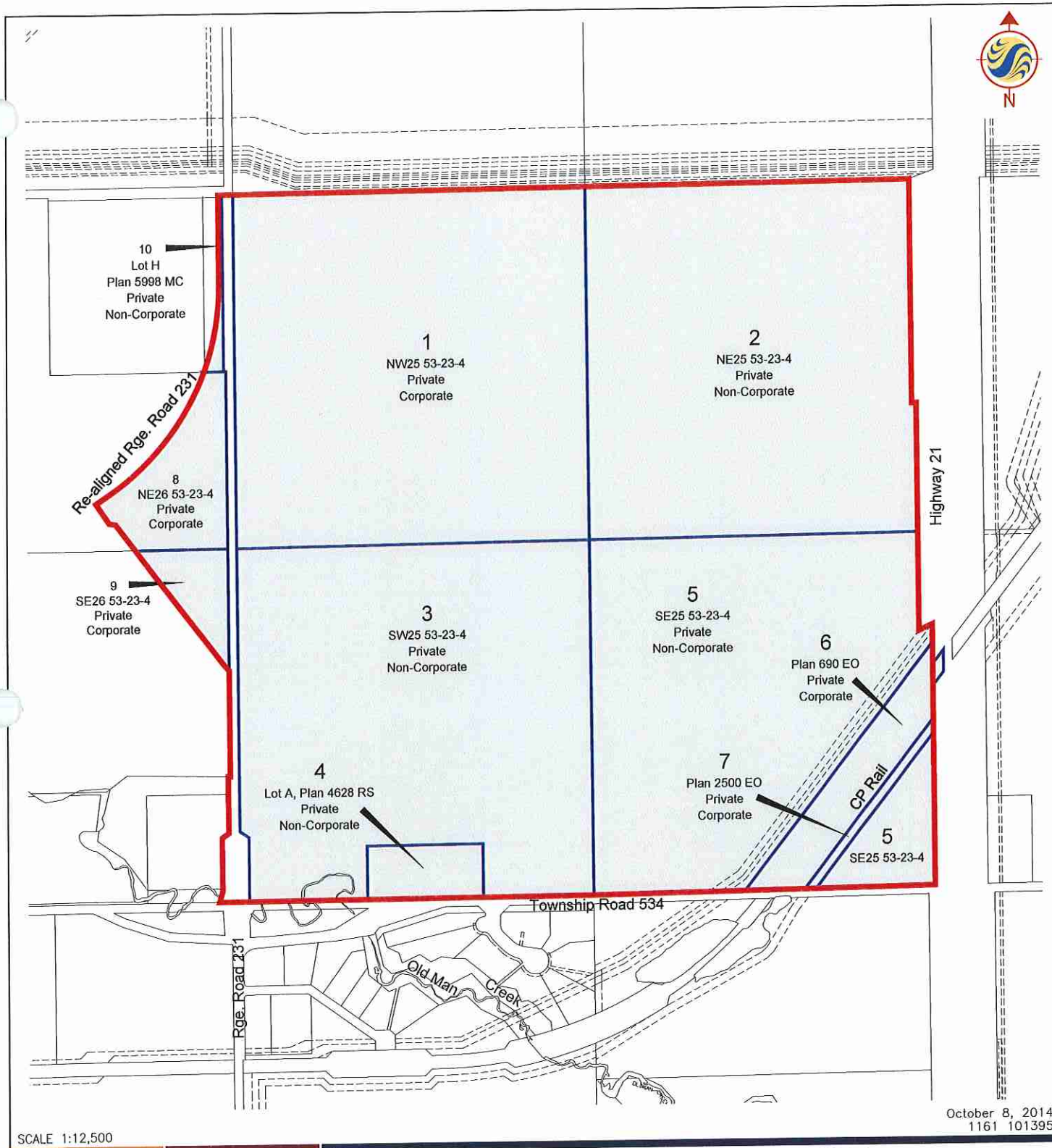
Title

LOCATION PLAN



**Stantec**





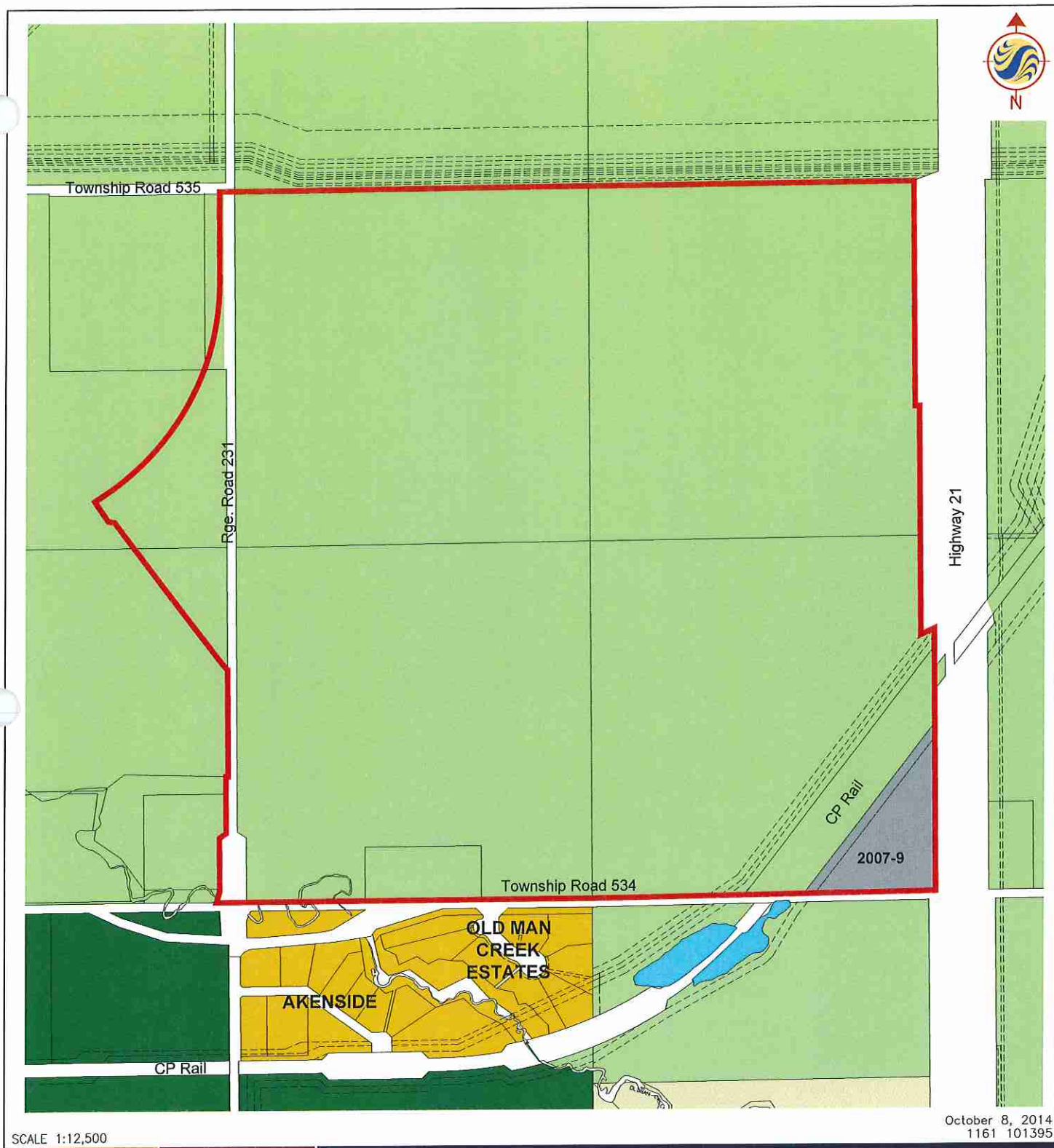
October 8, 2014  
1161 101395

Legend  
— Area Structure Plan Boundary

Client/Project  
STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN  
Figure No.  
2.0  
Title  
LAND OWNERSHIP



