Bylaw 18905

A Bylaw to amend Bylaw 9878, as amended
the Big Lake Area Structure Plan by adopting
the Pintail Landing Neighbourhood Structure Plan

WHEREAS pursuant to the authority granted to it by the Municipal Government Act, on September 24, 1991, the Municipal Council of the City of Edmonton passed Bylaw 9878, being Big Lake Area Structure Plan; and

WHEREAS Council found it desirable to from time to time to amend Bylaw 9878, Big Lake Area Structure Plan, by adding new neighbourhoods; and

WHEREAS an application was received by City Planning to amend Big Lake Area Structure Plan by adopting the Pintail Landing Neighbourhood Structure Plan;

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

1. Bylaw 9878, as amended, being the Big Lake Area Structure Plan is hereby further amended by adding the Pintail Landing Neighbourhood Structure Plan, being:

   a. the map entitled "Bylaw 18905 - Pintail Landing Neighbourhood Structure Plan", attached hereto as Schedule "A"; and

   b. the land use and population statistics entitled “Pintail Landing Neighbourhood Structure Plan - Land Use and Population Statistics - Bylaw 18905", attached hereto as Schedule "B"; and

c. the report entitled "Pintail Landing Neighbourhood Structure Plan" attached hereto as Schedule "C" are hereby adopted as Pintail Landing Neighbourhood Structure Plan.

READ a first time this	day of	, A. D. 2019;
READ a second time this	day of	, A. D. 2019;
READ a third time this	day of	, A. D. 2019;
SIGNED and PASSED this	day of	, A. D. 2019.

THE CITY OF EDMONTON

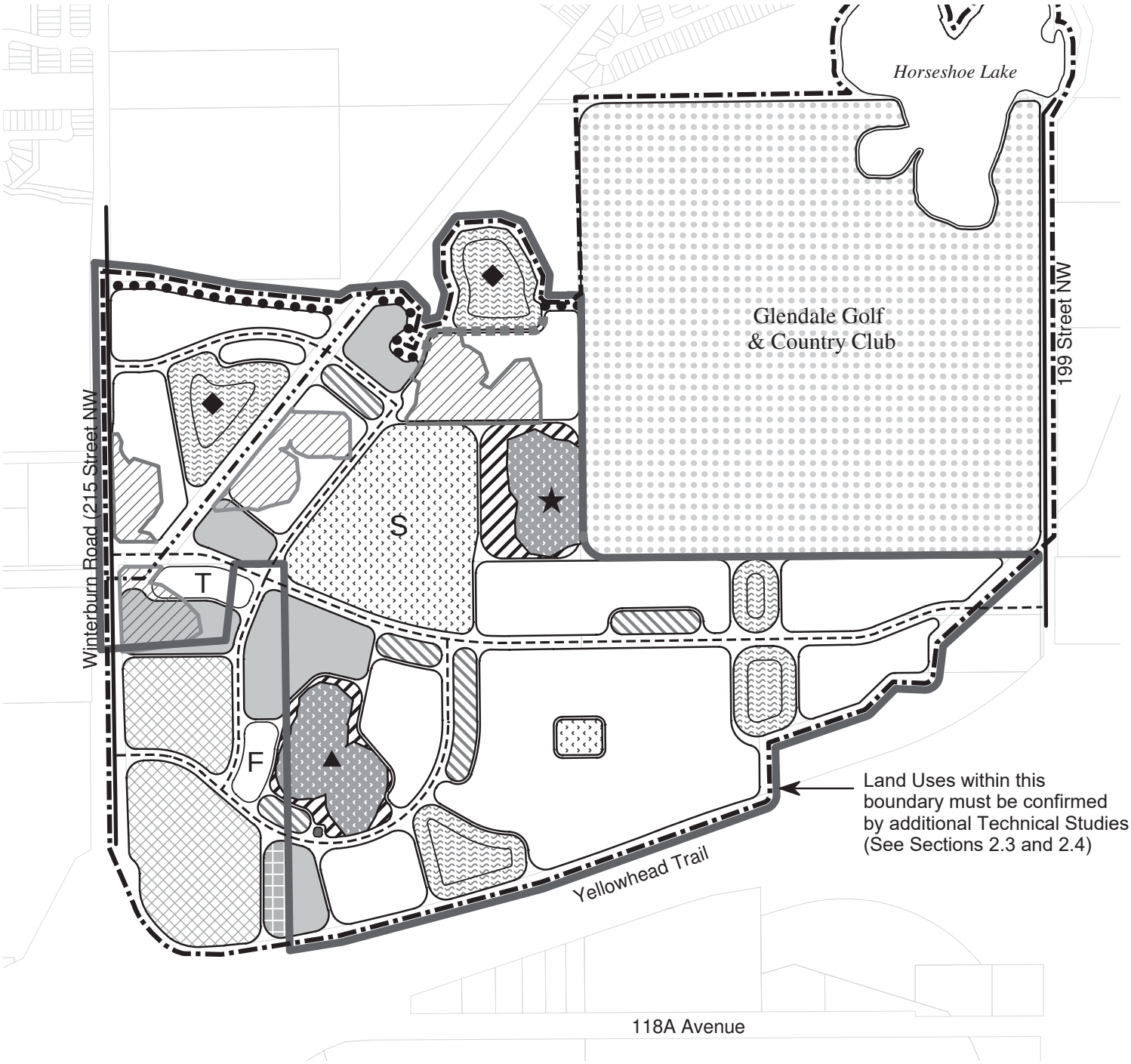
_____

MAYOR

_____

CITY CLERK

SCHEDULE "A"



BYLAW 18905
PINTAIL LANDING
Neighbourhood Structure Plan

N

Legend

- Low Density Residential
- Row Housing
- Medium Density Residential
- Medium Density / Commercial
- Commercial
- T — Transit Centre
- F — Urban Services / Fire Hall
- Stormwater Management Facility
- Public Utility
- Public Utility Line
- Existing Golf Course
- Wetland (ER)
- S — School / Park
- Pocket Park
- Natural Area (MR)
- Natural Area (ER)
- Wetland (ER)
- Natural Areas and appropriate buffers to be assessed prior to rezoning
- ◆ Wetlands in these locations may be retained or incorporated as naturalized SWMF's
- ▲ Crown Claimed Waterbody
- ★ Natural Area boundaries and classifications based on aerial imagery interpretation and may be subject to change upon further study.
- Upland Setback
- Top Of Bank Roadway
- Arterial Road
- Collector Road
- NSP Boundary
- Additional Technical Studies are Required

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

TABLE 2: LAND USE AND POPULATION STATISTICS

Pintail Landing NSP

	Area (ha)	% of GA	% of AGDA	
Gross Area	**183.3**	**100%**		
Environmental Reserve*				
Natural Area (ER)	0.0	0.0%		
Wetland ER (ER)	5.5	3.0%		
Upland Setback	0.7	0.4%		
Horseshoe Lake	9.9	5.4%		
Pipeline & Utility Right-of-Way	2.1	1.2%		
Arterial Road Right-of-Way	0.9	0.5%		
Gross Developable Area	**164.2**			
Glendale Golf Course (Existing)	61.5	33.6%		
Adjusted Gross Developable Area	**102.7**		**100%**	
Commercial	9.6		9.4%	
Urban Service - Fire Hall	0.9		0.9%	
Parkland, Recreation, School (Municipal Reserve)*				
CKC / School	9.3		9.0%	12.5%
Pocket Park / Greenway	0.5		0.5%	
Natural Area	3.1		3.0%	
Transportation				
Circulation	20.5		20.0%	
Transit Centre	1.0		0.9%	
Infrastructure & Servicing				
Stormwater Management	10.9		10.6%	
Total Non-Residential Area	**55.7**		**54.3%**	
Net Residential Area (NRA)	**46.9**		**45.7%**	

RESIDENTIAL LAND USE, DWELLING UNIT COUNT AND POPULATION

Land Use	Area (ha)	Units/ha	Units	People/Unit	Population	% of NRA
Low Density Residential	34.4	25	861	2.8	2,411	73%
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SUSTAINABILITY MEASURES

Population Per Net Residential Hectare (p/nrha)	92
Dwelling Units Per Net Residential Hectare (du/nrha)	39
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Population (%) within 500m of Parkland	100
Population (%) within 400m of Transit Service	100
Population (%) within 600m of Commercial Service	91

STUDENT GENERATION STATISTICS

Level	Public	Separate
Elementary	205	103
Junior High School	103	51
Senior High School	103	51
Total	**411**	**205**

* Areas dedicated as Municipal and Environmental Reserve to be confirmed by legal survey. Additional Natural Area features on non-participating lands will be assessed prior to rezoning, and will required additional technical studies

**The Medium Density Residential / Commercial has been accommodated for within the residential land use statistics. Should the site be developed for commercial purposes, the net residential area would decrease by 0.77 ha.

PINTAIL LANDING

NEIGHBOURHOOD STRUCTURE PLAN

Prepared for:

Rohit GROUP OF COMPANIES

Prepared by:

Stantec

CONTENTS

FIGURES

TABLES

1 ADMINISTRATION

1.1 PURPOSE

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

This Neighbourhood Structure Plan describes:

- The general pattern of development and subdivision;
- The location, configuration, and size of various land uses, including residential, commercial, parks and open spaces, and public utility land uses;
- The anticipated density of residential development;
- The pattern and alignment of the arterial and collector roadway and pedestrian walkway systems; and,
- Servicing concepts.

1.2 AUTHORITY

The Pintail Landing NSP was adopted by Edmonton City Council in accordance with Section 633 of the *Municipal Government Act*.

1.3 TIMEFRAME

Development in Pintail Landing may commence in 2020 and is estimated, at current absorption rates, to be complete within 15 to 20 years.

1.4 INTERPRETATION

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

1.5 AMENDMENT

Policies, text and mapping information contained within the Pintail Landing NSP 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 Pintail Landing NSP shall be in accordance with the Municipal Government Act, the Big Lake Area Structure Plan (Bylaw 9878, as amended), and the terms of reference for the preparation and amendment of residential neighbourhood structure plans.

2 PLAN CONTEXT

2.1 LOCATION

The Pintail Landing NSP is in northwest Edmonton, south of Big Lake, and is defined by the following general boundaries (see **Figure 1: Location Plan**):

- North boundary: North edge of 18-53-25-W4
- East boundary: 199 Street NW and Anthony Henday Dr
- South boundary: Yellowhead Trail
- West boundary: Winterburn Road (215 Street NW)

2.2 BACKGROUND

The Big Lake Area Structure Plan (ASP) was approved in August 1991 through the adoption of Bylaw 9878. The ASP was previously amended in January 2008 to incorporate a new concept for Trumpeter, in August 2010 to incorporate a new concept for Starling, in September 2010 to incorporate a new concept for Hawks Ridge, and in September 2016 to incorporate a new concept for Kinglet Gardens.

2.3 LAND OWNERSHIP

The Pintail Landing NSP was initiated in 2012. Landowners were invited to participate in the neighbourhood planning process initially and on numerous occasions as late as the end of 2016, when the process resumed. As of 2017, the Rohit Group is the sole plan proponent and participating landowner of this NSP. Lands belonging to participants correspond to the initial staging of development within the Plan area. Land ownership is shown in **Table 1: Land Ownership** and **Figure 3: Land Ownership**.

TABLE 1: LAND OWNERSHIP

	Landowner	Legal Description	Titled Area (ha)
1	Private Non-Corporate*	NW 1/4 SEC. 18-53-25-4	40.63***
2	Private Non-Corporate*	Lot A, Plan 874NY	2.77
3	City of Edmonton*	Lot R, Plan 874NY	0.90
4	Private Non-Corporate*	Lot 1, Plan 8721705	2.69
5	Private Corporate	SW 1/4 SEC. 18-53-25-4	15.67
6	Private Corporate *	Plan 2648MC (Powerline ROW)	1.09
7	Private Corporate*	Plan 2648MC (Powerline ROW)	2.60
8	Private Non-Corporate*	Lot B, Plan 874NY	5.13
9	Private Corporate* **	Parcel (A), Plan 1047KS	30.74
10	Private Corporate*	NE 1/4 SEC. 18-53-25-4	61.53
11	Private Corporate*	Lot A, Plan 6110KS	7.04
12	Private Corporate*	Lot B, Plan 6110KS	6.19
13	Private Corporate*	SE 1/4 SEC. 18-53-25-4	1.57
14	Private Corporate*	Lot D, Block 1, Plan 0224659	8.19
			186.74

* Denotes a non-participating landowner
** Contains a Crown claimed wetland that will be surveyed prior to rezoning
*** Approximately 12.7 ha falls within the North Saskatchewan River Valley ARP

2.4 NON-PARTICIPATING LANDS REQUIRING FURTHER STUDY

Most of the lands within the NSP area are not under the ownership of the plan proponent. The current owners of these lands have expressed no willingness to participate in the planning process, nor to allow access for survey and study. Technical studies will be required for all non-participating landowners prior to rezoning, to the satisfaction of the City of Edmonton.

Technical studies include, but are not limited to:

- environmental site assessment,
- geotechnical assessment,
- ecological network reports,
- natural area water sustainability assessment,
- natural area management plan,
- transportation impact assessment,
- hydraulic network analysis,
- neighbourhood design report,
- outfall location study,
- historical resource report,
- historical resources impact assessment,
- wetland assessment,
- top of bank (TOB) survey,
- urban development line (UDL) survey,
- slope stability assessment, and
- parkland impact assessment and community knowledge campus needs assessment.

Future amendments to the Big Lake ASP and Pintail Landing NSP may be required.

Staging of development and design of the Pintail Landing neighbourhood must accommodate the requirement for all parcels to have adequate legal access.

2.5 SITE CONTEXT

2.5.1 EXISTING LAND USES

Existing land uses within the Plan area include the Glendale Golf and Country Club, Dragons Head Golf Club, and several rural residential uses. Most of the plan area has historically been used for farming and is still under cultivation. Existing land uses adjacent to the plan area include the Trumpeter neighbourhood to the north, the Kinglet Gardens neighbourhood to the west, 199 Street and the Anthony Henday Drive to the east, and Yellowhead Trail to the south. The Glendale Golf and Country Club has advised that they have no plans for redevelopment at this time and therefore the lands have been designated as existing golf course in the plan. A utility right-of-way (ROW) runs diagonally from the western midpoint of the neighbourhood to the northern midpoint. Existing uses are illustrated in Figure 4: Site Features.

2.5.2 NATURAL AREAS AND ECOLOGICAL RESOURCES

Pintail Landing is adjacent to a portion of the North Saskatchewan River Valley ravine system, which is in the northern portion of the plan area and consisting of the Big Lake Natural Area. This portion of the North Saskatchewan ravine system contains Horseshoe Lake, a permanent body of water claimed by the Province of Alberta under the *Public Lands Act*. A crown claimed wetland is also located in the southwest portion of the plan.

A top-of-bank walk was not completed for the southern boundary, bordering the Big Lake Natural Area, as it is owned by non-participating landowners and access was not granted. Per Policy C542, a top-of-bank walk will be required to be completed with City administration and participating landowners to determine an agreed upon top-of-bank along the Big Lake Natural Area prior to rezoning.

A large portion of the area has been cleared of natural vegetation and cultivated for agricultural purposes, however a number of small to moderate tree stands and wetlands are present within Pintail Landing, with visible vegetation coverage increasing nearing the Big Lake Natural Area (see **Figure 4: Site Features**).

Outfalling from SWMFs into the North Saskatchewan River Valley area must adhere to the recommendations provided within the Natural Area Water Sustainability Assessment, Neighbourhoods 4 & 5, Big Lake (Golder, July 8, 2016) and the terms of reference for the development of Environmental Impact Assessments as per Bylaw 7188.

2.5.3 EXISTING TRANSPORTATION NETWORK

The existing Yellowhead Trail (Highway 16) borders the area to the south, with the right-of-way for Winterburn Road (215 Street) extending north from the Yellowhead along the west side of Pintail Landing. Anthony Henday Drive is located immediately east of Pintail Landing.

Access to Pintail Landing will primarily be provided via multiple collector roadway accesses from Winterburn Road (215 Street) as well as from 199 Street. Winterburn Road (215 Street) has been upgraded to a 2-lane arterial standard and will be further widened as development proceeds. 199 Street will be upgraded to a collector roadway standard. Currently, a service road north of the Yellowhead Trail provides access to parcels along the southern boundary. With future development of the neighbourhood, and as these parcels are provided alternate access internal to the neighbourhood, the service road will be removed.

2.5.4 TOPOGRAPHY

The topography of the lands in Pintail Landing is gently rolling with several small seasonal low wet areas, overall sloping toward the north with elevations steadily decreasing near the Big Lake Natural Area and Horseshoe Lake. Elevations throughout the Plan area vary and are shown in **Figure 5: Site Contours**.

The surficial geology of the subject site indicates that the area consists of glaciolacustrine sands, silts and clays associated with historic Glacial Lake Edmonton underlain by mainly fine sand and silt. This fine sand and silt is further underlain by ice-shoved blocks of bedrock, noted to be approximately 30 m below (J.R. Paine & Associates Ltd., 2012).

2.5.5 Energy and Natural Resources

A review of Alberta Energy Regulator (AER) pipeline and oil well information available through the Abadata website indicates that there are several facilities within the Pintail Landing neighbourhood.

Within the Pintail Landing neighbourhood, three (3) abandoned well sites have been identified. Where possible, abandoned wells will be located within public utility lots or road rights of way. In addition, a pipeline utility corridor intersects the northwest portion of the neighbourhood. This utility corridor contains a 114 mm high pressure natural gas pipeline and active overhead power lines (240 kV). For additional information regarding known pipeline and well sites, refer to **Appendix A.**

2.5.6 Historical Resources

A Statement of Justification for *Historical Resources Act* Requirements in support of the Pintail Landing NSP for lands under the ownership of the plan proponent has been completed (SW 1/4 SEC. 18-53-25-4). Non-participating landowners will be required to submit a Statement of Justification for their respective parcels prior to rezoning. The preservation, conservation and integration of cultural, historical and/or archaeological resources within Pintail Landing is important to retaining local history and character that may also be of regional or provincial significance.

