

BYLAW 24-2022
PANORAMA ESTATES AREA STRUCTURE PLAN

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

There is no existing area structure plan for the lands legally described as NW13-52-23-W4 and it is advisable to adopt a new area structure plan for the NW13-52-23-W4;

Council enacts:

- | | |
|----------|---|
| Adoption | 1 The document entitled "Panorama Estates Area Structure Plan" attached to this bylaw as Schedule "A" is hereby adopted as an area structure plan pursuant to the <i>Municipal Government Act</i> , RSA 2000, c M-26, as amended, for the lands legally described as NW13-52-23-W4. |
|----------|---|

FIRST READING:_____

SECOND READING:_____

THIRD READING:_____

SIGNED THIS ____ day of _____, 20____.

MAYOR

DIRECTOR, LEGISLATIVE AND LEGAL
SERVICES

Panorama Estates

Area Structure Plan

Strathcona County

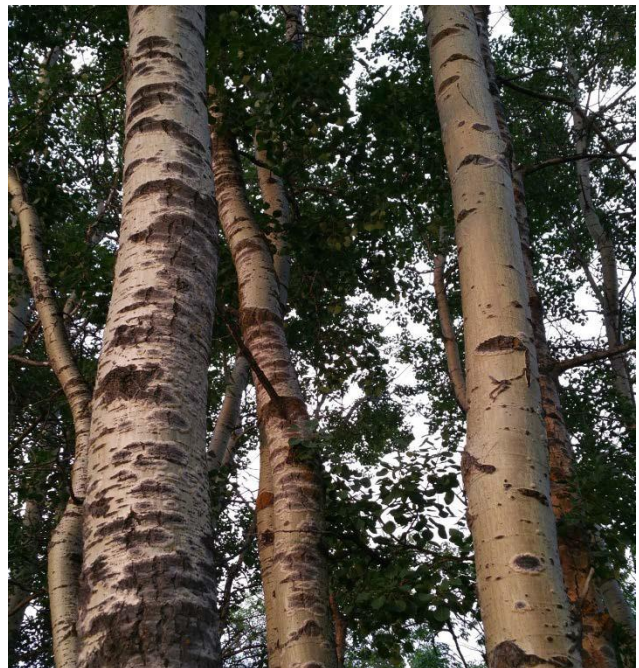


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1 INTRODUCTION

1.1 Purpose

The purpose of the Panorama Estates Area Structure Plan (ASP) is to provide a vision for the development of the subject lands as a residential community that retains the country residential character of the surrounding context. The ASP establishes a framework for subdivision, future land uses, transportation routes, open spaces, and public utilities.

This plan intends to develop a residential community that is compatible with the existing land uses. The need for this ASP was triggered by the future development on the southwest corner of the Plan Area and remains the focus of this ASP. It is anticipated that landowners willing to further develop their properties will need to conduct similar and/or further technical investigations and studies which may also result in amendments to the ASP.

1.2 Plan Area Location

The Panorama Estates ASP applies to the lands located within quarter section NW 13-52-23-W4 of Strathcona County, Alberta (refer to Map 1 - Location & Context). Country residential developments exist adjacent to the north, west, and south of the subject lands. The subject lands are approximately 65.9 hectares (162.9 acres). Sconadale Road divides the subject lands into northern and southern sections that were previously subdivided into thirteen lots (refer to Map 2 – Existing Site Conditions). North of Sconadale Road terrain is generally flat and undulating while south of Sconadale Road terrain is undulating and rolling. Existing land uses are currently predominantly Rural Residential/Agriculture with some low density country residential and one public service lot (Victory Baptist Church) along the northwestern edge of Sconadale Road. Municipal reserve land, located in the northeast area of the quarter section, was dedicated during the previous subdivision of the quarter section (refer to Map 3 – Land Use Concept).

The subject lands are located approximately 760 metres north of the intersection of Highway 628 and Range Road 231. The lands applied to this ASP are bounded by the following boundaries and features:

- Developed residential lands within *Executive Estates* to the north;
- Large residential lots within *Sconadale* to the east;
- Residential parcels within quarter section SW 13-52-23-W4 to the south; and
- Western Boundary: Developed residential lands within *Windsor Estates* to the west.

1.3 Vision Statement

The Panorama Estates Area Structure Plan will provide opportunities for development with a country residential character that is compatible with the surrounding context. Development in this area will respect and highlight natural and environmental characteristics while providing opportunities to create a high-quality public realm consisting of connected trails and open spaces.

1.4 Core Ideas

The following core ideas will guide the policies in this ASP:

- 1) Retain the primary use of the lands as residential;
- 2) Provide a range of residential lot sizes to accommodate single detached dwellings;
- 3) Maintain existing character along Sconadale Road;
- 4) Provide an appropriate transition from surrounding country residential areas;
- 5) Provide opportunities for future trail network; and
- 6) Provide efficient and logical Infrastructure.

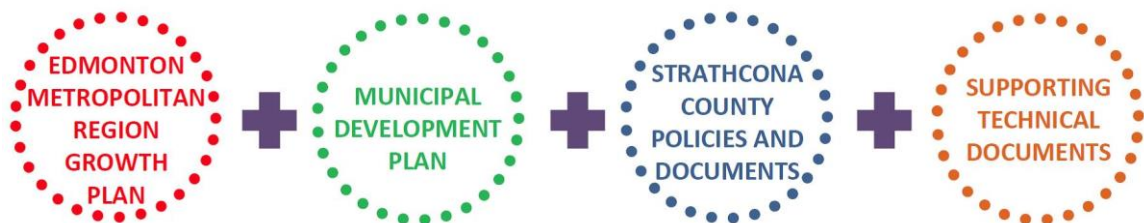
These core ideas have informed the goals, objectives and policies.

2 ADMINISTRATION

2.1 Planning Context

This Area Structure Plan (ASP) should be read in conjunction with Strathcona County's Municipal Development Plan and all other applicable County policies and documents, along with supporting technical documents and studies included with this Plan. Regionally, the Edmonton Metropolitan Region Board Growth Plan has applicable policy objectives that must be considered for the future development of the Plan Area.

The ASP should be read in conjunction with:



2.2 Policy Structure

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

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

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

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

TABLE 1: POLICY TERMS

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

2.3 Interpretation

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

Definitions

Planning terms within the ASP may be given their meaning from the following documents in order of priority:

- a. Municipal Government Act.
- b. Edmonton Metropolitan Region Growth Plan.
- c. Municipal Development Plan Bylaw 20-2017.

Other terms shall be given their usual and customary meaning.

3 LAND USE CONCEPT

3.1 Residential

The Land Use Concept features a country residential community designed to maintain the existing character of Sconadale Road and to provide an appropriate transition from surrounding country residential areas. It also offers opportunities for future trail network development to allow for passive, nature-based and active recreation activities for residents (refer to Map 3 – Land Use Concept).

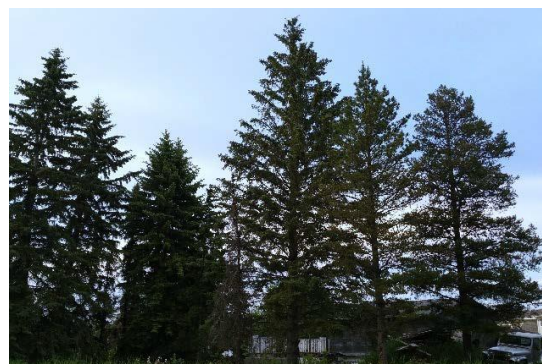
Goal

To retain the primary use of the lands as country residential providing a range of lot sizes in a manner that recognizes and responds to the existing character of Sconadale Road.

Objectives

Strathcona County's residential objectives in the Plan Area are to:

- *Provide equitable development opportunities in future subdivisions through lot distribution and design.*
- *Create a residential community that fits with the surrounding country residential character and context.*
- *Provide residents with the opportunity to operate compatible businesses to contribute to the local economy.*



Policies

Lot Distribution and Design

- 3.1.1 **Require** a maximum of 129 residential lots within the Plan Area to **ensure** density levels are consistent with higher density country residential development.
- 3.1.2 **Require** equitable distribution of lot potential based on land holdings as shown in Section 6.2 Distribution of Subdivision Potential to **ensure** equitable development opportunities for all landowners within the Plan Area.
- 3.1.3 **Encourage** future subdivision applications to align property lines of proposed lots with property lines of existing lots to **promote** complementary subdivision configurations and minimize the number of new lots that abut existing lots.
- 3.1.4 **Encourage** proposed property lines to adhere to development setbacks for existing structures to **promote** existing structures maintain compliance with the land use bylaw.