**Stantec**



#### Legend

- AG Agriculture: General
- AD Agriculture: Future Development
- DC Direct Control
- RA Rural Residential/Agriculture
- RC Country Residential
- Area Structure Plan Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

3.0

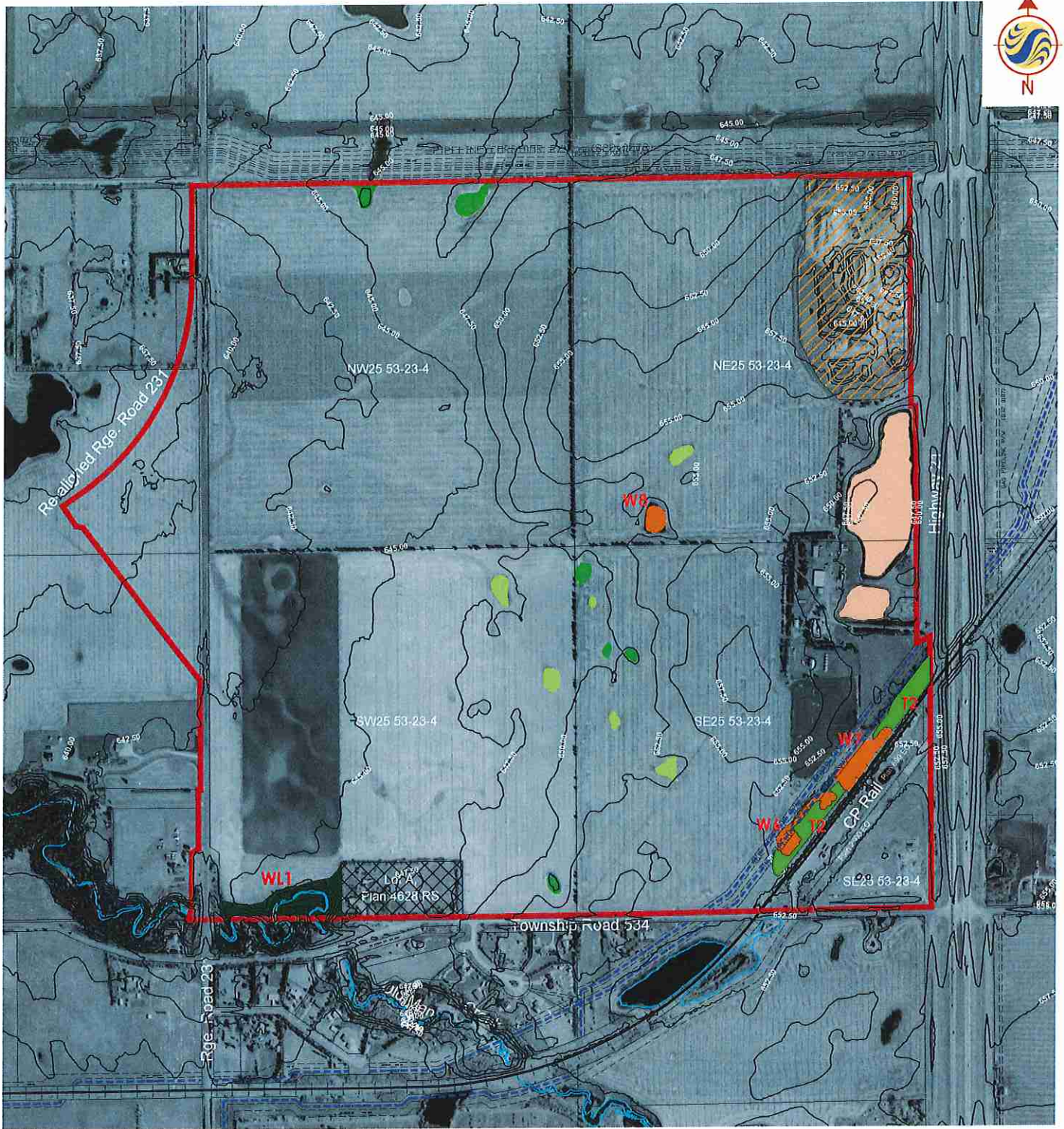
Title

**EXISTING LAND  
USE DISTRICTS**



**Stantec**





SCALE 1:12,500

October 8, 2014  
1161 101395

#### Legend

- |                                 |                                |
|---------------------------------|--------------------------------|
| Environmental Reserve           | Dugout                         |
| Existing Pipeline               | Treed Area                     |
| Existing Homesite               | Aggregate Extraction Operation |
| Class II - Temporary Marsh      | ASP Boundary                   |
| Class III - Seasonal Marsh      |                                |
| Class IV - Semi-Permanent Marsh |                                |