2.5.7 Environmental Overview

An Environmental Overview was completed to identify areas of potential concern that may require further studies at the time of rezoning or subdivision (Stantec, 2018). The study identified three historical oil wells that should be further investigated, and several water wells that should be decommissioned if encountered. Farm properties and the golf course should be further investigated with regard to chemicals and fuels, and equipment stored on site. In addition, several soil piles were present on site, and should be investigated.

Phase I Environmental Site Assessments will be required prior to rezoning.

2.6 Public Involvement

In 2012, a private corporation initiated the Pintail Landing NSP on behalf of land owners within the plan area. Following preliminary discussions with city administration, an official NSP application was made to Sustainable Development in February of 2013. All affected landowners and Community leagues in the area have been notified in accordance with the City of Edmonton's policies and application requirements for new neighbourhood plans and have advised that they do not wish to participate in the NSP process at this time.

2.6.1 Advance Notification

Consistent with Policy C513, the City of Edmonton's Public Involvement Policy, the City of Edmonton sent advance notification to surrounding property owners and residents on July 19, 2017 and May 28, 2019 advising them of the application and encouraging them to contact either the City Planning or the applicant for further questions or to communicate any possible concerns.

2.6.2 Public Meeting

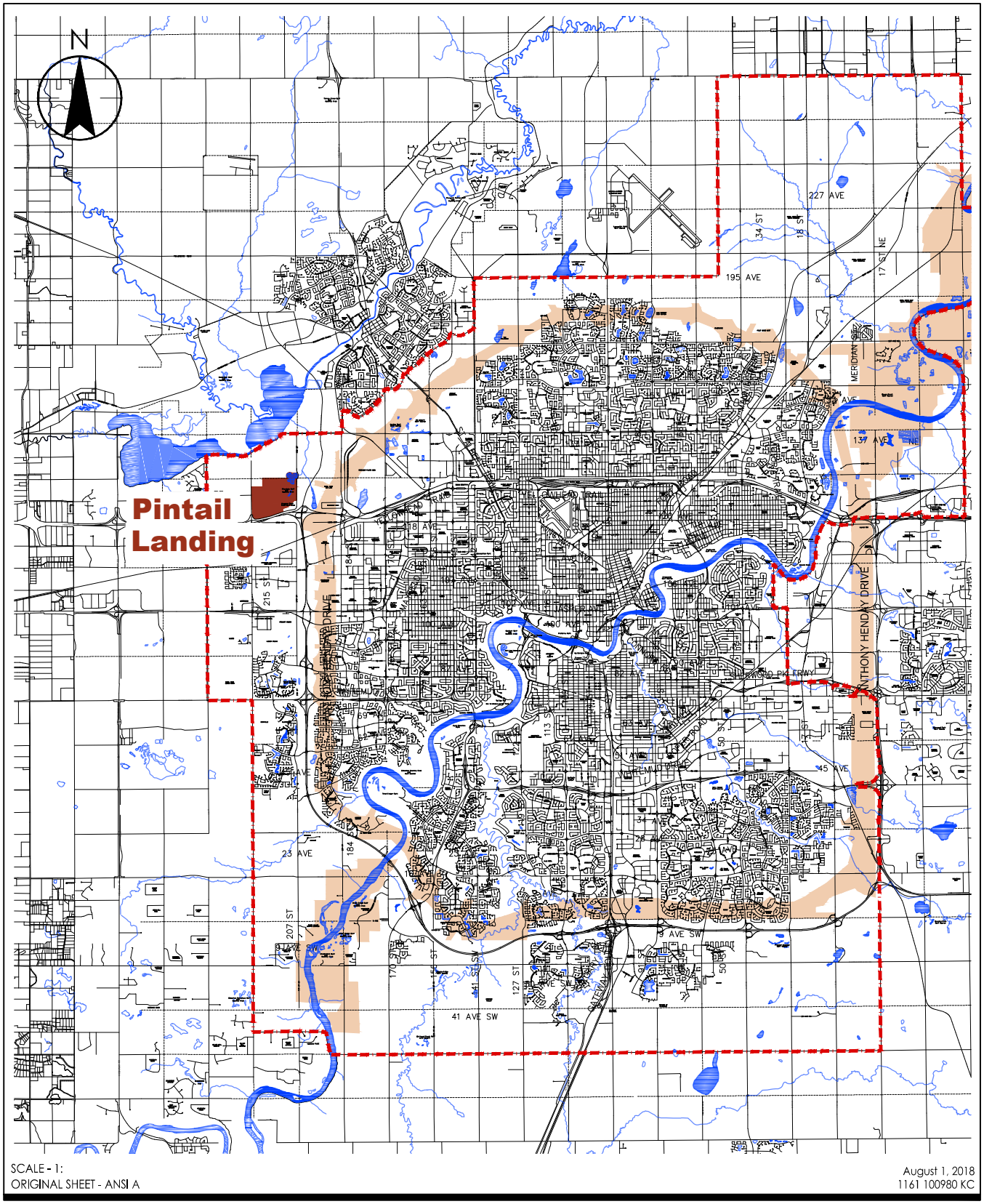
A public meeting was hosted by City Planning to review the draft plan on October 14, 2014. Mailed notification letters were sent to landowners in and surrounding the NSP area advising of these meetings. The purpose of the meeting was to provide an update on the proposed Plan and the planning process followed to date, and to hear

from attendees regarding their questions, comments and concerns. All feedback received at the public meetings was summarized in administration's report to City Council.

2.6.3 PUBLIC HEARING

In accordance with the MGA, a public hearing was held to hear representations made by parties affected by the proposed bylaw and to receive approval by Council.

Landowners were notified of the Public Hearing and were given the opportunity to provide written comments or register to speak at Council.



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ORIGINAL SHEET - ANSI A

August 1, 2018
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Stantec

10160-112 Street
Edmonton, AB T5K 2L6
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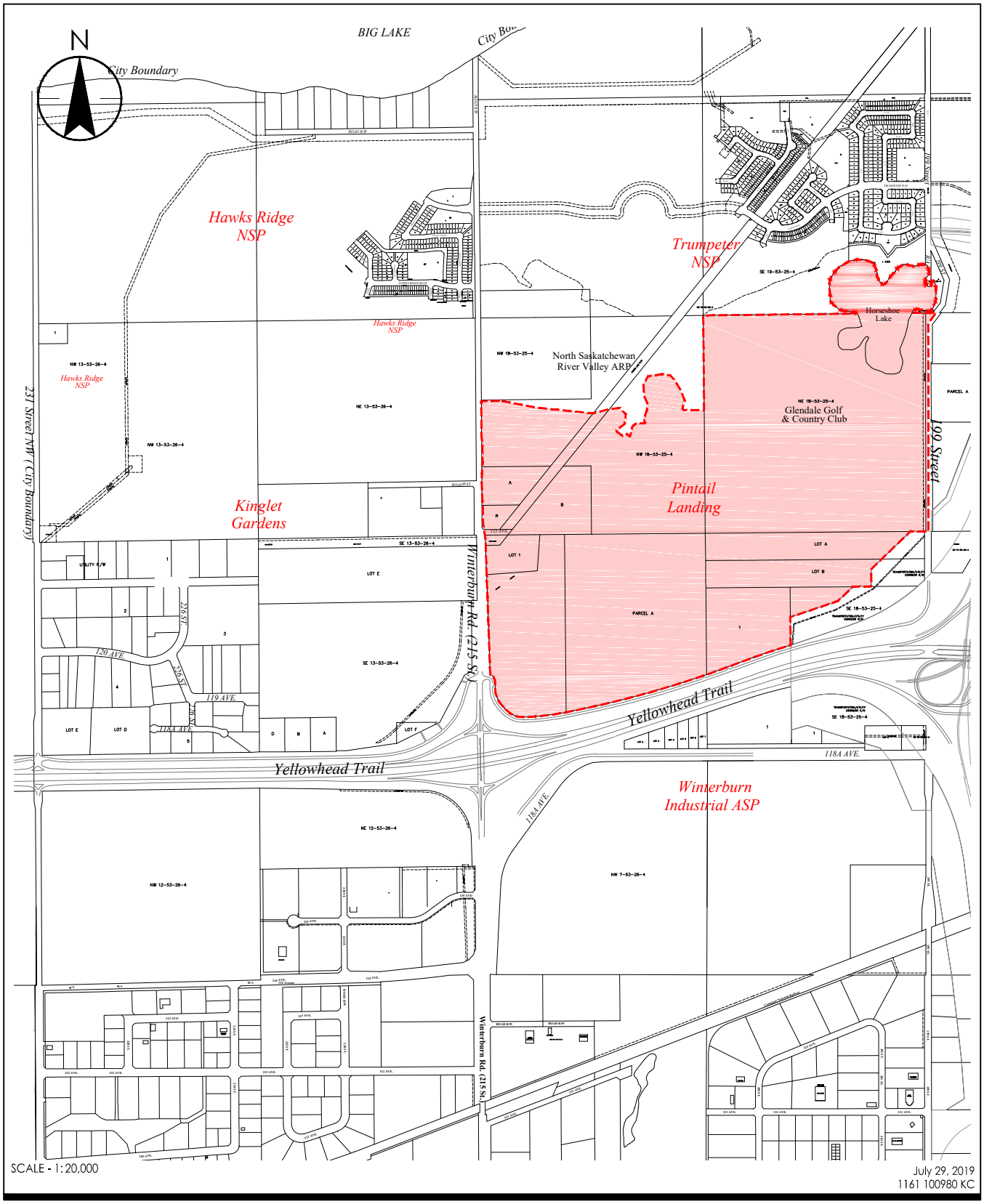
Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
1.0

Title
Location Plan



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Legend

NSP Area

NSP Boundary

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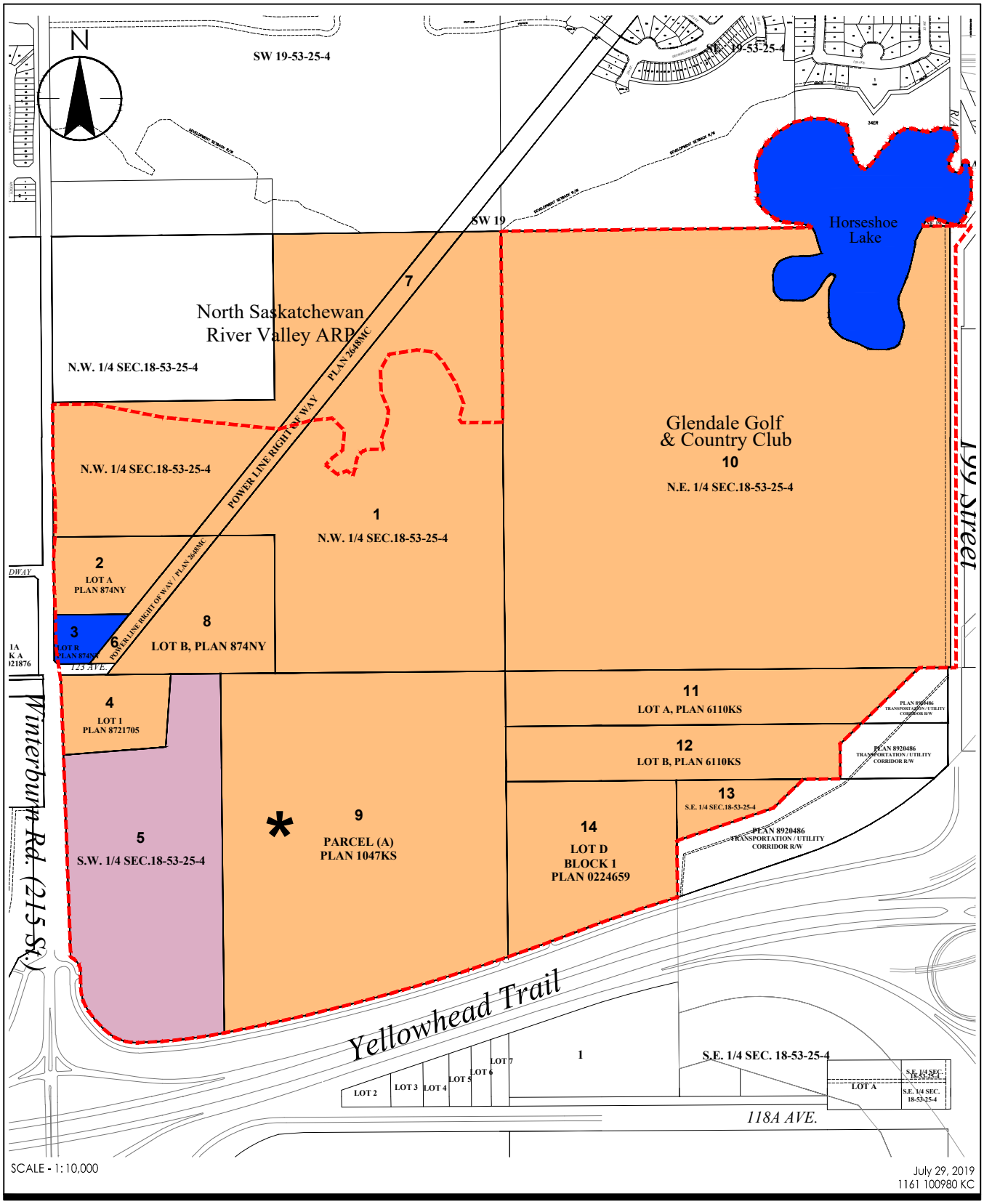
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
2.0

Title
Context Plan



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Legend

- Participating Landowners
- Non-participating Landowners
- Municipal / Provincial
- ✱ Contains Crown Claimed Wetland
- NSP Boundary

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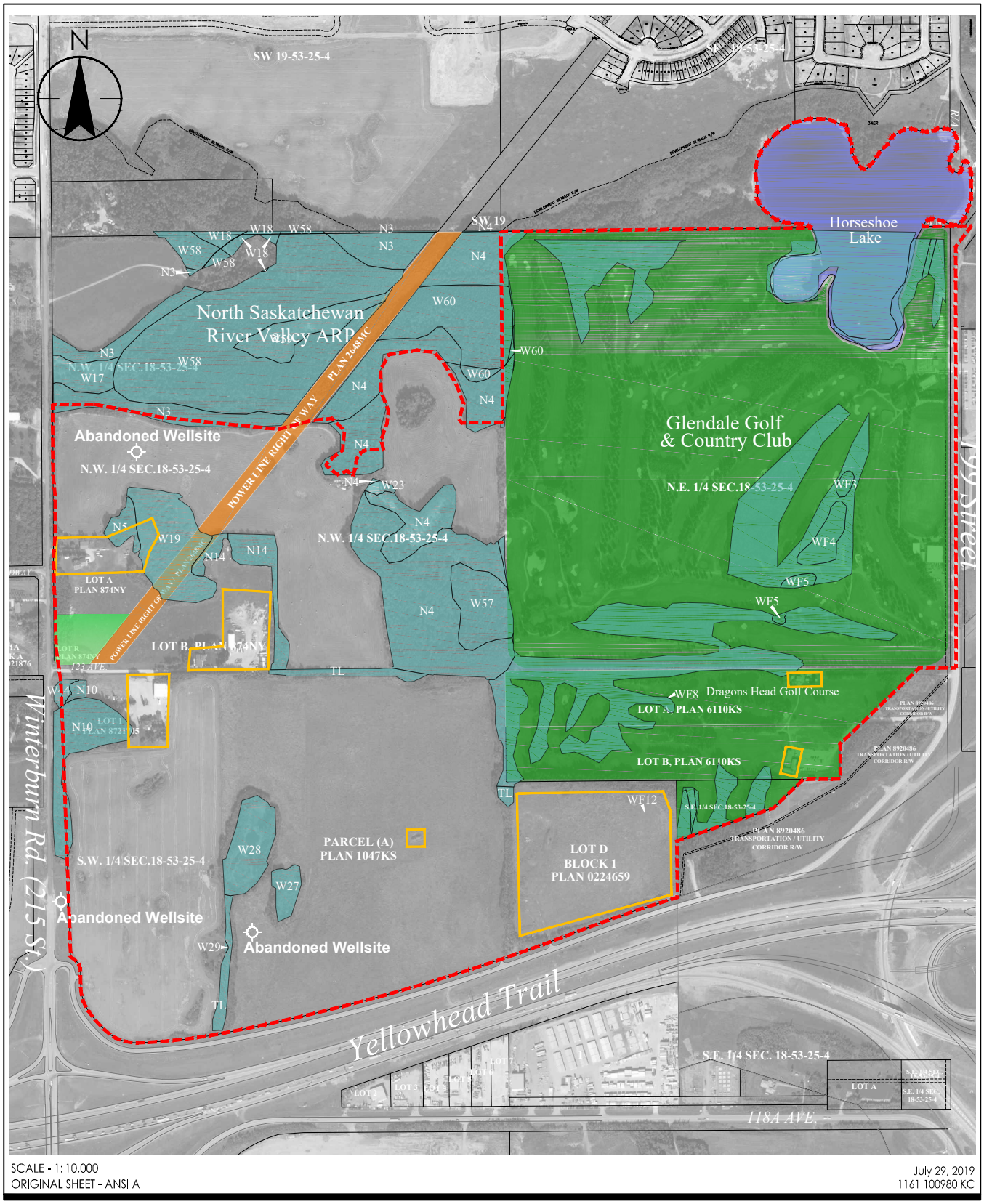
Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
3.0

Title
Ownership Plan



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July 29, 2019
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Legend