Country Residential Character

- 3.1.5 **Require** all new lots to be a minimum of 0.125 hectares (0.3 acres) in area to **ensure** a lot size that is consistent with higher density country residential.
- 3.1.6 **Encourage** residential lots abutting Sconadale Road to be a minimum of 0.4 hectares (1.0 acre) to **promote** the ability of the dwellings to be located away from Sconadale Road.
- 3.1.7 **Require** all new residential lots abutting the north, south, and east boundary of the Plan Area to have a minimum lot area of 0.8 hectares (2.0 acres) to **ensure** an appropriate transition to existing lots within adjacent quarter sections.

Compatible Businesses

- 3.1.8 **Consider** businesses within the plan area that are secondary to the residential use of a property and compatible with surrounding country residential development to **support** the ability for residents to contribute to the local economy.

3.2 Open Space and Environment

The Panorama Estates ASP will improve pedestrian connectivity through opportunities for future trail network development, while existing environmentally significant features of the natural ecosystem will be conserved, where possible, and utilized to provide a unique character for the area.

A large portion of the wetland and adjacent upland forest located on the north half of the Plan Area has been protected as Municipal Reserve during the original subdivision process. Parts of the southern half of the Plan Area was cleared in the late 1960s, affecting both forest and wetland habitats. As a result, the Plan Area has a mix of developed landscapes, human modified and often small wetlands, and some large wetland complexes and forest patches.

Goal

Conserve the remaining large wetlands complexes of the Plan Area while providing opportunities to create high quality, connected open spaces.

Objectives

Strathcona County's open space and environment objectives in the Plan Area are to:

- *Provide open space **connectivity** within the Plan Area and to surrounding areas.*
- *Provide **public access** to Municipal Reserve,*
- *Conserve **environmentally significant areas.***
- *Confirm **site suitability** for the lots being created at the subdivision stage.*

Policies

Connectivity

- 3.2.1 **Encourage** trail development to connect to environmental reserve and municipal reserve areas, as well as stormwater management facilities to **promote** direct and convenient access to public lands.
- 3.2.2 **Require** a contiguous network of multi-use trails that provide connections to and between parks and open spaces within the Plan Area and adjacent neighbourhoods to **ensure** an active, connected and healthy community.
- 3.2.3 **Encourage** trails within the Plan Area to be naturalized to **promote** wildlife connectivity.

Public Access

- 3.2.4 **Require** the trail system to be connected to the Municipal Reserve to **ensure** public enjoyment of the area for all residents and visitors.

Environmentally Significant Areas

- 3.2.5 **Require** that wetlands with ecological value delineated and identified in the biophysical assessment be conserved to **ensure** development minimizes impact on the ecosystem.
- 3.2.6 **Encourage** that upland forests with ecological value delineated and identified in the biophysical assessment to be conserved to **promote** development minimizes impact on the ecosystem.
- 3.2.7 **Require** that wetlands identified for conservation are dedicated as an environmental reserve lot or contained as an environmental reserve easement established at the time of subdivision to **ensure** environmentally significant features can be protected through appropriate means.
- 3.2.8 **Require** the boundaries of environmental reserves and environmental reserve easements to be determined using a combination of the biophysical assessment and onsite evaluation at the time of subdivision application to **ensure** that wetlands identified for conservation are properly delineated and conserved.
- 3.2.9 **Encourage** road and lot layout to be configured to limit loss of wetland and forest fragmentation to **promote** wetland conservation and minimize the fragmentation of wildlife habitat.

Site Suitability

- 3.2.10 **Require** that lots within existing developments are evaluated with respect to environmental contamination to **ensure** the site is suitable for the intended use.

3.3 Local Community Services

The Panorama Estates ASP will establish a strong community focal point at the site located north of Sconadale Road to meet the growing needs and requirements of the community. This reflects the broad community role and multiple functions performed by community services.

Goal

Provide a site for Local Community Services within the Plan Area to provide a community focus at this location.

Objective

Strathcona County's Local Community Services objective in the Plan Area is to:

- *Provide Local Community Services that will promote a healthy and vibrant community.*

Policies

Healthy and Vibrant Community

- 3.3.1 **Encourage** Local Community Service land uses to **promote** social sustainability, providing space for worship, learning, and community gathering.
- 3.3.2 **Require** that local community service sites be at a scale that is compatible with country residential development to **ensure** the impact on surrounding residential development is minimized.

4 TRANSPORTATION

The ASP intends to provide direction on how transportation will be coordinated over time between different landowners to provide an interconnected, safe and efficient system, including active transportation.

Primary access to the Plan Area will be along the existing Sconadale Road that connects to Range Road 231 immediately west of the Plan Area providing a linkage to the adjacent quarter section.

The Range Road 231 and 232 Functional Planning Study (FPS) completed in 2019 addresses the long-term improvements required for both corridors. The FPS evaluated the transportation impacts related to the community services site located on the northeast corner of Road Range and Sconadale Road. To reduce conflict points along Range Road 231 and to address concerns about site lines at the community services site, the FPS recommended that the current access for the site be relocated to Sconadale Road. This relocation would occur in conjunction with roadway reconstruction.

A detailed intersection analysis resulted in a recommendation for an intersection treatment for Range Road 231 and Windsor Estates Road/Sconadale Road in the long term (2040). The ultimate improvement proposed for Range Road 231 is a roundabout and illumination at the full build-out of the ASP. Illumination and signalization were not deemed necessary for the intersection of Range Road 231 and Windsor Estates Road/Sconadale Road for Stage 1 of the ASP.

Active transportation is an important mode of travel and recreation. The ASP strives to achieve a trail network to improve the connectivity and quality of life for current and future residents. It is anticipated that several trails will be achieved throughout the ASP area.

Goal

To develop a transportation network that meets the needs of existing and future residents.

Objectives

Strathcona County's transportation objectives in the Plan Area are to:

- ***Provide an interconnected multi-modal transportation network.***
- ***Provide safe, efficient movement to, and within the community.***

Policies

Interconnected Multi-Modal Transportation Network

- 4.1.1 **Consider** cul-de-sac design as an interim method where the lands subject to a subdivision are unable to accommodate a continuous multi-modal road network to **support** the development of landowners' individual properties.
- 4.1.2 **Require** cul-de-sacs to incorporate road right of way and/or pedestrian connections extending from the bulb that connects to adjacent parcels to **ensure** connections and an ultimately interconnected multimodal transportation system.
- 4.1.3 **Require** noise attenuation fencing along lots that back onto Range Road 231 as shown on *Map 3 – Land Use Concept* to **ensure** the enjoyment of the properties is retained to a high-quality standard.
- 4.1.4 **Require** the interconnected multi-modal transportation network to connect to the Municipal Reserve area to **ensure** direct and convenient access to those lands.
- 4.1.5 **Require** all future subdivisions proposed within the plan area to proportionately contribute towards costs associated with the future trail development in the plan area to **ensure** the contiguous development of the pedestrian system.
- 4.1.6 **Require** a multi-use trail along the north side of Sconadale Road to **ensure** active transportation opportunities to connect to the existing Municipal Reserve area.
- 4.1.7 **Encourage** the multi-modal transportation network to connect to stormwater management facilities to **promote** public access and integration with adjacent land uses.

Safe, Efficient Movement

- 4.1.8 **Require** the transportation infrastructure network to reduce pedestrian-vehicle conflicts by minimizing trail crossing to **ensure** safe efficient movement to, and within the community.
- 4.1.9 **Require** emergency access as part of a subdivision is designed to address the future needs of abutting parcels to **ensure** emergency response can be provided to all lots within the Plan Area.
- 4.1.10 **Consider** the continuance of the existing access to Range Road 231 for the local community services site where the access safely accommodates the trip generation of any proposed use on the site to **support** safe access and egress for the local community services.
- 4.1.11 **Require** access to individual lots to be provided via an internal road that branches from Sconadale Road to **ensure** residential access points are directed to roads of lesser traffic.
- 4.1.12 **Require** the access point to the local community services site located on the northeast corner of Range Road 231 and Sconadale Road to be relocated to Sconadale Road in conjunction with roadway reconstruction to **ensure** the reduction of conflict points along Range Road 231 and site lines issues.