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

4.0

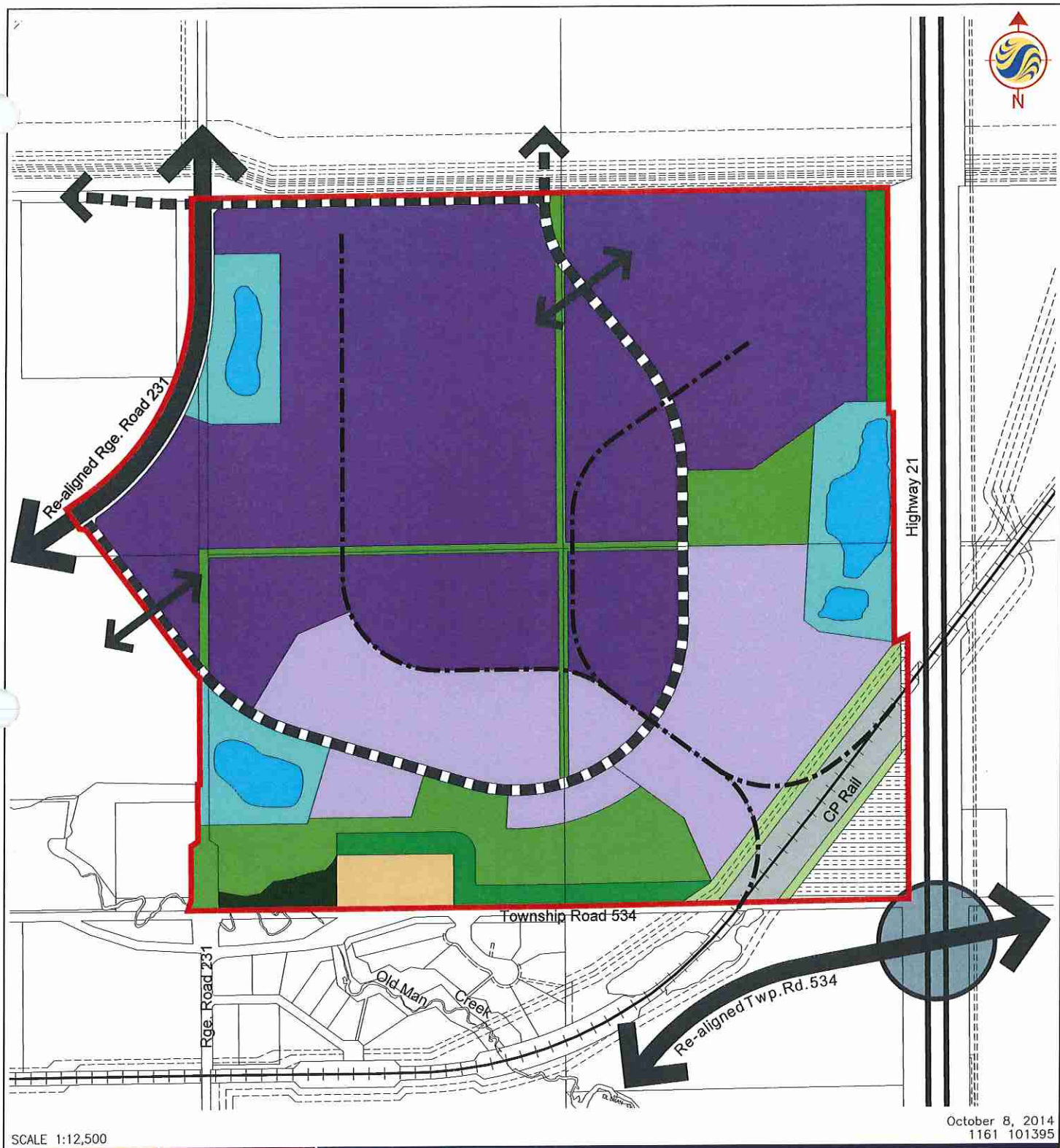
Title

**SITE FEATURES**



**Stantec**





SCALE 1:12,500

October 8, 2014  
1161 101395

Legend

- |                       |                           |
|-----------------------|---------------------------|
| Light Industrial      | Canadian Pacific Railway  |
| Medium Industrial     | Rail Spur                 |
| SWMF                  | Industrial Collector Road |
| Park                  | Arterial Road             |
| Public Utility Lot    | Potential Access          |
| Environmental Reserve | Future Interchange        |
| Buffer                | Planned Interchange       |
| Existing Homesite     | ASP Boundary              |

Client/Project  
STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

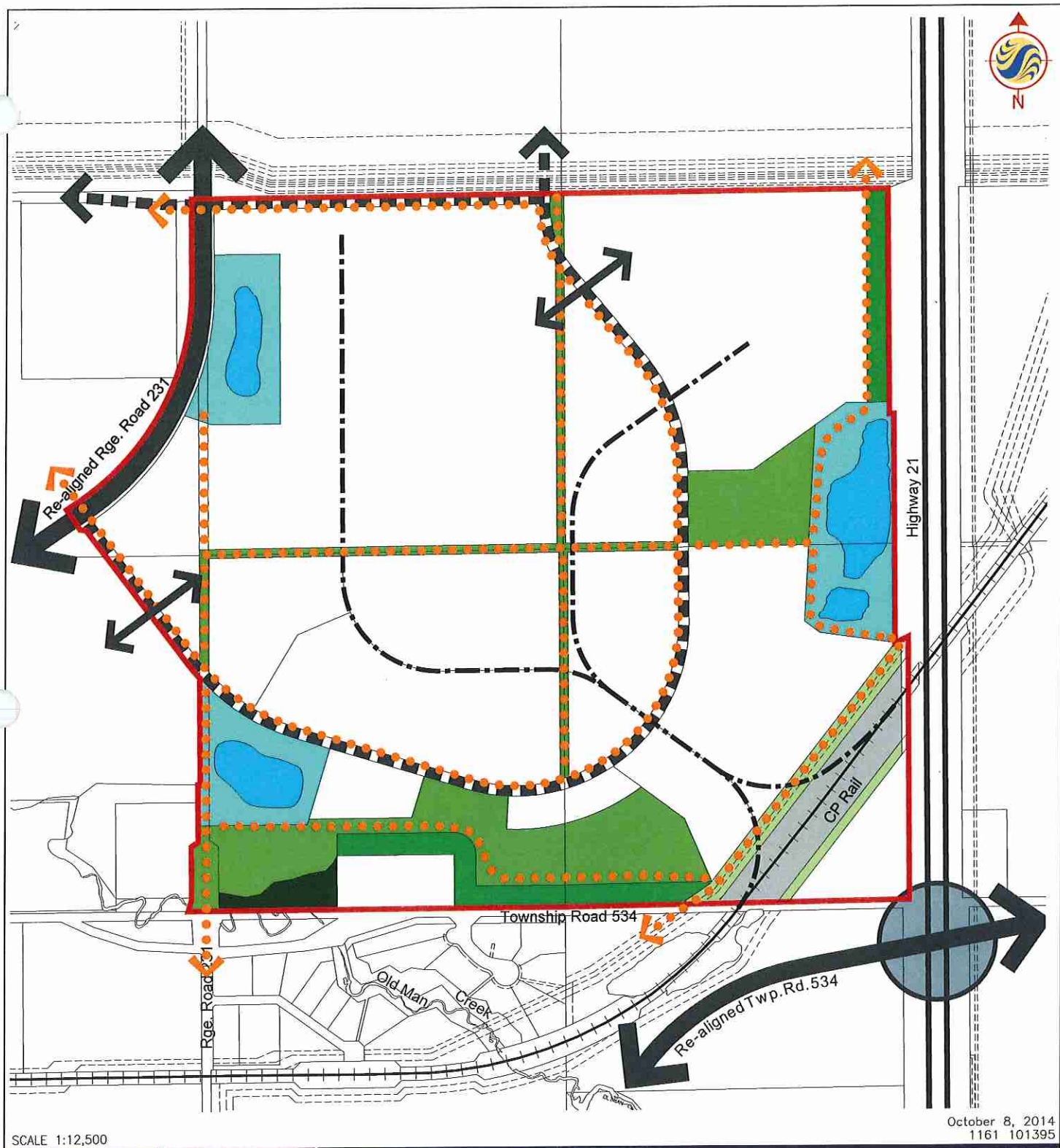
Figure No.  
**5.0**

Title  
**DEVELOPMENT  
CONCEPT PLAN**



**Stantec**





SCALE 1:12,500

October 8, 2014  
1161 101395

Legend

- |  |                       |  |                           |
|--|-----------------------|--|---------------------------|
|  | SWMF                  |  | Rail Spur                 |
|  | Park                  |  | Industrial Collector Road |
|  | Public Utility Lot    |  | Pedestrian Connections    |
|  | Environmental Reserve |  | Arterial Road             |
|  | Buffer                |  | Potential Access          |
|  |                       |  | Planned Interchange       |
|  |                       |  | ASP Boundary              |