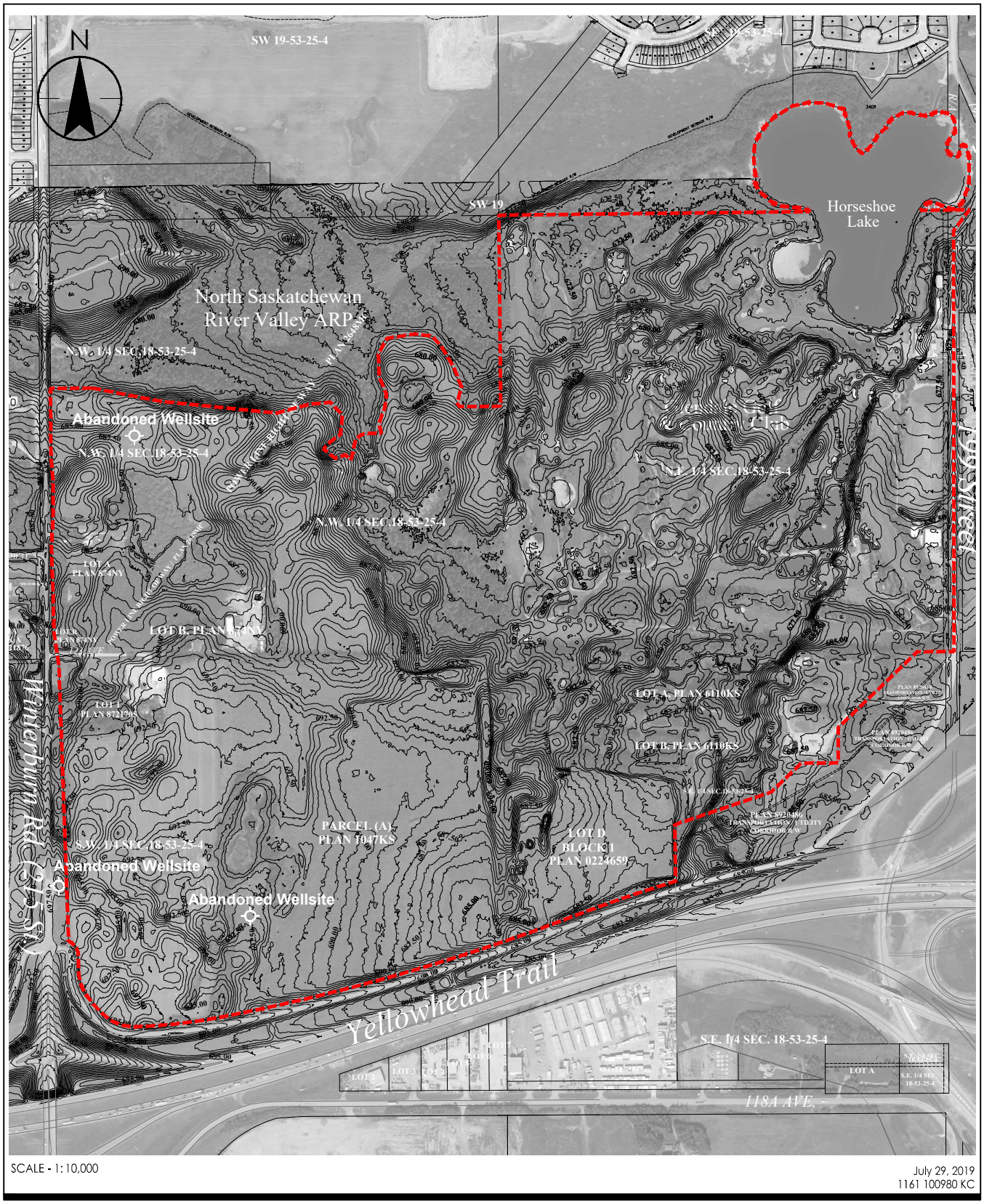
- Existing Natural Feature
- Existing Park
- Existing Powerline
- Further investigation may be required (See Environmental Overview)
- Abandoned Wellsite (Approximate location)
- NSP Boundary

all natural features based on ENR

Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
4.0

Title
Site Features



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Stantec

Legend

Abandoned Wellsite (Approximate location)

NSP Boundary

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ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.

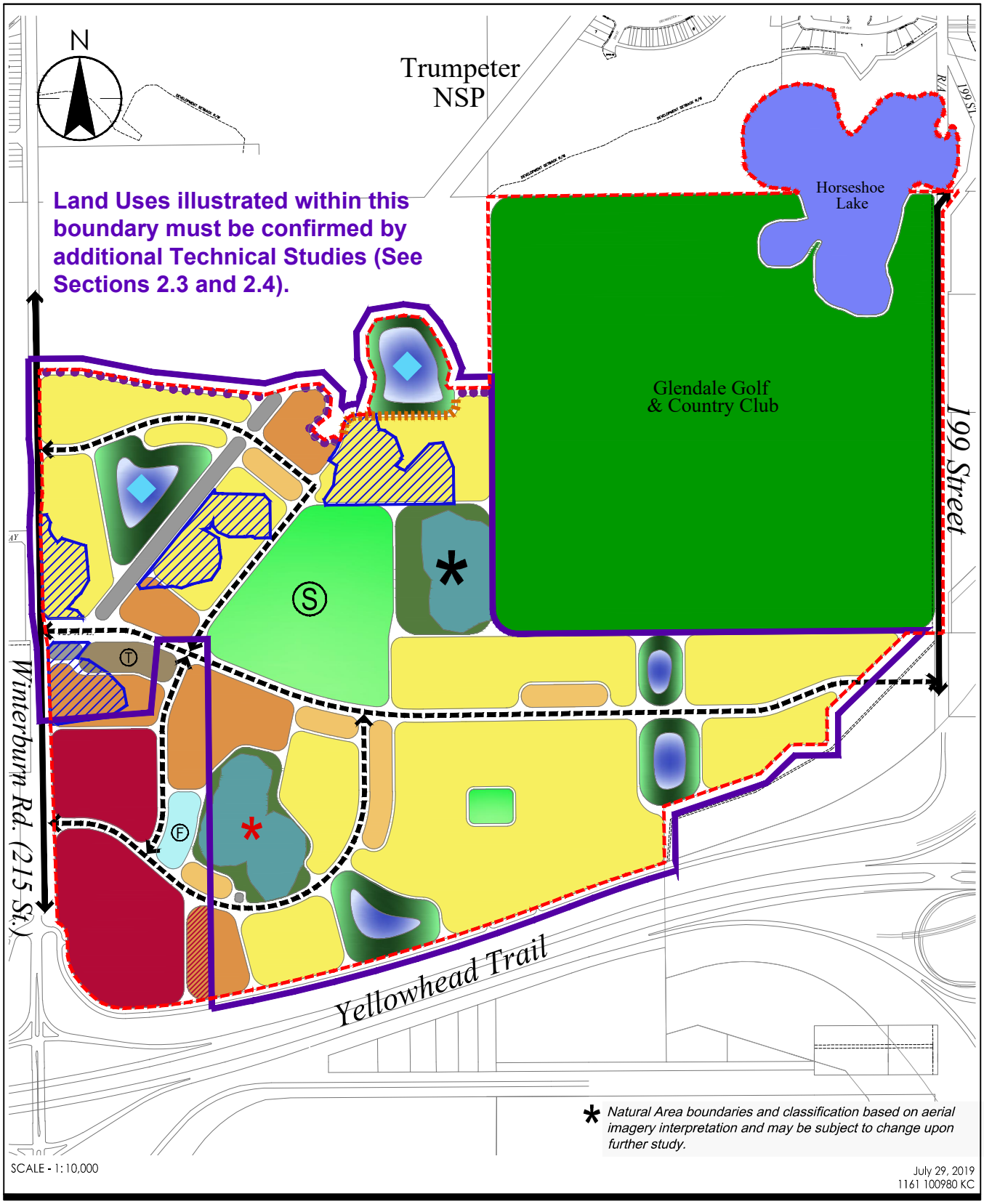
5.0

Title

Site Contours

3 LAND USE, TRANSPORTATION, AND SERVICING

3.1 LAND USE CONCEPT AND LAND USE AND POPULATION STATISTICS



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Legend

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Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
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Figure No.
6.0

Title
Land-Use Concept

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**The Medium Density Residential / Commercial has been accommodated for within the residential land use statistics. Should the site be developed for commercial purposes, the net residential area would decrease by 0.77 ha.

3.2 Vision

The neighbourhood promotes connectivity and walkability by offering a pedestrian friendly environment that integrates natural areas, parks, stormwater management facilities and utility corridors to provide open spaces and recreational opportunities. A compact, street-oriented transit centre provides access to a pedestrian friendly activity node containing a mix of land uses and providing employment and everyday needs. Pintail Landing is designed to foster principles of a healthy and vibrant community that embraces its natural features and integrates them into the neighbourhood.

3.3 Goals and Objectives

The Pintail Landing NSP has been prepared in accordance with the policies and principles expressed in the Edmonton Metropolitan Region Growth Plan (EMRGP), The Way We Grow, The Way We Move, The Way We Green, and the Big Lake ASP. The overall goals of the Pintail Landing NSP are to establish a neighbourhood that:

- Promotes sustainable environmental stewardship and preservation of natural features;
- Creates a unique neighbourhood identity through good urban design principles that also address year-round weather conditions;
- Provides a variety of residential uses for a range of age groups and economic levels;
- Supports a balance of retail and employment uses for the neighbourhood and surrounding communities;
- Emphasizes public open space which are safe and encourages community interaction;
- Encourages opportunities for active and passive recreational activities;
- Achieves a balanced transportation system that provides connectivity to neighbourhood focal points and integrates an efficient transit system; and
- Achieves a compact, walkable transit-oriented urban form around the community transit centre.

The following plan objectives were developed to assist in achieving the above noted goals:

Green Development

1. Ensure a compact, integrated urban form that uses the land resources responsibly and efficiently.
2. Consider sustainable development principles, including alternative development standards such as Low Impact Development (LID), in the planning and design of the neighbourhood.
3. Encourage naturalized landscaping on public and private lands to maximize environmental benefits and minimize costs associated with development and maintenance.
4. Utilize LID principles for the design of the stormwater management system, including bioswales and naturalized wetlands.

Urban Design

1. Promote residential streets that are pedestrian friendly, promote safe travel and are an integral and attractive component of the neighbourhood.
2. Ensure that a transition is provided between higher and lower intensity uses.
3. Develop public spaces and stormwater management facilities which are visually and physically accessible, safe and aesthetically pleasing.

4. Create a sense of natural surveillance and occupancy where public and private space interface.
5. Emphasize natural areas, and the school/park site as key focal points within the neighbourhood.
6. Ensure neighbourhood design accommodates all-season weather conditions.
7. Design streets and land uses within the ETS standard walking distance of the transit centre to create a transit-oriented, walkable community around the transit centre.

Ecology

1. Preserve and protect the Big Lake Natural Area, Horseshoe Lake, North Saskatchewan River Valley and Ravine system, and other naturally significant areas.
2. Strengthen Edmonton's ecological network.

Site Conditions

1. Ensure that the environmental status of lands is suitable for development.
2. Ensure development is appropriately integrated with oil and gas well sites to minimize potential environmental hazards and disruption of adjacent development.

Historical Resources

1. Ensure that historical, archaeological, and paleontological resources are identified, conserved, and incorporated where applicable.

Residential

1. Residential densities will be consistent with the requirements of the EMRGP.
2. Provide a variety of housing typologies that cater to a range of income, demographic and household types.
3. Locate higher density housing development to utilize arterial and/or collector roadways, public transit service or neighbourhood amenities.
4. To develop a walkable residential community with a mix of neighbourhood uses.
5. Ensure residential development within the ETS standard walking distance of the transit centre be developed as part of a transit-oriented, walkable community.

Parkland and Schools

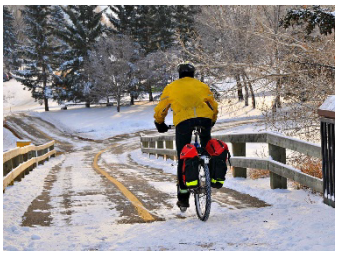
1. Accommodate the City requirements for school and community park sites within the neighbourhood.
2. Establish a pedestrian circulation system of parks, walkways and open spaces that are accessible and connected to each other.
3. Provide school/park sites that are accessible, safe and appropriately serviced for program requirements.

Commercial

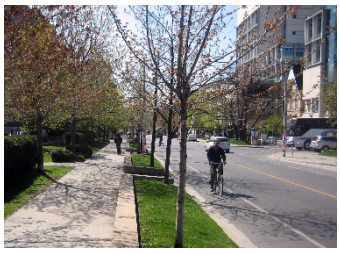
1. Provide neighbourhood commercial opportunities to satisfy the needs of residents and provide local employment opportunities within the neighbourhood.
2. Locate and orient commercial sites along arterial and/or collector roadways to ensure high visibility and convenient access opportunities. Consider additional commercial opportunities that are located away from major roadways to facilitate pedestrian-oriented design.
3. Encourage convenient pedestrian access to commercial development so that residents have opportunity to walk to commercial services.
4. Ensure commercial development within ETS standard walking distance of the transit centre be developed as part of a transit-oriented, walkable community.

Transportation

1. Provide an efficient, safe and logical transportation system within the Plan area to address pedestrian and vehicular transportation and public transit demands of the residents.
2. Maximize transit access to the greatest number of residents in accordance with City of Edmonton Transit System Guidelines and demands.



3. Provide noise attenuation where residential uses back or flank onto major transportation corridors.
4. Ensure that the cost of arterial roadways is shared throughout the Big Lake catchment area.
5. Promote connectivity and multi-modal access to neighbourhood amenity areas such as park, natural area, open spaces, the transit centre, commercial uses, and institutional uses by providing a comprehensive alternate mode circulation network.



6. Ensure neighbourhood design accommodates year-round weather conditions.
7. Apply complete streets principles in roadway designs to accommodate and encourage all modes of transportation.

Infrastructure, Servicing, and Staging

1. Ensure the ongoing operation and integrity of existing pipeline and utility infrastructure.
2. Ensure that the Big Lake area is serviced to a full urban standard in an efficient and contiguous manner.

Agriculture and Food

1. Promote urban agriculture.
2. Support the use of edible plant species in landscaping of open spaces.
3. Support the development of local food infrastructure.

3.4 POLICY

3.4.1 GREEN DEVELOPMENT

Green Development is key to encourage the holistic development of the neighbourhood, with consideration for green initiatives and innovations.

Objective	NSP Policy	Implementation
3.4.1.1		
Ensure a compact, integrated urban form that uses the land resources responsibly and efficiently.	Development shall support increased densities to make more efficient use of land. The development should be walkable, conducive to bicycles and integrated with transit facilities to encourage alternatives to the automobile.	**Figure 6: Land Use Concept** and **Table 2: Land Use and Population Statistics** illustrate that the neighbourhood is planned with increased densities and designed to encourage a walkable, pedestrian-oriented environment and accessibility to transit.
3.4.1.2		
Consider sustainable development principles in the planning and design of the neighbourhood.	The Pintail Landing NSP shall consider incorporating alternative development standards such as energy efficient lighting, building techniques/technologies, on-site energy generation and alternative road construction standards.	Allow for flexibility between developers, homebuilders and the City in regulating the introduction and implementation of alternative designs, techniques and technologies that support ecological processes, cost effectiveness and environmental stewardship in the development of the neighbourhood. All alternative development standards shall be reviewed and considered for approval by the City of Edmonton.
3.4.1.3		
Encourage naturalized landscaping on public and private lands to maximize environmental benefits and minimize costs associated with development and maintenance.	The use of native plant species shall be encouraged within all open spaces and stormwater management facilities. Native species shall also be encouraged on private development as well.	Specific species for landscaping shall be determined between the developer and City Administration at the time of review of landscaping plans as part of Engineering Drawing or Development Permit review.
3.4.1.4		
Utilize LID principles for the design of the stormwater management system, including bioswales and naturalized wetlands.	Where possible, incorporate Low Impact Development Principles that promote stormwater infiltration, filtering, storage, evaporation, in addition to the detention of runoff close to its surface.	Principles of LID such as bioswales and constructed wetlands, shall be integrated, where feasible, through consultation with City administration.

Rationale

The Pintail Landing neighbourhood will be developed as a compact neighbourhood meeting the goals of the EMRGP, which promotes alternative forms of transportation and increases the efficiency of municipal services, schools, and nearby commercial development.

This plan encourages consultations with the City and affected agencies to explore the use of sustainable building and development practices, including alternative development standards (i.e. consideration of servicing techniques or infrastructure provisions that differs from current City standards), as one way of achieving sustainability. Innovative techniques that may be explored in the Pintail Landing neighbourhood include LID principles. LID refers to a collection of alternative engineering and landscape architecture strategies to manage and improve the quality of stormwater runoff in an urban environment. LID principles replace conventional stormwater management strategies with natural processes. Some potential LID strategies in Pintail Landing include:

Absorbent Landscape

Maximizing the area of absorbent landscape will help to temporarily store stormwater and allow more water to soak in over time. This can be accomplished by increasing the depth of topsoil to 200-300 mm which will help to retain a significant amount of water.

Permeable Paving

Permeable paving allows the movement of stormwater through the surface while reducing runoff by effectively trapping suspended solids and filters pollutants from the water. Examples of permeable paving include porous asphalt or concrete in low traffic areas such as parking lots as well as permeable paving stone for patios and parking lots.

Reduce Impervious Surfaces

Impervious surfaces eliminate rainwater infiltration and natural groundwater recharge. The Complete Streets Guidelines allow for the reduction of impervious surfaces in a neighbourhood by reducing local road widths.

Bioretention Area

Bioretention areas are landscaping features adapted to remove contaminants and sedimentation from stormwater runoff. Bioretention areas can be provided in a variety of locations including – parking lot islands; street medians; cul-de-sac islands, traffic circles, bump outs or rain gardens.

Naturalized Wetlands

Naturalized wetlands use soils, vegetation and hydrology to remove pollutants from storm water through increase contact time with soils and plant materials. The systems are effective in attenuating flood flows, reducing pollutant loadings, and providing wildlife habitat. As compared with conventional stormwater management systems, constructed wetlands more closely mimic the natural hydrologic cycle, allowing plants to filter pollutants from stormwater and permitting the processes of infiltration, evaporation and transpiration to occur. The systems create wildlife habitat, minimize erosion, and recharge local groundwater supplies.

Stormwater Re-use

There are many benefits to stormwater re-use to a community. Stormwater re-use not only reduces costs for a municipality, but it also conserves groundwater and decreases the amount of pollutants entering our groundwater system. Stormwater re-use can be accomplished on a lot by lot basis through the collection of rainwater (i.e. rain barrels, rain gardens, etc.).