5 UTILITY INFRASTRUCTURE

Sanitary, Stormwater Management & Water Servicing Concept

A Functional Servicing Report as summarized in Appendix C was completed to support the infrastructure servicing outlined within this ASP. Infrastructure has been assessed for the full build-out of Panorama Estates with regards to future lot potential of a maximum number of 129 lots for the quarter section.

The Functional Servicing Report details how Stage 1, consisting of 19 lots, are to be serviced with roadways, watermains, sanitary systems, as well as stormwater management. Available capacity for the servicing of future stages of development for the remaining potential of 110 lots has also been contemplated. Although overall capacity has been considered, development beyond Stage 1 will need to provide detailed engineering specific to each proposal in accordance with the policies of this ASP as well as the documents indicated in Section 2.1 – Planning Context. The future concepts for these services have been informed by these studies, pertinent factors and guidelines, and are conceptually depicted in Map 5 – Utility Servicing.

5.1 Water and Wastewater

Water – Water System Design and Analysis Report

The Municipal Development Plan and the County Residential Area Concept Plan require the connection to rural water and wastewater servicing. The Water Servicing Plan for the Stage 1 lands is based on Strathcona County Rural Water Servicing Model.

Water is intended to be provided through a piped water distribution referred to as a trickle fill system, which is used as a water supply system in country residential subdivisions. This system was developed as an efficient solution to supporting low-density residential development where demand fluctuates, and the capacity of a conventional urban water system is underutilized.

The system operates by providing an individual cistern at each lot that is connected to existing water lines. A pump owned and maintained by each homeowner will then be responsible for providing water from the cistern. Individual cisterns are to be private infrastructure and are required to be within each lot.

A water supply connection is available to the Stage 1 lands from the existing 150 mm water distribution main running along Range Road 231. A 100 mm stub is available for connection at the junction point (Intersection of Range Road 231 and Sconadale Road) for extending the watermain into Stage 1 lands. However, Strathcona County's rural water supply does not provide enough capacity for delivering fire protection flows through traditional hydrants. Policies within this ASP intend to ensure lot sizes allow for separation distance between buildings and structures, and to provide a transportation system that facilitates emergency response promptly.

Sanitary – Sanitary System Design and Analysis Report

Proposed Stage 1 development lands are planned to be serviced with sanitary service based on Strathcona County's Country Residential Wastewater Master Plan, 2010.

A suitable system to support the proposed development is a Septic Tank Effluent Pump (STEP) system for sanitary services. The STEP system requires an onsite septic tank for each lot and an offsite associated effluent discharge line.

A 75mm sanitary forcemain exists along Range Road 231 and it connects to a 250mm gravity line south of Wye Road. The existing 75mm line was constructed to support the Meadow Hawk development, which is located immediately northwest of the Plan Area.

The adequacy of the line for this service has been tested in accordance with the current Wastewater Master Plan; the wastewater peak flows have been calculated in line with the methods set out in the Master Plan and the Strathcona County Design and Construction Standards. The analysis showed that the existing 75mm line has the capacity for Stage 1 development.

The existing 75mm sanitary forcemain can also accommodate sanitary outflows from future 110-lot development, along with the outflows from Panorama Stage 1. Therefore, the sanitary servicing capacity is available for future stages of development within the Plan Area.

Goal

To provide servicing to future development that is orderly and efficient and considers the surrounding environmental context.

Objectives

Strathcona County's water and wastewater objectives in the Plan Area are to:

- ***Provide orderly and efficient servicing***
- ***Provide a level of servicing that minimizes any potential negative impact resulting from residential development.***

Policies

Orderly and Efficient Servicing

- 5.1.1 **Require** that servicing for each stage of development is provided in a manner that enables the full development of the quarter section to **ensure** redundancy is avoided in infrastructure provision.

Level of Servicing

- 5.1.2 **Require** that municipal improvements apply efficient and effective design approaches with respect to servicing alignments and capacity to **ensure** that those systems provide adequate servicing to developments.
- 5.1.3 **Require** all new developments in the Plan Area to connect to the municipal water and sanitary sewer network to **ensure** the existing infrastructure services are fully utilized.

5.2 Storm Management

This Plan intends that any stormwater management system for future stages of the ASP will be addressed by future studies and informed by the existing topography and hydrology of the area.

To that end, a Stormwater Management Plan has been designed for Stage 1 of the ASP. The objective of the proposed stormwater management plan is to prevent flooding of the property and to limit the release rate from the proposed development in Stage 1 to the pre-development level. The proposed Stage 1 concept provides direction for post-development runoff to be managed by a collection system of leaders, channels and drainage swales that will direct the runoff to the proposed pond on the northeast corner of the Stage 1 area.

The remainder of the lands will need to perform the same analysis to accommodate future development within the quarter section.

Goal

Provide a stormwater management system that incorporates elements of the natural environment and contributes to the long-term sustainability of the community.

Objectives

Strathcona County's storm management objectives in the Plan Area are to:

- **Utilize sustainable practices for stormwater management.**
- **Provide public access to stormwater management facilities.**

Policies

Sustainable Practices

- 5.2.1 **Encourage** existing wetlands to be incorporated into stormwater management facilities and drainage to **promote** the reduction of the size of ponds and optimize their location.
- 5.2.2 **Require** existing wetlands in stormwater management facilities to be naturalized to **ensure** improving and enhancing stormwater runoff water quality.
- 5.2.3 **Require** new stormwater management facilities not located on existing wetlands to incorporate natural and ecological features to **ensure** they can become a habitat for wildlife.
- 5.2.4 **Require** each subdivision to provide efficient stormwater management in a manner that provides drainage at pre-development rates to **ensure** new development does not impact adjacent lands.
- 5.2.5 **Encourage** minimizing the number of stormwater management facilities by designing them to consider future connections/expansion for abutting parcels to promote efficient and contiguous infrastructure.

Public Access

- 5.2.6 **Require** stormwater management facilities to provide all-weather access to **ensure** year-round maintenance and access.

6 IMPLEMENTATION

All stages of this plan will be implemented by following the policy intent contained within this plan as part of future rezoning and subdivision applications. This section provides additional clarity on subdivision potential and outlines future requirements to implement this plan.

6.1 Staging

The Panorama Estates ASP is a long-term policy framework that guides future rezoning, subdivision and development. To achieve this vision, development in the Plan Area should have regard for the staging of infrastructure and support the viability and efficiency of future subdivision applications. Refer to Map 4 - Staging Plan.

The first stage of development will occur in the southwest corner of the Plan Area. This will allow initial servicing to be completed while allowing for future development to occur logically to the east. Future stages of development will include the construction of additional servicing, roadway infrastructure, and the trail network and shall be coordinated with Strathcona County and may require amendments to this ASP.

6.2 Distribution of Subdivision Potential

The table below indicates the maximum subdivision potential of residential lots that may be considered for each existing titled lot that is planned for residential land use within the quarter section. Future lot potential is based on the maximum number of 129 lots for the quarter section proportionately distributed in accordance with each existing lot's titled area (refer to Map 6 – Distribution Lot Potential).

TABLE 2 –DISTRIBUTION OF LOT POTENTIAL

LEGAL DESCRIPTION	AREA OF LOT	MAXIMUM LOT POTENTIAL
Lot 8, Plan 1989NY	19.41	19
Lot 7, Plan 1989NY	17.73	17
Lot 6A, Plan 9021637	8.65	8
Lot 6B, Plan 9021637	8.17	8
Lot 5, Plan 1989NY	18.5	18
Lot 3, Plan 1989NY (1)	7.59	7
Lot 3, Plan 1989NY (2)	12.17	12
Lot 2D, Block 5, Plan 0223261	3.48	3
Lot 2E, Block 5, Plan 0223261	3.66	4
Lot 2F, Block 5, Plan 1324109	4.9	5
Lot 2G, Block 5, Plan 1324109	7.93	8
Lot 1, Plan 1989NY	20	20
Total	132.19	129

