


**MISCELLANEOUS PLANNING ITEM
PLANNING AND DEVELOPMENT REPORT TO COUNCIL
HIGHFIELD & ROWLAND ACRES AREA STRUCTURE PLAN
October 16, 2024**

APPLICATION INFORMATION		File No. 24R015
	Review of revisions for the proposed Highfield and Rowland Acres ASP and request to submit REF Application to the CMRB.	
	LANDOWNERS: <ul style="list-style-type: none"> • Highfield Investment Group Ltd. • Bramta Development Ltd. 	<ul style="list-style-type: none"> • David Munro • Adrian Munro • Debbie Rowland
	AGENT: Township Planning + Design Inc. / Kristi Beunder	
Requests: <ol style="list-style-type: none"> 1) Council is asked to review and consider the textual, figure, and policy revisions to the proposed Highfield and Rowland Acres Area Structure Plan; and, 2) If satisfied with the proposed revisions, Council is asked to direct staff to proceed with submission of a Regional Evaluation Framework application for the proposed Highfield & Rowland Acres Area Structure Plan to the Calgary Metropolitan Region Board. 		
DIVISION NO: 1 & 7	COUNCILLORS: Siewert & McHugh	FILE MANAGER: Drew Granson

BACKGROUND

On June 5, 2024, Foothills County Council granted first reading to Bylaw 33/2024 for the purpose of authorizing the adoption of the Highfield & Rowland Acres Area Structure Plan (ASP) to allow for the future development of the Highfield neighbourhood Hamlet Growth Area of approximately 848.55+/- acres of developable land and the Rowland Acres neighbourhood of approximately 273+/- acres of developable land, consisting of single family and multi-family residential properties, commercial and recreation uses, two school sites, public utility lots, stormwater management facilities, pathways, parks, roads, and Environmental Reserve lands.

PREVIOUS COUNCIL DIRECTION

On September 11, 2024, Council was requested to provide direction with respect to three items within the proposed Highfield & Rowland Acres Area Structure Plan (ASP). This request for direction was intended to inform the applicants on major considerations within the ASP, and facilitate drafting of revisions to the ASP.

Council provided the following resolutions:

MOVED that Council direct the applicants and administration to proceed with implementing revisions to the proposed Highfield & Rowland Acres Area Structure Plan regarding this proposed 13.77+/- Municipal Reserve parcel and applicable emergency response and recreation sections of the Area Structure Plan.

Note: As a result of this motion, the applicants have revised the ASP to propose a Fire Hall facility to be located within +/- 4.57 acres of the noted 13.77 acre portion at the south edge of the Rowland Acres lands. In addition, the proposed school site within the Highfield neighbourhood was increased from 10.22 acres to +/-17.04 acres.

MOVED that Council direct the applicants to maintain the original proposed area for the Highfield community at 848.55+/- acres and work with administration to implement necessary revisions to address any applicable municipal and regional policies throughout the Area Structure Plan.

Note: This motion acknowledged maintaining the ASP area as originally proposed, therefore only minor revisions were required to address “regional land uses” which are excepted out of the density calculations, as per the Calgary Metropolitan Region Growth Plan.

The Gross Developable Area, excepting out the “regional land uses”, is a total of 1,077.54 acres, being 831.51 acres within Highfield and 246.03 acres within Rowland Acres. This excepts out all Environmental Reserve lands, Regionally Significant Land Uses, and lands not owned by the Developer.

MOVED that Council approve the Submitted Site Plan Density as illustrated within Appendix A of the Staff Report reviewed by Council on September 11, 2024.

In consideration of surrounding communities and land uses, Council is of the opinion the originally submitted proposal demonstrates the most appropriate density.

Further, Council acknowledges that the proposed Area Structure Plan will require that the County request an exception to the Calgary Metropolitan Region Growth Plan for maximum Hamlet Growth Area size.

Council also acknowledges that the proposed dwelling densities within the Area Structure Plan will not meet the requirement within the Calgary Metropolitan Region Growth Plan for allocation of a minimum of 60% of dwellings within a Preferred Placetype; therefore, Foothills County will be required to either request exceptions to the Growth Plan density policies and/or ensure future dedication of a proportionate number of additional dwelling units within Preferred Placetypes, within future developments elsewhere within Foothills County.

Note: This motion acknowledged maintaining the ASP densities as originally proposed, therefore only minor revisions were required to address “regional land uses” which are excepted out resulting in a minor reduction of Gross Developable Area and adjustment of the density calculations.

PURPOSE OF REQUEST

The applicants have implemented required revisions as per direction provided by Council and municipal staff and have provided a revised draft Area Structure Plan for review.

Council is requested to review and acknowledge the revised Highfield & Rowland Acres Area Structure Plan as per previous Council direction provided on June 5th and September 11th, and Council is requested to provide direction to Planning Staff with respect to proceeding with submission of the Highfield & Rowland Acres ASP to the Calgary Metropolitan Region Board.

Note: *The applicant is required to submit the “Regional Evaluation Framework submission to the Calgary Metropolitan Region Board Fee” prior to submission of the ASP to the CMRB.*

SUGGESTED MOTIONS FOR COUNCIL’S CONSIDERATION

The following motions are provided for Council’s consideration regarding the request to accept the draft Area Structure Plan, as revised, and direct staff to prepare a Regional Evaluation Framework Application for the submission of the Highfield & Rowland Acres ASP to the Calgary Metropolitan Region Board:

Option 1 - Acceptance of ASP, as revised:

Should Council choose to support the revised ASP as submitted, Council may wish to consider the following motion:

Council moves to accept the textual, figure, and policy revisions within the revised Area Structure Plan as proposed and direct staff to prepare and submit the Regional Evaluation Framework (REF) Application for the Highfield & Rowland Acres Area Structure Plan to the Calgary Metropolitan Region Board (CMRB) for consideration for approval.

The applicant is to provide payment of the “Regional Evaluation Framework submission to the Calgary Metropolitan Region Board Fee”, in accordance with the current fee schedule, prior to submission of the REF application to the CMRB.

Note: *Should the proposed Area Structure Plan be approved by the Calgary Metropolitan Region Board, the proposed ASP would then be brought back to Council for further consideration and request to grant 2nd and 3rd readings to Bylaw 33/2024.*

Option 2 – Require further revisions to ASP:

Alternatively, should Council still have concerns or require further amendments to the proposed Highfield & Rowland Acres Area Structure Plan, Council may wish to consider the following motion:

Council moves to deem the proposed textual and policy revisions within the Highfield & Rowland Acres Area Structure Plan as unsatisfactory and direct the applicants to further revise the draft ASP to address the following:

- i. (Council to provide any additional revisions as deemed necessary by Council)*

APPENDICES

Appendix A: Revised Highfield & Rowland Acres Area Structure Plan

Appendix A:
Revised Highfield & Rowland Acres ASP

SUBMISSION DRAFT

HIGHFIELD & ROWLAND ACRES

AREA STRUCTURE PLAN

October 2024

prepared by:

TOWNSHIP
planning + design inc.

Land Acknowledgment

We acknowledge all those who call this land home, past, present, and future. May we respect one another, find understanding together, and recognize the benefits that this land provides to all living things who share it.

Executive Summary

The Highfield and Rowland Acres Area Structure Plan (ASP) establishes a framework for the development of a new community consisting of +/- 470.15 hectares (1,162.43 acres) of land in Foothills County's Central District. Since the inception of the Plan in 2016, numerous inputs have led to the policies and principles outlined within the ASP including:

- Stakeholder Consultation
- Historic Resource Impact Assessment (HRIA)
- Biophysical Impact Assessment
- Environmental Site Assessment
- Flood Hazard Protection Overlay
- Preliminary Stormwater Management Plan
- Transportation Impact Assessment

During the preparation of the ASP, a variety of stakeholders were engaged to provide input and provide perspective to inform the Highfield and Rowland Acres ASP. Stakeholders included:

- The Developer Group
- Foothills County Staff
- Ravencrest Homeowner's Association (HOA)
- Silvertip HOA
- General Public
- Transportation and Servicing Engineers
- Alberta Transportation and Economic Corridors
- Alberta Culture
- Alberta Environment and Protected Areas

The Highfield and Rowland Acres ASP consists of two distinct neighbourhoods: Highfield and Rowland Acres. While each neighbourhood is unique enough to be considered within distinct Preferred Growth Areas, the intent of this ASP is to facilitate a comprehensive community that feels cohesive and celebrates the unifying features of the two neighbourhoods.

Key goals of the ASP include:



A neighbourhood framework that encourages a mix of housing types and tenure as well as the inclusion of community amenities including two commercial areas, school sites, recreational areas, and an equestrian centre.



A development concept that balances the density that can be supported in Foothills County and sensitive interfaces and transitions with neighbouring properties, with the density requirements of the Calgary Metropolitan Region Growth Plan.



Consideration for placemaking opportunities to establish a clear sense of place which celebrates the equestrian heritage of the area and the sport of thoroughbred horse racing.



Preservation of existing natural features including the Highwood River, and the provision of natural trails and other recreational amenities for residents to experience and celebrate the natural landscape.



A servicing strategy that incorporates a regional piped water and wastewater system and low impact design to convey stormwater.



A mobility network that supports the increase in population and provides opportunities for multi-modal transportation both locally and regionally.

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1.0 INTRODUCTION

The Highfield and Rowland Acres Area Structure Plan (ASP) establishes a framework for the development of a new community within the Central District of Foothills County. The ASP area as shown in **Figure 1: Plan Area Location**, consists of a gross of +/- 470.15 hectares (1,162.43 acres) of land bounded by Highway 2 and the Highwood River on the west and bisected by Highway 547.

The Highfield and Rowland Acres ASP highlights a comprehensive community that reflects the character of Foothills County, celebrates equestrian heritage, respects the natural systems that shape the community, and supports sensitive growth and development. The ASP consists of two neighbourhoods: the Highfield area (+/- 355.41 hectares; 878.77 acres) and the Rowland Acres area (+/- 114.74 hectares; 283.66 acres).

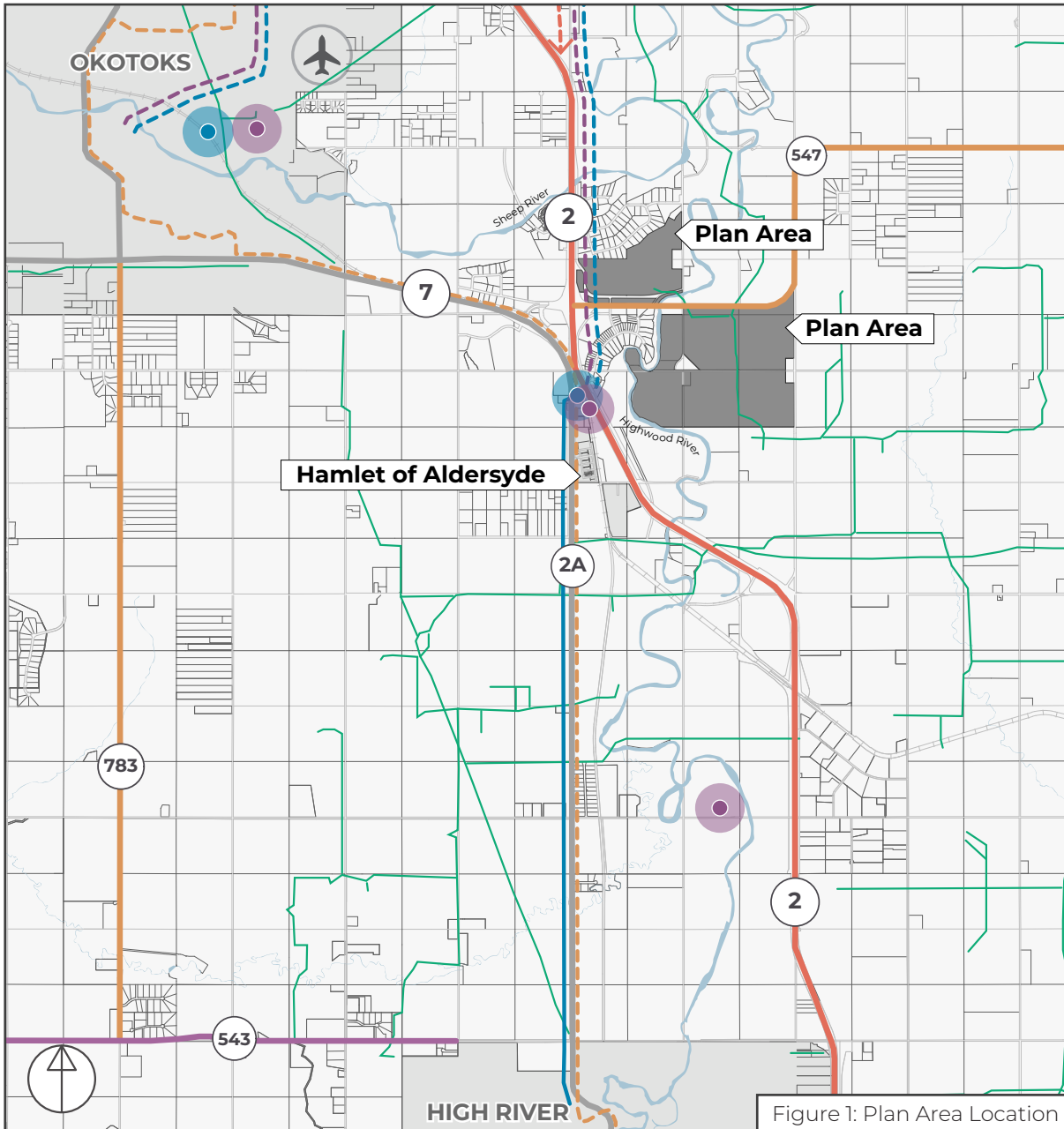


Figure 1: Plan Area Location

Source: CMRB Servicing Plan, 2022

LEGEND

- | | | |
|---------------------------------|---|------------------------------------|
| Existing Level 1 Highway | Pipeline | Water Treatment Facility |
| Existing Level 2 Highway | Watercourse | Wastewater Treatment Facility |
| Existing Level 3 Highway | Proposed Regional Roadway Corridor | Existing Water Corridor |
| Other Existing Regional Roadway | All Modes of Existing & Planned Transit | Future Water & Wastewater Corridor |

1.1 Vision

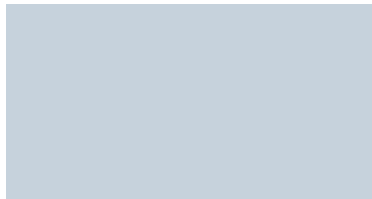
The vision and principles for the Highfield and Rowland Acres ASP builds on the aspirations of the landowners, the municipality and other stakeholders. The policies contained within the ASP are structured to carefully guide development over time and achieve the vision for an integrated, harmonious, and economically viable community.

Early in the ASP development process, a vision for the Highfield and Rowland Acres ASP was derived by the working group of landowners, Developers, technical experts, and community members involved in the creation of this plan, which began in 2016. The original vision became the inspiration for the list of principles outlined below that further guide community development and inform the land use strategy. Given that the project has evolved since the project was initiated, the vision has been updated to not only encompass the feedback provided by the working group during the preliminary engagement, but also to reflect the current priorities of Foothills County. Each delineated neighbourhood within the Highfield and Rowland Acres ASP is reflective of the vision and subsequent principles that inform this plan.

For a visual representation of the project vision see **Figure 2: Inspirational Imagery**.

VISION STATEMENT

The neighbourhoods of Highfield and Rowland Acres will respect and protect the Highwood River and other natural features in the area, while respecting boundary conditions within the established residential and agricultural patterns surrounding the Plan Area. The design will take inspiration from the equestrian heritage in the area along with the sport of thoroughbred horse racing. The equestrian-themed streetscape, architecture, fixtures, and pathways will create a cohesive look and feel through the community, retain the rural character of Foothills County while facilitating a unique sense of place. The Plan Area not only provides easy access to the site from major regional highways, but will also feature active amenity spaces available to all residents, a range of housing types that allow for live-work and secondary suites to provide affordable options. The diverse local commercial and community offerings exceed standard expectations while meeting the everyday needs of residents.



These images are intended to convey a possible look and feel of the Highland & Rowland Acres Neighbourhoods. These images are inspirational only and do not represent a defined outcome.