Bioswales

Bioswales are vegetated open channels designed to attenuate and treat stormwater runoff. They act as alternatives for conveying water away from streets, downspouts, and structures. These alternatives reduce stormwater velocities, allow sediment and pollutants contained within stormwater to be filtered, as well as allow water infiltration.

Landscaping

Landscaping will also play an important part of the public realm of Pintail Landing. Scenic views of natural areas, the Glendale golf course, and Horseshoe Lake all add to the appeal of the Big Lake area. This plan encourages the use of native landscaping to enhance the streetscapes and amenity areas consistent with the adjacent landscapes to create a sense of place, as well as support for native species. Appropriate native vegetation in bioretention areas as well as floating islands also contribute to both the natural ecosystem and the aesthetics of the neighbourhood.

The Pintail Landing NSP also encourages collaboration between the City of Edmonton and community residents to investigate local opportunities in parks and open spaces to implement the City's Food and Urban Agriculture Strategy: *FRESH.*

Other sustainable building and development practices may include:

Low Impact Lighting

Light-emitting diode (LED) lighting is designed to provide directional lighting. LED lighting is designed to direct light downwards and not emit in all directions. This will both reduce light pollution as well as provide wildlife friendly lighting in areas which are near natural areas and environmental reserve.

Residential Energy Efficiency

Builders are encouraged to employ energy efficient technologies, materials and construction techniques. Examples of 'green' building programs include Built Green™, ENERGY STAR, R-2000, and LEED Canada for Homes.

On-site Energy Generation

On-site renewable energy generation, including solar and geothermal systems, can help Edmonton shift its reliance away from fossil fuels for electricity and heating.

Technical Summary
No technical requirements were identified.

3.4.2 URBAN DESIGN

The Pintail Landing neighbourhood incorporates relevant principles of urban design to establish an attractive, pedestrian-friendly environment.

Objective	NSP Policy	Implementation
3.4.2.1		
Promote residential streets that are pedestrian friendly, promote safe travel and are an integral and attractive component of the neighbourhood.	a) Streetscape design should consider symmetry, variety, massing and opportunities for innovative building and site design.	The design of local roadways and the provision of sidewalks and boulevards shall be implemented at the detailed design stage of development, to the satisfaction of the City of Edmonton City Planning. Roadway design at the rezoning, subdivision and development application stages shall consider the City of Edmonton's Complete Streets Guidelines.
	b) Wherever feasible, residential streets should provide treed boulevards, and sidewalks on each side of streets with residential development.	
3.4.2.2		
Ensure that a transition is provided between higher and lower intensity uses.	a) Promote the design of higher density residential and commercial development to provide comfortable transitions of mass and scale.	Zones such as (RA7) Low Rise Apartment Zone, (RF6) Medium Density Multiple Family Zone, (UCRH) Urban Character Row Housing Zone, (RF5) Row Housing Zone may be used as transitional land uses between commercial developments and transit facilities, and low-density residential uses.
	b) Ensure transitional land uses are located between commercial development and transit facilities, buffering low density residential development.	
3.4.2.3		
Develop public spaces and stormwater management facilities which are visually and physically accessible, safe and aesthetically pleasing.	a) Public spaces such as parks and SWMFs shall be designed to encourage passive and active recreational opportunities and shall serve the neighbourhood.	The location and configuration of the SWMFs and parks are conceptually illustrated in **Figure 7: Parks & Open Space** and may be refined at the rezoning and subdivision application stage. The design of parks, greenways, and SWMFs shall adhere to the requirements outlined in the City of Edmonton Design and Construction Standards, the Urban Parks Management Plan (UPMP) Breathe Strategy and the principles of Crime Prevention Through Environmental Design (CPTED).
	b) The neighbourhood design shall provide adequate road frontage to allow for natural surveillance and provide multiple pedestrian access points to public open space.	

3.4.2.4		
Create a sense of natural surveillance and occupancy where public and private space interface.	a) Public and Private open space should be visible, well-lit, and designed using Crime Prevention Through Environmental Design (CPTED) principles.	Development shall provide adequate street frontage abutting the natural area, parks and SWMFs to maintain and enhance view opportunities.
3.4.2.5		
Ensure neighbourhood design accommodates all season weather conditions.	(a) Encourage engaging lighting, vibrant colours, and "warm" materials in design of buildings at key locations and neighbourhood focal points.	Design and lighting of buildings and open spaces shall be considered at the development permit and engineering drawing stages.
	(b) Open space and focal points should consider design elements that respond to all seasons, such as using wind breaks and building orientation to maximize solar capture to accommodate year-round activities.	Winter Design Guidelines may inform site design and design of the public realm to encourage the use of development and public infrastructure projects year-round.
	(c) Encourage sidewalks, trails and shared use paths to accommodate both winter and summer modes of transport.	Consideration should be given to the design of open space for activities such cross country skiing, and snowshoeing in winter in addition to biking, walking, and in line skating in the summer. Alternative development standards will be reviewed by City Planning.
3.4.2.6		
Design streets and built form within ETS standard walking distance of the Transit Centre to create a transit supported, walkable community around the transit centre.	Streets and land uses within ETS standard walking distance of the transit centre shall be designed to provide a safe, convenient and attractive connection to the transit centre through a combination of shared use paths, walkways and sidewalks. Consideration shall be given to land uses which are within ETS standard walking distance of the transit centre to ensure where possible street-oriented products are provided.	Streets and land uses will conform to the City of Edmonton's Transit Oriented Guidelines for areas within ETS standard walking distance of the transit centre. At rezoning and subdivision, parcels which front onto roadways providing connections to the transit centre, shall be street oriented where possible.

Rationale

A neighbourhood's built form is important in establishing its character. It can have an impact on perceived safety and is a strong determinant of community health. Urban design also can impact pedestrian movement patterns and even human behaviour within the public realm – streets, sidewalks, parks, and other open spaces. A comfortable, human-scale and compact urban form that provides a mix of uses and housing types, connected by safe and accessible streets, will encourage residents to walk and bicycle to neighbourhood amenities, fostering a strong sense of place and reducing car dependency. Accordingly, the Pintail Landing neighbourhood is intended to consist of pedestrian-friendly streets and open spaces to connect key land uses that are focused on community destinations, such as natural areas and its Town Centre.

Designing attractive residential streetscapes by using compatible housing forms and zoning designations in proximity to each other provides a comfortable physical environment and creates a consistent mass and scale. Orientation of buildings towards public areas (i.e. streets, parks and parking areas) plays an important part of creating interesting and varied streetscapes and increases a sense of resident awareness of neighbourhood activities and safety ("eyes on the street").

Environmental and community characteristics are also reflected in the urban form to maintain a unique identity and character, and to foster a sense of place and attachment. Strong urban design should emphasize views into the retained natural areas, which are important and character-defining features of this neighbourhood. Interaction with the natural areas, naturalized stormwater management facilities and other open spaces will be designed to encourage activity and interaction in public spaces, such as exercising, photography, or wildlife viewing.

Public amenity areas including parks and stormwater management facilities create community destination and focal points. Through design and site planning, the development of these areas creates places for residents to actively enjoy the outdoors and with regards to the City's Winter City Strategy, encourages active use during all four seasons. These amenity areas and open spaces will be easily accessible, aesthetically pleasing, and will also add visual interest to neighbourhood attractiveness and character.

Technical Summary

No technical requirements were further identified.

3.4.3 ECOLOGY

The following objectives support the plan goals of preserving natural areas within Pintail Landing and providing integration with the North Saskatchewan River Valley ARP to the north. The preservation and integration of this area will help facilitate the movement of wildlife as well as provide a focal point and unique identity for the Big Lake area. Potential wildlife passages have been identified in Figure 8: Transportation Network, and are further detailed in the ENR.

Objective	NSP Policy	Implementation
3.4.3.1		
Protect the North Saskatchewan River Valley and Ravine system.	a) The lands within the North Saskatchewan River Valley and Ravine system shall be protected from urban development through implementation of the requirements specified by the *Municipal Government Act* (MGA), the North Saskatchewan River Valley Area Redevelopment Plan (ARP), and the North Saskatchewan River Valley and Ravine System Protection Overlay.	a) The North Saskatchewan River Valley and Ravine will be dedicated as Environmental Reserve to the City of Edmonton at the time of subdivision, as permitted by the MGA and per Policy C542. Where deemed required by the City of Edmonton, environmental reviews and geotechnical reports detailing the required setbacks and mitigation measures to ensure bank stability and ecological sustainability for infrastructure (e.g. outfalls) planned within the overlay will be submitted prior to rezoning. Stormwater outfalls draining towards/through the North Saskatchewan River Valley Area Redevelopment Plan area must adhere to the recommendations provided within the Natural Area Water Sustainability Assessment, Neighbourhoods 4 & 5, Big Lake (Golder, July 8, 2016) and the terms of reference for the development of Environmental Impact Assessments per Bylaw 7188. Consultation with the City of Edmonton is required prior to detail design to discuss proposed SWMF design and approve outfalling options. If technical studies determine that outfalling into the North Saskatchewan River Valley is not a viable option, the Developer is responsible for designing an appropriate alternative drainage scheme that meets City requirements.

	b) The Pintail Landing NSP shall provide a minimum of 30% Top-of-Bank roadway per Policy C542.	b) A minimum of 30% top of bank roadway is conceptually represented at the NSP level and may be adjusted pending geotechnical evaluation with future development.
3.4.3.2		
Strengthen Edmonton's ecological network.	a) Ecological corridors and natural areas shall be incorporated into the neighbourhood design to provide connectivity and additional habitat.	The recommendations and regulations of the City and Provincial environmental agencies shall be integrated into the design of the NSP, at the rezoning and subdivision stages, and shall adhere to the Natural Area Systems Policy C531. Where required by the City of Edmonton, a Natural Area Management Plan (NAMP) shall be prepared to provide direction for the maintenance of natural areas. NAMP's must be submitted as development (rezoning or subdivision) approaches 250 m of a retained natural feature. **Figure 14: Retained Natural Areas** shows the retained natural areas within the neighbourhood boundary. Buffers around natural areas will be provided according to the requirements of the Municipal Government Act (MGA), Development Setbacks from River Valley/Ravines Policy C542, Natural Area Systems Policy C531, and the North Saskatchewan River Valley Area Redevelopment Plan (ARP). The active modes connection between the school park site and Crown claimed wetland shall incorporate dense, naturalized landscaping to establish a strong ecological connection. **Figure 7: Parks & Open Space** illustrates the ecological connectivity elements (based on the ENR), which form the post-

		development ecological network.
	b) A Wetland Assessment shall be completed for each titled area which contains a wetland, within the NSP.	Prior to rezoning, Wetland Assessments are required to identify any potential wetlands, the sustainability of the wetlands, and the required regulatory approvals or compensation required.

Rationale

The North Saskatchewan River Valley and Ravine System comprises an important ecological system within the Pintail Landing NSP and the Big Lake ASP. This area will be protected and preserved per the MGA, MDP, Top of Bank Policy C542, Open Space Policy C594, Natural Area Systems Policy C531, and Natural Connections Strategic Plan.

Prior to development, a top of bank (TOB) and Urban Development Line (UDL) for the southern boundary of the Big Lake Natural Area (a portion of the North Saskatchewan River Valley Ravine System) and for wetland areas needs to be established through site visits with participating landowners and city administration, pursuant to geotechnical and slope-stability analysis, and the requirements of Policy C542.

A minimum 10 m Public Upland Area is to be provided in all instances along the entire length of the TOB and between the TOB and UDL, except where a greater setback is warranted based upon geotechnical recommendation. A TOB walkway along the entire length of the UDL, within the Public Upland Area, will maximize access for residents and the general public to a continuous circulation system abutting the River Valley and Ravine System, unless reduced for purposes of protecting flora and fauna. This access is provided for circulation and amenity purposes, connection to the park system within the River Valley and Ravine System, slope repair and geotechnical monitoring, firefighting, emergency and public safety, and drainage control.

Technical Summary

An Ecological Network Report (ENR) has been prepared that identifies natural features within the plan area and provides recommendations for the creation of a post-development ecological network. Non-participating lands have been assessed through a desktop review. These lands must be ground-truthed and appropriate technical studies, such as a Phase II ENR, completed prior to rezoning. Non-participating landowners will be required to assess the existing regional ecological network and to provide recommendations on how to conserve or protect natural areas.

A Natural Area Management Plan (NAMP) for all retained upland natural areas is required to be completed by the applicant and approved by the City of Edmonton prior to rezoning of lands, in accordance with Natural Area Systems Policy C531, and consistent with the NDR.

A geotechnical assessment has been completed for all participating landowners. Additional geotechnical work may be required at the subdivision stage.

For all non-participating landowners, appropriate setbacks will be established at the rezoning stage of development, following the appropriate technical studies.

3.4.4 PARKS, RECREATIONAL FACILITIES, AND SCHOOLS

The Pintail Landing NSP provides for one school and community park (public K-9 school) with opportunities for a pocket park and natural areas linked to other open spaces (i.e. SWMFs). An integrated open space network is proposed for the Pintail Landing NSP, as shown in **Figure 7: Parks & Open Space**.

Objective	NSP Policy	Implementation
3.4.4.1		
Accommodate the City requirements for school/park sites within the neighbourhood.	The Municipal Reserve owing for Pintail Landing shall be dedicated in full as land, money in place of land or an acceptable combination thereof. The values for money in place of land will be determined by appraisal and shall be agreed upon prior to subdivision approval. The school shall have adequate collector roadway frontage to accommodate flexible building design, parking access, drop-off/pick-up areas, as well as to ensure sightlines, natural surveillance, adequate lighting, and connectivity to pedestrian routes.	Park sites are conceptually illustrated in **Figure 7: Parks & Open Space**. The Subdivision Authority, in consultation with Parks Planning, shall determine the Municipal Reserve owing within the Pintail NSP, in accordance with the *Municipal Government Act*. Areas dedicated as MR shall be confirmed by legal survey at time of subdivision.
3.4.4.2		
Establish a multi-modal circulation system of parks and greenspace that are accessible and connected to each other.	Open spaces are distributed for accessibility to all residents within the neighbourhood, using proximity to natural areas, SWMFs and utility corridors to accommodate both active and passive recreational opportunities. The open space system shall be connected through shared use paths, sidewalks, and walkways.	Park sites and pedestrian linkages, are conceptually illustrated in **Figure 9: Active Modes Network.** Allocation of Municipal Reserves will be determined at the time of subdivision.
3.4.4.3		
Provide school/park sites that are accessible, on land suitable for development, and appropriately serviced for program requirements.	Developers will provide servicing to park sites as outlined in the UPMP and Breathe Strategy. Parkland will be provided in a condition suitable for its intended use. The location of abandoned wells and associated setbacks, or other utilities shall not be permitted on parkland, with the exception of utilities that solely service a park site.	A Public K-9 school and community park site is located centrally to the neighbourhood. The neighbourhood servicing scheme shall ensure that the provision of utility services for park sites shall conform to the relevant City standards at the time of subdivision and development. The appropriate technical studies will be completed prior to rezoning to determine suitability for development. Refinement of the school park site and natural area will be required with a

		development application including the collector roadway(s) and/or any portion of the school park site or natural area(s). The Developer is responsible for, but not limited to, geotechnical, environmental, and ecological evaluations. In addition, the Developer is responsible for site clearing and grading, abandonment and reclamation of any oil wells, water wells, and pipelines that are discovered. The placement of the school building will need to take into consideration the recommended 200 m setback guideline from the utility corridor, as per the EPSB School Site Guidelines.

Rationale

The Pintail Landing NSP conceptualizes a school and community park, river valley and ravine park, pocket park, and natural areas within the NSP as per the Parkland Classification System, and validates their location, size and design relative to the policies in the UPMP and Breathe Strategy. This plan provides a centrally located school/park site that is intended to provide a Public K-9 School and community league site, utilizing the east-west collector roadway to ensure easy accessibility to all neighbourhood residents, and surrounding communities.

The plan area provides various, unique open space opportunities created with the combination of the Big Lake Natural Area, public utility lots, retained natural areas and pocket park that will establish interesting and diverse experiences for residents and provide habitat for smaller wildlife. A variety of walkways or shared use paths are proposed to meander in and out of the environmental and municipal reserve, stormwater management facilities, and utility corridor to link open spaces and to meet the passive and active recreational needs of the Big Lake area residents.

Technical Summary

A Parkland Impact Assessment and a Community Knowledge Campus Needs Assessment were submitted under separate cover.

3.4.5 SITE CONDITIONS

To ensure lands within the Pintail Landing NSP are suitable for development, the environmental status of the land must be evaluated. The City requires that Phase I Environmental Site Assessments (ESA) be submitted, reviewed and endorsed prior to the rezoning stage of development.

Objective	NSP Policy	Implementation
3.4.5.1		
Ensure that the environmental status of lands is suitable for development.	a) An Environmental Overview shall be completed prior to rezoning.	The Environmental Overview requirement shall be met and receive sign-off by City administration.
	b) Environmental conditions of the site shall be confirmed through submission of Environmental Site Assessments (ESA) reports prior to rezoning. A Phase I ESA will be required for each individual rezoning.	ESA reports and updates shall receive sign-off by City administration prior to rezoning according to the Environmental Site Assessment Guidebook.
	c) Where necessary, contaminated material shall be removed and disposed of in an environmentally sensitive manner, in accordance with federal, provincial and municipal regulations. Abandoned well sites located on public property shall located in a public utility lot or road right-of-way and decommissioned as per Provincial requirements.	Where required, site remediation shall be conducted prior to rezoning. An environmental site assessment report verifying the remediation shall receive signoff by City administration prior to rezoning of the subject lands.
	d) Geotechnical study may be required prior to rezoning.	Where required, a Geotechnical Report shall be submitted for review and acceptance by City Administration prior to rezoning.
3.4.5.2		
Ensure development is appropriately integrated with oil and gas well sites to minimize potential environmental hazards and disruption of adjacent development.	Development shall maintain sufficient setbacks to abandoned well sites to accommodate future well-servicing operations and shall adhere to the requirements of the AER and City Policy C515.	**Figure 4: Site Features** illustrates the approximate locations of existing oil and gas facilities, which will be confirmed prior to rezoning. Abandoned well sites will be integrated into the neighbourhood through consultation with City administration to ensure that any negative impact of future servicing operations is minimized.