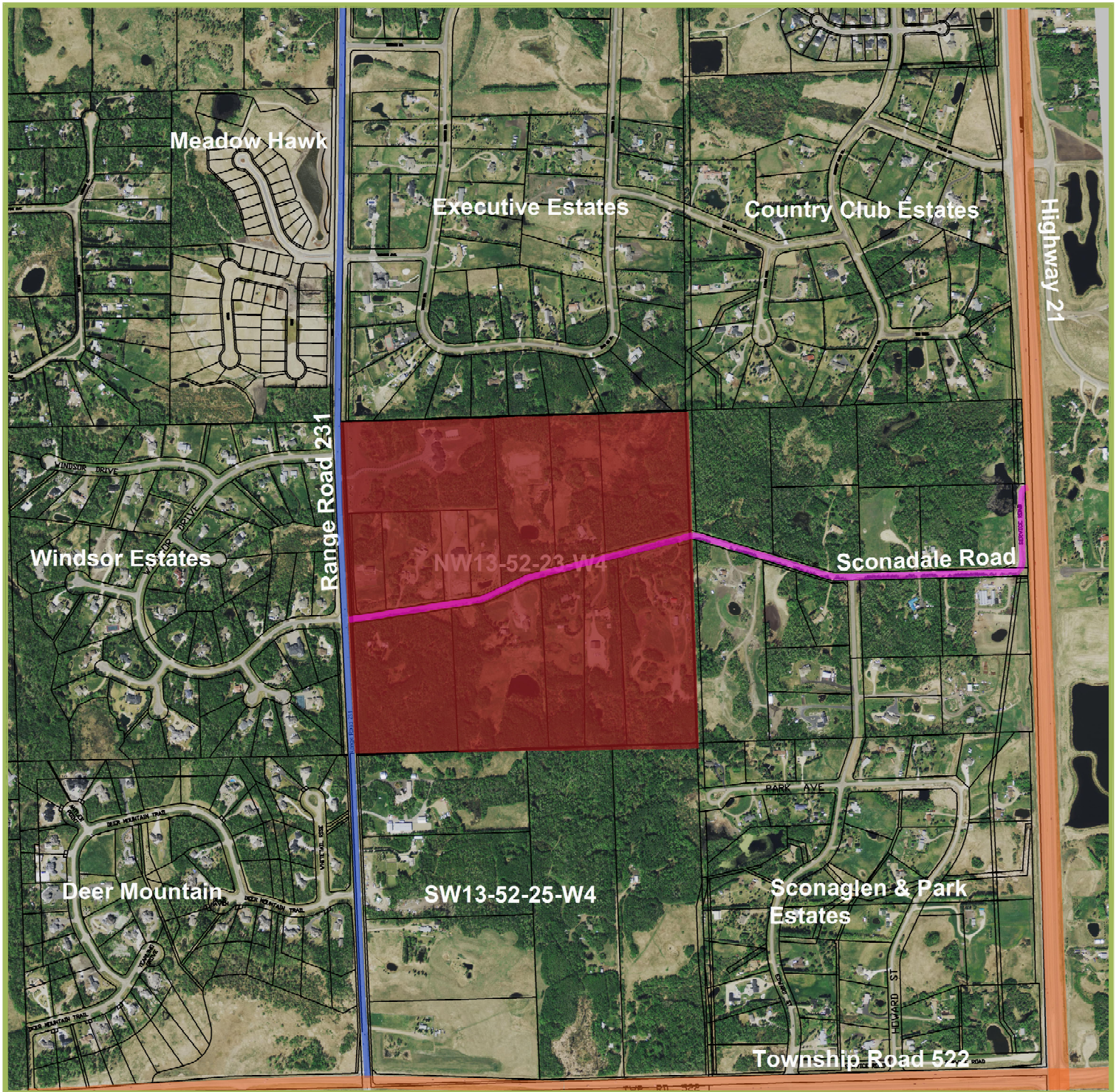
6.3 Implementation Items

The following items below are required to implement this area structure plan.

TABLE 3 – IMPLEMENTATION

Implementation Item	Justification
Rezoning of lots to appropriate land use districts	LUB amendment applications may be required to support future residential subdivision within the quarter section. However, if there were changes to the Area Concept Plan (ACP) in the future that enabled the low density country developments in this quarter section, there are a few parcels that would not need to be rezoned.
Environment Site Assessment	Phase I, II, and III ESA Report(s) may be required to evaluate lots within existing developments with respect to environmental contamination to ensure the site is suitable for the intended use.
Transportation Network	At full build-out of the ASP, with all development traffic added, the current recommendation is that a roundabout at the intersection of Range Road 231 and Windsor Estates Road/Sconadale Road and illumination should be built as the intersection treatment for this location due to its increased capacity.
Additional studies	<p>Additional studies are required to support development in accordance with this ASP.</p> <ul style="list-style-type: none"> • A Tree Conservation Report (TCR) and a Tree Protection Plan (TPP) will be required for all development, including Stage 1, and future stages. The TCR will be completed at the subdivision stage. The TPP will be required before stripping and grading to ensure the recommendations of the TCR are met. The TCR/TPP will be required to demonstrate how the Environmental Reserve will be protected. • Further stages may require addendums to the design brief. • Geotechnical Report for all development.
Wetland conservation	The completion of water act approvals and compensation will be required for any primary or secondary wetlands impacted by future development.
Subdivision Agreements	A subdivision agreement will be required for all stages to serve the development as additional development will contribute to increasing traffic and servicing demand.
Levies	Levies are required for offsite infrastructure as part of the subdivision approval for new development. In addition, new development may be requested to bear with the proportioned costs associated with the construction of roundabout and illumination.

Maps

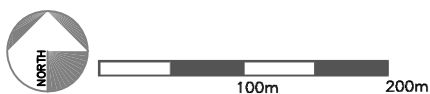


Panorama Estates

Area Structure Plan

MAP 1 Location & Context

- Site Location
- Provincial Highway
- Rural Grid Road
- Country Residential Subdivision Road











Panorama Estates

Area Structure Plan

MAP 2

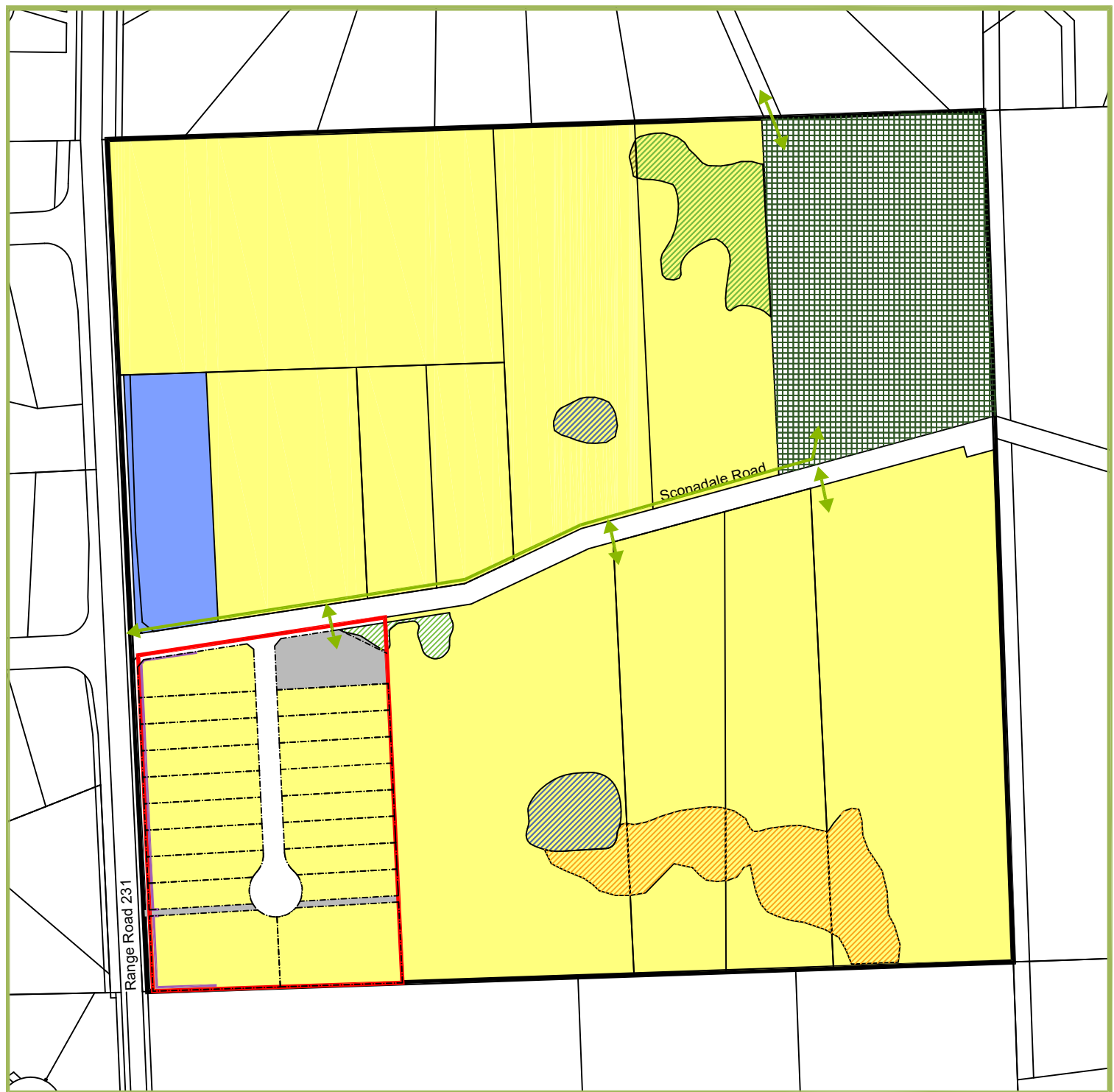
Existing Site Conditions

-  Water Well
-  Swamp, Shrubby
-  Swamp, Wooded, Deciduous
-  Shallow Open Water, Aquatic Vegetation