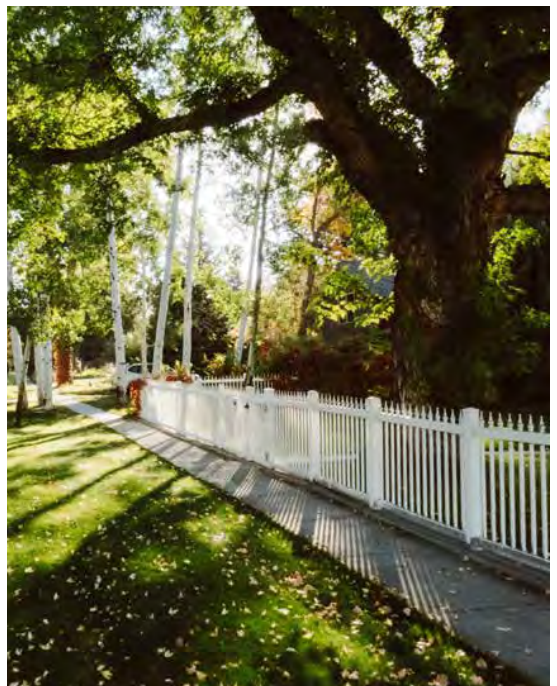


Figure 2: Inspirational Imagery

1.2 Key Principles of Development

A) SUSTAINABLE SERVICING & INFRASTRUCTURE



- Water and Wastewater Servicing: provide a piped water and wastewater system respectful of the Highwood River basin.
- Stormwater Management: Utilize low impact development strategies to reuse stormwater and manage stormwater through the integration of pond facilities and thoughtful conveyance.
- Flood Risk Mitigation: Understand and incorporate the floodplain delineation line and ensure upstream flows post-mitigation are well understood and protected.

B) MOBILITY



- Understand the transportation requirements of the area and incorporate improvements as required with phased community growth.
- Consider opportunities for future transit connections.
- Offer multimodal, regional, and local pathways to encourage an active and healthy lifestyle.
- Provide and promote walkable connections to commercial, recreational, and open spaces.

C) NATURAL ENVIRONMENT



- Preserve and enhance significant natural features.
- Provide naturalized trails and pathways that integrate with the topography and river valley.
- Utilize xeriscaping and drought tolerant species in landscaping and amenity areas.

D) NEIGHBOURHOOD FRAMEWORK



- Respect the interface with existing residents and neighbours through transitional lot design and landscape buffers.
- Provide opportunities for various housing forms that respect the character of the existing adjacent communities.
- Incorporate standards and architectural controls that reflect design inspiration from the rural equestrian heritage, and the sport of thoroughbred horse racing, while also respecting the natural landscape and existing development in the area.
- Establish a density focused on main streets through the community, near commercial areas and other community amenities.

E) FISCAL RESPONSIBILITY



- Each neighbourhood Developer will contribute to the infrastructure and neighbourhood improvements required proportional to, and in accordance with cost recovery agreements with Foothills County.

G) SUSTAINABILITY



- Incorporate water capture and reuse strategies both within and outside of building envelopes.
- Incorporate opportunities for enhanced technology in the building envelope to encourage long-term community sustainability.

F) NEIGHBOURHOOD AMENITIES



- Provide a quaint, small scale local commercial node.
- Incorporate public spaces that offer flexible sport courts, parks, and spaces to provide opportunities for active and passive recreation.
- Maintain the community equestrian centre.
- Dedicate a school site.
- Provide a community fire hall.

H) DEVELOPER COMMITMENT



- Participate and partner with the County on required infrastructure, ensuring community servicing is safe and the required infrastructure also supports and works in tandem with County objectives to provide benefits county wide.

2.0 DEVELOPER AS A PARTNER: LONG-TERM RESPONSIBILITY

This Developer demonstrates a strong commitment to this project and the community by having a personal stake in its success as a long-time resident within the Plan Area. Their vested interest goes beyond financial considerations, as they are personally invested in the development's outcome, both as a homeowner, equestrian facility operator and a Developer. This unique position gives the Developer a deep understanding of the community's needs and offers an added incentive to ensure the project's long-term success.

By actively collaborating with Foothills County to sustain and support the creation of local and regional water and wastewater infrastructure, this Developer exemplifies a proactive and responsible approach to project implementation. They recognize the importance of having adequate and sustainable infrastructure in place to support the project's growth and to benefit the broader region. This collaborative partnership showcases a willingness to work hand-in-hand with Foothills County to address critical infrastructure needs and contribute to the overall development and well-being of the community.

The Developer understands that robust infrastructure is essential not only for their own development but also is critical to the growth of local employment, commercial and industrial opportunities in the Highway 2A Industrial corridor for the broader community's prosperity. By taking an active role in infrastructure planning and investment, they contribute to enhancing the region's overall capacity to accommodate growth, attract businesses, and foster a sustainable environment for current and future residents.

This Developer's willingness to partner with the municipality showcases their dedication to responsible development practices and their willingness to contribute beyond the project's boundaries. By recognizing the importance of infrastructure collaboration and actively engaging with local authorities, they exemplify a Developer who is committed to sustainable growth and the overall well-being of the community. Their actions set a positive example for other Developers and reinforce the importance of considering the broader regional context when planning and executing development projects.



HIGHFIELD

3.0 REGULATORY PROCESS

The Highfield and Rowland Acres ASP was prepared in accordance with the Municipal Government Act (MGA) and the Calgary Metropolitan Region Growth Plan (Growth Plan). The MGA provides guidance from the Government of Alberta in the preparation of ASPs in the Province and specifies the content that is mandatory to be included in all ASPs. The Growth Plan establishes a policy framework to guide responsible, sustainable growth across the Calgary metropolitan area and identifies Preferred Growth Areas and Placetypes with specific density and location provisions that are to be applied to each new development. The vision and policies of this ASP are influenced by a wide range of existing plans, policies and guidelines, including the Municipal Development Plan (MDP), Growth Management Strategy (GMS), and Land Use Bylaw (LUB). The Highway 2A Industrial ASP (H2A IASP) was relied upon to understand Foothills County objectives for the industrial corridor and the opportunity to support growth in the corridor via the construction of the wastewater treatment plant and bringing additional license to the water system.

3.1 Authority of the Plan

The Highfield and Rowland Acres Area Structure Plan was prepared in accordance with the Provincial requirements outlined in Section 633 of the Municipal Government Act (MGA) (Revised Statutes of Alberta 2000, Chapter M-26), specifically:

633 (1) For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may, by bylaw, adopt an area structure plan.

*(2) An area structure plan
(a) must describe*

- (i) the sequence of development proposed for the area,*
- (ii) the land uses proposed for the area, either generally or with respect to specific parts of an area,*
- (iii) the density of population proposed for the area either generally or with respect to specific parts of the area, and*
- (iv) the general location of major transportation routes and public utilities and*

(b) may contain any other matters, including matters relating to reserves, as the council considers necessary.

The MGA also states that an ASP must conform to the MGA, any existing Intermunicipal Development Plan (IDPs), the MDP, and all other statutory plans.

3.2 Policy & Planning Context

In the preparation of the Highfield and Rowland Acres ASP the following statutory and non-statutory plans and documents were reviewed for alignment and policy compliance:

- The South Saskatchewan Regional Plan (May 2018)
- The Municipal Government Act (RSA 2000, M-26)
- The Calgary Metropolitan Region Board – Growth Plan and Servicing Plan (August 2022)
- The Foothills County Municipal Development Plan, Bylaw 52/2016 (October 2017)
- The Foothills County Growth Management Strategy, (February 2013)
- The Foothills County Land Use Bylaw 60/2014 (December 2014)

The Highfield and Rowland Acres ASP has been prepared in accordance with planning policy direction and is sensitively designed to respond to and enhance the existing features and infrastructure. The ASP includes residential, commercial, and institutional uses within the Highway 2 corridor that can offer amenity to existing County residents. The Highway 2 corridor connects people to each other and to major services and amenities in the area. The Highfield and Rowland Acres ASP is intended to help support and sustain the County's regional investment in water, wastewater, and transportation systems which support comprehensive and balanced industrial, commercial, and residential growth and development in this region.

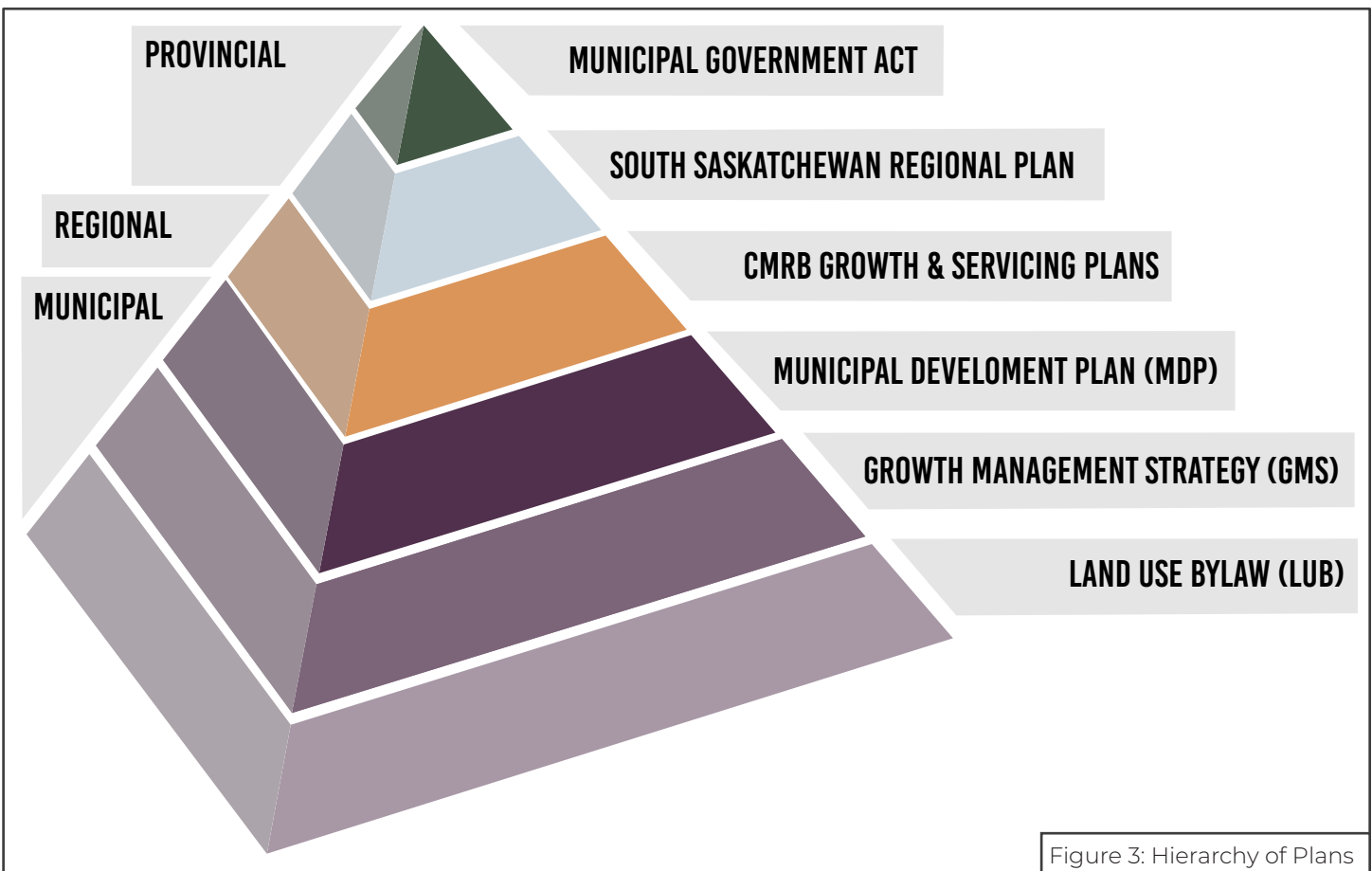


Figure 3: Hierarchy of Plans

The ASP has been prepared in conjunction with the following guiding policy documents:

3.2.1 SOUTH SASKATCHEWAN REGIONAL PLAN

The South Saskatchewan Regional Plan (SSRP) is the highest-level policy in the South Saskatchewan region and all plans in the region must align with its directives. The SSRP provides the long-term vision for the region and guides all municipalities under its influence. The Highfield and Rowland Acres ASP aligns with the overarching goals of promoting efficient use of land for the built environment, takes advantage of existing water, wastewater, and transportation infrastructure, sustainably managing natural resources to protect future and current uses and supporting economic development and diversification in the region.

3.2.2 CALGARY METROPOLITAN REGION GROWTH PLAN

Adopted in August 2022, the Calgary Metropolitan Region Growth Plan establishes the vision and policy framework to guide sustainable, efficient development in the Calgary Metropolitan Region. The Highfield and Rowland Acres ASP has been developed to generally align with the Growth Plan's Regional Vision to create a thoughtfully designed, sustainable, fully serviced, diverse community that serves the current needs of the local residents while considering the needs of the future. The ASP has been developed to balance the detailed requirements of the Growth Plan with the level and density of development that is appropriate for Foothills County both today and in the future.

The ASP separates the neighbourhoods into two different areas: Highfield will be a Hamlet Growth Area while Rowland Acres may be considered part of Joint Planning Area 3.

3.2.2.a HIGHFIELD NEIGHBOURHOOD

This ASP considers the Highfield Neighbourhood to be a new Hamlet Growth Area within Foothills County. Section 3.1.8 of the Growth Plan defines a Hamlet Growth Area as “settlements in rural areas with lower density mixed-use developments and Employment Areas.” The Growth Plan also notes that Hamlet Areas are intended “to accommodate growth opportunities in Rural Municipalities that are not contiguous to Urban Municipalities.” As per Policy 3.1.8.1 (b), three new hamlet growth areas could be established within Foothills County in accordance with the criteria for establishing new Hamlet Growth Areas.

As per Section 3.1.8.2, Foothills County does not require the Calgary Metropolitan Region Board (CMRB) to approve the location of the three new Hamlet Growth Areas provided that the proposed locations align with the criteria outlined in Section 3.1.8.5 of the Growth Plan. The Highfield neighbourhood was designed to align with the Growth Plan criteria for a Hamlet Growth Area while also aligning with the County's policy direction and vision for growth in the Central District.

In addition, the Highfield neighbourhood will contain Preferred Placetypes as well as the Employment Area Placetype in alignment with Policy 3.1.8.3 (discussed in **Section 6.0**). However, given the context of this site as a live/work area supporting a growing industrial and commercial employment area in the Highway 2A corridor, we have included a modified main street designed to be designed as a mixed use location with a lower intensity of development, so as not to detract from commercial and industrial uses in the Highway 2A corridor, where Foothills County has directed these types of uses.

3.2.2.b ROWLAND ACRES NEIGHBOURHOOD

As outlined in **Section 1.0**, the Rowland Acres Neighbourhood is within Joint Planning Area #3. The Growth Plan defines a Joint Planning Area (JPA) where growth can be focused to ensure “efficient use of land and infrastructure” (Growth Plan, Section 3.1.9). Rowland Acres is considered as part of the JPA between Okotoks and Foothills County. Although there is currently an Intermunicipal Development Plan (IDP) in place (The Town of Okotoks/Foothills County Intermunicipal Development Plan), the Joint Planning Area extends beyond the boundaries of the existing IDP and Rowland Acres is not within the Intermunicipal Development Plan. As such, the entire JPA will “benefit from a coordinated servicing approach for the entire area” (Growth Plan, Section 3.1.9).

The Growth Plan specifies that the municipalities that are party to the JPA are required to prepare a Context Study to inform new ASPs and development in the area. The plan goes on to note that new ASPs may be approved prior to the completion of a Context Study unless an existing Terms of Reference precludes it. The approved TOR for the Context Study states that both municipalities agree that it should be possible to approve statutory plans prior to the completion of the Context Study provided the approval process is in accordance with the existing regulatory frameworks.

The Growth Plan identifies JPAs as areas to support intensification adjacent to and within urban municipalities and regional connection corridors in order to manage growth pressures and efficiently use land and infrastructure. Rowland Acres is located approximately five (5) kilometers from the Town of Okotoks and is easily accessible from Highway 2, which is identified as a key connection corridor in the region. Rowland Acres incorporates a commercial high street along the major transportation corridor into the neighbourhood. The commercial area has been designed as a main street and is intended to support a variety of uses and will complement regional growth and expansion. The Rowland Acres neighbourhood has been designed to align with the Growth Plan’s criteria for a JPA as outlined in Section 3.1.9.3 as outlined below:

3.2.4 MUNICIPAL DEVELOPMENT PLAN

Under the MGA every municipal government must adopt a Municipal Development Plan (MDP). An MDP is a high-level planning document that establishes the overall vision for future growth and development in a municipality. Foothills County’s MDP provides the following vision:

“The MD of Foothills encompasses a diverse rural landscape in which leadership and planning support a strong agricultural heritage, vibrant communities, a balanced economy and the stewardship of natural capital for future generations” (Foothills MDP, 2010, p4)

The Highfield and Rowland Acres ASP will adhere to the vision and policies outlined in the Foothills County MDP to ensure an integrated, sustainable, efficient, and fiscally viable community that contributes meaningfully to life in the County.

3.2.5 LAND USE BYLAW

The Foothills County Land Use Bylaw (LUB) divides municipal lands into a variety of land use districts (or zones). Each district determines the rules and requirements for developing land within the district including appropriate uses, intended heights, densities, setbacks, parking rates, and landscaping. The LUB outlines the processes for redesignation, subdivision and development permit applications within Foothills County.