Client/Project  
STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

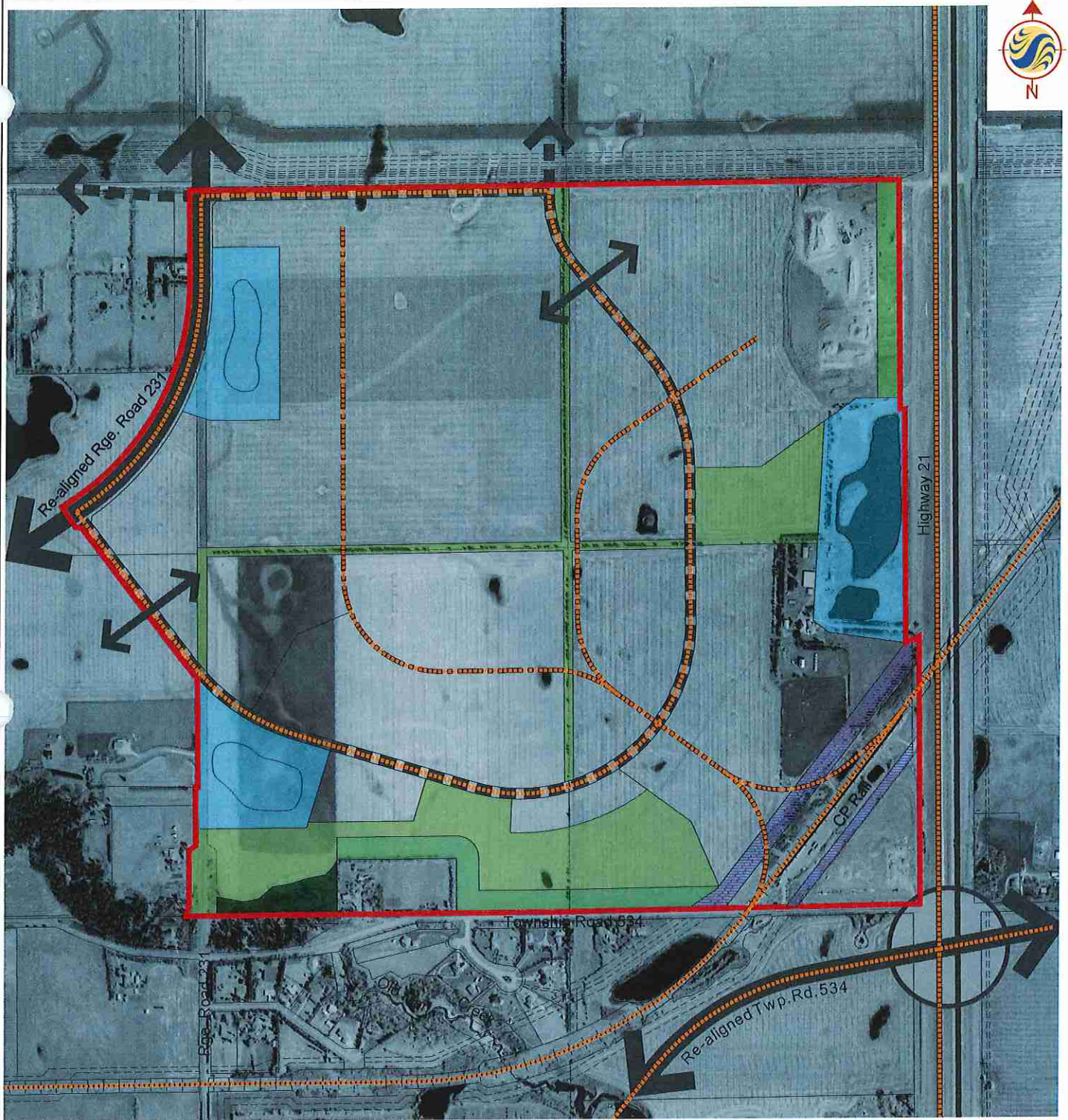
Figure No.  
**6.0**

Title  
**OPEN SPACE  
CONCEPT PLAN**



**Stantec**

















SCALE 1:12,500

October 8, 2014  
1161 101395

#### Legend

- |   |                       |   |                                    |
|---|-----------------------|---|------------------------------------|
|  | SWMF                  |  | Rail Spur                          |
|  | Park                  |  | Industrial Collector Road          |
|  | Public Utility Lot    |  | Arterial Road                      |
|  | Environmental Reserve |  | Potential Access                   |
|  | Buffer                |  | Planned Interchange                |
|   |                       |  | Barriers to the Ecological Network |
|   |                       |  | ASP Boundary                       |