-  Marsh, Graminoid
-  Survey Location



100m 200m

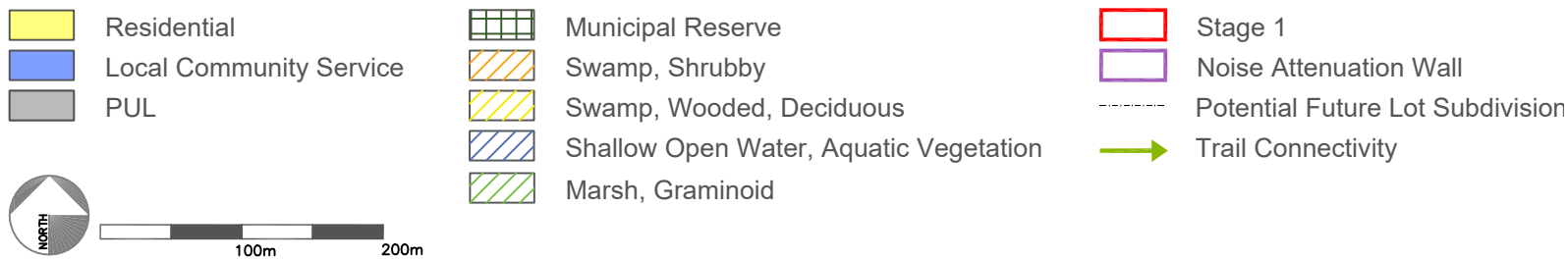


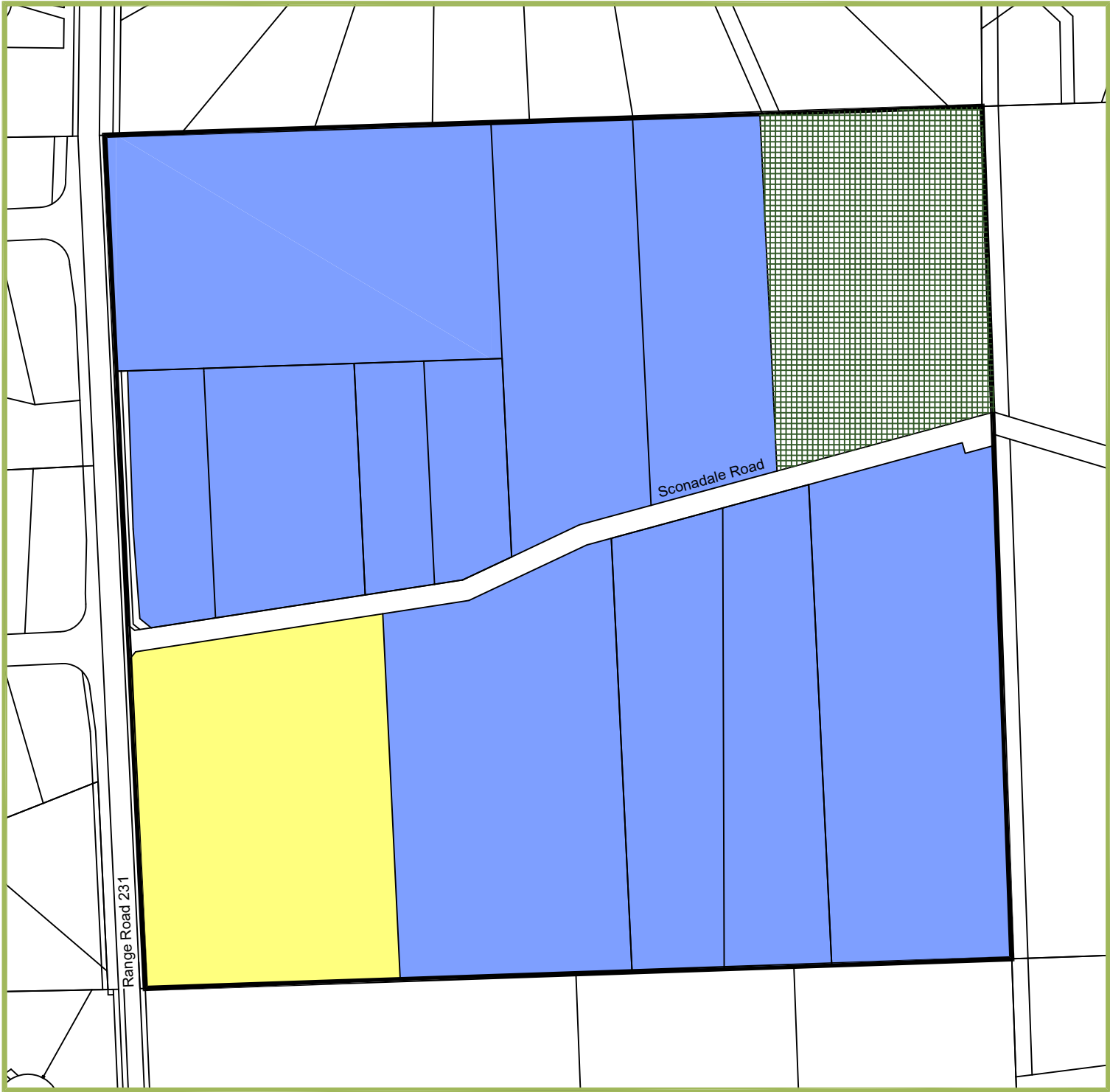
Panorama Estates

Area Structure Plan

MAP 3

Land Use Concept



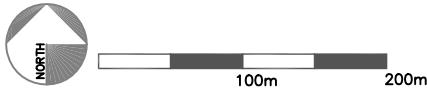


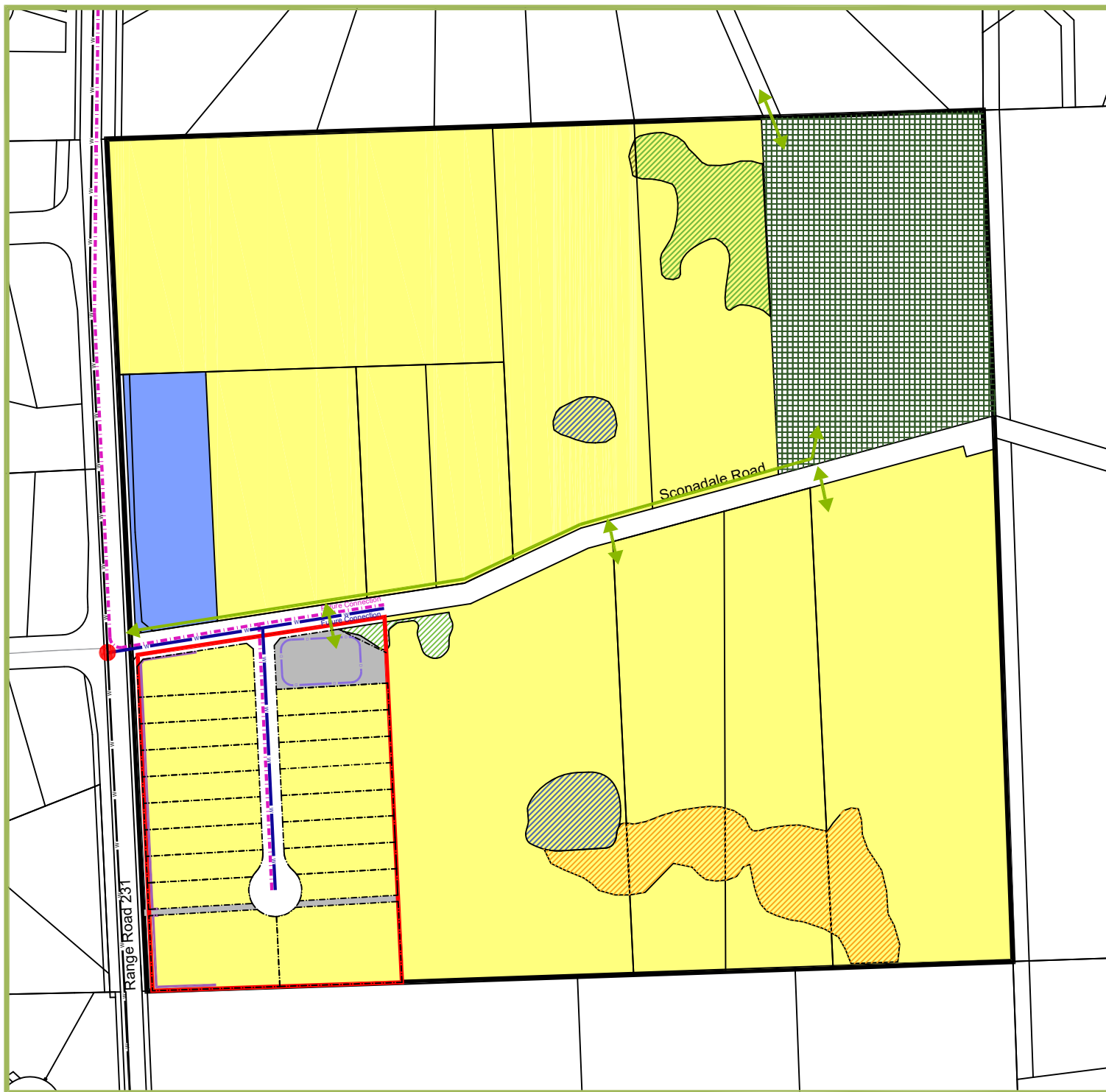
Panorama Estates

Area Structure Plan

MAP 4 Staging Plan

- Stage 1
- Future Stages
- Municipal Reserve






Panorama Estates

Area Structure Plan

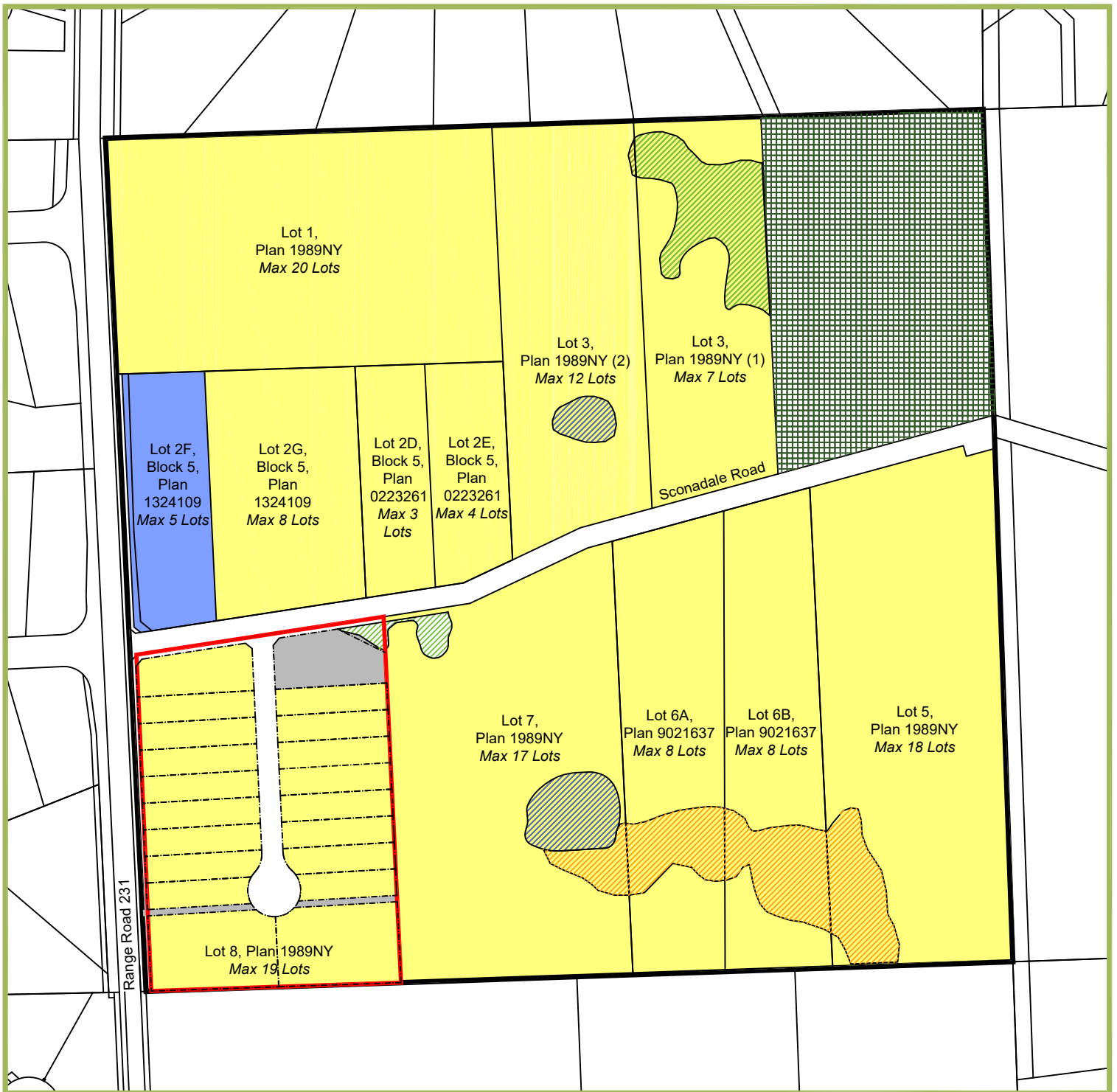
MAP 5

Utility Servicing

- | | | | | | |
|--|--|---|------------------------------|--|--|
|  | Residential |  | Existing Watermain (150mm Ø) |  | Municipal Reserve |
|  | Local Community Service |  | Proposed Watermain (75mm Ø) |  | Swamp, Shrubby |
|  | PUL (Emergency access) |  | Sanitary Service (75mm Ø) |  | Swamp, Wooded, Deciduous |
|  | PUL (Emergency and trail access for adjacent property) |  | Stormwater Facility |  | Shallow Open Water, Aquatic Vegetation |
| | |  | Connection Point |  | Marsh, Graminoid |