The Plan Area is currently within the Agricultural (A) District, as well as several fragmented Country Residential District (CR) parcels, and public service uses are supported in the area. Future land use redesignations will be required to permit development of the ASP area over time. All development within the Plan Area will comply with the LUB.

3.2.5.a FLOOD HAZARD PROTECTION OVERLAY

The Highwood River water level has raised above its banks several times over the last decade. In response, the Town of High River and the Foothills County, together with Alberta Environment and Protected Areas, have completed numerous studies of the river and its associated floodplain. Over the past few years, a great deal of upstream flood mitigation has occurred which will have downstream impacts (e.g., certain locations where waters may run deeper and faster than in past flood events) within the Highfield and Rowland Acres ASP area. Foothills County has implemented a Flood Hazard Protection Overlay (FHP) District on portions of the Plan Area. The intent of the FHP is to discourage new development on lands and achieve the long-term goal of maintaining and decreasing the overall density of development on lands that may be subject to flooding.

Those lands contiguous to the Highwood River require special consideration. Due to steep valley banks in some locations the FHP is very narrow. However, in other areas it can have a wider impact. All areas identified as part of the FHP and areas of post mitigation inundation will be protected from permanent development and may only support seasonal and non-permanent and amenity uses at the discretion of Foothills County.

Figure 4: Flood Hazard Protection Overlay delineates the flood hazard overlay areas and the additional areas of inundation post mitigation.

3.2.6 GROWTH MANAGEMENT STRATEGY

The Foothills County Growth Management Strategy (GMS) builds on the direction provided in the MDP by identifying opportunities for growth and development within Foothills County and allocating growth to areas “where it can be supported by a formal planning framework” (Foothills GMS, 2013, pg. 1). The strategy divides the County into five districts and identifies the Central District as the area that will accommodate most of Foothills County’s growth given proximity to major highways and available piped water and wastewater servicing. The Central District is located directly south of Calgary and contains the Hamlets of Heritage Pointe, DeWinton, and Aldersyde, both the Highway 2 and the Highway 2A corridor and surrounds the towns of Okotoks and High River.

POLICIES

Policy 3.2.5.a.1

The Developer shall undertake flood calculations at the Land Use and Outline Plan stage to the satisfaction of Foothills County.

Policy 3.2.5.a.2

Any new flood scoping study or flood mitigation information that may impact the Plan Area site may be reviewed and implemented at the discretion of Foothills County at any stage of the development.

Policy 3.2.5.a.3

Lands containing portions of the Highwood River and lands adjacent to the bed and shore of the Highwood River, with the exception of the steep valley banks where a geotechnical investigation will establish the setback, will retain and support a minimum 30 meter setback from the outer edge of the FHP at minimum.





Policy 3.2.5.a.4

The Developer shall retain a minimum setback of 30m from top of identified steep valley banks. The FHP can be found in the Foothills County Land Use Bylaw.



Figure 4: Flood Hazard Protection Overlay

LEGEND

-  Plan Area Boundary
-  Highwood River
-  1:100 Year Inundation
-  1:200 Year Inundation

4.0 PLAN AREA

The Plan Area includes +/- 470.15 hectares (1,162.43 acres) of land within the following quarter sections outlined in **Table 1: Plan Area Land Assembly**. Within the Plan Area, +/- 355.41 hectares (878.77 acres) will be part of the Hamlet Growth Area, while +/- 114.74 hectares (283.66 acres) will be part of Joint Planning Area #3 (JPA), as identified on **Figure 5: Land Ownership**.

Table 1: Plan Area Land Assembly outlines the existing parcels within the Plan Area and identifies their sizes and whether they will be part of the Hamlet Growth Area or the JPA.

Table 1: Plan Area Land Assembly
HIGHFIELD - HAMLET GROWTH AREA

HIGHFIELD - HAMLET GROWTH AREA			
OWNER	LEGAL DESCRIPTION	HECTARES	ACRES
Highfield Investment Group Inc.	Plan 3462GA, Parcel B SE 18-20-28-W4M	22.00	54.38
David Munro	Plan 3462GA, Parcel A SE 18-20-28-W4M	3.46	8.56
Highfield Investment Group Inc.	Plan 9111563, Block 3 SE 18-20-28-W4M	3.33	8.23
Adrian Munro	Plan 9912084, Block 2 SE 18-20-28-W4M	1.44	3.56
Highfield Investment Group Inc.	NE 17-20-28-W4M	12.17	30.07
Highfield Investment Group Inc.	NW 17-20-28-W4M	8.90	22.00
Highfield Investment Group Inc.	SE 17-20-28-W4M	62.27	154.00
Highfield Investment Group Inc.	SW 17-20-28-W4M	61.94	153.18
Highfield Investment Group Inc.	NE 8-20-28-W4M	62.27	154.00
Highfield Investment Group Inc.	NW 8-20-28-W4M	62.67	155.00
Highfield Investment Group Inc.	Plan 0812844, Block 1, Lot 1 NW 8-20-28-W4M	2.03	5.00
Highfield Investment Group Inc.	Plan 0913003, Block 1, Lot 1 NE 7-20-28-W4M	52.93	130.79
HIGHFIELD TOTAL		355.41	878.77
ROWLAND ACRES - JOINT PLANNING AREA #3			
OWNER	LEGAL DESCRIPTION	HECTARES	ACRES
Debbie Rowland	SE 19-20-28-W4M	29.93	74.08
Bramta Developments	NE 18-20-28-W4M	45.74	113.09
Debbie Rowland / Bramta Developments	NW 18-20-28-W4M	39.07	96.49
ROWLAND ACRES TOTAL		114.74	283.66
PLAN AREA TOTAL		470.15	1,162.43

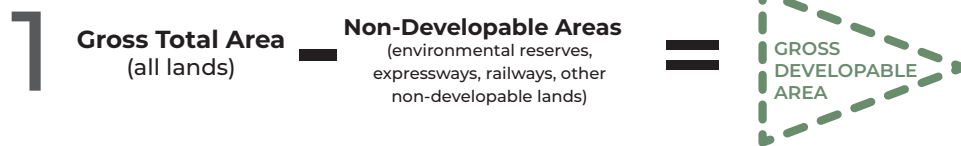
The net developable area of the Plan Area is +/- 436.08 hectares (+/- 1,077.54 acres) and is calculated by omitting the Environmental Reserve, Regionally Significant Land Uses, and lands that are not owned and will not be acquired by the Developer. The gross total area and gross developable areas for both Highfield and Rowland Acres are outlined in **Table 2: Gross Total Area & Gross Developable Area** below.

Table 2: Gross Total Area & Gross Developable Area

NEIGHBOURHOOD	*GROSS TOTAL AREA	DEDUCTIONS	GROSS DEVELOPABLE AREA
Highfield	366.48 ha (905.55 ac)	12.00 ha (29.65 ac) [ER] 6.90 ha (17.04 ac) [Regional MR] 11.07 ha (27.34 ac) [Lands not owned]	336.51 ha (831.51 ac)
Rowland Acres	114.74 ha (283.52 ac)	4.19 ha (10.35 ac) [ER] 5.57 ha (13.77 ac) [Regional MR] 5.41 ha (13.37 ac) [Major Commercial]	99.57 ha (246.03 ac)
TOTAL	481.22 ha (1,189.07 ac)	45.14 ha (111.52 ac)	436.08 ha (1,077.54 ac)

*Gross Total Area includes lands that are "non-owned" but are within Plan Area boundaries

Step 1: Calculate the gross developable area



Step 2: Calculate the gross residential area



Step 3: Calculate the gross residential density



What do you 'keep'/what's included in the gross residential area?

- Single unit residential
- Multi unit residential
- Local commercial
- Local parks & open space (municipal reserve)
- Elementary & junior high schools
- Local roads including majors & lands
- Church sites
- Daycare centres
- Community centres
- Small indoor recreation centres
- Small site fire and police stations
- Private lakes, wet/dry ponds
- Public utility lots (PULs)
- Other local uses

Source: CMRB Growth Plan, 2022

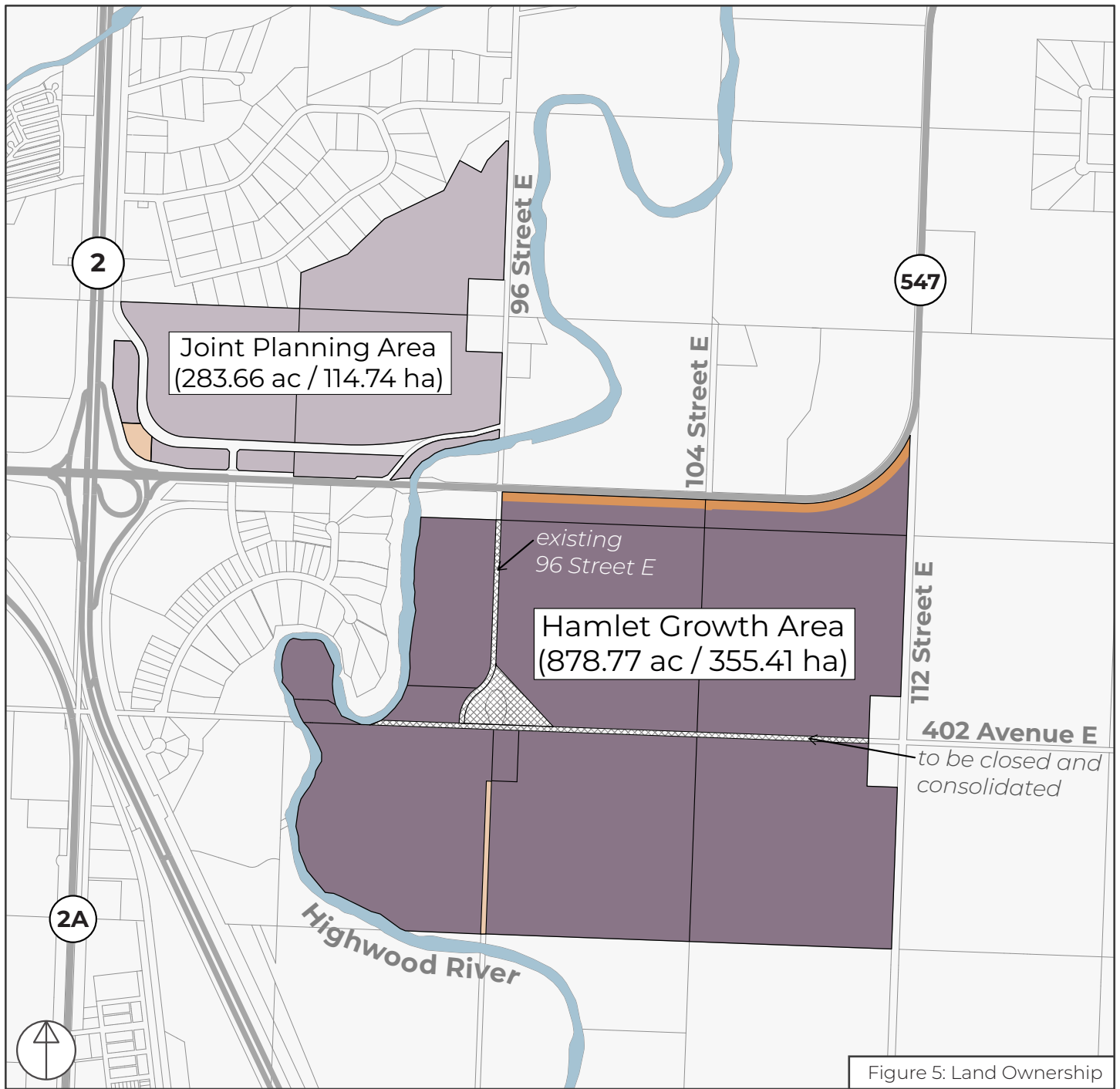


Figure 5: Land Ownership

LEGEND

- Rowland Acres Neighbourhood (+/-355.41 ha / +/-878.77 ac)
- Highfield Neighbourhood (+/-117.74 ha / +/-283.66 ac)
- Future Highway Widening
- Crown Land
- Non-Owned Lands Within Plan Area

4.1 Existing Context

The Plan Area is comprised of two neighbourhoods: Highfield and Rowland Acres (see **Figure 6: Plan Area Context**). Highfield is bound by Highway 547 on the north side, the eastern boundary was determined by utilizing the road allowance for 112 Street E, and the west boundary is the Highwood River. The south boundary of the Highfield area is delineated by the southern boundary of NW8-20-28-4 and NE8 20-28-4. Rowland Acres is bound by Highway 547 on the south side, and the eastern boundary was determined by utilizing the road allowance for 96th Street E. The west boundary is delineated by Highway 2 and the north boundary is delineated along boundary for the existing Ravencrest Area Structure Plan.



4.2 Adjacent Context

The Highfield and Rowland Acres ASP is located in an area that provides direct access to the provincial highway system. The project is in close proximity to several existing residential developments including Silver Tip and Ravencrest. Silver Tip is located northwest Highfield, across the Highwood River to the west and was inceptioned in 1999 (Bylaw 76/1999) with the adoption of the Silver Tip ASP. The community includes 56 residential units (bareland condominium lots), several future commercial and highway commercial lots as well as a rural industrial lot, in addition to Municipal Reserve, Environmental Reserve dedications and a Public Utility Lot. Ravencrest is located directly north of Rowland Acres and was inceptioned in 2002 with the adoption of the Ravencrest ASP. The ASP has been amended twice and now accommodates up to 54 residential lots and a Municipal Reserve dedication. While Silver Tip is serviced by a municipal water line for potable water, a non-potable irrigation system that draws from the Highwood River, Ravencrest is serviced by a private groundwater-based utility. Lots in both Silver Tip and Ravencrest have their own individual septic systems. The Country Lane Recreational Vehicle Park supports 289 units on a seasonal basis for use by the residents and includes supporting recreational amenities.

Additional area development includes employment areas such as the Warner Business park, the Volker Stevin highway maintenance facility and asphalt production plant, and service and convenience uses in the Aldersyde Petro-Canada Station and A&W restaurant. The Highway 2A Corridor to the west is intended to support the majority of the County's industrial and commercial developments and serves as an employment area for future residents of the Highfield and Rowland Acres communities. The industrial corridor is to be fully serviced with water and wastewater, this servicing endeavour is a County initiative intended to bring a diversity of growth to the area.

There are existing agricultural land uses to the north, east, and south of the Plan Area. This ASP seeks to ensure that the Highfield and Rowland Acres neighbourhoods integrate and respect the existing residential, agriculture, and industrial land uses in the area.

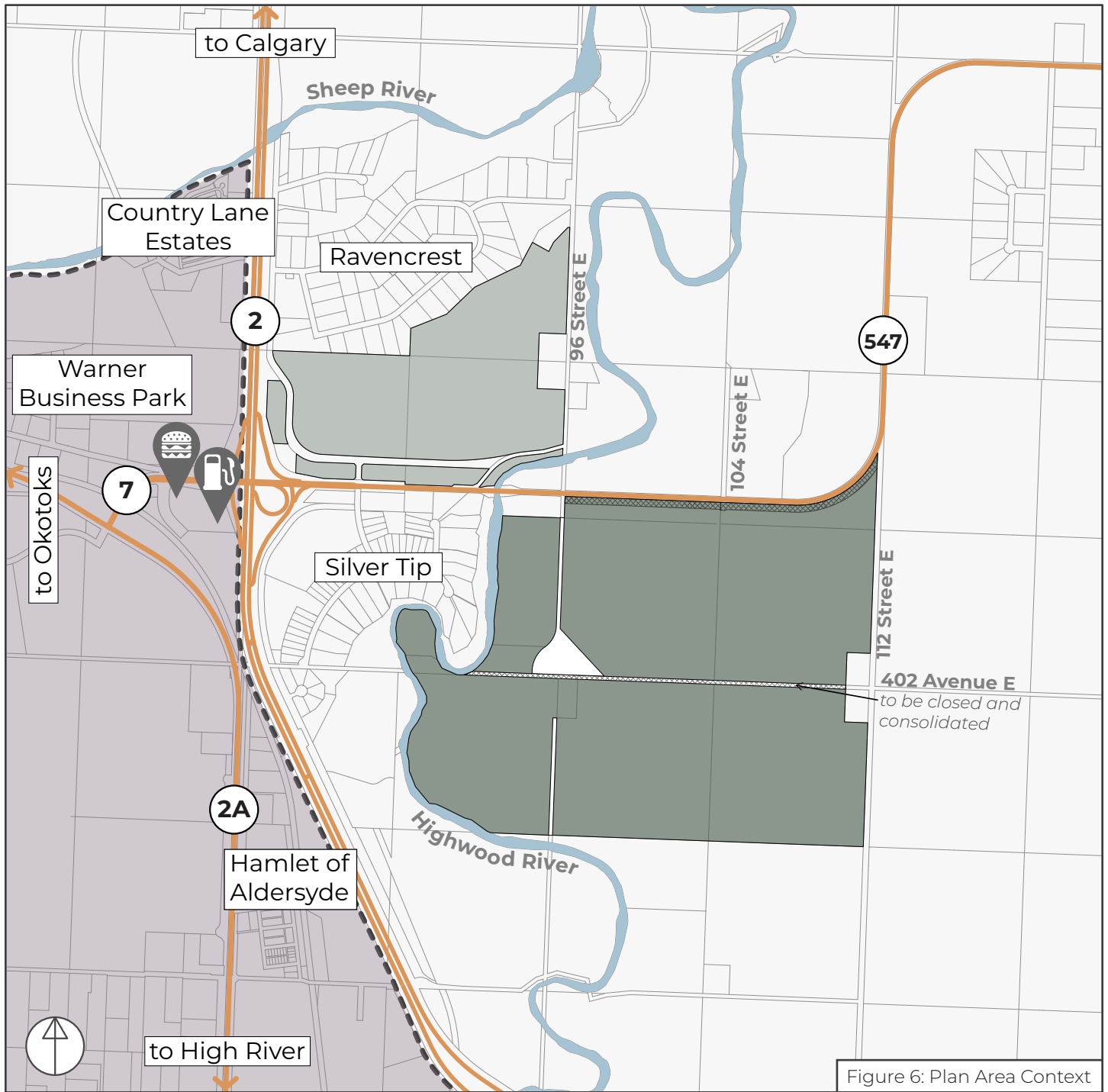


Figure 6: Plan Area Context

LEGEND

- Rowland Acres Neighbourhood
- Highfield Neighbourhood
- Highway 2A Industrial ASP Boundary
- Regional Highway
- River Systems
- 🍔 A&W Restaurant
- ⛽ Petro-Canada Gas Station

5.0 PREDEVELOPMENT STUDIES

During the course of preparing the Highfield and Rowland Acres ASP, several predevelopment studies were undertaken to gain a better understanding of the Plan Area to inform the community land use concept. This included preparing baseline assessments reviewing topography, biophysical resources, historical resources, flood mapping, traffic, infrastructure servicing and stormwater. These reports were utilized to not only determine open space allocations, but also to inform many of the land use choices in the Plan. Additional studies or further detail on existing studies may be required at the Land Use stage of development.