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

7.0

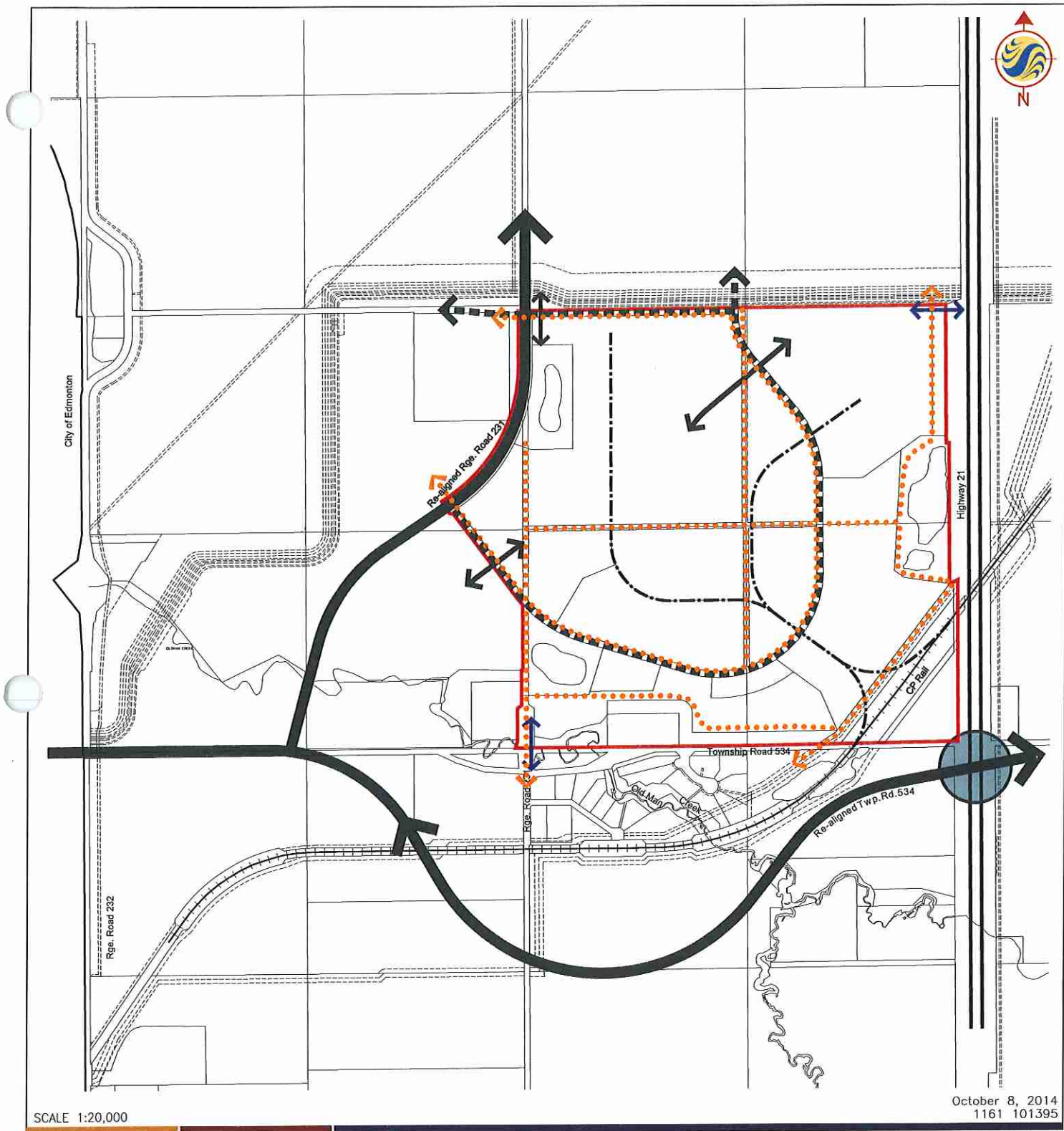
Title

ECOLOGICAL  
NETWORK



**Stantec**





SCALE 1:20,000

October 8, 2014  
1161 101395

**Legend**

- Rail Spur
- Industrial Collector Road
- Arterial Road
- ... Pedestrian Connections
- ↔ Potential Access
- ↔ Existing Access Point
- Planned Interchange
- ASP Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

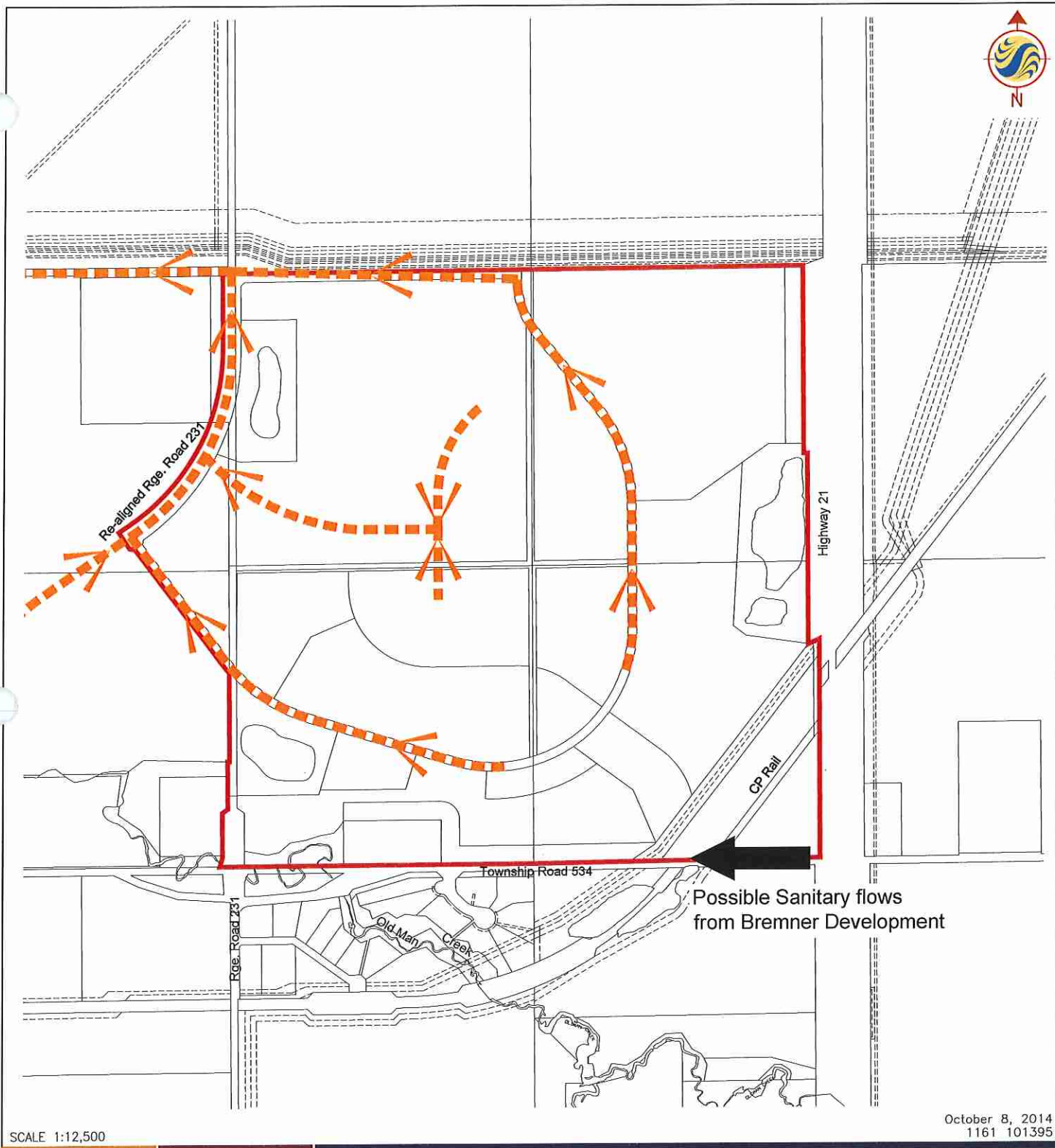
8.0

Title

**TRANSPORTATION  
PLAN**



**Stantec**



#### Legend

- Future Sanitary Main
- ASP Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