100m 200m

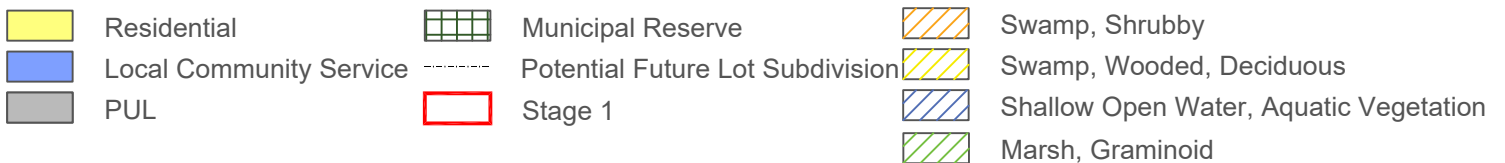


Panorama Estates

Area Structure Plan

MAP 6

Distribution of Lot Potential



100m 200m

Appendix A

Land Use and Population Statistics

TABLE 4 – LAND USE AND POPULATION STATISTICS

ASP Statistics	Area (ha)
Gross Land Area (GLA)	65.9
Estimated Environmental Reserve (ER)	0.2
Estimated Net Developable Area (NDA = GLA – ER)	65.7
Municipal Reserve (MR) dedication	6.5
Estimated Residential du/nrha	1.13
Estimated population	222

Appendix B

Consultation Summary

Panorama Engagement Summary

The Panorama Area Structure Plan (ASP) has engaged the community through a series of events over the last seven years. Dosanjh Developments retained Green Space Alliance (GSA) to organize design charrettes, public open houses, and virtual engagement opportunities to ensure the involvement of adjacent landowners and interested parties throughout the process. The intention is to provide thorough community consultation to inform the production of the ASP.