5.1 Topography

The Plan Area is generally characterized by flat to undulating cultivated farmland, with some wetlands located in depression areas, a characteristic of the Foothills Fescue Natural Subregion. The Highwood River is located west of the Highfield neighbourhood and follows an irregular channel pattern with steeper slopes and terracing along the banks. There is some evidence of natural erosion along the banks of the Highwood River, likely due to the 2013 floods. As a result, Foothills County may request additional studies regarding potential river migration or slope stability adjacent to the river bank. Disturbances, primarily related to agricultural activities, have removed much of the native vegetation in the Plan Area. Remaining native plant communities (e.g.: shrubland and riparian forest) occur adjacent to the Highwood River and in wetlands. The site topography, as shown in **Figure 7: Site Topography**, has informed the Land Use Concept, which provides extensive development buffers to preserve and enhance significant natural features. Furthermore, low-impact development techniques and stormwater management ponds have been strategically positioned to work with natural conveyance.

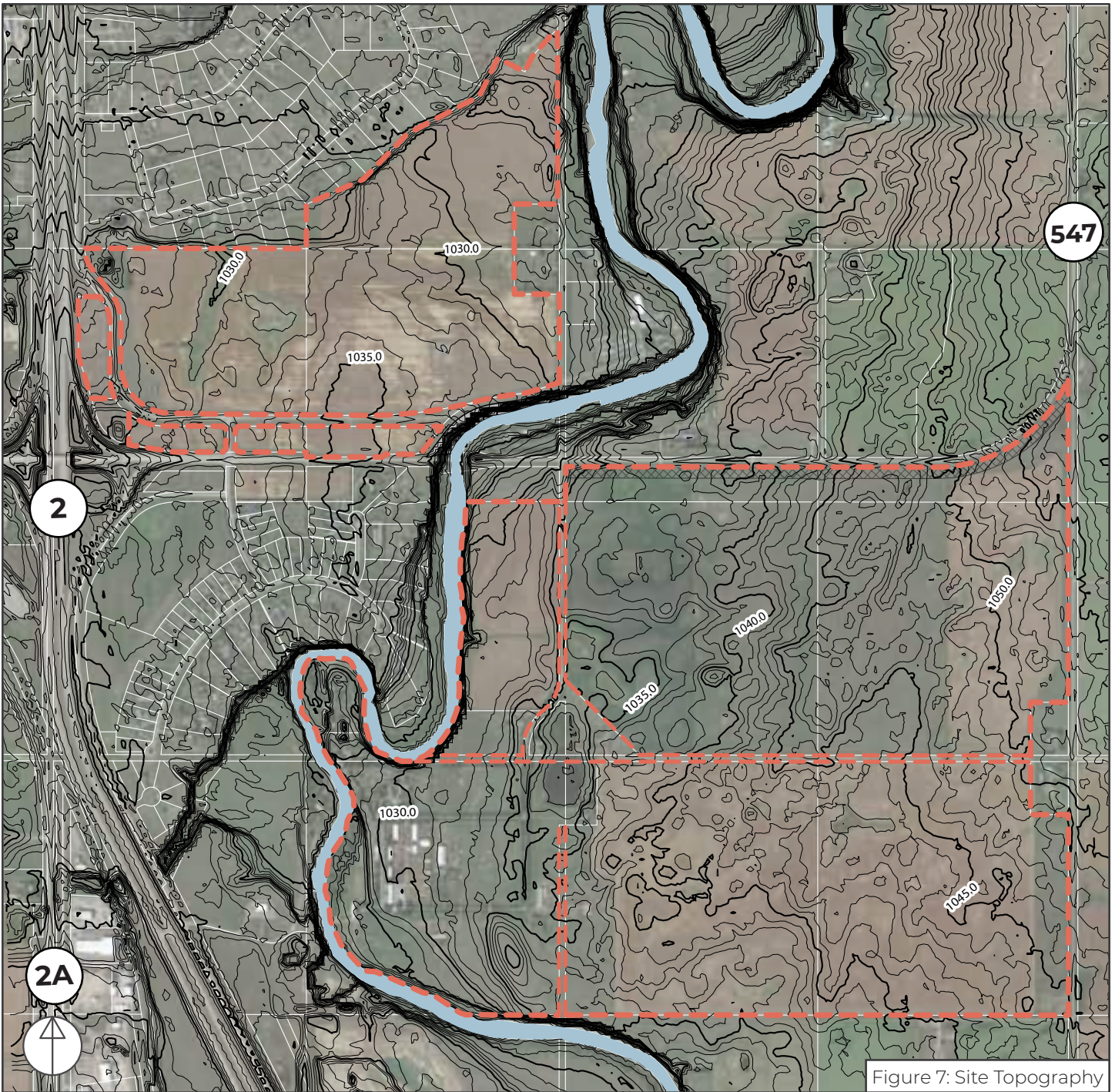


Figure 7: Site Topography

LEGEND

- - - Plan Area Boundary
- 1.0 Metre Contour
- 5.0 Metre Contour

5.2 Abandoned Wells & Sour Gas Infrastructure

The Alberta Energy Regulator (AER) Directive 056: Energy Development Applications and Schedules and Directive 079: Surface Development in Proximity to Abandoned Wells, provide guidance and direction to proponents of surface developments, municipal officials, planners, development officers, and the oil and gas industry. The directive sets out requirements in support of an amendment by Alberta Municipal Affairs to the Subdivision and Development Regulation (Alberta Regulation 43/2002), which requires proponents (Developers and property owners) of a subdivision or development to identify the locations of pipelines, wells, and abandoned wells during planning and to appropriately locate them within proposed areas of surface development.

Previously, four (4) abandoned wells and two (2) pipelines were identified within the Highfield and Rowland Acres ASP area. Two (2) of these wells are identified as reclamation exempt, two (2) are identified as abandoned and reclaimed. All previously active pipelines in this area have now been capped and purged. Upon development of the Plan Area the infrastructure will be removed. There are no pipelines or abandoned wells that require setbacks as they have been remediated and properly abandoned.

Figure 8: Abandoned Well & Sour Gas Infrastructure delineates the abandoned well locations and pipelines and their current status. In accordance with Directive 079 no new homes are permitted to be developed over abandoned well sites.

POLICIES

Policy 5.2.1

All development around an abandoned well site or sweet / sour gas well site must comply with AER directives and regulations and any other applicable laws or regulations.

Policy 5.2.2

In conjunction with a Land Use and Outline Plan Submission or Development Permit application within any parcel containing an abandoned well, the applicant shall provide a reclamation certificate for any well and all costs are the responsibility of the Developer.

Policy 5.2.3

Roads and residences shall not be located over abandoned well locations, to the satisfaction of the Alberta Energy Regulator.

Policy 5.2.4

In removing cased and purged pipelines within the Plan area boundary the Developer shall:

- a) Identify the location and condition of the pipeline,

- b) Conduct an assessment of the site and any environmental contaminants that may be present,
- c) Obtain all necessary permits and approvals,
- d) Remove all pipeline materials, including above-ground infrastructure,
- e) Inspect and address any soil or groundwater contamination,
- f) Properly dispose of hazardous materials,
- g) Reclaim the land to its original or an improved state suitable for community or residential development, to the satisfaction of the Alberta Energy Regulator and Foothills County.

Policy 5.2.5

Post reclamation of abandoned well site or abandoned pipeline, the Developer shall provide a reclamation certificate to the satisfaction of Foothills County at the subdivision stage.



LEGEND

- Plan Area Boundary
- Abandoned Well (Large Scale)
- 1 0091509 Lexin Resources Ltd. (Abandoned and Reclaimed)
- 2 0241956 Long Range Exploration Ltd. (Abandoned and Reclaimed)
- 3 B0002223 United Canso Oil & Gas Ltd. (Rec Exempt - never completed)
- 4 0022329 Canadian Natural Resources Ltd. (Rec Exempt - never completed)
- A Dynegy Pipeline (Abandoned - Purged & Cased)
- B Lexin Pipeline (License Suspended - Purged & Cased)

5.3 Historical Resources

Given the number of previously recorded First Nations sites in the general area, including several of which may extend into the Plan Area, and the high potential for unrecorded sites along the Highwood River and remnant terraces, a Statement of Justification (SoJ) was prepared by a qualified archaeologist and provided to Alberta Culture on June 23, 2016. Alberta Culture and Tourism has granted a Historical Resources Act Approval (reference 4835-16-0076-001) on the understanding that more targeted Historical Resources Impact Assessments (HRIA) are to be conducted at the land use stage on target areas that have been identified in **Figure 9: Targeted HRIA Areas**.

Conditions of the HRIA include surveying the target areas to identify high potential sites, a deep testing program in areas of significant sedimentation, and field studies completed under snow-free, unfrozen ground conditions, or alternatively which follow the directions of the Archaeological Survey Information Bulletin: Winter Conditions.

POLICIES

Policy 5.3.1

At the request of Alberta Arts, Culture and Status of Women (AB ACSW), detailed Historical Resource Impact Assessments (HRIA) will be prepared at the land use stage for the targeted areas identified as having a high probability of containing historic resources. The HRIA shall be prepared by a qualified archaeologist and undertaken at the cost of the Developer to the satisfaction of AB ACSW.



Figure 9: Targeted HRIA Areas

LEGEND

- Plan Area Boundary
- High Potential Zones Within Plan Area
- Known Site

5.4 Biophysical Impact Assessment

In March 2023 Matrix Solutions Inc. prepared a Biophysical Assessment, which included a desktop assessment and site reconnaissance visit. While the site reconnaissance visit was completed in 2016, the desktop review was completed in 2023 to update the findings. The Biophysical Assessment documents biophysical resources and verifies riparian setback matrix parameters in the Plan Area and is used during the planning stages of the ASP to identify any biophysical constraints in the Plan Area and provides recommendations for potential future work or investigation required. For more details refer to **Appendix A: Biophysical Constraints in the Plan Area**.

The desktop assessment reviewed aquatic resources including wetlands, surface water, and fish and fish habitat, terrestrial resources including soils and terrain, vegetation, and wildlife, and Environmentally Significant Areas (ESAs). The site reconnaissance visit was carried out on August 16, 2016, with an emphasis on key biophysical resources, particularly native vegetation communities (e.g., riparian zones and wetlands) and the locations for potential wildlife species at risk.

Land and resource use for the subject lands include hay and crop production, livestock grazing, breeding, raising, training and stabling of thoroughbred horses, and residential development. The extensive cultivation, livestock grazing, and residential development have contributed to the removal of much of the native vegetation in the Plan Area. The majority of wetlands in the Plan Area have been impacted to varying degrees by residential and agricultural activities.

The most significant environmental features on the subject lands are the Highwood River and identified wetlands, including adjacent lands. These areas contain the most biophysical constraints including sensitive soils, key wildlife, riparian setbacks, native vegetation communities, wildlife and fish habitat, and steep slopes. Using the Foothills County Riparian Setback Matrix Model, Riparian setbacks were calculated at three locations along the Highwood River that were representative of the Plan Area; the result was an average riparian setback of 30 meters from the bed to the shore. As the topography varies throughout the property, it is suggested that a geotechnical and slope stability report establish the setback for the lots against the high bank walls. Setbacks from these escarpments and Highwood River will utilize the Riparian Setback Matrix Model (RSMM) and/or geotechnical recommendations as may be required by Foothills County.

There is one low rated Environmentally Sensitive Area (ESA) located within the Highfield Neighbourhood surrounding the equestrian centre location. The rating is likely related to being in a native grassland area and the riparian habitat along the Highwood River. This rating came from the Provincial ESA and was not site verified by the Province and is not detailed or significant enough for planning purposes. The delineated Flood Hazard Protection Overlay area for Foothills County provides a more local and refined area of the potential ESAs (see **Figure 4: Flood Hazard Protection Overlay Map**). Foothills County flood hazard areas will be used for planning purposes at the land use stage.



POLICIES

Policy 5.4.1

At the Land Use and Outline Plan stage, the Developer may be required to complete a Biophysical Impact Assessment (BIA) which should contain:

- a) A pre-development assessment of water bodies within 30 meters of the Plan Area to determine appropriate mitigation measures if not already part of the comprehensive Stormwater Management Plan completed at the Land Use stage.
- b) A wetland field assessment to classify and delineate wetlands within the proposed development area and within 100 meters of the project area in accordance with the Alberta Wetland identification and Delineation Directive (AEP, 2015), Wetland Assessment and Impact Report Directive (AEP, 2017b) and Wetland Mitigation Directive (GoA 2018).
- c) An early and late rare plants survey to identify rare plants, rare communities, native plant communities, and wetlands, and to subsequently identify development mitigations for these biophysical constraints.
- d) A wildlife survey to identify species-species setbacks for important wildlife features in the Plan Area.
- e) Identify all ESAs and follow recommended mitigations identified by the formal preparation of a Biophysical Inventory Assessment. The Developer shall be required to follow recommended mitigation measures to the satisfaction of Foothills County and applicable regulatory bodies.

Policy 5.4.2

Riparian Setback Matrix Model distances may vary due to the complexity of the banks of the Highwood River and shall be confirmed at the Land Use and Outline Plan stage based on the results of the BIA (as per Policy 5.4.1) and the Geotechnical Reports (as per Policy 5.6.1).

Policy 5.4.3

A request for review by the Department of Fisheries and Oceans maybe required prior to commencing any development within the Plan Area that is instream or within 30 meters of the highwater mark of the Highwood River.

Policy 5.4.4

The Calgary Metropolitan Region Growth Plan identifies the Highwood River as an Environmentally Sensitive Area, as such, all recommendations in the BIA shall be followed.

5.5 Phase One Environmental Site Assessment

Typically Environmental Site Assessments (ESA) are undertaken in areas of previous disturbance where there might be a potential for site contamination from abandoned wells, spilled fuel, fertilizer, or any prior infrastructure. Phase 1 ESAs include review of historical documents where available such as aerial photographs, fire insurance maps and land titles. On-site inspections of the properties are also conducted to investigate environmental concerns from past or present use of the properties or surrounding area. An ESA may be required prior to new developments at the above noted areas of environmental concerns. Appropriate measures should be taken to ensure that hazardous materials or wastes (if present) are properly managed and disposed in accordance with applicable regulations.

POLICIES

Policy 5.5.1

At the Land Use and Outline Plan stage, the Developer may be required to undertake a Phase 1 ESA to identify any actual, potential or off-site contamination and will be required to follow through with any recommendations of the Phase 1 ESA to the satisfaction of Foothills County.

5.6 Geotechnical & Slope Stability Reports

Geotechnical Reports are an essential component of land development to ensure safety of materials for buildings, infrastructure, and other amenities. Geotechnical Reports include a detailed investigation of the soil to determine soil strength, composition, water content, and other important characteristics. The purpose of Geotechnical and Slope Stability Reports are to assess general subsurface and soil conditions and provide geotechnical construction guidelines for future development. These reports are prepared by professional engineers and the recommendations and requirements outlined in the Geotechnical Report may be implemented at the site grading and development permit stage of approvals.