Rationale

Lands within the Pintail Landing NSP boundary will be confirmed for development suitability and environmental status prior to rezoning. Those lands identified as contaminated must undergo remediation according to Federal, Provincial, and Municipal standards. Policies relating to abandoned oil and gas wells will ensure conscientious development around well sites at all stages of the plan implementation and construction process, while minimizing potential disturbances to the area's future residents. Urban development in the vicinity of abandoned well sites will be planned in accordance with the City's Policy C515 "Oil and Gas Facilities" (2007), other relevant City procedures, and applicable Provincial regulations. An assessment of risk and nuisance may be conducted on operating or suspended oil and gas wells, as directed by existing or future City policy prior to any rezoning of the lands where the facility is located.

Utilities or well sites are to be appropriately addressed as per municipal, provincial and federal requirements on future public lands.

Geotechnical study may be required prior to rezoning.

Technical Summary

An Environmental Overview, submitted under separate cover, has been completed and accepted for the plan area. The report identified follow-up items which shall be addressed prior to rezoning. This NSP contains three (3) abandoned well sites and one utility corridor. The appropriate reclamation and remediation procedures shall be strictly adhered to when these locations are developed.

3.4.6 HISTORICAL RESOURCES

Pursuant to Section 31 of the Historical Resources Act, development proponents and/or their representatives are required to report the discovery of any archaeological, historic period or paleontological resources, which may be encountered during construction.

Objective	NSP Policy	Implementation
3.4.6.1		
Ensure that historical, archaeological, and paleontological resources are identified, conserved, and incorporated where applicable.	a) Participating landowners shall submit a Statement of Justification for *Historical Resources Act* Requirements and, if necessary, a Historical Resources Impact Assessment (HRIA).	Participating landowners will submit statements of justification to Alberta Culture and Community Spirit (ACCS) for consideration. Those lands which have not received *Historical Resources Act* clearance will be required to submit and receive sign-off prior to rezoning.
	b) All historical, archaeological, and palaeontological discoveries made during construction shall be reported.	Section 31 of the *Historical Resources Act* requires all historical, archaeological, and palaeontological discoveries made during the course of an excavation to be reported to ACCS.

Rationale

According to Alberta Culture and Community Spirit (ACCS), there is low archaeological potential for encountering historical resources or structures within the lands located in the southwestern portion of the Pintail Landing neighbourhood, as outlined on Table 3 – Historical Resources Overview. Those lands which have not completed a Statement of Justification (SoJ) prepared to the requirements of the *Historical Resources Act* (HRA) must submit documentation to ACCS prior to initiating development.

Technical Summary

Historical Resource Overviews have been approved by ACCS for participating landowners within the plan area. Those lands which have not completed HRO reports must submit documentation to ACCS prior to initiating development and may require further HRIA reports to be submitted and approved by ACCS, prior to the initiation of any land surface disturbance activities.

3.4.7 RESIDENTIAL

The Pintail Landing NSP will provide for a range of residential densities, innovative housing types, alternative site designs and unique building sites that will contribute to a sustainable residential land use pattern and form. Innovative housing may include but is not limited to new or modified zoning requirements, changes to the configuration of lots, and the mixing of housing types within a block. The variety in housing types will contribute to the health of the community by providing housing for different income levels, family composition and life stages. **Figure 6: Land Use Concept** shows the general location of residential uses.

The plan designates a portion of land as Low Density Residential (LDR) which will allow for the development of single detached, semi-detached, and duplex housing at a density of approximately 25 units per ha.

The plan designates a portion of land as Row Housing, which will typically be developed Street-Oriented Row Housing at an average density of 45 units per ha.

The plan area will provide Medium Density Residential (MDR) designated land. MDR will allow for the development of row housing, stacked row housing, or low-rise apartment housing at a blended density of approximately 90 units per ha.

Objective	NSP Policy	Implementation
3.4.7.1		
Residential densities will be consistent with the requirements of the EMRGP.	The Pintail Landing NSP shall meet density targets as set out by the EMRGP.	**Figure 6: Land Use Concept** shall guide intensified suburban development. The densities in the Big Lake ASP are grandfathered according to the EMRGP, and the proposed densities in the Pintail Landing NSP increase the densities previously approved within the Big Lake ASP for this neighbourhood.
3.4.7.2		
Provide a variety of housing typologies that cater to a range of income, demographic and household types.	A mixture of residential dwelling types including single/semi-detached, row housing and low-rise/medium density housing shall be provided, allowing consumer choice and a range of affordability options.	**Figure 6: Land Use Concept** illustrates the general location of residential land use designations. Residential development shall be implemented through the rezoning process to achieve desired mix of dwelling types.
3.4.7.3		
Locate higher density housing development to utilize arterial and/or collector roadways, public transit service or neighbourhood amenities.	Row Housing and Low-Rise Apartment development should be located abutting collector and/or arterial roadways, and near commercial uses, public amenities, or the transit centre, as well as along transit routes.	**Figure 6: Land Use Concept** illustrates the general location of residential land use designations. Residential development shall be implemented through the rezoning process.

3.4.7.4		
To develop a walkable residential community with a mix of neighbourhood uses.	Neighbourhood commercial, institutional, and recreational uses may be included in residential areas where determined appropriate.	**Figure 6: Land Use Concept** illustrates the general location of residential, commercial, institutional and recreational uses.
3.4.7.5		
Ensure residential development within ETS standard walking distance of the transit centre be developed as part of a transit-oriented, walkable community.	The NSP shall incorporate land uses such as Low Rises / Medium Density Residential and Street Oriented Residential (Row Housing) designations to provide increased residential densities within walking distance of the transit centre.	**Figure 6: Land Use Concept** illustrates the general location of all residential uses. Low Rise / Medium Density Residential and Street Oriented Residential (Row Housing) are located within ETS standard walking distance as well as near arterials or collectors, commercial uses, park sites, or transit routes.

Rationale

The Pintail Landing NSP provides the opportunity to develop a variety of housing types, promoting the creation of a well-balanced neighbourhood which can accommodate a range of income groups and market segments, various types and sizes of families, and allows families to remain within the same community throughout their lifecycle. This plan supports the goals of the Municipal Development Plan and the EMRGP with respect to housing mix. In keeping with more recent trends of development, this plan seeks to provide a choice of housing forms within the neighbourhood and to generally make more efficient use of new suburban land. These densities will support public transit, use infrastructure more effectively, provide a user base for community facilities, and encourage greater social mix. The higher densities have also been situated adjacent to the commercial uses and the transit centre, which also helps to encourage increased transit ridership. Lands have been designated as MDR / Commercial to allow for growth of the commercial site should there be demand. If there is no demand for additional commercial uses, the area will be developed with higher densities under the MDR designation to support the commercial uses and the transit centre. The area serves as a focal point for the ASP area with the commercial sites and higher densities located at Winterburn Road (215 Street).

Providing a transition between the higher density uses and lower density residential dwellings protects the character of residential neighbourhoods. Appropriate transition also aids to mitigate sun-shadow impact and protects privacy on surrounding lower density housing forms. Provision of semi-detached or rowhousing units may be used as a transitional land use to moderate the use differences between single detached and low-rise apartments. Locating higher density development along transit routes and within walking distance of commercial uses, community focal points and open spaces creates a more compact, walkable, attractive, and liveable neighbourhood.

Technical Summary

No technical requirements were identified.

3.4.8 COMMERCIAL

Two commercial sites are identified in the Pintail Landing NSP, located in the southwest portion of the plan, at the intersection of Winterburn Road (215 Street) and a collector roadway. A smaller site located directly east is identified as Medium Density/Commercial, to be rezoned according to market demand. The sites are intended to serve the commercial needs of the neighbourhood, surrounding neighbourhoods, and the travelling public. The primary site offers good visibility and accessibility due to its location at one of the neighbourhood's main entry points, along Winterburn Road (215 Street) and Yellowhead Trail. A transit centre is located north of the commercial area, ensuring ease of access. The area is located across Winterburn Road (215 Street) from another commercial area in Kinglet Gardens, providing employment opportunities and amenities to the larger area.

Objective	NSP Policy	Implementation
3.4.8.1		
Provide neighbourhood commercial opportunities to satisfy the needs of residents and provide local employment opportunities within the neighbourhood.	Neighbourhood commercial development opportunities shall be provided to serve the daily needs of residents within the Big Lake area.	**Figure 6: Land Use Concept** illustrates the location and general configuration of commercial areas, which will be confirmed prior to rezoning approval.
3.4.8.2		
Locate and orient commercial sites along arterial and/or collector roadways to ensure high visibility and convenient access opportunities.	Commercial sites shall be located along arterial and collector roadways, transit routes and along multi-modal corridors to ensure accessibility and visibility.	**Figure 6: Land Use Concept** illustrates the location and general configuration of commercial areas, which will be confirmed prior to rezoning approval.
3.4.8.3		
Encourage convenient multi-modal access to and through commercial development.	Development of commercial sites should be designed with pathways connecting parking, transit stops, and other public sidewalks, shared use paths, and walkways.	Site design shall have regard for building placement, multi-modal accessibility and activity areas in assessing development applications for commercial development under the applicable zone.
3.4.8.4		
Ensure commercial development within ETS standard walking distance of the transit centre be developed as part of a transit-oriented, walkable community.	Building(s) should be oriented to align with the abutting street wherever possible, to create a pedestrian friendly streetscape.	Site design shall have regard for building placement, pedestrian accessibility and activity areas in assessing development applications for commercial development under the applicable zone.

Rationale

The Pintail Landing NSP offers two commercial sites creating a community commercial node approximately 10 ha in size. The area serves as a focal point for the ASP area with the transit centre in proximity to the site as well as commercial and higher densities across Winterburn Road (215 Street) in Kinglet Gardens. The location of the commercial sites at the corner of Winterburn Road (215 Street) and Yellowhead Trail, provide high visibility. This commercial node can provide small to large format retail space to satisfy the commercial needs of the neighbourhood, surrounding communities and travelling public. Commercial development is intended to be located adjacent to arterial/collector roadways and near the transit centre/stops to provide adequate access and visibility and reduce the number of single-occupancy vehicular trips. Locating commercial development adjacent to roadways

with higher vehicular capacity reduces potential conflicts between local residential traffic and traffic generated by these higher intensity uses. At the site design and development permit stage, regard for multi-modal safety and convenient access should be emphasized on-site to minimize vehicle/alternate mode conflict.

Technical Summary

A Commercial Needs Assessment was submitted under separate cover.

3.4.9 TRANSPORTATION

The transportation network has been designed to meet both the internal and external traffic flow requirements generated by the neighbourhood in accordance with City of Edmonton's guidelines and standards. A hierarchy of arterial, collector and local roadways are intended to facilitate the efficient movement of vehicular traffic (see **Figure 8: Transportation Network**).

Objective	NSP Policy	Implementation
3.4.9.1		
Provide an efficient, safe and logical transportation system within the Plan area to address pedestrian and vehicular transportation and public transit demands of the residents.	A well-integrated system of arterial, collector and local roadways shall be established for vehicular and pedestrian circulation.	Road right-of-way and arterial road widening shall be dedicated to the City of Edmonton at the subdivision stage of development. Roadway design shall be in accordance with City of Edmonton design standards. Opportunities for innovative or alternative designs shall be considered by City Planning at the zoning, subdivision, and/or detailed design stages.
3.4.9.2		
Provide noise attenuation where residential uses back or flank onto major transportation corridors.	Appropriate noise attenuation shall be provided for residential uses adjacent to Winterburn Road (215 Street), Yellowhead Trail and Anthony Henday Drive.	Noise attenuation will be required for residential development backing onto or flanking Yellowhead Trail, Anthony Henday Drive or Winterburn Road (215 Street) in accordance with City of Edmonton Urban Traffic Noise Policy C506. A noise impact assessment will be required prior to subdivision to confirm the extents and scope of the noise attenuation required.
3.4.9.3		
Ensure that the cost of arterial roadways is shared throughout the Big Lake catchment area.	Lands in the NSP shall be subject to an Arterial Road Assessment (ARA) to cost share the roadway facilities needed to service the area.	The Arterial Roads for Development Bylaw 14380 identifies that Pintail Landing is within the Big Lake Catchment area.
3.4.9.4		
Ensure neighbourhood design accommodates year-round weather conditions.	The neighbourhood shall be designed to accommodate infrastructure programming requirements, including snow clearing, landscape maintenance, and efficient and safe emergency access.	The design of local roadways shall be provided at the subdivision stage. The provision of alternative development standards will be considered by City Planning at the subdivision and detailed design stage.

Rationale

The transportation network has been designed to meet both the internal and external traffic generated by the neighbourhood in accordance with City of Edmonton's guidelines and standards. A hierarchy of arterial, collector and local roadways are intended to facilitate the efficient movement of vehicular traffic (see **Figure 8: Transportation Network**). Vehicular access to Winterburn Road (215 Street) and 199 Street will be provided via four neighbourhood entrance/exits.

Regional Roadway Network

The Pintail Landing NSP will benefit from a high level of accessibility to the metropolitan Edmonton area, the City of St. Albert, Sturgeon County and Parkland County, as a result of its close proximity to the following existing and proposed roadways (see **Figure 8: Transportation Network**). These roadways include: Winterburn Road (215 Street), Highway 16 (Yellowhead Trail), and Anthony Henday Drive. Direct access to Pintail Landing will not be allowed directly from Anthony Henday Drive or Yellowhead Trail.

Arterial Roadways

Arterial roadways facilitate the movement of intra-municipal traffic and generally maintain limited direct access to adjacent land uses. To the west of the plan area, Winterburn Road (215 Street) is designated as an arterial roadway, which will provide Pintail Landing with major north-south access to the surrounding areas. Appropriate spacing of intersections and access-egress requirements are respected along this roadway. The Traffic Impact Assessment will inform the appropriate road network required for the development of the neighbourhood.

Collector Roadways

Collector roadways, which provide internal/external accesses, are spaced at appropriate intervals along the arterial roadway to facilitate traffic progression and to ensure that sufficient distance is available to allow for right and left turn-bay development. The collector roadway network provides efficient and convenient access to residential sub-areas. This serves to further reinforce a local 'sense of place' among residential sub-areas, reduce traffic volume and speeds, and establish a pedestrian-oriented streetscape (i.e. walkable environment). Three accesses are proposed to Winterburn Road (215 Street) and one to 199 Street (see **Figure 8: Transportation Network**). The proposed lane requirements for these roadway facilities as well as the arterial roadway network will be addressed in detail in the TIA, which has been submitted under separate cover. Other access and roadway requirements will be determined at the rezoning and subdivision stages to the satisfaction of City Planning.

A collector roadway connection to 199 Street will be required as development of the abutting parcels occurs. Construction of the roadway connection will be the responsibility of the developer, to the satisfaction of the City of Edmonton in consultation with the Province of Alberta, as required. Ministerial Consent is required for any encroachment into the Transportation Utility Corridor (TUC). The developer(s) will be required to secure this consent and all rights for entry from the Province for any encroachment, including the connection to 199 Street. Should consent not be granted, a plan amendment will be required to consider an alternative roadway network.

Local Roadways

Local roadways provide access to adjacent land uses and maintain a limited role in the overall movement of traffic within the Pintail Landing NSP. At the detailed design stage, the function of the roadway will inform the cross-sections to be implemented (i.e. collector or local).

Service Roads

An existing service road flanks the southern boundary of the neighbourhood and north of the Yellowhead Trail, from Winterburn Road (215 Street) to 199 Street. Only existing parcels will be allowed to take access from the service

road. Once these lands are provided access from the internal roadway network, this service road will be removed. Similarly, new developments are not permitted to take access from the service road.

Arterial Roadway Assessment

Pintail Landing falls within the Big Lake ARA basin ARAs will be owing with future subdivision and development of these lands.

Truck Routes

Yellowhead Trail and Anthony Henday Drive are designated as 24-hour truck routes.

Noise Attenuation

Noise attenuation may be required for residential areas adjacent to Yellowhead Trail, Anthony Henday Drive and Winterburn Road (215 Street).

Technical Summary

A Traffic Impact Assessment (TIA) is submitted under separate cover. Updates to the TIA may be needed prior to rezoning application. A Noise Attenuation Study shall be submitted prior to subdivision.

3.4.10 TRANSIT AND ACTIVE MODES

Transit accessibility and the pedestrian network have been designed to promote access to amenity areas and contribute to a transit-oriented, walkable community.

Objective	NSP Policy	Implementation
3.4.10.1		
Maximize transit access to the greatest number of residents in accordance with City of Edmonton Transit System Guidelines and demands.	The location of all residential land uses should be within ETS standard walking distance of a transit route.	Edmonton Transit will determine the routing for public transit along the arterial and collector roadways which have been identified as future transit routes.
3.4.10.2		
Promote connectivity and multi-modal access to amenity areas such as parks, natural areas, open spaces, commercial, and institutional uses by providing an active modes circulation system.	Active modes facilities along arterial roadways, top-of-bank, utility rights-of-way, greenways, and stormwater management facilities will be developed shared use paths (SUP) with a paved surface. Active modes connections identified along collector roadways shall be designed to include SUP, buffered bike lanes, or cycle tracks, in accordance with Complete Streets Design Standards, and to the satisfaction of Transportation Planning. SUPs along natural areas will need to be implemented in consultation with the City of Edmonton and may include paved or granular paths.	**Figure 8: Transportation Network** , **Figure 9: Active Modes Network** and the Complete Streets Design Standards shall guide the future application of walkways, sidewalks, shared use paths and bicycle facilities. The Subdivision Authority should have regard for the dedication of walkways to promote active transportation and appropriate access to transit facilities and neighbourhood amenities. **Figure 9: Active Modes Network** identifies several potential mid-block pedestrian crossing locations that are anticipated to be required based on the proposed alignments of active modes facilities, as well as active modes priority crossings in proximity to the school site and transit centre. These locations are anticipated to have a higher concentration of pedestrians and cyclists and traffic calming elements, such as curb bulbs or raised crosswalks, may be considered to increase visibility for pedestrians, reduce crossing distances, and/or reduce vehicle speeds in the area.
3.4.10.3		
Ensure neighbourhood design promotes walkability standards.	Where appropriate, buildings should be oriented to align with the abutting street to create a pedestrian friendly streetscape.	Site design shall have regard for building placement, pedestrian accessibility and activity areas in assessing development applications for commercial

		development under the applicable zone.
3.4.10.4		
Utilize Complete Streets road design.	The neighbourhood shall be designed to accommodate all modes of transportation.	The neighbourhood transportation network shall include a comprehensive and connected network of sidewalks, walkways, shared use paths, and bicycle facilities.
3.4.10.5		
Front drive accesses will be minimized along collector roadways. No one collector roadway will have more than 30% front drive accesses.	The neighbourhood shall be designed to minimize front drive access along collector roadways.	**Figure 7: Land Use Concept** illustrates the general location of land use designations. Access will be determined at subdivision.