9.0

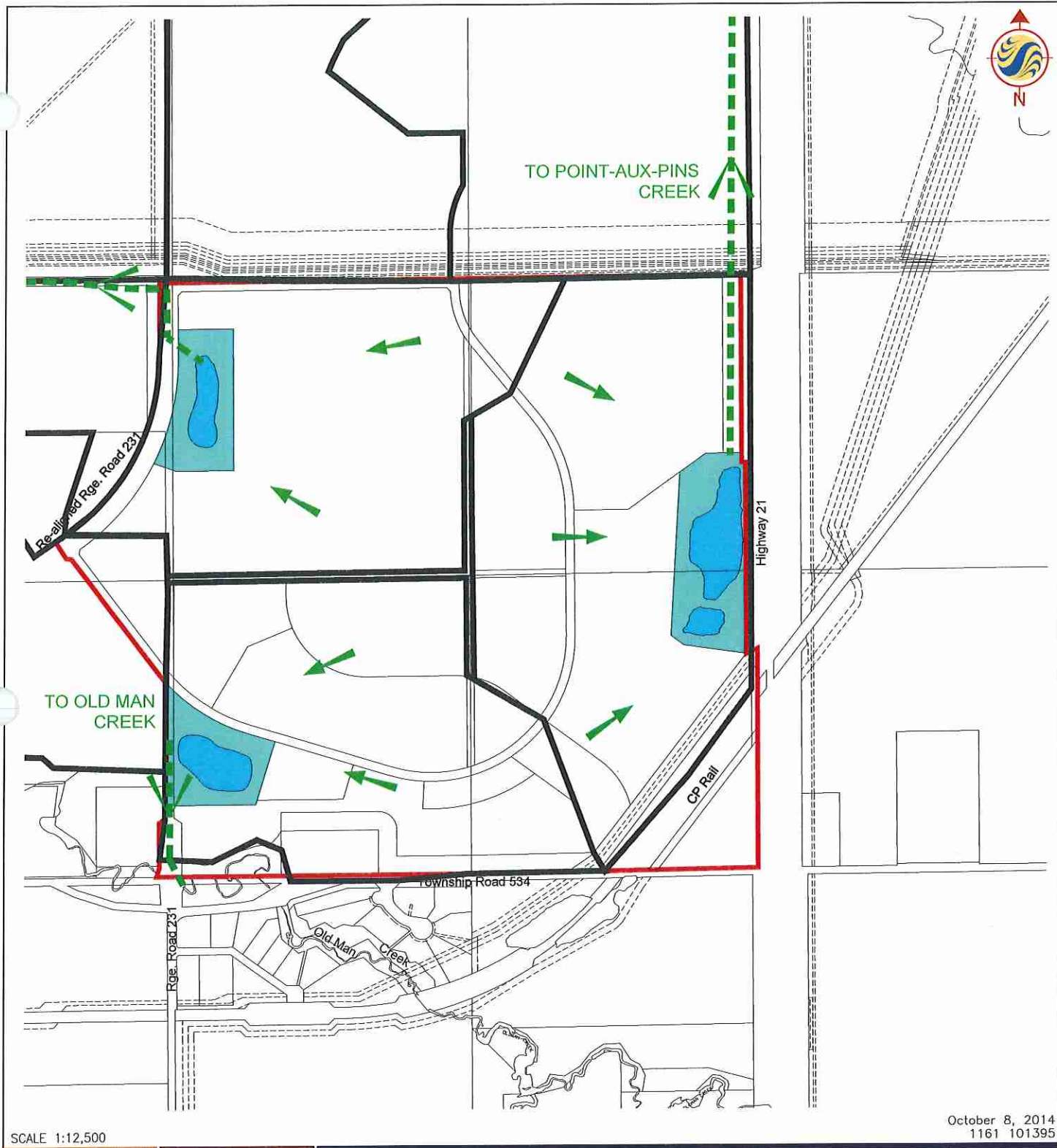
Title

SANITARY  
SERVICING PLAN



**Stantec**





#### Legend

- Storm Basin Boundary
- Storm Drainage
- Direction of Flow
- ASP Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

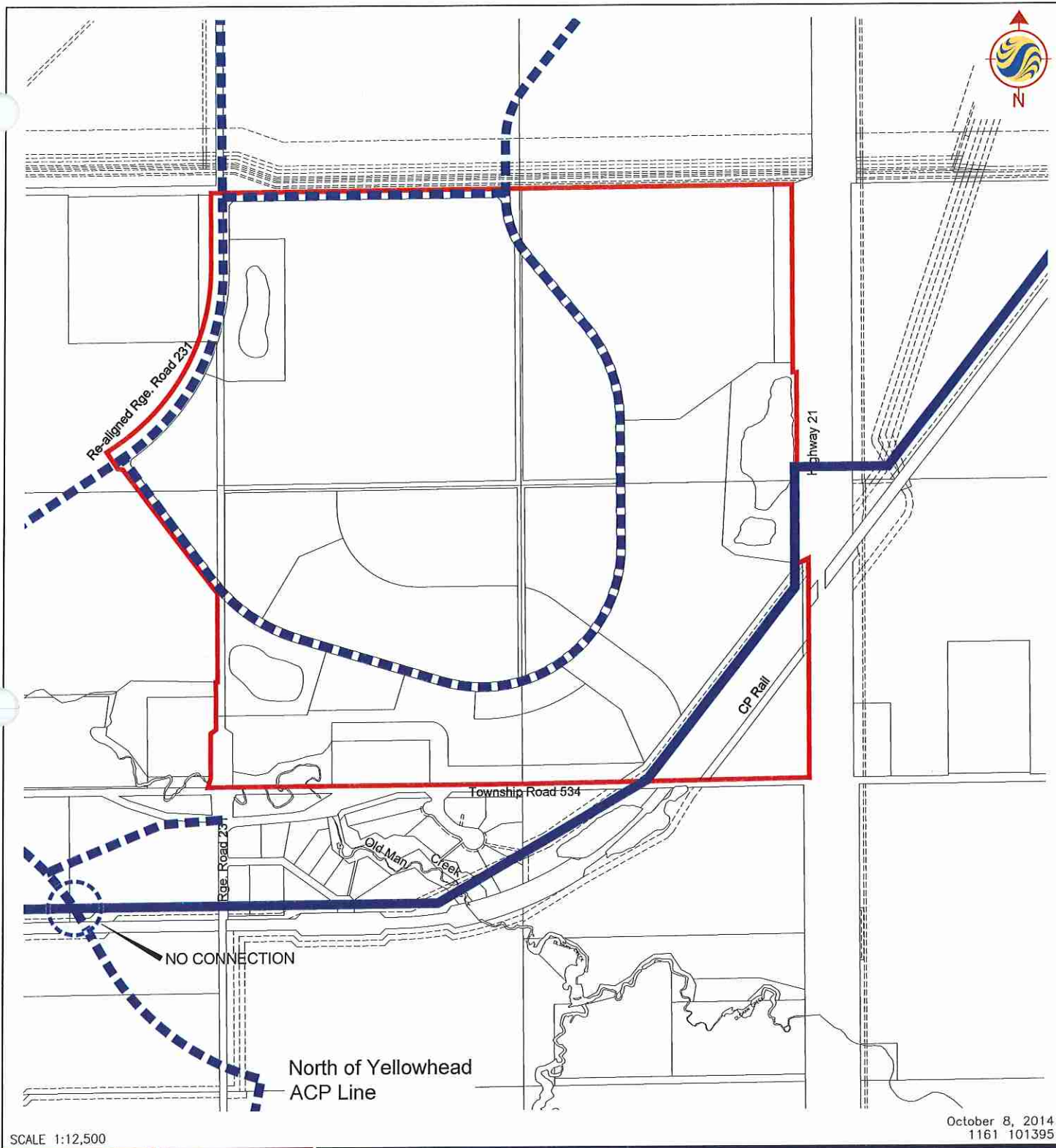
10.0

Title

**STORMWATER  
SERVICING PLAN**



**Stantec**



#### Legend

- Future Watermain
- Existing Watermain
- ASP Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