POLICIES

Policy 5.6.1

At the Land Use and Outline Plan stage the Developer shall be required to provide a Geotechnical and/or Slope Stability Report, prepared by a Professional Engineer licensed to practice in Alberta, to the satisfaction of Foothills County.

5.7 Preliminary Stormwater Management Plan

A preliminary Stormwater Management Plan describes the approach to develop the stormwater management system for the Plan Area. LNG Consulting Engineering Ltd. (LNG) prepared the preliminary Stormwater Management Plan in 2017 and updated it in 2023 to align with the Highfield and Rowland Acres ASP.

The preliminary Stormwater Management Plan for the Highfield and Rowland Acres ASP area was designed to ensure that development within the Plan Area does not result in runoff discharge exceeding the pre-development rates and that the conveyance system is capable of routing runoff generated from a 1:100-year storm event. The storm system will include an overland drainage system with culverts for vehicle crossings while in areas with higher densities and smaller lots (i.e., less than 0.5 acres), a dual storm system consisting of underground pipe and overland will be required. The preliminary Stormwater Management Plan also recommends that Low-Impact Development (LID) strategies be utilized wherever possible (see **Sections 13.4 and 13.5**).

Detailed design of the stormwater management system will occur at future stages of development with the analysis of rainfall-runoff-reuse processes being completed at the land use or development permit stages. The design of the system and stormwater analysis will be in alignment with the current guidelines by Foothills County and Alberta Environment and Protected Areas. For additional details on the proposed stormwater management plan, refer to **Section 13.4**.

POLICIES

Policy 5.7.1

At the Land Use and Outline Plan stage, the Developer shall undertake detailed design of the stormwater system and stormwater analysis in alignment with the current guidelines by Alberta Environment and Protected Areas, to the satisfaction of Foothills County.

5.8 Transportation Impact Assessment

A Transportation Impact Assessment (TIA) was completed by Bunt and Associates Engineering (Alberta) Ltd. (Bunt) in 2016 and was updated in 2023 to align with the current ASP. A TIA not only determines the expected traffic volumes to be generated from the Plan Area based on the number of residential units and intensity of commercial land uses proposed, but it also explores whether the existing road network has the capacity to accommodate the traffic generated by the proposed development and identifies any necessary upgrades to transportation infrastructure. Please refer to **Section 12** for details pertaining to the mobility network in the Highfield and Rowland Acres ASP area.

5.9 Noise Attenuation

Alberta Transportation and Economic Corridors' noise guidelines (Dated 26 August 2021) outlines the conditions for noise attenuation in cities and urban areas. The guidelines specify that noise attenuation should be considered if noise levels exceed a 24-hour weighted average of 65 decibels measured 1.2 metres above ground and 2 metres inside the property line and outside the highway right of way. These measurements should be adjusted to the 10-year planning horizon value as a threshold to consider noise mitigation.

The guidelines also specify that should a residential subdivision be located adjacent to a Provincial Highway in an area that exceeds the accepted noise level, noise attenuation will be the responsibility of the Developer. Typical noise attenuation measures include designing less sensitive uses such as green space or commercial uses to buffer between Highways and residential areas, noise barriers or acoustic shields such as a wall or berm, as well as architectural considerations such as double or triple paned windows, the use of "sound deadening materials" in walls, and adapted building orientation.

POLICIES

Policy 5.9.1

A Noise Attenuation Study may be required by Foothills County at the Subdivision stage in areas within the Highfield and Rowland Acres ASP boundary that are adjacent to Highway 2 and Highway 547 to the satisfaction of Foothills County and Alberta Transportation and Economic corridors.

Policy 5.9.2

Any noise attenuation measures required as a result of the Noise Attenuation Study (see Policy 5.9.1) shall be implemented at the sole cost of the Developer.

5.10 Provincial Jurisdiction Lands

The Rowland Acres Plan Area contains lands that are identified as Provincial Jurisdiction (see **Figure 10: Land Use Concept**). Specifically, the Crown (Alberta Transportation and Economic Corridors) owned land as a residual parcel following the land assembly required to create the grade separated overpass on Highway 2. At the time of preparing this ASP, it is understood that the Crown may choose to develop or sell these lands at their discretion. However, should these lands be sold and privately held in the future, an amendment to the Highfield and Rowland Acres ASP may be required to facilitate future use or development. While operating under the jurisdiction of Provincial legislation, these lands do not require a Development Permit. If the lands are sold and no longer operate under the jurisdiction of the Provincial governments, they will be subject to the Foothills County Land Use Bylaw.

POLICIES

Policy 5.10.1

The lands identified as Provincial Jurisdiction on **Figure 10: Land Use Concept** support uses at the discretion of the Crown. Should these lands no longer be Crown owned, any future Land Use or Outline Plan application for these lands may also require an amendment to the ASP at the discretion of Foothills County.

6.0 COMMUNITY PLANNING FRAMEWORK

The following section outlines the overall community framework for the Highfield and Rowland Acres ASP area. This section outlines in detail the land use concept and the specific Neighbourhood Areas. This section establishes a framework for how the community will be managed via a Homeowners Association.



6.1 Neighbourhood Structure

The Highfield and Rowland Acres ASP is comprised of two comprehensive neighbourhood areas: Highfield and Rowland Acres (see **Figure 5: Land Ownership**). The Highfield and Rowland Acres ASP comprises a comprehensively planned community with a series of unifying urban design elements for each neighbourhood. However, given its overall size, distinct individual Neighbourhood Areas should be designed to foster unique character and provide focal points to create variety and interest in the built-form and landscape. Smaller activity centres or focal points within each neighbourhood are encouraged to increase a diversity of land use and create destinations, which can be inclusive of minor retail or employment uses, institutional, and/or recreational and open space amenities. As each Neighbourhood Area develops, the Developer is required to undertake a Land Use/Outline Plan (described in **Section 7.8** below) as it is built in phases over time.

6.2 Community Land Use Concept

Figure 10: Land Use Concept describes and identifies future land use areas within the Highfield and Rowland Acres ASP area. The Land Use Concept consists of a series of land use policy areas that define a future land use and mobility pattern for the community's development over time and was derived using the project's guiding principles outlined in **Section 1.2**. **Figure 10a** and **Figure 10b** provide detailed views of the land use concepts within each Neighbourhood Area.

The Land Use Concept policy areas as illustrated in **Figure 10: Land Use Concept** are intended to be representative of a high-order land use strategy, and as such, cannot be represented in terms of detailed land use statistics other than calculated projections. Applications for Land Use Redesignation or Outline Plan are to be compared against the Community Land Use Concept for consistency and are to be evaluated by Foothills County.

The Highfield and Rowland Acres ASP area is characterized by sensitive transitions. The Land Use Concept provides for green space buffers around the Plan Area boundary, while also supporting development within the neighbourhoods which results in a sensitive transition between uses and densities within the Plan Area.

The Highfield and Rowland Acres ASP area features a range of land uses including residential lots of varying sizes to accommodate a diversity of housing types and styles, neighbourhood commercial to accommodate for daily needs of residents and other members of Foothills County community, and a variety of open space and recreational uses to promote gathering and leisure. Secondary suites are encouraged in all residential areas to promote affordability and product choice within the Plan Area. Smaller, street-oriented residential lots have been arranged to create a modified Main Street to enhance the pedestrian environment and promote connectivity between the gateway features, amenity spaces and the commercial area. Furthermore, the ASP includes architectural controls that include rural design elements and a landscaping strategy that promotes the use of stone, black fences, green entries and a prominent entry feature and amenity area which all contribute to the character and quality of the overall community.

6.3 Community Land Use Design Strategies

The following policies apply to both Neighbourhood Areas unless otherwise noted.

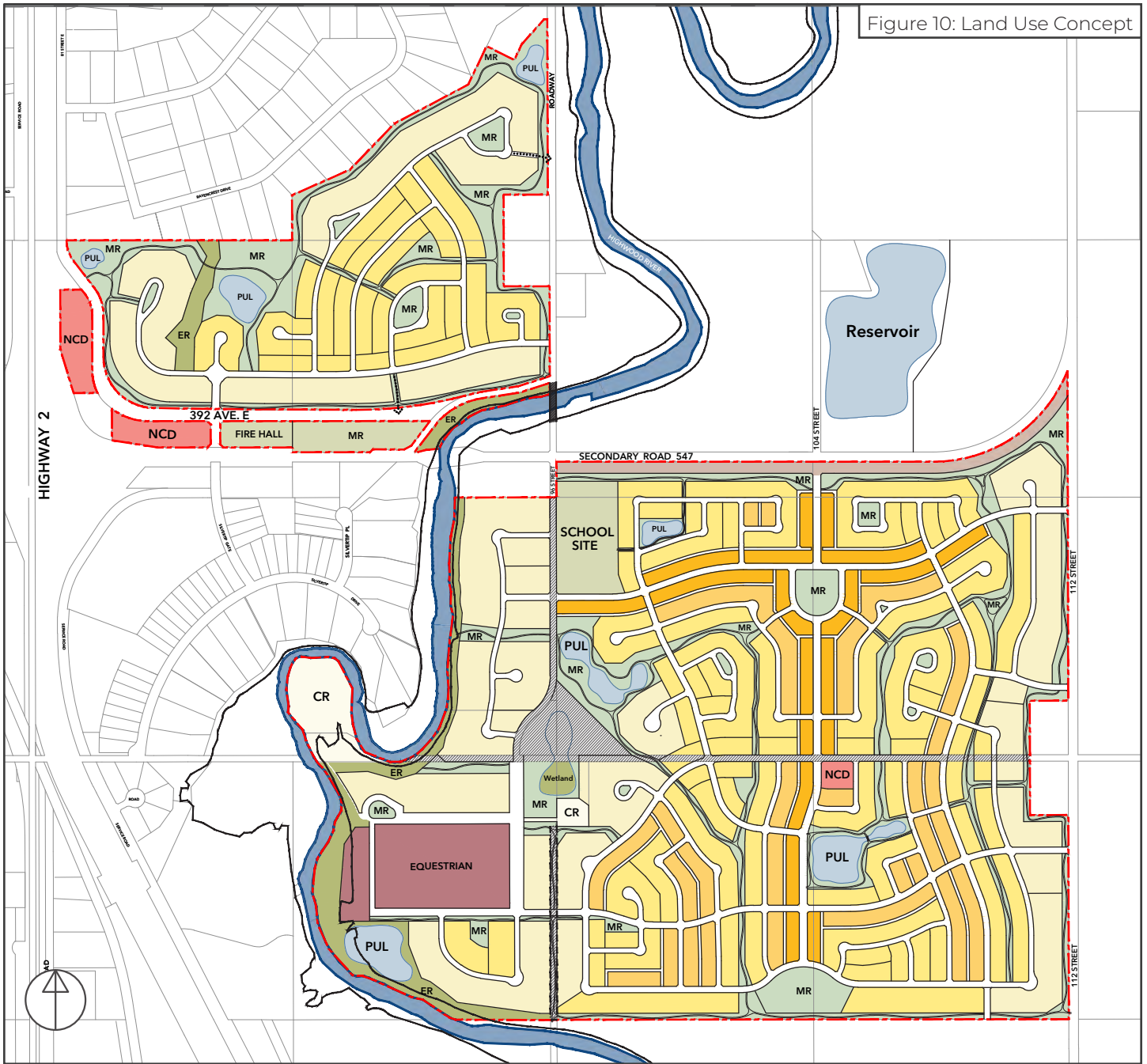
POLICIES

Policy 6.3.1

The Highfield and Rowland Acres Area Structure Plan aims to achieve a minimum residential density of 2.5 dwelling units per net developable acres to a maximum of 5.0 dwelling units per net developable acres across the entire ASP area. The UPA is to be calculated utilizing the approved CMRB density calculation model. Secondary Suites do not count as units toward overall density calculation.

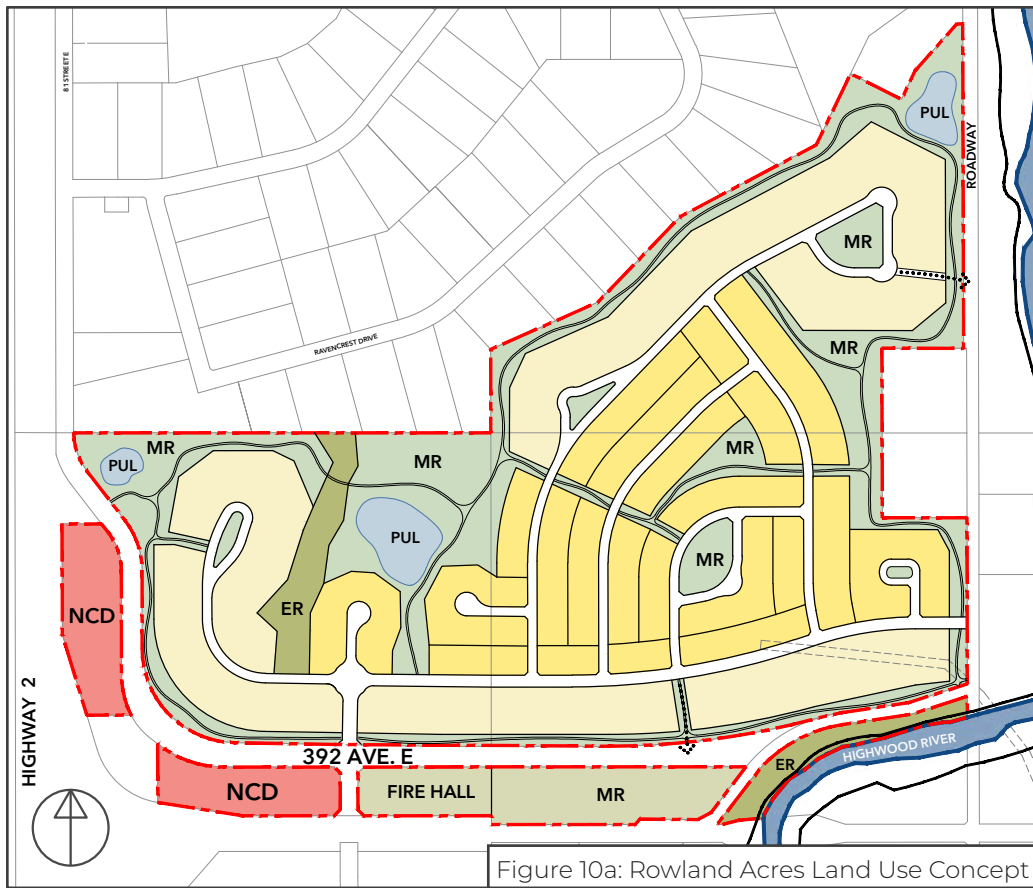


Figure 10: Land Use Concept



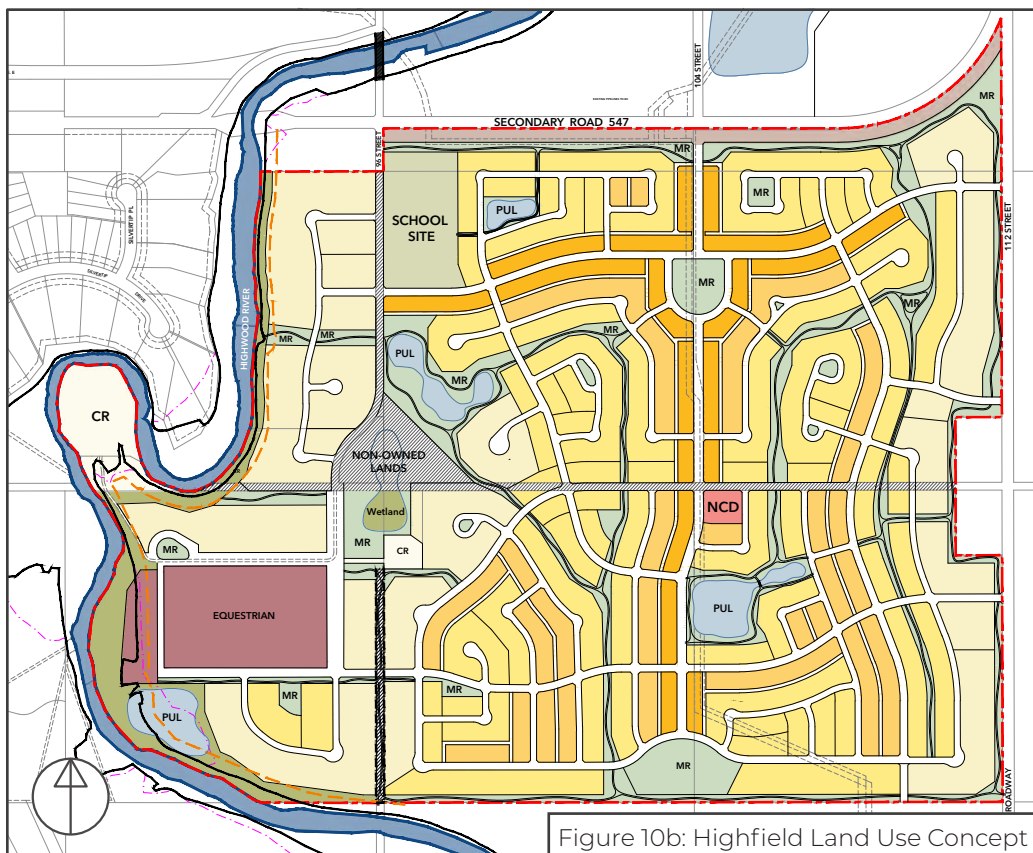
LEGEND

- | | | |
|--|---|----------------------------------|
| Plan Area Boundary | Regional Municipal Reserve (MR) | Public Utility Lot (PUL) |
| Existing Country Residential (CR) | Municipal Reserve (MR) | Highwood River |
| Cluster Residential District (CLR) | Environmental Reserve (ER) | Non-Owned Lands Within Plan Area |
| Residential Community District (RC) | Neighbourhood Commercial District (NCD) | Crown Land |
| Residential Multi-Family District Flexible (RMF) | Recreation District (REC) Equestrian | Future Highway Widening |
| Residential Multi-Family District (RMF) | | Emergency Egress |
| | | 1:100 Flood Line |