Rationale

Public Transit

A Transit Centre and Park and Ride site is included within the western portion of the NSP, in proximity to medium density residential uses, Public K-9 school site, and commercial node. The proposed location is subject to continuing review and refinement by City Planning.

Transit services will be extended into the plan area in accordance with City of Edmonton Transit System Guidelines and demands. The internal collector roadways will be developed to a suitable standard to accommodate transit service and provide readily accessible service to all areas of the neighbourhood. Therefore, most of the residential areas will be within ETS standard walking distance from transit service. The School and Community Park in the central portion of the Neighbourhood Structure Plan has been designed to ensure adequate school transit service by utilizing collector roadway access.

The area around the transit centre will be developed as a multi-use node, containing commercial, mixed-use and residential uses. This area will be compact and walkable, while maintaining access for vehicular traffic in a safe and efficient manner. Locating a variety of uses, including commercial, near the transit centre encourages a more walkable and pedestrian friendly neighbourhood with a vibrant activity node. Residents benefit from the convenience of being able to stop at this node before or after their commute. By providing different built forms, such as street oriented housing, a safer and more pedestrian friendly environment is created.

The Park and Ride Strategy has identified Pintail Landing as a location of a regionally important permanent surface park and ride location in the future, approximately 150 stalls in size.

Active Mode Network

A major component of a vibrant, walkable community is pedestrian and bicycle circulation (see **Figure 9: Active Modes Network**). This is supported within the Pintail Landing NSP through the provision of sidewalks, walkways, and shared use path connections to local amenities and services (e.g. commercial and transit).

Shared use paths will be provided to connect the Transit Centre, commercial node, residential and institutional land uses, stormwater management areas, Community and School Park site, and pipeline corridor. A shared use path shall be also be constructed within the top-of-bank walkway providing a major east-west connection along the Natural Area. The northeast-southwest public utility corridor will also provide an active modes connection via shared use path, from the residential area and Natural Area to the transit facility and commercial node.

Pedestrian connections and shared use paths linking transit services throughout the neighbourhood will be provided where required and feasible. The location, orientation and configuration of these connections will have regard for principles of neighbourhood walkability, pedestrian-oriented, and all-weather design for all four seasons.

Transit service will generally be provided to all neighbourhood residents within ETS standard walking distance with all MDR sites located immediately adjacent transit service routes. For all other areas, internal pedestrian walkways and linkages provide direct access to transit service routes.

Top of Bank Walkway

The Pintail Landing NSP identifies a top of bank walkway as the primary means of public access along the bank of the Big Lake Natural Area. Public access will be provided principally through a shared use path but will also include a combination of top-of-bank roadway, SWMF and pedestrian connections. This comprehensive and linked public amenity will be provided to accommodate pedestrians, bicycles, and other recreational users at the subdivision stage of development on the lands adjacent to the Big Lake Natural Area.

As illustrated on **Figure 6: Land Use Concept**, the top of bank edge along the Big Lake Natural Area was interpreted upon analysis of contours and review of aerial photos, as the landowners were non-participating and the top of bank was not walked with City administration. Should the non-participating lands become available for development in the future, a formal top of bank walk will be required, and the landowners shall provide the appropriate geotechnical and slope stability studies at the time of rezoning.

Top-of-Bank roadway (minimum 30% of the top-of-bank) will provide direct access to the Big Lake Natural Area within the Plan area. The top-of-bank roadway is situated on the developable upland area, parallel to the top-of-bank line. The residual lands between the top-of-bank roadway and urban development line are the Public Upland Areas. These lands will be incorporated and maintained as part of the adjoining parkland.

Technical Summary

A Traffic Impact Assessment (TIA) is submitted under separate cover.

3.4.11 INFRASTRUCTURE, SERVICING AND STAGING

The Pintail Landing NSP will be a fully serviced neighbourhood designed and constructed in accordance with City servicing standards.

Objective	NSP Policy	Implementation
3.4.11.1		
Ensure the ongoing operation and integrity of existing pipeline and utility infrastructure.	Ensure that development is compatible with existing and planned utility infrastructure.	Subdivision Authority shall have regard for implementing the appropriate setbacks and regulations of land uses adjacent to utilities in accordance with the Zoning Bylaw, Policies, and Directives.
3.4.11.2		
Ensure that the Big Lake area is serviced to a full urban standard in an efficient and contiguous manner.	a) Sanitary and stormwater servicing shall be provided in accordance with the approved Neighbourhood Design Report (NDR).	Approval of engineering drawings and servicing agreements shall be required for installation of water, sanitary, and stormwater servicing.
	b) Water servicing to the NSP area shall be provided in accordance with the approved Water Network Analysis.	
	c) Shallow utilities shall be extended into the plan area as required.	Installation of shallow utilities shall be executed through servicing agreements.

Rationale

Sanitary Servicing

The flow for the sanitary system designed for most of the neighbourhood ultimately moves from southeast to northwest and into Kinglet Gardens. However, a portion of the eastern section of the neighbourhood will flow east to 199 Street and into Starling, in accordance with the Big Lake ASP. The sanitary servicing system is conceptually shown in **Figure 11: Sanitary Servicing**. The sanitary servicing plan is conceptual only and subject to change.

Stormwater Servicing

The major storm drainage system includes four constructed wetland stormwater management facilities to provide adequate storage volumes under the critical rainfall event as conceptually shown in **Figure 10: Stormwater Servicing**. The facilities have been located based on natural drainage patterns and pre-development sub-basin drainage boundaries in the Plan area. Major storm system for the commercial area located in the southwest portion of the plan area will utilize on-site stormwater management control and convey flows west into Kinglet Gardens.

Studies are currently underway regarding the SWMFs located in the southeast portion of the plan area. As per the Neighbourhood Design Report, these SWMFs are to service lands south of Yellowhead Trail as well. The size requirements will be determined through additional analysis in order to accommodate existing pre-development storm flows from lands south of Yellowhead Trail in addition to post-development storm flows.

The SWMF outfall locations (see **Figure 10: Stormwater Servicing**) have not been confirmed and require further technical analysis prior to rezoning of these lands.

Water Servicing

Water services for the neighbourhood will be extended from Hawks Ridge via a water main in Winterburn Road (215 Street). Water looping will be provided in accordance with the requirements of EPCOR Water along with submission of a Hydraulic Network Analysis for review and approval.

Shallow Utilities

Power, gas and telecommunication services are all located in proximity to the NSP and will be extended into the plan area as required.

Development Staging

The anticipated sequence of development is conceptually shown in **Figure 13: Staging**. Initial development is expected to advance from southwest to northeast.

In general, development will proceed in a manner that is contiguous, logical and economical with respect to municipal servicing. Development of individual phases may vary from the actual zoning and subdivision applications depending on contemporary market demands and aspirations of the respective landowners. Should sufficient demand warrant or engineering design be made more efficient, portions of separate phases may be developed concurrently.

Technical Summary

The Pintail Landing NSP will be designed in accordance with City of Edmonton servicing standards. Development staging and extension of infrastructure will be contiguous, efficient, and economical while having regard for potential environmental and ecological impacts. Details regarding stormwater drainage and sanitary service schemes for the Pintail Landing Pintail Landing NSP are provided in the associated Neighbourhood Design Report (NDR), submitted under separate cover. Water looping will be provided in accordance with the requirements of EPCOR Water Services Inc. A Hydraulic Network Analysis (HNA) was submitted under separate cover, reviewed and approved by EPCOR Water Services in support of this NSP.

The Neighbourhood Design Report shall be updated by non-participating landowners prior to rezoning to incorporate recommendations provided within the Natural Area Water Sustainability Assessment, Neighbourhoods 4 & 5, Big Lake (Golder, July 8, 2016), an updated ENR, and any future required NAMP.

3.4.12 AGRICULTURE AND FOOD

The Pintail Landing NSP provides opportunities for communities to access local food sources through urban agriculture, edible plant species, and local food infrastructure.

Objective	NSP Policy	Implementation
3.4.12.1		
Promote urban agriculture.	Encourage opportunities for community gardens in public spaces, including parks and utility corridors.	The school and community park site is a potential location for community gardens. The utility corridor is also a potential location for community gardens and will require permission from the appropriate utility companies. Implementation of community gardens may be explored at the detailed landscape design stage in consultation with the appropriate City departments.
3.4.12.2		
Support the use of edible plant species in landscaping of open spaces.	Landscape design of public parks and open spaces should consider planting of edible fruit and vegetable plants where appropriate.	Selection and location of plant species will take place at the detailed engineering drawing design stage and incorporated where feasible.
3.4.12.3		
Support the development of local food infrastructure.	Provide parks with the required utility services to support local food initiatives, such as community gardens, where feasible.	The Developer will provide the appropriate utility servicing to parks as per UPMP and Breathe Strategy requirements.

Rationale

Home Gardens

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

Community Gardens

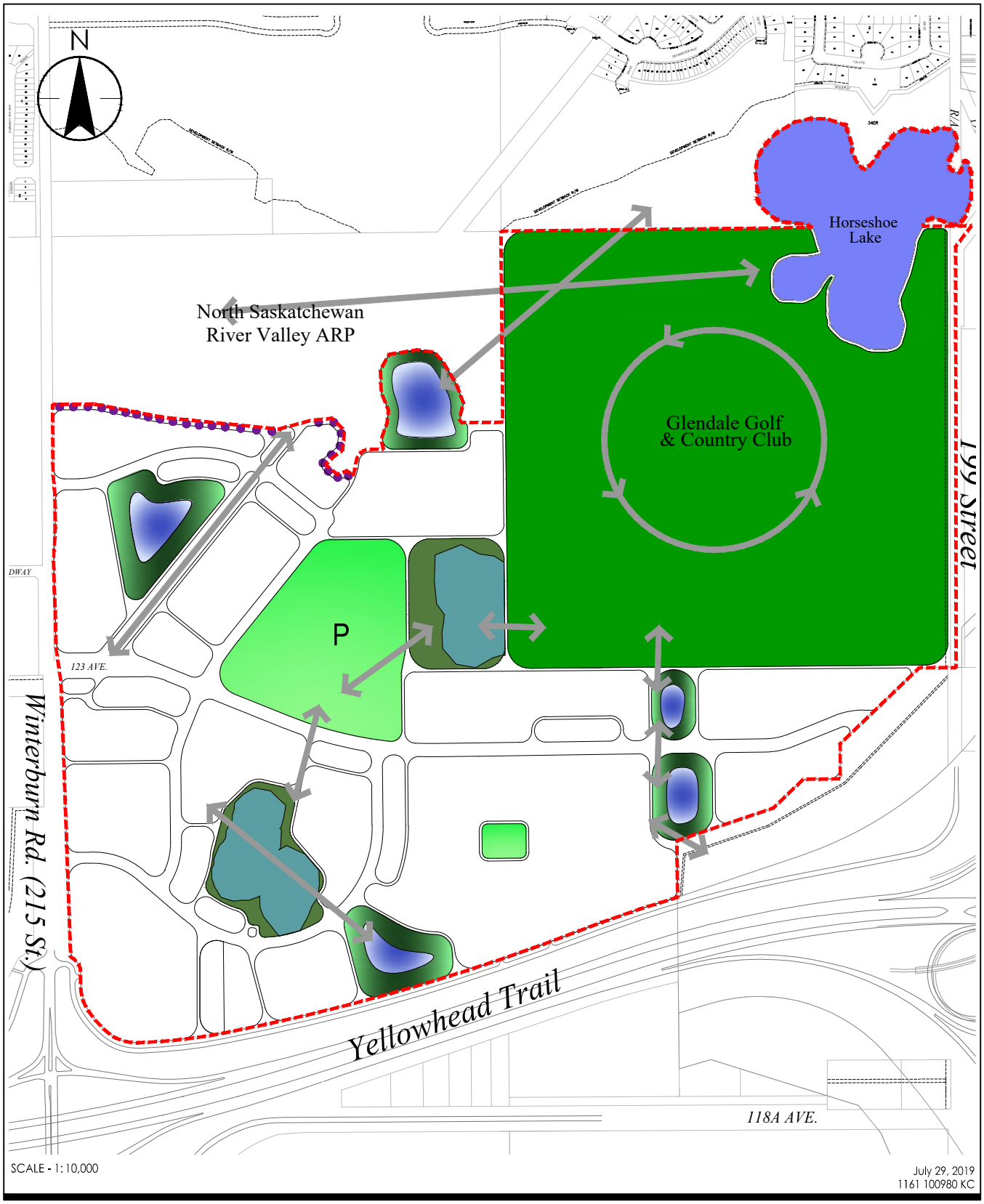
Community gardens are features that are found in many neighbourhoods throughout the city. Community gardens are generally divided into individual plots which are made available to the public or members of the community, often for a nominal fee or for no cost. These spaces serve multiple purposes – from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

Edible Landscaping

In addition to private gardens, public spaces can provide attractive and productive land. Public lands such as parks and open spaces, or even road and utility rights of way, can be planted with a broad variety of edible species. These might include fruit trees, berries like saskatoons, high-bush cranberries, raspberries, nuts, or other plants like rhubarb. Expanding the variety of plants in public spaces beyond ornamental species is a means to increase the range of potential uses, and to provide a source of local food. Design shall be done in consultation with Parks Planning to determine suitable species and locations at the time of engineering drawings or project initiation.

Technical Studies

No technical requirements were identified.



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Legend

- Natural Area (ER)
- Wetland (ER)
- SWMF
- Natural Area (MR)
- S School / Park
- Park
- Ecological Connectivity
- Upland Setback
- NSP Boundary

Open Space Concept is preliminary and may be refined through Phase 2 ENR

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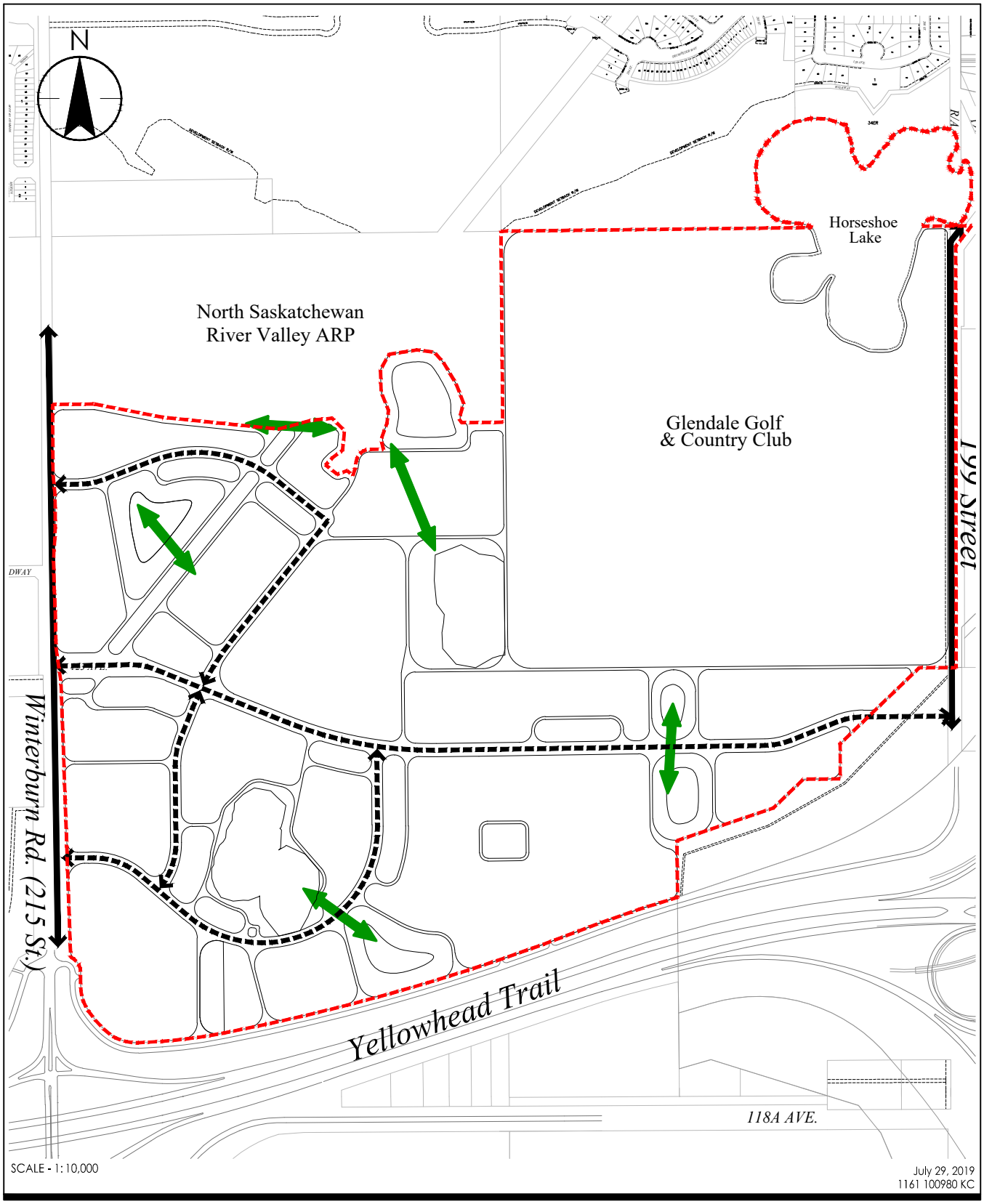
Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
7.0