11.1

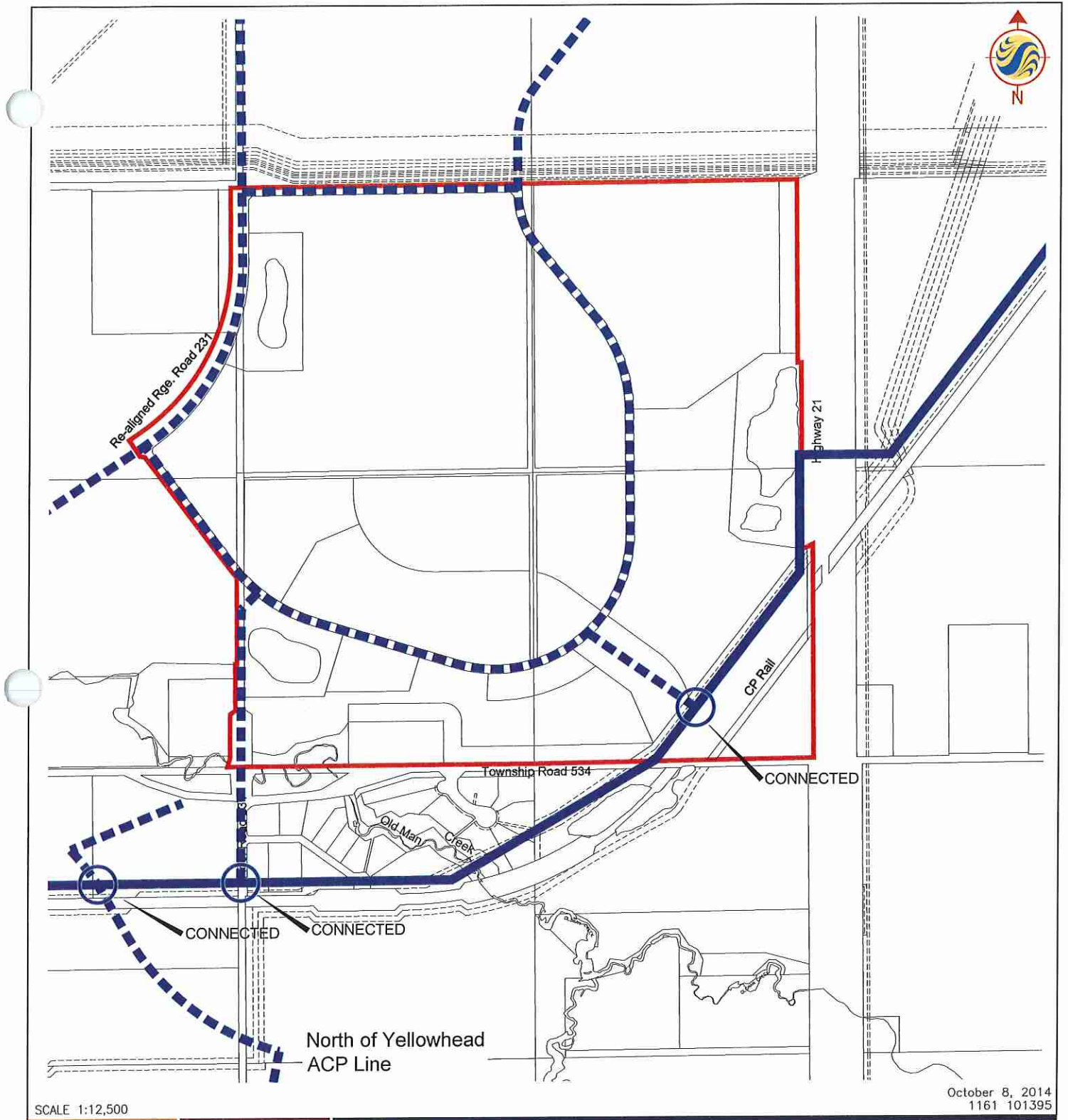
Title

**WATER SERVICING  
PLAN OPTION 1**



**Stantec**





#### Legend

- Future Watermain
- Existing Watermain
- ASP Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