LEGEND

- Plan Area Boundary
- Cluster Residential District (CLR)
- Residential Community District (RC)
- Regional Municipal Reserve (MR)
- Municipal Reserve (MR)
- Environmental Reserve (ER)
- Neighbourhood Commercial District (NCD)
- Public Utility Lot (PUL)
- Highwood River
- Crown Land
- Emergency Egress



LEGEND

- Plan Area Boundary
- Existing Country Residential (CR)
- Cluster Residential District (CLR)
- Residential Community District (RC)
- Residential Multi-Family District Flexible (RMF)
- Residential Multi-Family District (RMF) / Mixed Use
- Regional Municipal Reserve (MR)
- Municipal Reserve (MR)
- Environmental Reserve (ER)
- Neighbourhood Commercial District (NCD)
- Recreation District (REC) Equestrian
- Public Utility Lot (PUL)
- Highwood River
- Non-Owned Lands
- Crown Land
- Future Highway Widening
- 1:100 Flood Line
- 1:200 Flood Line

6.4 Homeowners Association

A Homeowners Association (HOA) is defined by the Alberta Real Estate Association as a resident group created by the Developer of a community. Functions vary, but many HOAs monitor architectural guidelines or provide maintenance services for amenities that the municipality will not maintain. HOAs are common in newer communities and where they exist, membership and the payment of an annual fee are compulsory. The existence of an HOA is registered on the title of a property. Neighbourhoods with an HOA tend to have high aesthetic appeal overall for many current owners and potential buyers due to the establishment and maintenance of architectural guidelines.

Within Highfield and Rowland Acres, the HOA will be incepted at every new phase of construction at the expense of the Developer, in accordance with the Society's Act of Alberta. Throughout the Plan Area, the HOA will be responsible for the maintenance of common lands, but not internal roads.

POLICIES

Policy 6.4.1

There shall be Homeowner's Associations established by the Developer at the subdivision stage. These HOA's shall be described in the corresponding Outline Plan for each Phase of development. The existence of the HOA will be created in accordance with the Society's Act of Alberta, and will be funded annually via the payment of a compulsory fee by all homeowners.

Policy 6.4.2

The HOA shall be responsible for maintaining common property including Municipal Reserves and amenity spaces (e.g. pathways and landscaping) upon completion of these common areas by the developer and at a time that the HOA has achieved enough members to sustain the maintenance obligation.

Policy 6.4.3

The HOA shall be responsible for implementation and ongoing enforcement of the Architectural Controls.

6.5 Community Standards Bylaw Compliance

All of Foothills County is within the purview of the Foothills County Community Standards Bylaw. The purpose of the bylaw is to protect the health, safety, and welfare of the people and property of the County by preventing nuisances and unsightly property. Nuisances are generally defined as audible activities being carried out by an individual that infringes on the ability of others to enjoy their neighbourhood. Nuisances can range from excessive vehicular noise to snow blowing operation outside of daytime hours. Unsightly property infractions are generally related to neighbours not maintaining premises to a working standard and not keeping lands clear of garbage and refuse.

POLICIES

Policy 6.5.1

The Plan Area is subject to the rules and regulations outlined in the Foothills County Community Standards Bylaw.

7.0 PLACEMAKING & COMMUNITY CHARACTER

The neighbourhoods of Highfield and Rowland Acres will have high aesthetic appeal with pride of ownership and amenities unlike other communities in the Region. The community will celebrate the long-standing equestrian culture in Foothills County, while accentuating rural and thoroughbred horse racing heritage elements in the form of signage and wayfinding elements, sculptures, architectural fixtures, and thoughtful plantings. Tree lined drives leading to central and significant areas assist in sweeping the character across the community, framing public spaces, and leading the eye to placemaking features. Residents will benefit from a legacy represented in park spaces and street naming and feel it in the lifestyle and sense of community in their surroundings. This sense of community provides the experience and feel of equestrian living.

This section seeks to establish the placemaking and community character features within this community from a community design perspective and includes policies intended to reinforce the rural and equestrian character of the community while establishing a unique sense of place through Dark Sky Bylaw compliance, gateway areas, placemaking and branding initiatives, and transitional buffer areas.



7.1 Dark Sky Bylaw Compliance

The Foothills County Dark Sky Bylaw regulates the type of light source and fixtures that can be installed by any person or entity in the County as a means to prevent light pollution. The bylaw seeks to prevent three types of light pollution: glare, uplighting and light trespass. Glare refers to bright lights that reduce visibility and safety for pedestrians and motorists. Uplighting directs illumination skyward unnecessarily, while light trespass occurs when a glow cast by a fixture moves from a space requiring illumination to one that does not. Dark Sky initiatives in Foothills County minimize factors that adversely affect astronomical observation, plant and animal circadian cycles, and the health and safety of those living in the County.

POLICIES

Policy 7.1.1

All development within the Plan Area shall comply with the Foothills County Dark Sky Bylaw and Foothills County Dark Sky standards will be reflected in the Architectural Controls created for the Plan Area.

Policy 7.1.2

In alignment with Dark Sky principles, streetlighting may be installed based on safety requirements. Lower standards, such as delineation, may be accepted at the discretion of Foothills County.

Policy 7.1.3

Any streetlight fixture installed within the Plan Area shall be compliant with the Foothills County Dark Sky Bylaw and undertaken to the satisfaction of Foothills County staff.

7.2 Gateway Areas

Sense of Arrival refers to the “feeling” a resident or visitor gets when they pass through the threshold of a destination, whether it be a shop, a hotel, or a community. The sense of arrival sets the tone and first impression for the area and in commercial and recreational areas can impact repeat business, length of stay, and spending, while for residential areas, can impact a prospective resident’s decision to live in the area. A strong sense of arrival will ensure that people know where to go to have their needs met, understand what is available in the area, convey the spirit or culture of a place, and most importantly, make them want to stay or return. The sense of arrival to the Highfield and Rowland Acres ASP will be an important element of placemaking efforts and emphasis will be placed on the design for Gateway Areas into each community.

In addition to gateway and directional signage into each neighbourhood area, the major entrance feature into the Highfield Neighbourhood is the “Cape Canaveral Court” a traffic circle located along the Main Street, in the heart of the neighbourhood. Cape Canaveral Court is not only a gateway and community landmark, it also provides recreational amenity, and also directs the flow of vehicles and pedestrians going in and out of the Highfield area. The north side of Cape Canaveral Court features a shallow flat-water fountain that combines the stone from Rural Kentucky field roads and other landscaping. At the far end of the fountain there is a large statue of the iconic Cape Canaveral stallion racehorse. Cape Canaveral was a highly decorated thoroughbred racehorse who stood stud at Highfield Stock Farm and had a notable influence on horse racing in Alberta through his progeny on the racetrack. The areas surrounding the water feature and statue will provide opportunities for passive recreation and informal gathering through the provision of benches, tables, and other seating. Recreational amenities are located on the south side of the Cape Canaveral Court and will be discussed in detail in **Section 10.2** and conceptual graphics can be found within **Appendix B: Cape Canaveral Court Conceptual Graphics**.

POLICIES

Policy 7.2.1

Gateway features into the Highfield and Rowland Acres neighbourhood should be encouraged. This can be in the form of entry signage, directional signage, and placemaking or landmark features. Gateway features should be detailed at the Development Permit stage and are subject to review and approval by Foothills County.

Policy 7.2.2

Details surrounding the specific design of Cape Canaveral Court shall be provided to the County at the Development Permit stage.

7.3 Placemaking & Branding Features

The Plan Area is inspired by the aesthetic of thoroughbred horse racing. The public realm will feature elements including dry stone masonry to line prominent streets and to delineate public space, red brick for plaza spaces and crosswalks at strategic locations, black, iron style fencing, and high-quality finished wood and black steel on street fixtures including benches and garbage cans. Fence posts will be designed to emulate furlong posts, which are traditionally used to measure race lengths in horse racing, while custom street light standards will take inspiration from traditional lamp posts. See **Figure 11: Placemaking & Precedent Imagery** for visual examples of some of the placemaking and branding features contemplated within the Plan Area.

POLICIES

Policy 7.3.1

Opportunities for placemaking shall be encouraged within the Plan Area and will be at the expense of the Developer. Placemaking efforts should be consistent with the thoroughbred horse racing aesthetic as articulated in **Section 7.0**.

Policy 7.3.2

Details surrounding placemaking and materiality of public realm areas will be determined at the Development Permit stage, to the satisfaction of Foothills County.

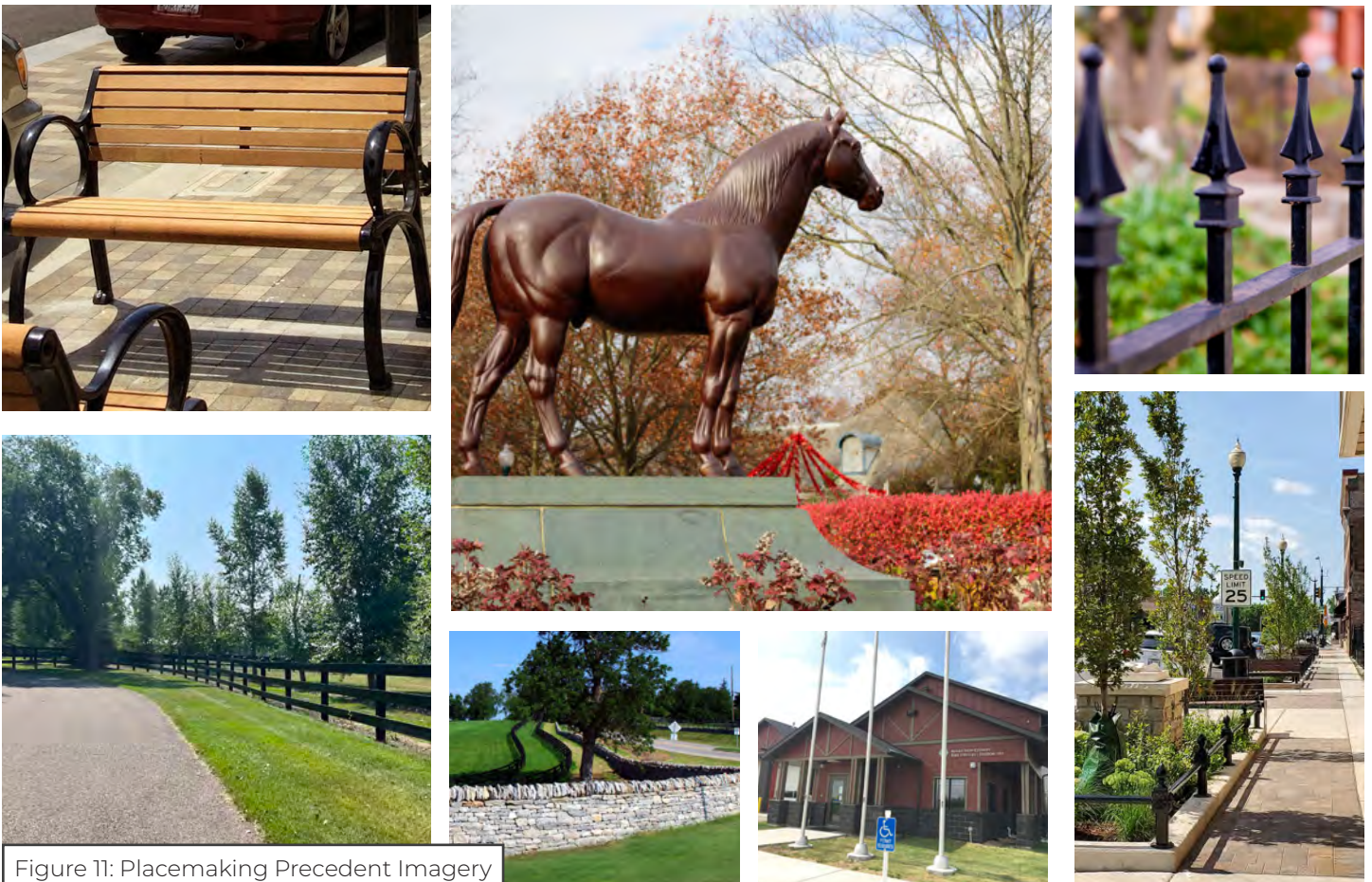


Figure 11: Placemaking Precedent Imagery

These images are intended to visually demonstrate the elements creating a sense of place for the Highland & Rowland Acres Neighbourhoods. These images are inspirational only and do not represent a defined outcome.

7.4 Architectural Style & Controls

As discussed in previous sections, the overall look and feel of the community will be inspired by a rural equestrian design aesthetic. However, the design of residential and commercial buildings should contain enough variety to create interest, while at the same time achieving a balanced harmony of forms, colours, and themes.

Landscaping will generally utilize native species and drought resistant plants, however, in prominent locations streets will be tree lined with deciduous tree species.

Architectural Controls will be registered on each lot in the Plan Area at the time of subdivision. The Architectural Controls will provide guidelines on residential, commercial, and recreational architecture as well as landscape design and will contribute to the overall community image and rural equestrian feel reflected in this Plan. Although variety will be encouraged within the Plan Area, the Architectural Controls will specify unifying features and materiality to ensure a level of cohesiveness of design throughout the entire community.



POLICIES

Policy 7.4.1

Architectural Controls shall be prepared at the Land Use and Outline Plan stage and registered on each lot at the time of subdivision by the Developer. Architectural Controls will address exterior design and appearance of all buildings including balancing forms, colours, and themes across all land uses in the community as well as landscaping design requirements.

Policy 7.4.2

All development within the Plan Area shall be subject to Architectural Controls that reinforce a consistent character, landscaping, and streetscape within the Plan Area. The following will be required within the Architectural Controls for the Highfield and Rowland Acres ASP area:

- a) Guidelines that encourage lot frontages and buildings which exceed conventional urban style neighbourhoods;
- b) Guidelines that allow for a defined building envelope to encourage a regular distribution of housing sites in keeping with a more structured neighbourhood character; and
- c) Guidelines that promote residential building forms that when viewed from the street, emphasizes the residential nature of the building and reduces the visual impact of garages on the streetscapes.

Policy 7.4.3

As per **Section 6.4**, the Homeowner's Association shall be responsible for the enforcement of Architectural Controls.

7.5 Transitional Buffer Areas

To establish a best practice for providing transitions between the ASP Area and adjacent agricultural and country residential lands, design guidelines were developed that aim to provide a thoughtful approach to these interfaces. In establishing a buffer, the needs of area agricultural operators, homeowners, and businesses can be respected and satisfied. This ASP establishes a strategy not only to mitigate impacts to neighbouring properties, but to also complement the Open Space Plan (discussed in detail in **Section 10.0**) with pathways and low impact design.

While typically best practice in urban design recommends a buffer of at least 15 meters between incompatible uses, the Transitional Buffer Areas within the Highfield and Rowland Acres ASP are at least 20 meters but vary throughout the Plan Area. The Transitional Buffer Areas also feature vegetative buffers using Municipal Reserve (MR) or Open Space, while also incorporating stormwater retention ponds (Public Utility Lots- PULs) into the design. The buffer areas will include a multi-modal pathway meant for pedestrian, cyclists, and equestrians to utilize for recreation. Transitional Buffer Areas should result in sensitive transitions between the Plan Area and neighbouring parcels and will utilize vegetation, topography, low impact development strategies and pathways where appropriate.

Please see **Figure 12: Transitional Buffer Cross Sections Key Map** and **Figures 12a-12g** for visual representations of the interface areas throughout the ASP area.

POLICIES

Policy 7.5.1

Transitional Buffer Areas as outlined in **Figure 12: Transitional Buffer Cross Sections Key Map** may be incorporated at the discretion of Foothills County and shall be detailed at the Land Use and Outline Plan stage to the satisfaction of the Municipality.