Initial Information and Design Charrettes

The project was initiated by Dosanjh Developments in May 2015 with an information meeting. This meeting included 13 adjacent landowners with information on the planning process and how they could be involved with the project. The developer and GSA organized two (2) Design Charrettes to share information and accept suggestions on how the project should be designed. The first Design Charrette was held on November 9, 2015, before the second was arranged for February 29, 2016. Key themes were first recorded from these sessions around wildlife and ecology, site servicing and transportation, and subdivision to preserve rural character. These themes helped solidify the initial design for the subdivision process and influence specific components of the draft ASP.

Open House #1

The first draft concept for the Panorama Estates ASP was brought to the September 30, 2016, public engagement meeting. This was the first Open House offered as an opportunity for adjacent landowners to provide their comments and feedback on the proposed concept. The engagement echoed concerns from the Design Charrettes and called for wildlife habitat protection and the preservation of the country residential character of the area. The provision of additional properties raised the concern for increased traffic and automobile movement across the area. This required a detailed intersection analysis and recommendations for treatments and improvements to Range Road 231 and Windsor Estates Road/Sconadale Road. There was also a concern for 0.2-hectare (0.5-acre) lots backing onto larger existing lots. This resulted in larger lots being applied in certain areas to support more appropriate transitions between existing lots within adjacent quarter sections.

Open House #2

A second public Open House was held on May 16, 2019, to inform the public that the project was being reinitiated. Both public meetings provided landowners with project information and the opportunity to ask questions. This session introduced more specific concerns regarding space for wildlife migration, buffer areas for environmentally sensitive areas, and conservation strategies for natural areas. Parcels along boundaries were increased and environmentally significant areas were addressed in the ASP. This engagement session considered water and other servicing constraints to the site. A trickle fill system was introduced as an efficient solution to supporting low-density residential developments up to a maximum of 129 lots per quarter section. Finally, there was general concern around the size of the proposed lots and the impacts on existing conditions, including traffic, recreational spaces, and safety. These concerns were all been addressed in the draft ASP.

Virtual Engagement/Mailout (June)

A new public engagement opportunity was held virtually between June 3, 2021, to offer a fresh opportunity for landowners and the community to follow the ASP process. This engagement opportunity was initially slated to end on June 17, 2021; however, the session was extended to allow the community to offer their feedback. Notices were sent out to all landowners within the ASP area and quarter sections that are adjacent landowners to the ASP area. A total of 321 Letters and surveys were mailed out. This was supported by newspaper advertisements in the Sherwood Park News on June 4, 8, 11, and 15, 2021.

This opportunity was organized on a project website containing relevant project information and the draft ASP. An electronic survey was provided on the website with a series of questions to provide input on the draft ASP. Key input themes incorporated from this virtual engagement session included conservation plans for buffer areas with trees and wildlife habitats. Lot sizes were also reconsidered with the adjustment of 0.8-hectare (2.0-acre) and 0.4-hectare (1.0-acre) lots in certain areas. The responses defined allowances for home businesses on the properties as well. Finally, efforts were made to address speed limits for Sconadale Road (50 km) and the placement of noise attenuation fences for community safety. Feedback from these events was recorded in a 'What We Heard' report and shared with the community.

Virtual Engagement/Mailout (October)

More recently, a second virtual public engagement event was organized in late September until October 25, 2021, to provide more detailed feedback in addition to that generated from the June 2021 engagement session. Similar to the last opportunity, notices were sent out to all landowners within the ASP area and quarter sections that are adjacent landowners to the ASP area. Newspaper advertisements were released, and GSA mailed out 350 new letters and surveys. This was the final opportunity to provide feedback on the new designs for the future vision of the site. The major themes that came out of this engagement session again considered conservation efforts for the Plan Area and wildlife corridors and habitats. New concerns arose around how the ASP will apply restrictions to existing property owners. This included specific concerns for amenity and leisure activities, subdivision construction, pedestrian safety, and lot sizes that support country living. A reoccurring theme raised was a concern for traffic volume and the blind hill located south along Range Road 231. These are referenced back to the draft ASP for information.

Appendix C

Summary of Technical Studies

Sconadale Biophysical Assessment Report – Revised Final, May 18, 2017

Solstice Canada Corp. prepared a biophysical report in May 2017 which examines the entirety of the Panorama Estates subdivision quarter section at NW13-52-23 W4M. The study reviewed historical land use based on aerial photography interpretation and conducted field reconnaissance surveys for amphibians, breeding birds, rare plants, plant communities, and weeds. Topography, geology, soils and hydrology were described from existing resources, including data compiled by the Beaver Hills Initiative in the 2015 Land Management Framework. Finally, wetlands were delineated and classified according to the new Alberta Wetland Classification System (2015a). Based on this information, recommendations were developed to conserve those wetlands and upland forests with ecological value

The results of the assessment indicated differences in terrain on the north, flat to undulating, and south halves of the quarter section, undulating and rolling, which can be attributed to past development patterns. The north half had been more extensively cleared and graded to improve drainage and facilitate land use on country residential lots, and much of the extensive graminoid marsh that originally extended across this part of the quarter section had been removed, directly or indirectly through drainage alteration. Parts of the southern half of the quarter had also been cleared in the late 1960s, affecting both forest and wetland habitats, but drainage had not been as dramatically altered. As a result, the quarter has a mix of developed landscapes, human-modified and natural wetlands (often small), and some large wetland complexes and forest patches.

Two large complexes of different wetland formations were identified, offering ecological and human use values: a shrubby swamp-dominated system (identified as W4 in the report) and a graminoid marsh-dominated site (identified as W21 in the report). The southern part of the quarter supported more continuous forest cover than did the northern part, but breeding amphibians and migratory and resident birds were observed across these upland areas, suggesting relatively good habitat quality. No rare or sensitive species were observed during surveys, though none had been previously reported in provincial tracking databases. Similarly, the rare plant and plant community survey found no species of concern.

The report identifies conservation recommendations, which include the following:

- Conservation of wetland W23 and the undesignated part of W21, plus a wetland likely providing flood protection (W28), and wetland W4 either as an Environmental Reserve or under a conservation easement;
- Conservation of an additional 30 m vegetated buffer around these wetlands with a planning mechanism suitable to the developer and Strathcona County (e.g., municipal reserve, environmental conservation easement, etc.);
- Application of ecologically sensitive lot and road layout to avoid wetland loss and forest fragmentation; and
- Use of lot design guidelines to limit the loss of wetland and forest habitat loss or disturbance when developing individual lots.

Conservation plans have been considered as the subdivision process progressed and will be incorporated in the finalized subdivision plan. Should wetland loss be required at the time of development, onsite restoration or enhancement approaches would be preferred as wetland compensation. This consideration is subject to the requirements of provincial and municipal regulators and provincial and municipal wetland policies. Compensation plans, if required, would be developed as the subdivision planning process proceeds and were not provided in this assessment.

A crown-claimable determination of wetlands was not completed as part of the original Panorama Estates Biophysical Assessment. However, a preliminary assessment of wetland permanence following the “Guide to Assessing Permanence of Wetland Basins” (AEP 2016) is provided. The purpose of completing the wetland permanence assessment is to help identify which wetlands have the potential to be crown-

claimable and determine if any are found within the proposed area to be subdivided. This will provide the County with the necessary information to make decisions around what their requirements may be around the management of certain wetlands.

Of the wetlands assessed as part of the original Panorama Estates Biophysical Assessment, seven wetlands have the potential to be considered crown claimable. It is important to note that these seven wetland basins have all been historically modified by anthropogenic impacts that may have contributed to the more permanent nature of these features in recent years. As these wetlands remain hydrologically connected to existing wetland features, they may have naturalized since the time of disturbance and thus, may potentially be considered claimable under the “Guide to Assessing Permanence of Wetland Basins” (AEP 2016). However, anthropogenic alterations are generally not considered as part of the permanence assessment, but a grey area exists when naturalization occurs from long-standing alterations.

Preliminary Geotechnical Investigation PMEL File NO 10219, July 30, 2015

A preliminary geotechnical report was prepared on July 30, 2015, by P. Machibroda Engineering Ltd. To assess subsurface soil conditions for the proposed residential subdivision on Lot 8, Plan 1989NY. The report only describes the soil conditions of the above-stated lot within the Plan Area. The remainder of the Plan Area must have a Geotechnical Investigation completed to prove the suitability of the proposed development area before development can proceed. If the suitability cannot be proven, amendments to the ASP and servicing reports may be required. In addition, a subsequent, detailed geotechnical investigation will be required once the building locations have been finalized.