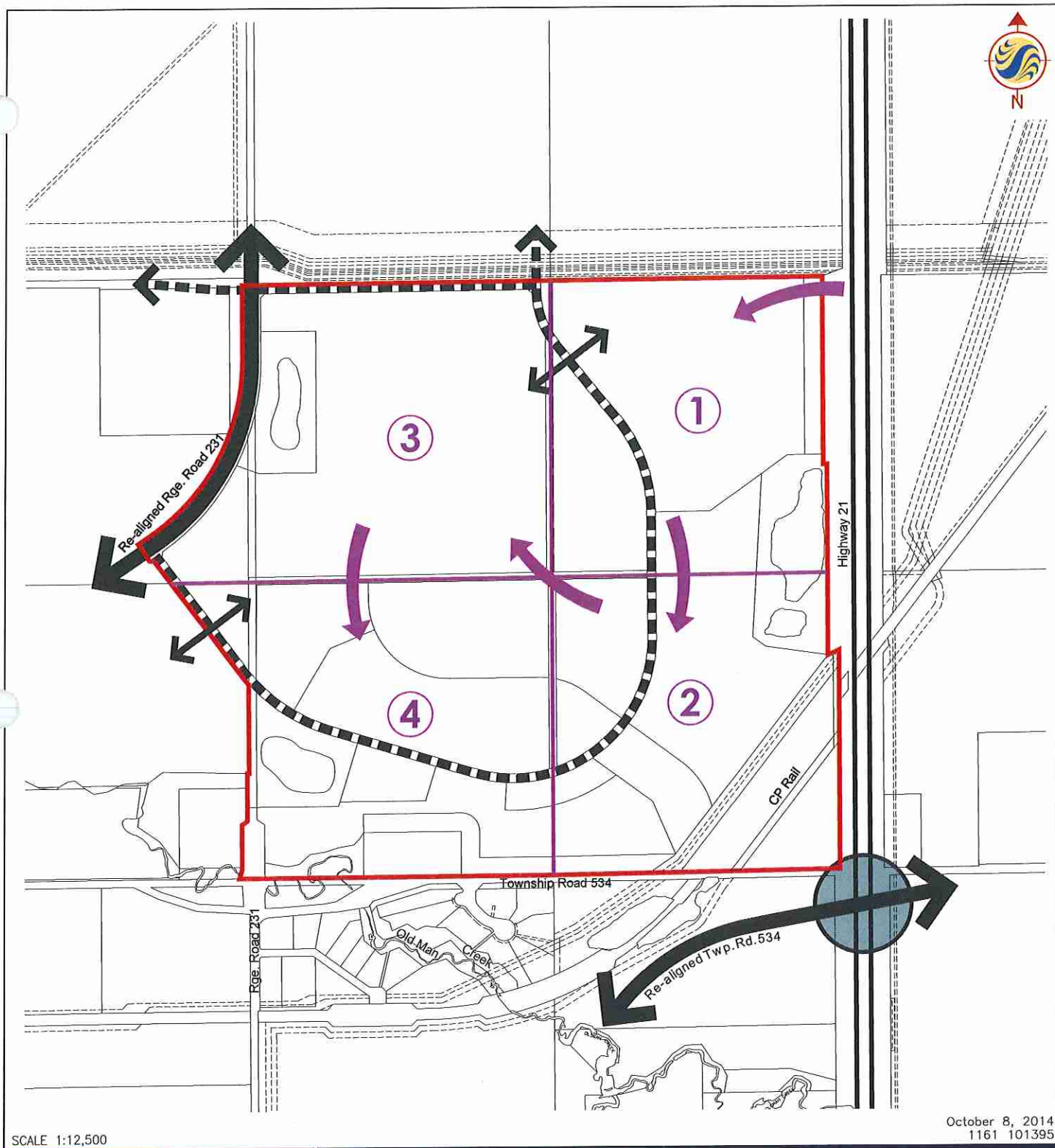
11.2

Title

**WATER SERVICING  
PLAN OPTION 2**



**Stantec**



#### Legend

- Development Staging Boundary
- ASP Boundary

Client/Project

STRATHCONA COUNTY  
HORIZONS NORTH  
AREA STRUCTURE PLAN

Figure No.

12.0

Title

STAGING PLAN



**Stantec**



## Appendix I - Development Statistics

	Area (ha)	% of GDA
<b>Gross Area</b>	<b>267.23</b>	
Environmental Reserve	1.67	
<b>Gross Developable Area</b>	<b>265.56</b>	<b>100%</b>
Parkland, Recreation, (Municipal Reserve)*		
Parks and Open Space	26.07	9.8%
Linear Parks (Buffer)	7.06	2.7%
Transportation Circulation		
Local Roadway	14.26	5.4%
Collector Roadway	8.68	3.3%
Infrastructure & Servicing		
Stormwater Management	22.85	8.6%
Highway 21	5.15	1.9%
Arterial Roadway	4.28	1.6%
CP Rail	6.09	2.3%
Public Utility Lot	3.88	1.5%
<b>Net Developable Area</b>	<b>167.24</b>	<b>63.0%</b>
Light Industrial	42.30	15.9%
Medium Industrial	121.70	45.8%
Existing Home site	3.24	1.2%
* Areas dedicated as Municipal and Environmental Reserve to be confirmed by legal survey.		

## Appendix II – Pipeline Information

ERCB PIPELINE INFORMATION FOR SE-25-053-23W4M

ERCB LIC/LINE #	COMPANY NAME	LICENCE DATE	FR LSD	FR SEC	FR TWP	FR RGE	FR WOF	FR FAC	TO LSD	TO SEC	TO TWP	TO RGE	TO WOF	TO FAC	LGTH (kms)	STS	SUB CODE	H2S (mol/ kmol)	OD (mm)	WT (mm)	MAT	TYPE	GRADE	MOP (kPa)	JOINTS	INTL COAT
8478 - 4	KEYERA ENERGY LTD.	FEB 17 1983	1	25	53	23	4	PL	5	30	53	22	4	PL	0.36	O	HV	0	219.1	4.78	S	Z245.5	3591	6230	W	U
8478 - 7	KEYERA ENERGY LTD.	FEB 17 1983	5	30	53	22	4	PL	1	25	53	23	4	PL	0.36	A	HV	0	219.1	3.18	S	5LX	X52	0	W	U
8478 - 8	KEYERA ENERGY LTD.	FEB 17 1983	1	25	53	23	4	PL	11	5	53	23	4	TF	10.08	O	HV	0	219.1	3.18	S	5LX	X52	6230	W	U
8588 - 1	KEYERA ENERGY LTD.	DEC 13 1976	11	5	53	23	4	TF	1	25	53	23	4	PL	10.08	O	HV	0	323.9	3.96	S	5LX	X52	4960	W	U
8588 - 3	KEYERA ENERGY LTD.	FEB 17 1983	1	25	53	23	4	PL	5	30	53	22	4	PL	0.36	O	HV	0	323.9	4.78	S	Z245.5	3591	4960	W	U
8588 - 6	KEYERA ENERGY LTD.	FEB 17 1983	1	25	53	23	4	PL	5	30	53	22	4	PL	0.36	A	HV	0	323.9	3.96	S	5LX	X52	0	W	U
8594 - 7	KEYERA ENERGY LTD.	FEB 17 1983	5	30	53	22	4	PL	1	25	53	23	4	PL	0.36	A	HV	0	406.4	4.78	S	5LX	X46	0	W	U
9570 - 7	PLAINS MIDSTREAM CANADA ULC	FEB 13 2003	5	30	53	22	4	PL	2	5	53	23	4	PT	9.8	O	HV	0	406.4	5.56	S	5L	X52	5740	W	U
13023 - 12	ERTA ETHANE DEVELOPMENT COMPANY LTD.	AUG 2 1978	14	24	53	23	4	PL	6	31	53	22	4	PL	3	O	HV	0.06	323.9	6.93	S	Z245.5	56.2	9930	W	U
14763 - 32	NOVA CHEMICALS CORPORATION	AUG 21 1996	13	24	53	23	4	PL	6	31	53	22	4	PL	3.99	O	HV	0	323.9	6.93	S	Z245.5	3862	9930	W	U
34335 - 2	SUNCOR ENERGY LOGISTICS CORPORATION	MAR 27 2000	15	31	53	22	4	PL	2	5	53	23	4	PT	13.8	O	LV	0	406.4	5.16	S	5LX	X52	7290	W	U
50483 - 2	KEYERA ENERGY LTD.	JUN 20 1980	6	31	53	22	4	PL	14	24	53	23	4	PL	3.08	O	HV	0	168.3	4.78	S	Z245.3	3172	9930	W	U
52760 - 4	KEYERA ENERGY LTD.	FEB 17 1983	1	25	53	23	4	PL	5	30	53	22	4	PL	0.36	O	HV	0	406.4	5.56	S	Z245.5	3591	4960	W	U
52760 - 6	KEYERA ENERGY LTD.	FEB 17 1983	1	25	53	23	4	PL	11	5	53	23	4	TF	10.08	O	HV	0	406.4	4.78	S	5LX	X46	4960	W	U





December 2014

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# Horizons North Area Structure Plan (ASP)