Policy 7.5.2

At the expense of the Developer, the Transitional Buffer Areas shall be designed by a Landscape Architect, constructed by the Developer, and maintained to the satisfaction of Foothills County or the HOA subject to the County's preference.

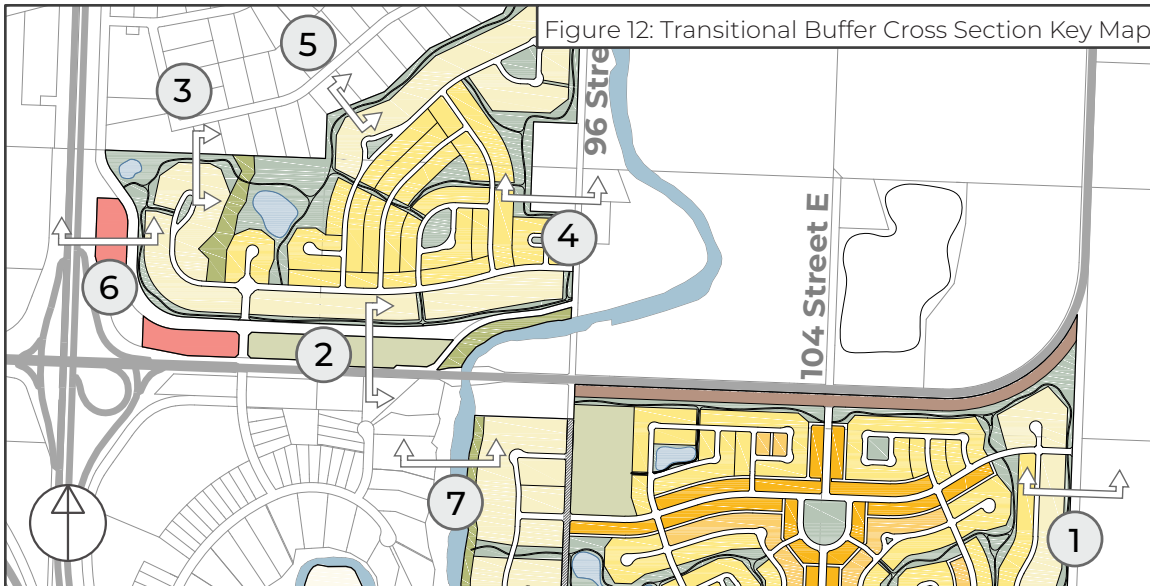


Figure 12: Transitional Buffer Cross Section Key Map

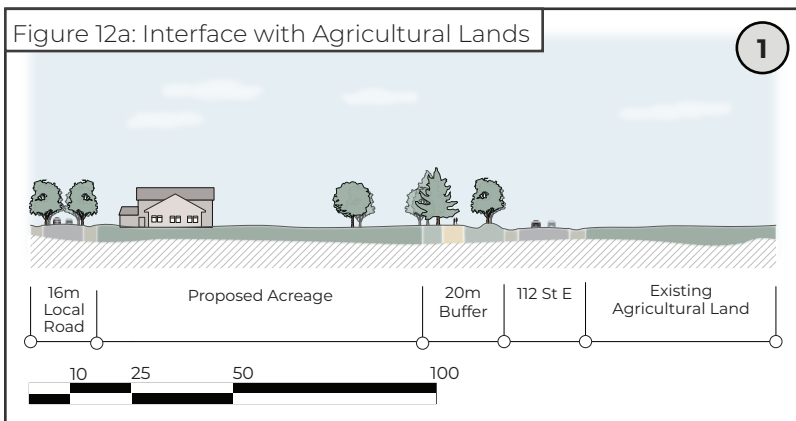


Figure 12a: Interface with Agricultural Lands

1

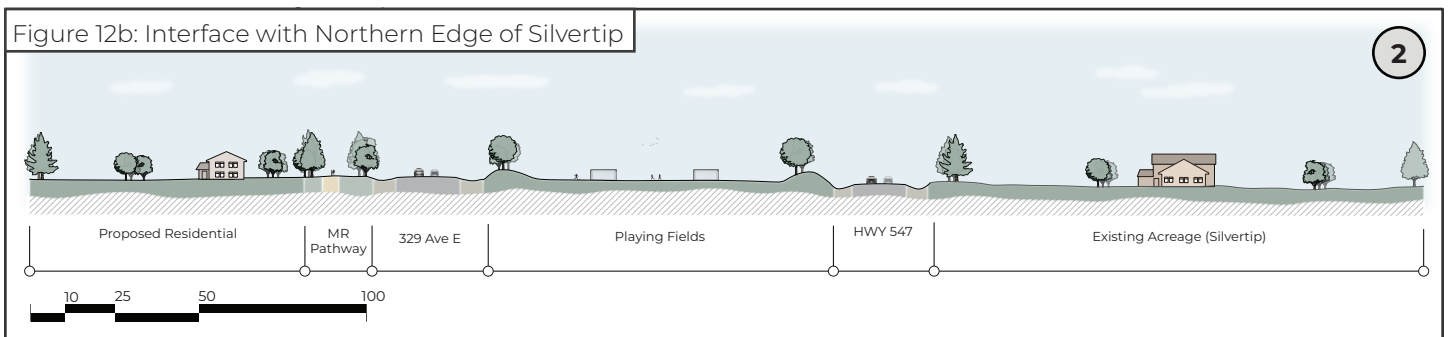


Figure 12b: Interface with Northern Edge of Silvertip

2

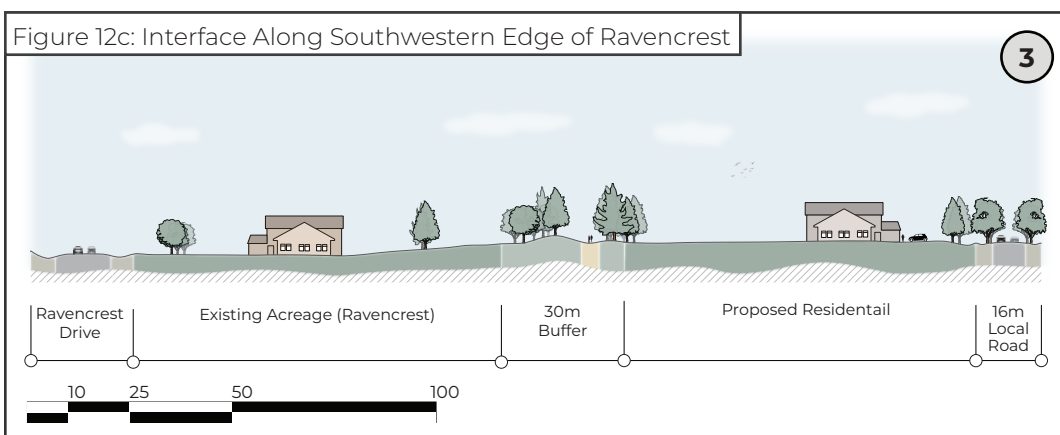


Figure 12c: Interface Along Southwestern Edge of Ravencrest

3

Figure 12d: Interface Between Rowland Acres & Existing Acreage

4

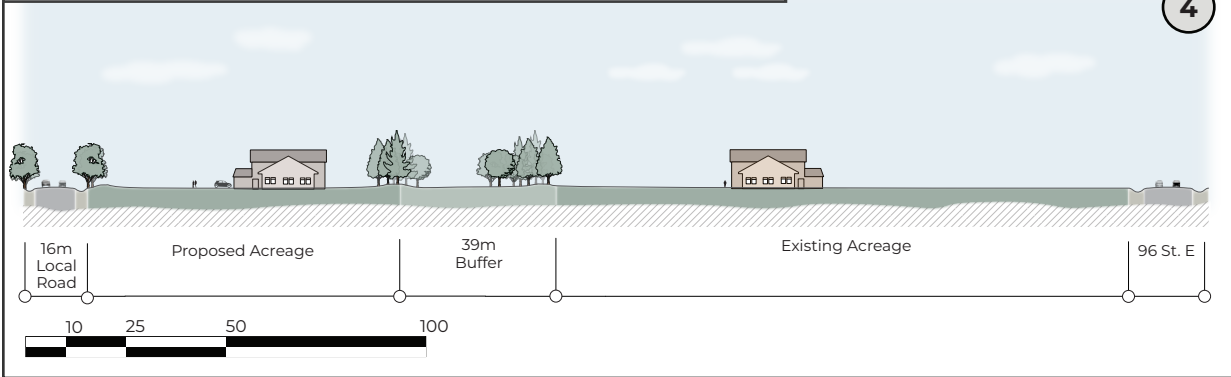


Figure 12e: Interface Along Southeastern Edge of Ravencrest

5

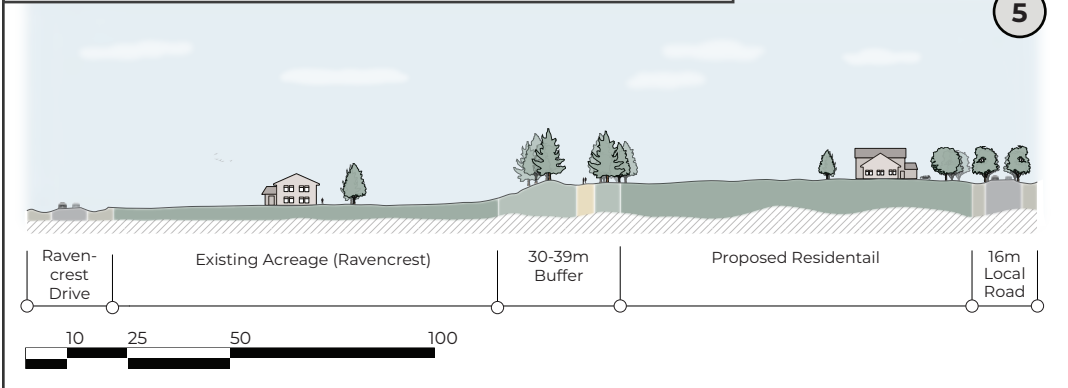


Figure 12f: Local Commercial Interface with Highway 2

6

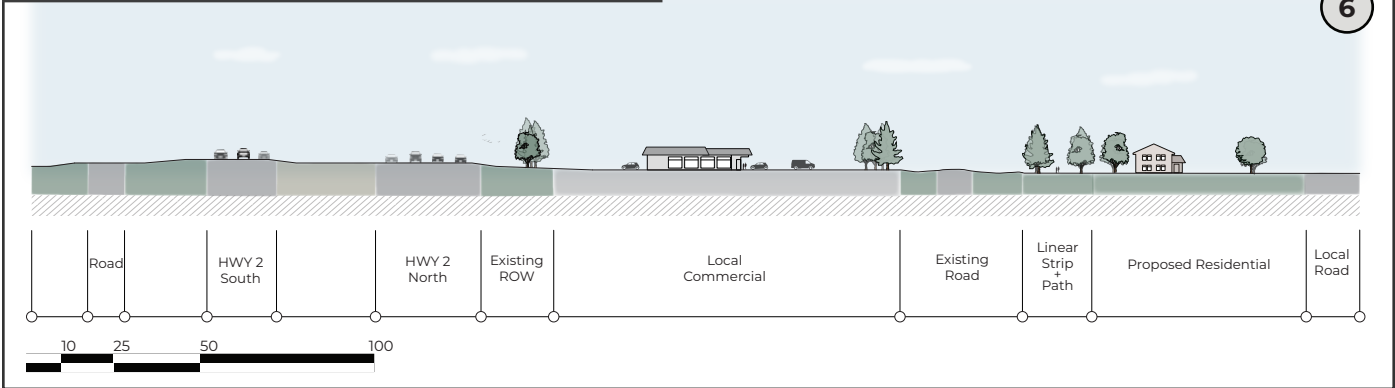
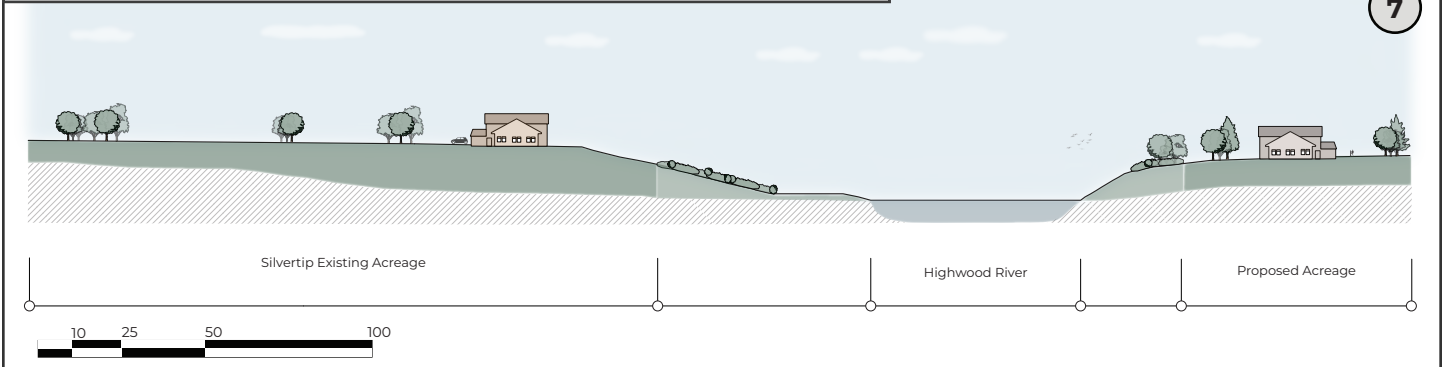


Figure 12g: Interface with Eastern Boundary of Silvertip & Highwood River

7



7.6 Plan Area Boundary Integrity

The purpose of this section is to address lands that are not owned by the Developer but are either within, or adjacent to, the Plan Area boundary. In addition, it addresses larger serviced parcels (+/- 1.0 acre in size) within the Plan Area and the future redevelopment of those parcels should lot owners attempt to make those kinds of applications in the future.

This section is intended to preserve the integrity and the economic, social, and financial stability of the project and overall Plan Area over time and maintain the intended scope and purpose of the area structure plan. The Plan Area contains parcels that are within, and adjacent to, the boundary that are not included in the overall comprehensive design. Recognizing this was as a result the developer group not owning these lands, and land ownership additionally changing over time.

As part of the overall community development strategy, large lots, on the perimeter of the project site, will be developed with full deep utility servicing. These are to support a shop and/or home based business as well as a home, and they are intentionally located on the periphery to allow for a stepped transition to an increasing density (or density transect) to the center of the project. As a result, these large and fully serviced parcels are greater than the minimum parcel sizes, as outlined in the Foothills County Land Use Bylaw. Due to their size and method of servicing, these parcels may be considered for subdivision and redevelopment in the future, which could help achieve greater overall densities. However, this may also result in fragmentation of the site unduly, to a point where the intentional design of the community

is lost. To ensure that subdivision and development occurs logically and efficiently on existing parcels within the Plan Area, non-owned lands, and adjacent lands, the following considerations are in place to ensure that there is no “ad hoc fragmentation” and that development and redevelopment over time accommodates an incremental growth that is considerate and thoughtful of the project direction, goals, vision and intent.

The ASP contains a clearly defined and demarcated Plan Area boundary to avoid ambiguity and ensure consistent interpretation and application of the ASP. This section also addresses lands within the Plan Area not owned by the Developer, as identified on **Figure 5: Land Ownership**, and includes basic requirements for submission that should be met where there is a desire for their inclusion in the Plan Area, or requests for additional connections to servicing put in place by the Developer. Lands external to the Plan Area Boundary would require an amendment to the ASP and be evaluated for their alignment with the current Plan’s provisions.

Review and updates to the Plan Area boundary may periodically occur to accommodate any changing circumstances, growth patterns, and development needs that may occur from time to time as required. Parcel sizes as outlined in this ASP are intentional and result in a managed transition from adjacent rural developments or agricultural land uses. The policies below are intended to establish clear procedures and criteria for amending the plan, ensuring transparency, public participation, and accountability in the decision-making process.

POLICIES

Policy 7.6.1

The Developer shall provide an evaluation of physical and geographical features, natural resources, infrastructure, applicable setbacks and other relevant factors when determining if land should be further developed to the satisfaction of Foothills County.

Policy 7.6.2

The Developer shall include an acknowledgment that endeavour to assist is applicable and owing to the Developer for provision of shallow utility, water, wastewater and stormwater services to the area, transportation upgrades (external and internal) and include landscaping strategies and commitments to join the Homeowners Association and register the same set of Architectural Controls to the satisfaction of Foothills County.

Policy 7.6.3

The County shall evaluate lands within or adjacent to the Plan Area to determine their compatibility with the objectives, goals, and development principles of the Plan to the satisfaction of Foothills County.

Policy 7.6.4

The Developer/Applicant shall consider the potential impact of lands within or adjacent lands in the plan area and vice versa, such as environmental, economic, social, and infrastructure-related factors to the satisfaction of Foothills County.

Policy 7.6.5

The Developer/Applicant shall identify and address any conflicts or challenges that may arise from including adjacent lands, such as conflicting land uses, infrastructure requirements, or environmental concerns to the satisfaction of Foothills County.