The geotechnical report details field investigations and the results of test hole drilling, soil sampling, and groundwater monitoring that was conducted in July 2015. The soil classification and index tests performed for this assignment consisted of a visual classification of the soil, water contents, Atterberg limits, grain size distribution analysis and unit weights.

The field investigation included six test holes, dry drilled using limited access, continuous flight, solid stem auger drill rig, 150mm in diameter and to a depth of 6 to 9 metres. Test hole drill logs recorded the soil stratification, groundwater conditions, position of unstable sloughing soils and the depths at which cobblestones or boulders were encountered. The result of these tests indicated the soil profile consists of the following:

- Organic topsoil (200 to 300 mm) overlaying glacial till to the maximum depth explored of nine (9) metres;
- The till layer consisted of clay (22 % 37%), silt (26 % 45 %) and sand (29 % - 37 %);
- Glacial till also consisted of a heterogeneous mixture of gravel, silt, sand and clay particles;
- Random distribution of larger sized particles in the cobblestone range (60mm to 200mm) and boulder-sized range (> 200mm) were encountered during drilling; and
- No detectable evidence (i.e., visual or odour) of environmentally sensitive materials was detected during the actual time of the field test drilling program.

Based on the above soil sampling results, the subsurface soils show good porosity and are expected to have acceptable infiltration rates.

The geotechnical report also contains preliminary recommendations for site preparation, excavation, standard strip and/or spread footings, drilling, cast-in-place concrete piles, helical screw piles, grade-support slabs, groundwater table evaluation, foundation concrete, storm retention pond and pavement structures

Traffic Impact Assessment, Project 3: H5165, February 20, 2021

D&A Paulichuk Consulting Ltd. completed a traffic impact assessment on February 20, 2021, to examine and analyze existing and expected traffic volumes, trip generation, anticipated turning movements, design speeds, and road capacity.

The results indicated that there is enough capacity with the existing intersection treatment to support the proposed development traffic at full build-out of the quarter section. A further analysis was undertaken with possible intersection enhancements and the results indicated that the performance was identical to the results without the enhancements with only a negligible improvement. Consequently, no upgrading is recommended.

Based on the rate of development of 2 new lots in 2019, 20 new lots by 2024, and 41 new lots by 2029, the development is estimated to generate a total of 390 trips per day, averaging 31 trips per hour in the AM Peak Hour and 41 trips per day in the PM Peak Hour. As a result, a detailed intersection analysis resulted in a recommendation for a Type VI intersection treatment for Range Road 231 and Windsor Estates Road/Sconadale Road. In addition to this analysis, a Highway Capacity Analysis was performed for the 100th highest hour for the years 2019, 2024, 2029, and 2034.

This analysis indicated that there is sufficient capacity with the existing intersection treatment to support the proposed Stage 1 development traffic and future added background traffic. Illumination is not warranted for the Range Road 231 and Windsor Estates Road/Sconadale Road intersection in the 2025 Year analysis however illumination is warranted in the 2040 Year analysis at full build-out of the ASP area, based only on traffic volumes. If a roundabout is to be installed, illumination of the roundabout will be required due to lane channelization and change in movement.

Functional Servicing Study and Stormwater Management Report

The purpose of this report is to understand the servicing capacities provided for the development of the Panorama Area Structure Plan (ASP) prepared by Green Space Alliance (GSA). Development in the Plan Area should accommodate a maximum of 129 lots consistent with the County's policies. This maximum lot density includes the 19 lots envisioned for Stage 1 of the development. The report supports the Stage 1 (8.09 ha, 19 Country Residential Lots, 1 PUL Stormwater Management Pond) development located on the southwest corner of the site.

Specifically, the report details how the Stage 1 lands are to be serviced with storm/sanitary services, and stormwater management facilities as per Strathcona County and Alberta Environment and Parks (AEP) guidelines and regulations. Below are the key aspects of the detailed function servicing analysis for the Stage 1 development.

Strathcona County's Water System Model – Rural Portion identifies the serviceability of the rural lands with a small diameter piped water distribution system. This system is referred to as Trickle Fill System. This is a practical and commonly used water supply system within country residential subdivisions and an effective way to service sparse, low population communities. This rural water distribution system has lower minimum operating pressure compared to the urban system (140 kpa vs 350 kpa) and regulates flow to an onsite holding tank/cistern. A float valve is used to control the cistern's water level. A pump within the tank delivers water to the home's plumbing system.

Proposed Stage 1 development lands are planned to be serviced with sanitary service based on Strathcona County's Country Residential Wastewater Master Plan, 2010. This development falls in Basin 1 as defined in the Master Plan, 2010. Based on this Plan, Septic Tank Effluent Pump System (STEP) will be utilized for sanitary servicing of the residential lots. Unlike conventional gravity collection systems, the STEP system consists of a septic tank (Double or single compartment tank) with a pump and a small diameter low-pressure force main for each lot. The solids from the sanitary waste are separated from the effluent, which is pumped into the sanitary effluent line. This allows the STEP system to utilize small diameter pipes to pump wastewater to the sanitary effluent line. The construction of the STEP tank is to be as per the National Plumbing Code of Canada, 2015.

Water supply is available to the lands from the existing 150 mm water distribution main along Range Road 231. This watermain currently supplies the adjacent subdivisions with low flow water as per Strathcona County's Trickle Fill System requirements. Strathcona County – Utilities Engineering, Infrastructure Engineer, has calculated for a 110-lot development, an HGL (Hydraulic Grade Line) of 784.31 m is available at the tie-in location (Intersection of RR231 and Sconadale Road). These numbers were generated from Strathcona County's rural portion of the Water System Model. HGL is used to evaluate if at peak hour demand, the proposed lots can be serviced with water. Based on the site elevations varying from 755 m – 750 m Vs HGL of 784.31 m, future stages can be adequately serviced at peak hours.

The existing 75 mm sanitary line can easily accommodate sanitary outflows from the future stages along with the outflows from the adjacent Meadow Hawk development and Panorama Stage 1. The proposed Stage 1 development is designed to meet Strathcona County's Planning & Development Services requirements for rural country residential. Strathcona County's standard rural stormwater servicing is through a drainage ditch system; however, the proposed Stage 1 development has proposed lots with narrow front widths. A lot-access variance request from the County standards was submitted to the County on February 18, 2021, for review and approval.

The preliminary Grading and Drainage Plan shows the area to be cleared (preliminary concept) on each lot and the rest of the lot area is left in the existing natural condition with drainage as it exists. The cleared portion of the lots is designed to drain to the front roadway ending up in the Storm Sewer system via front roadway ditches. The proposed Storm Sewer is laid out / designed to flow to Stormwater Management Facility Pond (SWMF Pond). The outflow from the SWM Pond is designed to flow to the south ditch of Sconadale Road. Orifice control at the exit from the SWM Pond will regulate the outflows to the predevelopment rate.

The proposed Stage 1 of the Panorama Estates Stormwater Management Plan is based on Strathcona County's Design and Construction Standards (2019) and Alberta Environment and Park Stormwater Management Guidelines (1999). The objective of the proposed stormwater management plan is to prevent flooding of the property and to limit the release rate from the proposed development to the pre-development level.

In summary, this report was prepared to provide an assessment of the water, sanitary, and stormwater servicing of the proposed Stage 1 of the Panorama Estates ASP. A plan was also required for stormwater management of the site. An assessment of the serviceability of future stages of development was also required by the County.

Environmental Noise Impact Assessment – April 26, 2021

ACI Acoustical Consultants Inc. was retained to conduct an environmental noise impact assessment (NIA) for the proposed Panorama Estates ASP. The purpose of the work was to generate a computer noise model of the Stage 1 development using proposed elevation contours and future traffic data to determine the noise impact from nearby roadways for residential receptors within the development. This was used to determine noise attenuation measures required to meet the Strathcona County Traffic Noise Policy (SCTNP) SER-009-027 (2018).

The results of the future case noise modelling indicated noise levels ranging from 63.7 – 65.5 dBA Leq24 for all receptor locations within the study area. As a result, noise mitigation will be required for most receptor locations within the study area to reduce their noise levels to below the permissible sounds levels of 55 dBA Leq24 as per the requirements of the SCTNP SER-009-027. The modelling indicated noise levels ranging from 52.7 – 54.8 dBA Leq24. In addition, the colour noise contours indicated that all areas in the outdoor amenity spaces were below the SCTNP SER-009-027 criteria of 55 dBA Leq24. To achieve this, various berms/fences height will be required for the development.