Title
Parks & Open Space



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Legend

- Arterial Roadway
- Collector Roadway
- Potential Wildlife Passages
- NSP Boundary

Wildlife Pasage locations are preliminary may be refined through Phase 2 ENR

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PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
8.0

Title
Transportation Network

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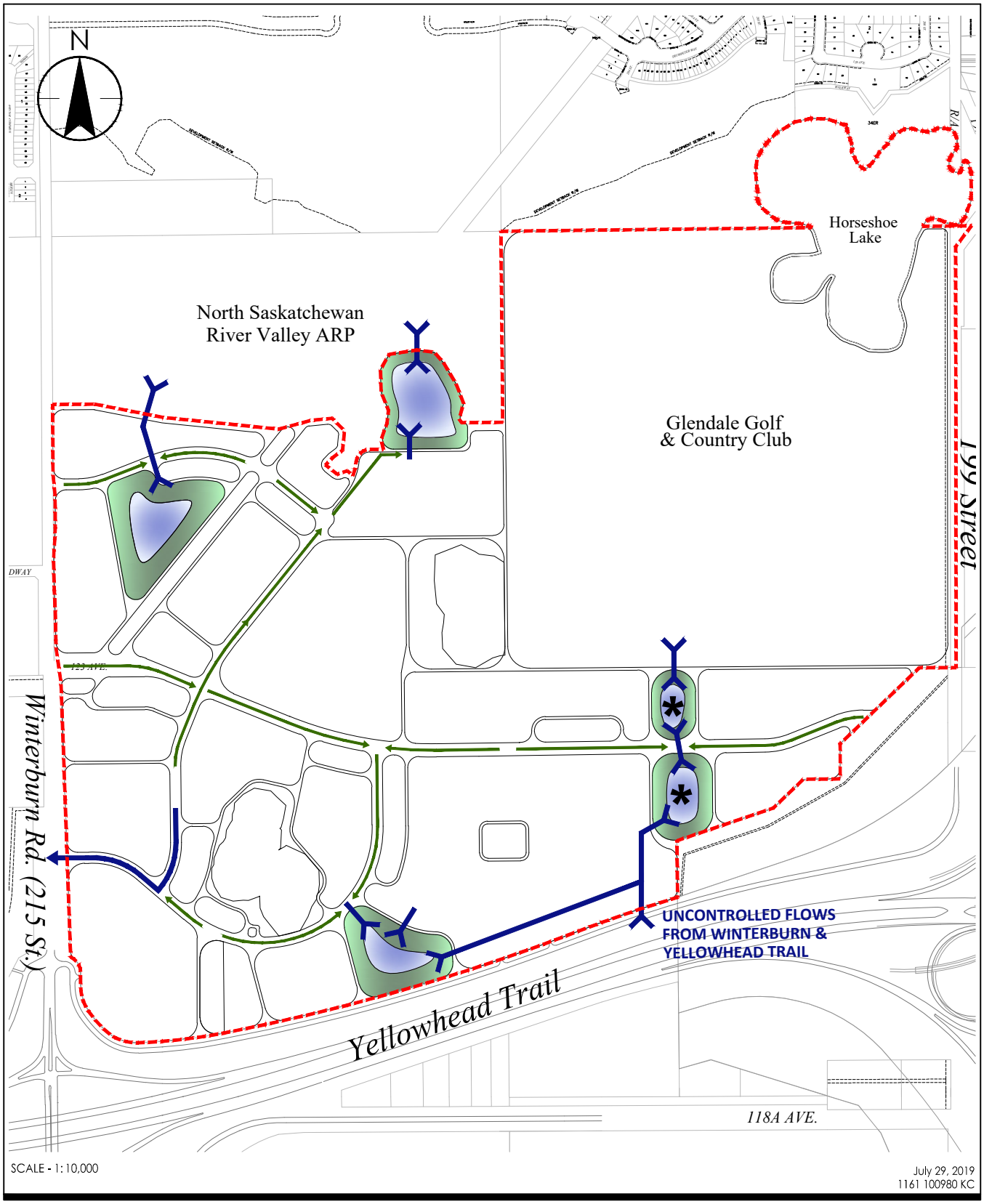
Legend

- Commercial
- School / Park
- Pocket Park
- Natural Area (MR)
- Natural Area (ER)
- Wetland (ER)
- Existing Golf Course
- Stormwater Management Facility
- Active Modes Priority Crossing
- Potential Mid-Block Pedestrian Crossing
- Active Modes Connection (SUP)
- Destination Point
- Active Modes Connection Via Local Roads
- NSP Boundary

Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
9.0

Title
Active Modes Network



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Legend

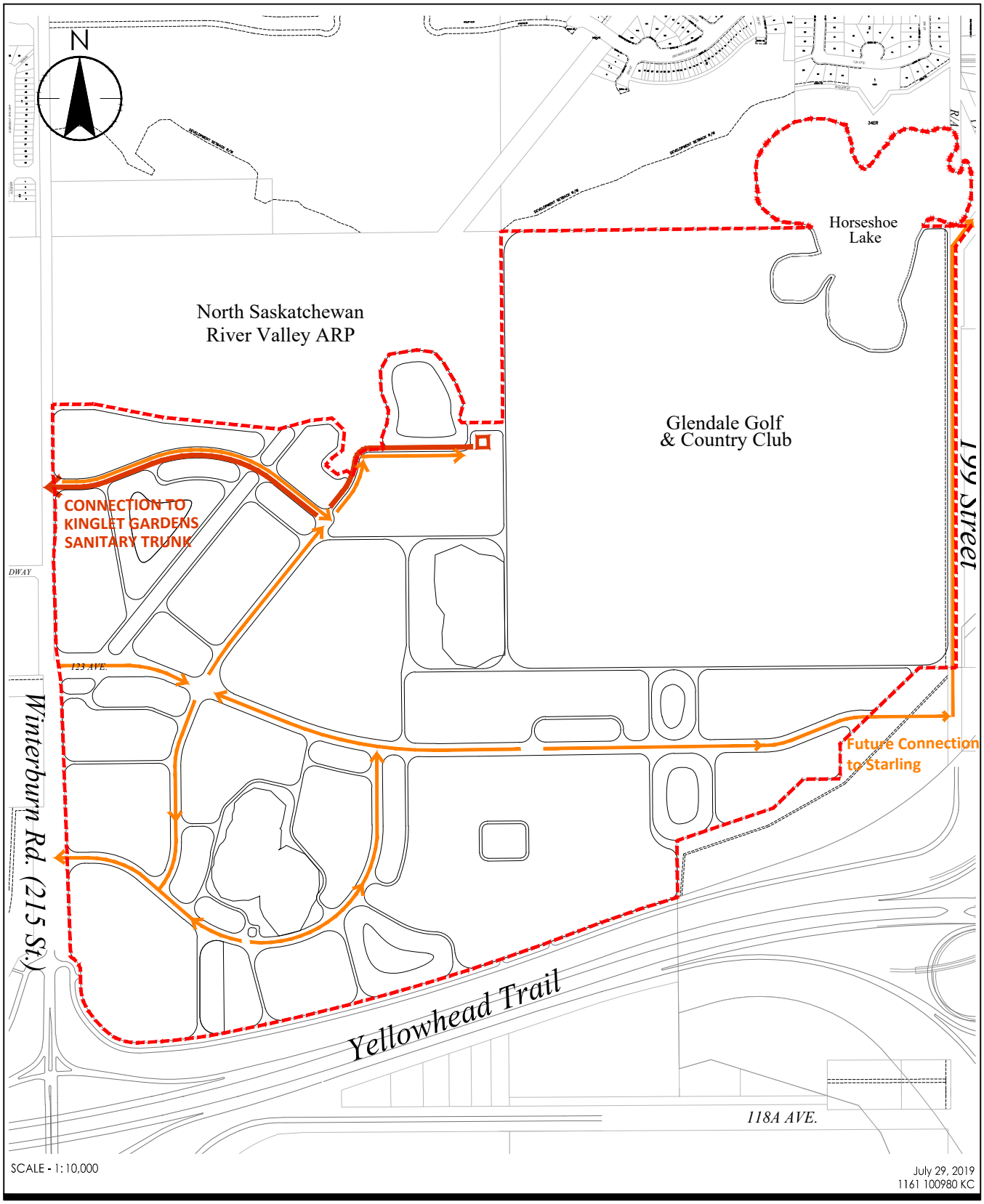
- Stormwater Management Facility
- Storm Lateral
- Storm Trunk
- Outfall
- NSP Boundary
- * Further Study Required

Outfall Locations may be subject to change as further technical studies are completed / updated.

Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
10.0

Title
Stormwater Servicing



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Legend

- Sanitary Laterals
- Forcemain
- Lift Station
- NSP Boundary

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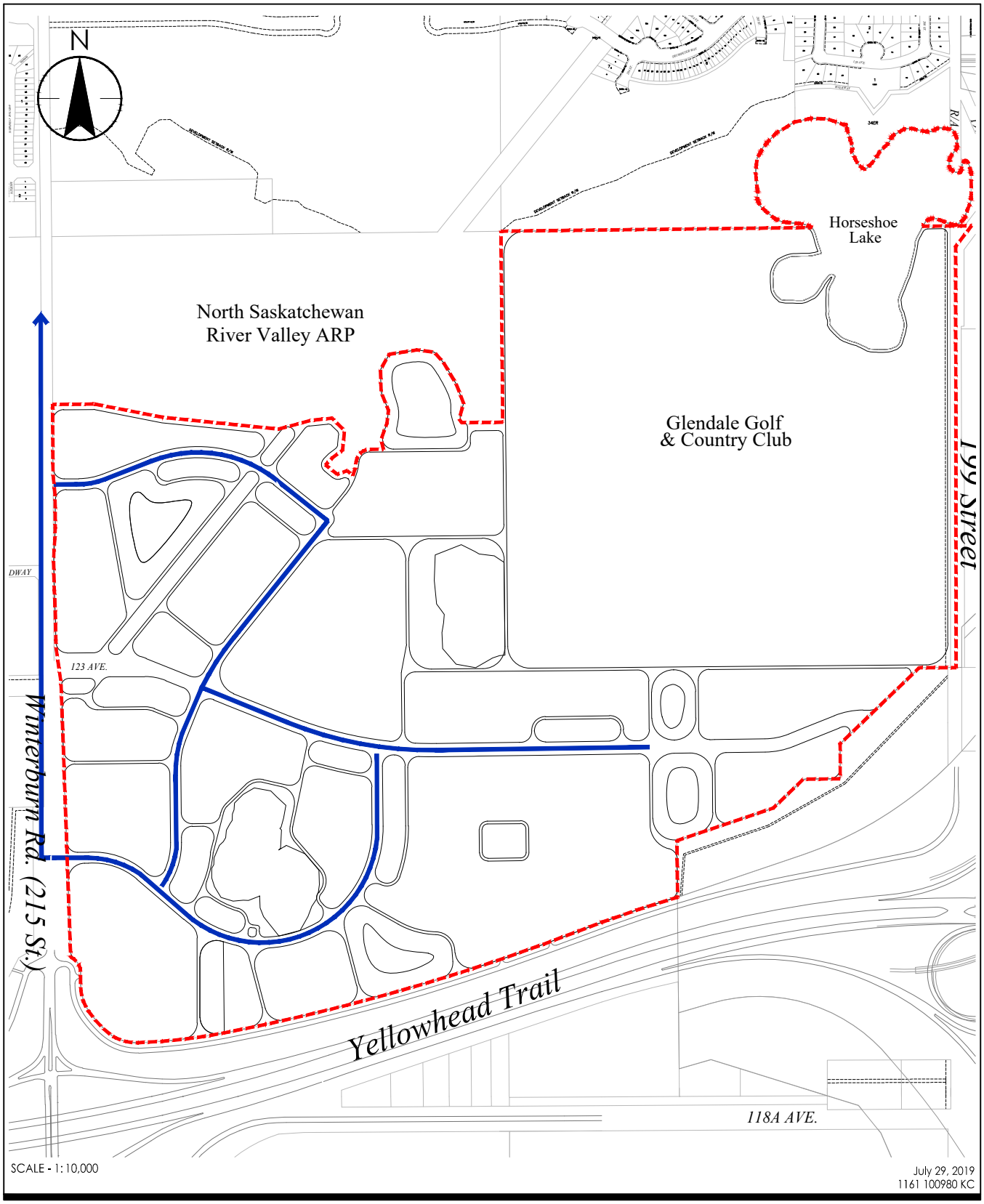
Client/Project
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
11.0

Title
Sanitary Servicing



V:\1161\Active\1161100980\drawing\model_files\planning\NSP\nsp_pintail_landing_29jul2019.dwg

Legend

Major Water Trunk

NSP Boundary

Stantec

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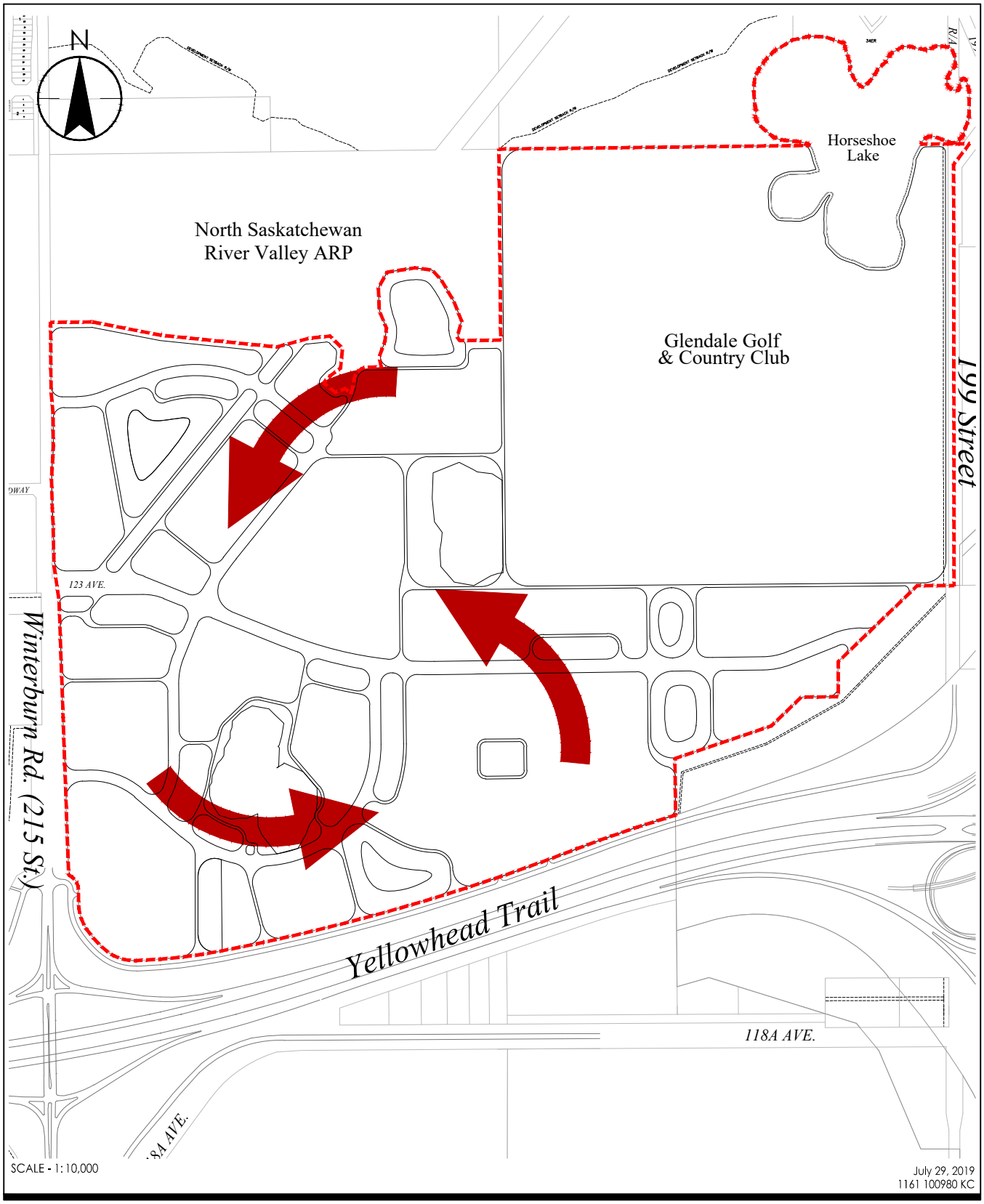
ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
12.0

Title
Water Servicing



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Legend

Direction of Development

NSP Boundary

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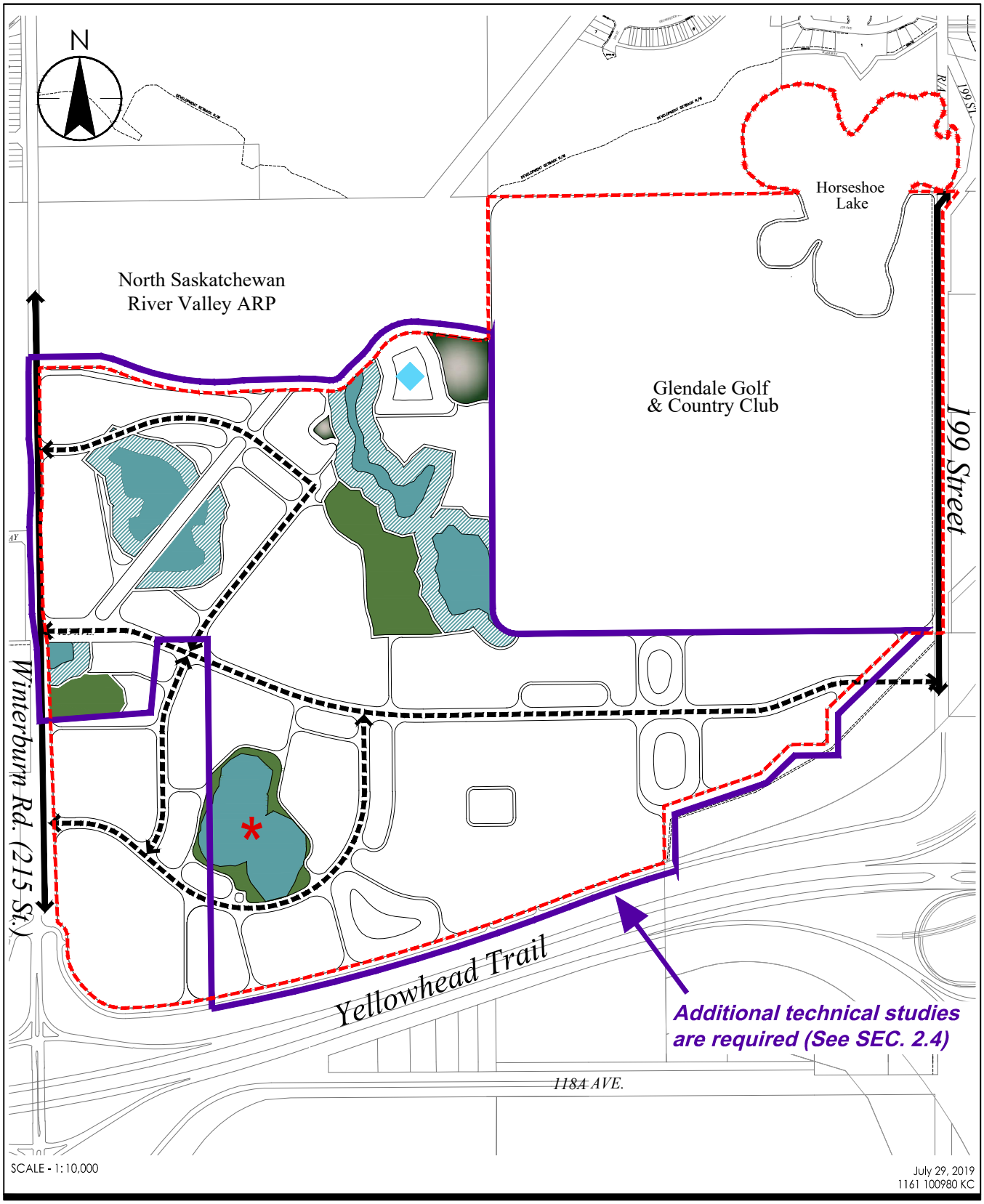
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.
13.0

Title
Staging



V:\1161\Active\1161100980\drawing\model_files\planning\NSP\fig 14.0_retained_nat_areas_nsp_pintail_landing_22jul2019.dwg

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Legend

- Natural Area (MR)
- Natural Area (ER)
- Wetland (ER)
- 30m Wetland Buffer (ER)
- Wetlands in these locations may be retained or incorporated as Naturalized SWMFs
- Crown Claimed Waterbody
- NSP Boundary

Client/Project

ROHIT GROUP OF COMPANIES
PINTAIL LANDING
NEIGHBOURHOOD STRUCTURE PLAN

Figure No.

14.0

Title

Retained Natural Areas

3.5 STATUTORY PLAN AND POLICY CONTEXT

This section outlines the various plans and policies which are applicable to the Pintail Landing NSP including the City of Edmonton's Municipal Development Plan (The Way We Grow), the Transportation Master Plan (The Way We Move), and the Edmonton Metropolitan Region Growth Plan. Applicants seeking amendments to the NSP or applying for rezoning, subdivisions or development permits are required to consult the actual documents for specific guidance on detailed requirements as they apply to particular properties.

3.5.1 EDMONTON METROPOLITAN REGION GROWTH PLAN: RE-IMAGINE. PLAN. BUILD.

In October 2017, the Alberta government approved the Edmonton Metropolitan Region Growth Plan. The Growth Plan guides the daily work of the Edmonton Metropolitan Region Board (EMRB), ensuring decisions and programs are integrated to support the long-term economic prosperity and quality of life for all citizens of the Edmonton Metropolitan Region.

EMRGP Objective	Pintail Landing NSP
1. Promote global economic competitiveness and regional prosperity.	
1.1 - Promote job growth and the competitiveness of the Region's employment base	The Pintail Landing NSP contains the largest commercial and mixed-use area in the Big Lake ASP, providing opportunities for local employment.
1.4 - Promote the livability and prosperity of the Region and plan for the needs of a changing population and workforce	The Pintail Landing NSP provides a range of housing types and price points with access to local employment, services and amenities, accessible via a multi-modal transportation system.
2. Protect natural living systems and environmental assets.	
2.1 - Conserve and restore natural living systems through an ecological network approach	Regionally significant natural areas are designated for retention. Further studies will be provided prior to development to ensure the sustainability of these areas.
2.2 - Protect regional watershed health, water quality and quantity	Water quality re-entering waterbodies will be improved using stormwater management facilities, and low impact development techniques.
2.4 - Minimize and mitigate the impacts of regional growth on natural living systems	Core habitat areas surrounding Big Lake will be retained and protected from development. Supporting technical studies have either been completed or will be completed prior to rezoning.
3. Recognize and celebrate the diversity of communities and promote an excellent quality of life across the Region	
3.1 - Plan and develop complete communities within each policy tier to accommodate people's daily needs for living at all ages	The Pintail Landing NSP provides a range of housing types and price points with access to local employment, services and amenities, accessible via a multi-modal transportation system.
3.2 - Plan for and promote a range of housing options	A range of market and market affordable housing will be provided through the conventional housing market. The plan will comply with the City of Edmonton's affordable housing policies.

EMRGP Objective	Pintail Landing NSP
4. Achieve compact growth that optimizes infrastructure investment.	
4.1 - Establish a compact and contiguous development pattern to accommodate employment and population growth	Pintail Landing is the last neighbourhood in the Big Lake ASP to be planned and developed. The NSP provides commercial, retail, and institutional uses, and access to a multi-modal transportation network.
4.3 - Plan and develop greenfield areas in an orderly and phased manner to contribute to complete communities	The Pintail Landing NSP provides a mix of land uses, in a compact form. While the Big Lake ASP predates contemporary regional planning initiatives, Pintail Landing NSP will result in an increase in the overall planned density for the area.
5. Ensure effective regional mobility.	
5.1 - Develop a regional transportation system to support and enhance growth and regional and global connectivity	The transportation network within Pintail Landing has been designed to meet both the internal and external traffic generated by the neighbourhood.
5.2 - Encourage a mode shift to transit, high occupancy vehicles and active transportation modes as viable and attractive alternatives to private automobile travel, appropriate to the scale of the community	The Pintail Landing NSP features a transit centre surrounded by MDR and commercial uses to encourage high occupancy transit use. To promote active modes the NSP provides a connected multi-modal network.
5.3 - Coordinate and integrate land use and transportation facilities and services to support the efficient and safe movement of people, goods and services in both urban and rural areas	The Pintail Landing NSP coordinates land use and transportation with a hierarchy of roads and a connected pedestrian network for the safe and efficient movement of people, goods, and services.
6. Ensure the wise management of prime agricultural resources.	
6.2 - Minimize the fragmentation and conversion of prime agricultural lands for non-agricultural uses	The Pintail Landing NSP minimizes fragmentation by phasing development with the extension of infrastructure and services.

3.5.2 MUNICIPAL DEVELOPMENT PLAN: THE WAY WE GROW

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

Municipal Development Plan: The Way We Grow	Pintail Landing NSP
3.2.1.1 – Ensure a combination of single family and multi-family housing development potential is available for the next 30 years.	The Pintail Landing NSP will provide single family and multi-family housing for future residents.
3.2.1.3 – Achieve a balance between residential, industrial, commercial, institutional, natural and recreational land uses in the city through land development policies and decisions.	The Pintail Landing NSP establishes a variety of development opportunities through the provision of various land use components – residential, commercial and parks.
3.3.1.1 - Promote medium and higher density residential and employment growth around LRT stations and transit centres to support and ensure the viability of transit service.	The Pintail Landing NSP designates the land surrounding the transit centre as commercial and medium density to promote ridership.
3.6.1.6 – Support contiguous development and infrastructure in order to accommodate growth in an orderly and economical fashion.	Development for Pintail Landing will be contiguous, efficient, and economical, and fills an undeveloped gap in the Big Lake area.
4.3.1.1 – The City of Edmonton will take municipal reserve, school reserve or municipal and school reserve, or cash-in-lieu in accordance with the Municipal Government Act and will use the land or money for purposes as defined by the Municipal Government Act.	Municipal reserves shall be provided as land, cash-in-lieu of land, or a combination thereof.
4.3.1.5 – Time the development of parks as closely as possible with the development they are intended to serve.	The development of parks and open spaces will coincide with residential development in Pintail Landing.
4.4.1.1 – Provide a broad and varied housing choice, incorporating housing for various demographic and income groups in all neighbourhoods.	The Pintail Landing NSP provides opportunities for a mix of housing forms and sizes to support a range of income levels and household types.
4.5.1.1 - Work proactively and in partnership with others to meet a wide range of affordable housing needs in all areas of the city with a focus on LRT stations and transit centres.	Affordable housing will be provided per the regulations set out in City Policy C582 – Developer Sponsored Affordable Housing.
4.5.1.2 – Encourage new development and infill redevelopment to incorporate affordable housing that is visually indistinguishable from market housing.	The Pintail Landing NSP provides opportunities for a mix of housing types and lot sizes to accommodate various demographic and household types.
4.6.1.2 – Ensure active transportation opportunities are included in plans and redevelopment proposals.	The network of roadways, sidewalks, walkways and shared use paths will be designed according to best practices in universal design and will provide residents with the ability to walk, cross-country ski, bike, etc. within the neighbourhood.
5.5.1.2 – Incorporate sustainable neighbourhood design principles, low impact development and	The Pintail Landing NSP preserves the Big Lake Ravine and mature tree stands through a combination of

Municipal Development Plan: The Way We Grow	Pintail Landing NSP
ecological design approaches when planning and building new neighbourhoods.	Environmental and Municipal Reserves and encourages active modes of transportation with shared use paths along the top-of-bank and throughout the neighbourhood.
5.5.1.3 - Ensure new large-scale commercial centres (including big box development and retail power centres) are designed to: • Generate and accommodate pedestrian activity. • Provide clear on-site pedestrian connections. • Include outdoor public amenity spaces for patrons and employees. • Support transit ridership. • Reduce the visual and environmental impact of large hard surface parking lots.	The Pintail NSP provides policies to guide the rezoning process in the selection of appropriate Zones. The plan also contains policies to encourage green development practices.
5.6.1.4 – Design density, land uses and buildings to benefit from local transit service by minimizing walking distances to transit service and by providing safe and comfortable pedestrian streetscapes and high-quality transit amenities.	Higher density residential and commercial areas have been located near arterial and/or collector roadways to promote walkability and transit use. All other uses have a high degree of access to arterial and collector roadways with transit service.
5.6.1.9 - Integrate park use into the everyday experience of residents by designing parks and adjacent development to complement one another and by seeking opportunities to locate City facilities adjacent to parkland.	The Pintail NSP provides integrated parks and open space along with a pedestrian network to encourage everyday park use.
5.7.1.1 – Design streets, sidewalks and boulevards to provide safe, accessible, attractive, interesting and comfortable spaces for pedestrians, cyclists, automobiles and transit and to accommodate utilities, landscaping and access requirements for emergency response services.	The Pintail Landing NSP supports the use of enhanced pedestrian crossings and traffic calming measures as a means of providing pedestrian safety and attractive street designs. Boulevards and medians may be used to improve the appearance and function of the streetscape.
6.1.1.3 – Include retail space as a key component of planned mixed-use centres that focus on LRT stations and transit centres.	The Pintail Landing NSP provides the opportunity for retail commercial space immediately adjacent to the transit centre.
6.1.1.4 - Encourage office development around LRT stations and transit centres.	The Pintail Landing NSP provides commercial space immediately adjacent to the transit centre, which provides the opportunity for office development.
7.1.1.5 - Acquire critical natural linkages and buffer zones to ensure natural areas of ecological value remain sustainable within an urban context.	Natural areas are identified in the Pintail Landing NSP. Buffer zones will be determined prior to rezoning and subdivision.
7.1.1.7 – Public projects, new neighbourhoods and developments will protect and integrate ecological networks, as identified in the Natural Connections Strategic Plan, by adopting an ecological network approach to land use planning and design.	The Pintail Landing NSP protects and integrates the Big Lake Ravine and mature tree stands into the neighbourhood.
7.3.3 - Mitigate the impact of development upon the natural functions and character of the North Saskatchewan River Valley and Ravine System.	The Pintail Landing NSP will preserve and protect the Big Lake Natural Area, Horseshoe Lake, and other naturally significant areas.
7.4.1.1 – Link parks and open spaces with natural systems through development and design to	Parks, storm water management facilities and other open spaces are inter-connected in order to serve as

Municipal Development Plan: The Way We Grow	Pintail Landing NSP
strengthen the connectivity of Edmonton's ecological network, where feasible.	neighbourhood destinations and to provide passive recreation opportunities where possible. These same trails and connections will also contribute to enhancing ecological connectivity and new habitat.
9.3.1.4 – In consultation with the Alberta Energy Regulator (AER), ensure development setbacks from oil and gas pipelines are achieved through the subdivision approval process.	Urban development in the vicinity of all resource well sites and pipelines will be planned in accordance with AER requirements and City policy and procedures.

3.5.3 TRANSPORTATION MASTER PLAN: THE WAY WE MOVE

The Transportation Master Plan (TMP) "The Way We Move", is the framework that responds to the City of Edmonton's future transportation needs. The TMP directs policies and gives guidance for funding projects and programs that work towards an integrated transportation network. The TMP strives to ensure transit sustainability and increase transit ridership, improve travel options to reduce barriers between different modes of transportation, increase traffic safety and manage traffic congestion to facilitate travel through and around the city.

TMP Strategic Goal	Pintail Landing NSP
Transportation and Land Use Integration The transportation system and land use/urban design complement and support each other so that the use of transit and transportation infrastructure is optimized and supports best practices for land use.	The Pintail Landing NSP provides a network of roadways which are compatible and complementary to the primarily residential development within the neighbourhood, with access to transit which meets the City's walkability requirement.
Access and Mobility The transportation system is interconnected and integrated to allow people and goods to move efficiently throughout the city and to provide reasonable access with a variety of modes for people across demographic, geographic, socio-economic and mobility spectrums.	The Pintail Landing NSP transportation network encourages multiple modes of Transportation, including public Transportation, personal vehicle, and active Transportation to accommodate residents and connect residents with services in surrounding communities.
Transportation Mode Shift Public transportation and active transportation are the preferred choice for more people making it possible for the transportation system to move more people more efficiently in fewer vehicles.	The Pintail Landing NSP has been designed to support direct, safe, convenient and accessible routes for all residents and provides a well-integrated network between sidewalks, walkways and a shared use path connecting people to amenities.
Sustainability Transportation decisions reflect an integrated approach to environmental, financial and social impacts thereby creating sustainable, liveable communities that minimize the need for new infrastructure and increase residents' quality of life.	The Pintail Landing NSP supports sustainable development by providing increased residential densities, public transit and active transportation opportunities. Services are located nearby and are readily accessible.
Health and Safety The transportation system supports healthy, active lifestyles, and addresses user safety and security including access for emergency response services, contributing to Edmonton's liveability.	The network of sidewalks, walkways and shared-use paths designed using CPTED principles, provide residents with the ability to safely walk or cycle through the neighbourhood improving health and wellness.

3.5.4 THE WAY WE GREEN

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

The Way We Green Principles	Pintail Landing NSP
Healthy Ecosystems – Land	The Pintail Landing NSP meets the goal of Healthy Ecosystems – Land by ensuring preservation of Natural Areas and the North Saskatchewan River Valley and Ravine System and by providing linkages and open space for residents to enjoy these areas.
Healthy Ecosystems – Water	The Pintail Landing NSP contributes to the Healthy Ecosystem – Water goal by ensuring that stormwater is stored and treated naturally prior to release into the river.
Healthy Ecosystems – Air	The Pintail Landing NSP meets the goal of Healthy Ecosystems – Air by including walkable neighbourhoods and transit service to reduce the use of the personal automobile as well as preserving Natural Areas where possible and encouraging the planting of additional trees.
Energy and Climate Change	The Pintail Landing NSP encourages the application of green building strategies and alternative energy servicing to improve the overall environmental sustainability of the Big Lake area.
Food	The Pintail Landing NSP provides opportunities for local food productions and the integration of urban agriculture land uses.
Solid Waste	The Pintail Landing NSP provides compact development utilizing infrastructure in an efficient manner, reducing costs of waste management.
Foundation for Success	The Pintail Landing NSP strives to create a sustainable neighbourhood within the City.

4 APPENDIX A

4.1 WELL & PIPELINE INFORMATION

The following table provides information regarding AER pipeline licenses within the Pintail Landing NSP area and in adjacent parcels.

TABLE 3: AER PIPELINE INFORMATION

Company	Lic/Line	Status	H2S (mol/kmol)	Max Oper. Pressure (kPa)	Outer Diameter (mm)	Content
18-53-25-W4						
Atco Gas and Pipelines Ltd. (South)	1670-27	Operating	0	3450	508	Natural Gas

TABLE 4: AER WELL INFORMATION

Company	Well ID	Status/ Substance	Abandon. Date	Abandoned Status
18-53-25-W4				
Chevron Canada Limited	W0 / 04-18-053-25 W4 / 0	ABD	10-Jun-50	RecExempt
Fortune Energy Inc.	00 / 04-18-053-25 W4 / 0	ABD	29-Nov-91	RecCertified
Fortune Energy Inc.	00 / 13-18-053-25 W4 / 0	ABD	10-Mar-85	RecCertified