Policy 7.6.6

The Developer/Applicant shall engage with the identified stakeholders and communities in the adjacent lands to gather input, assess their needs, and ensure their concerns are taken into account during the planning process.

Policy 7.6.7

The Developer/Applicant shall be required to amend this ASP in order to incorporate property into the Plan Area or service additional properties through connection to the water, wastewater, or stormwater systems within the Plan Area.

Policy 7.6.8

Over time, should larger, fully serviced, lots on the periphery of the Plan Area intended for larger home-based businesses and shops, be considered for infill redevelopment and subdivision, the application must include a shadow plan, ensure that access is efficient and ensure that the HOA is in agreement with the plan. The basis for evaluation should be that the redevelopment or subdivision does not erode Plan Area integrity, that these lots are also participants in the HOA upon creation, and they have no net negative effect on the overall servicing and infrastructure capacities of the community. This additionally is to be undertaken to the satisfaction of Foothills County as the approving authority.

7.7 Municipal Road Allowance Retention, Operation, Closure & Consolidation

This section is intended to describe the intention to close the 402 Avenue East forced and undeveloped municipal road allowance (20m wide) that runs east to west through the Plan Area as indicated on **Figure 10: Land Use Concept**. Furthermore, this section explains the retention of the 96th Street East municipal road as it currently exists in the Plan Area and fully describes maintenance obligations and integration of 402 Avenue East through Plan implementation.

It is intended that 96th Street East remain under the ownership and operation of Foothills County to the extent of its current development (which intersect currently with the undeveloped 402 Avenue East undeveloped allowance). 96th Street South of 402 Avenue East is to remain as an undeveloped road allowance and integrated into the overall pathway network. The Plan Area strategically includes a Fire Hall and School Site that require direct public access and the accesses are preferred to be on a municipally owned road directly connecting to the Highway system.

In Alberta, road allowance closure and lease policies are governed by the Municipal Government Act (MGA) and associated regulations. The province has the authority to close road allowances through a formal process defined in the MGA. A road allowance closure can be initiated by the landowners, or other interested parties. The municipality must follow the prescribed procedures, which must include public notification and a public hearing.

POLICIES

Policy 7.7.1

The Developer will include with its initial Land Use and Outline Plan application, an application to close, purchase and consolidate the 402 Avenue East Road allowance as it runs in an east west direction through the Plan Area to the satisfaction of Foothills County and Alberta Transportation and Economic Corridors.

Policy 7.7.2

It is intended that 96th Street East, as currently developed south to its intersection north of the 402 Avenue East road allowance, is maintained, owned and operated by Foothills County. It is intended that 96th street south of 402 Avenue East is to remain as an undeveloped road allowance and integrated into the overall pathway network.

7.8 Land Use Amendment & Outline Plan Requirements

The next steps in development, moving from the ASP stage to actual physical development, includes proposing a Land Use Amendment to the proper zoning districts in the Foothills Land Use Bylaw and preparing a concurrent Outline Plan that describes in more detail how the proposal meets the goals of the ASP with regard to density, reserves and infrastructure and policy requirements. An Outline Plan focuses on larger areas of land (e.g., multiple development phases within each Neighbourhood) and provides detail as to how the land will be further redesignated, subdivided, serviced, and built upon. These areas must fit into overall infrastructure capacities and provide for the needs of the market while being economically viable for Developers and fiscally responsible to the existing residents of Foothills County. As such, Outline Plans will be required to be prepared for each future development phase within each identified Neighbourhood and, for consistency of evaluation, shall contain the contents listed below:

A) OPPORTUNITIES & CONSTRAINTS

The Outline Plan must clearly articulate both in written and visual form the topography of the area along with natural or human-made constraints or opportunities to the development. This shall include but is not limited to: adjacent development and land use interface, gas wells, gas lines, extensive and intensive agricultural operations, dugouts, existing buildings, roads and access points, drainage corridors, wetlands, gullies, coulees, natural grasslands, and vegetation. If such information was provided in the ASP then the Outline Plan should present this information contextually in the plan.

B) DEVELOPMENT PLAN

Taking into account the context of the lands and any constraints that may exist, the submission must clearly identify the planned or intended land uses and associated densities for the Outline Plan stage. Periodical updates of the density matrix as it applies to the entirety of the ASP Area will be required to ensure density consistent with the ASP. The land uses proposed at the Outline Plan stage should not diverge substantially from the ASP. Minor variations in use are acceptable recognizing that markets and demands change over time. However,

such changes cannot substantially alter the servicing or transportation requirements resulting from significant changes in planned density or major changes in use categories (e.g. Residential to Commercial), which would require amendments to the ASP.

C) OPEN SPACE CONCEPT

The layout of reserve sites identified in the ASP shall be refined at the Outline Plan stage to clearly show concepts for the layout of open space amenities and linear pathway connections. Open space should attempt to incorporate natural features where possible. The Plan should acknowledge what is credit and non-credit reserve lands.

D) SERVICING NETWORK

This shall include identification of the location of required major storm facilities (ponds), sanitary lines, and water lines and size requirements, address any off-site funded requirements, shallow utilities, and outline any alternative designs that may have been considered.

E) TRANSPORTATION NETWORK

This shall describe and illustrate the planned location and capacity of roads and the effects of any proposed alternative designs or thresholds for road improvements that may have been considered in the ASP. The transportation network should also consider regional and local transit connections.

F) PHASING PLAN

The Outline Plan shall clearly show the proposed phases of subdivision and sequence of development that the Developer intends to follow in constructing new subdivisions.

7.8.1 OUTLINE PLAN SUPPORTING DOCUMENTATION

The following supporting documentation is required to be presented at the Outline Plan stage of development, if it has not been previously provided to a sufficient level of detail, or if previous reports raised issues that require further clarification or there is a policy direction to obtain such information set up in higher order Policy Plans (the ASP).

A) GEOTECHNICAL REPORTS

These reports must be at a sufficient level of detail to confirm that there are no major underground conditions that will affect the ability of the development to take place. It is recommended that geotechnical reports include sufficient test pits to confirm significant changes in conditions and to reduce the requirement for site specific sampling at subsequent subdivision and development stages.

B) ENVIRONMENTAL REPORTS

This includes any Environmental Site Assessments (ESAs) Phase 1, 2 or 3 as required as well as a Biophysical Impact Assessment (BIA).

C) HISTORICAL RESOURCE IMPACT ASSESSMENT

This includes a review of Alberta Culture Historic and Archaeological sites (the assessment) and, if required, a Historic Resource Impact Assessment (HRIA) for locations identified on **Figure 8**.

D) TRAFFIC REVIEW LETTER

The Traffic Review Letter is provided in support of the ASP TIA at the Land Use and Outline Plan stage to determine if potential off-site road improvements are required to support a proposed development. Any costs associated with transportation improvements identified through a Traffic Review Letter shall be the responsibility of the Developer.

E) SERVICING REPORTS

The Developer shall provide a Servicing Report outlining servicing requirements, a water use assessment, a wastewater servicing study, staging of infrastructure, required rights of way, required upgrades, and cost contributions for

regional infrastructure. The Servicing Report will also include the detailed location and size of utility rights-of-way and easements, and related line assignments to be identified at the Land Use and Outline Plan stage. Any cost associated with infrastructure improvements identified through the servicing report are the Developer's responsibility.

F) STORMWATER MANAGEMENT PLAN

The Developer shall prepare a detailed Stormwater Management Plan at the Land Use Outline Plan stage in a manner consistent with the Preliminary Stormwater Management Plan prepared in support of the ASP Plan Area.

G) COMMUNITY FRAMEWORK

This includes describing how the Outline Plan meets the policies of the adopted ASP including, but not limited to, how the site will implement Dark Skies policies, incept a Home Owners Association, define the Developer's responsibility and required maintenance period for infrastructure, follow the required architectural controls and undertake a construction management plan and detail the off-site levy calculation.

H) ARCHITECTURAL CONTROLS

These controls will be required to create a rural residential neighbourhood theme and will provide for balance in forms, colours, and materials to make a beautiful and architecturally varied community. These are intended to be uniform across the project area.

I) EMERGENCY RESPONSE PLAN

The Developer shall prepare a detailed Emergency Response Plan at the Land Use and Outline Plan stage addressing response to potential pipeline/sour gas emergencies, if required, as well as EMS/Police and Fire Response plans. An emergency services/needs assessment document will be required to evaluate the phasing and timing of necessary facilities.

J) MUNICIPAL REQUIREMENTS

Confirmation of the Outline Plan boundary by the Municipality is required as well as any additional study, report, or content that may be deemed necessary by the Municipality.

8.0 RESIDENTIAL LAND USES

The Highfield and Rowland Acres ASP provides for a range of residential land uses and parcel sizes (ranging from 0.125 acres to 1.98 acres) to support a mix of housing types and densities. Residential densities in the Plan Area range from a minimum of 2.5 upa to 5.0 upa. The range of residential land uses are intended to balance the need to facilitate densities that reflect efficient use of land and generally align with CMRB standards, while remaining contextually appropriate in rural municipalities. This allows the community to grow over time, in accordance with CMRB direction. Residential main street, or the high streets, are along 104 Street East and our east/west connector (replacing 402 Avenue E) as they progress through the Plan Area and are intended to be front porch orientated and may contain home based businesses as part of the main street typology. The Plan Area densities are intended to align with the direction in the Foothills County MDP.

It is intended that secondary suites are permitted uses on all lot types, particularly where lots are laned, to achieve greater liveability and affordability within the Plan Area. The larger parcels (1.0 acres or greater) allow for larger outbuildings and shops in order to promote live/work, home-based business, opportunities within the community which will promote further economic diversification in Foothills County. Within the Plan Area there are also residential land use areas that promote flexibility of dwelling types, and allow for duplex, rowhouse, or townhouse-style dwelling units and mixed-use units on the modified main street based on market demand. These dwelling types form part of a high street that includes street oriented, front porch style homes in an intentional rhythm to create a sense of place and character shopping/service area. The policies contained in this section are intended to provide additional direction for the residential land uses within the ASP.



8.1 General Residential Policies

The diverse range of residential land uses contained within this ASP will promote a mix of housing typologies to accommodate a variety of household types, lifestyles, and income levels. The residential areas are to be comprehensively planned and will reflect common, unifying themes across the two neighbourhoods.

POLICIES

Policy 8.1.1

The following shall apply to all residences in the ASP area:

- a) All lots, regardless of size will be connected to piped water and wastewater servicing system in alignment with **Sections 13.2** and **13.3**;
 - b) A detailed Stormwater Management Plan will be required at the Land Use Stage and shall be prepared by a Professional Engineer and in alignment with **Section 5.7**;
 - c) All residential lots within the ASP area may accommodate Home Based Business Type 1 and Type 2 in alignment with the rules as identified in the Land Use Bylaw. Home Based Business Type 3 is not supported within the Plan Area;
 - d) As a condition of Land Use and Outline Plan approval the Developer shall undertake to provide the following, all to the satisfaction of the Municipality:
 - i) Architectural Controls;
 - ii) A conceptual landscape plan which details transitional areas and buffers within the proposed development cell; and
 - iii) A Construction Management Plan that addresses development phasing and detailed mitigation strategies internal and external to the proposed development cell that will help reduce the impacts of construction and development.
- ;and

- e) All lots shall include secondary suites as permitted uses and be designed in accordance with the Foothills County Land Use Bylaw.

Policy 8.1.2

The construction of all buildings in the Plan Area shall comply with the Foothills County Land Use Bylaw and the Alberta Building Code. The following standard relaxations for the ASP Plan Area shall apply at the discretion of Foothills County. These include:

- a) Front yard setbacks: 4.0m (13.12 ft.) from the property line adjacent to the internal road. The lots along the modified main street and collector roads that support a rear lane product may be permitted to be 1.0m (3.28 ft) from the property line provided the home is fronting the major collector street;
- b) For corner lots, provided the Front Yard is designated, a relaxation request for a 90% variance may be made at the Development Permit stage;
- c) Rear yard setbacks: 6.0m (19.59 ft.) from the property line and 1.5 meter encroachment into regular rear yard setbacks requirements for above grade decks for principal dwellings;
- d) Maximum height requirements will comply with the Foothills Land Use bylaw;
- e) A garage up to 50% of the dwelling size (provided that the garage does not exceed a maximum of 2,400 sq. ft.) split into two different structures, either attached or detached from the residence is permitted; and
- f) A Site-Specific amendment to the Land Use Bylaw will be requested from Foothills County at the Land Use stage to allow for single-family detached housing forms within the Residential Multi-family area at the discretion of Foothills County.

8.2 Cluster Residential District (Transitional Areas)

The intent of the Cluster Residential District is to accommodate 0.8-1.99 acre lots. As per **Figure 10: Land Use Concept**, the Cluster Residential District is located primarily around the perimeter of the Plan Area boundary of both the Highfield and Rowland Acres neighbourhoods to provide a thoughtful interface between the Plan Area and existing developments, especially adjacent to the Ravencrest and the Silvertip area. In order to ensure that the intentional sensitive transition with the surrounding context remains, lots within this district cannot be subdivided. The minimum parcel size in the LUB in 0.80ac, as such a Site Specific Amendment will be required at the Land Use stage for parcels under 0.80ac in size.

Lots within the Cluster Residential District shall align with the rules outlined in Cluster Residential District (Section 13.2 of the Land Use Bylaw) and shall accommodate single-detached dwellings, accessory buildings, shops, secondary suites, and home based business in accordance with the Foothills County LUB. See **Figure 13: Lot Profile - Cluster Residential District** for a visual representation of a typical lot on this district. These areas are considered as transitional to the core areas. By allowing for a varied lot size, the transitional areas are intended to accommodate for increasing density as the community develops closer to core areas. The range and flexibility of lot sizes allows for the appropriate land use choices to be made given the market rate absorption of housing styles and lot choices in a given phase. This approach allows for consistency with the longevity of this plan and the long term build out contemplated in the ASP.

Lots in the Cluster Residential District will connect to both piped water and piped wastewater systems. Flexibility in lot size in the transitional buffer areas allows for some economy of scale to be built into the servicing strategy as they are implemented by phase over time. These lots will be required to direct storm water to the most proximate stormwater retention facility as outlined in the Preliminary Stormwater Management Plan.

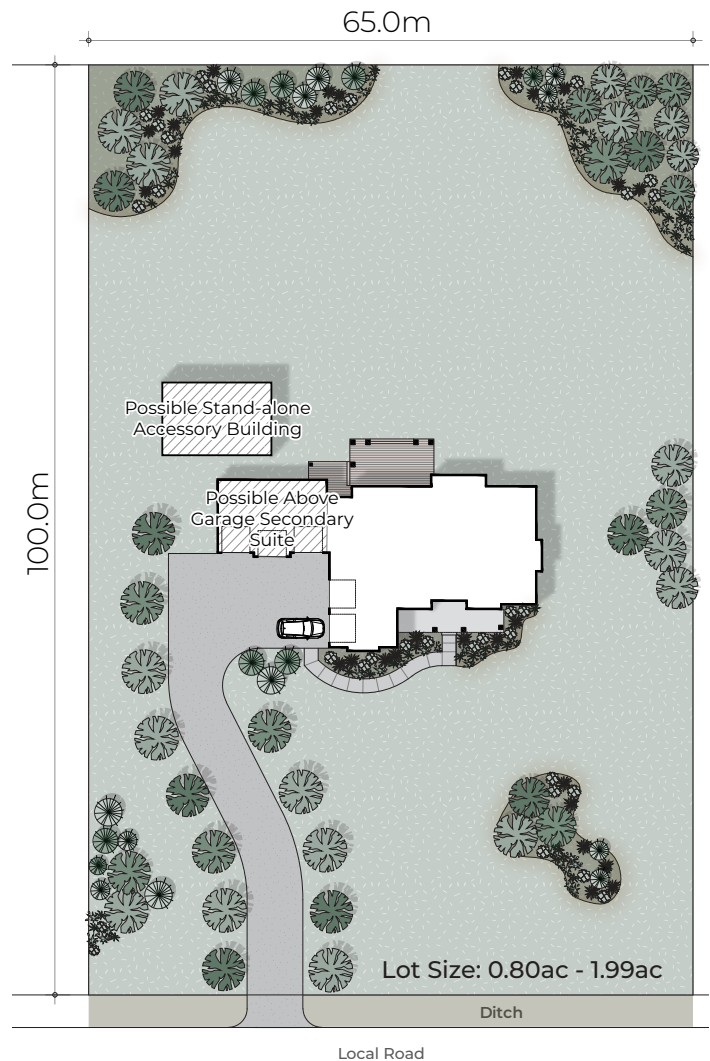


Figure 13: Lot Profile: Cluster Residential District



POLICIES

Policy 8.2.1

Development within the Cluster Residential District should generally align with the rules outlined in Section 13.2 of the Foothills County Land Use Bylaw, Cluster Residential District. These are intended to be transitional areas, allowing for a range of lot sizes and housing types.

Policy 8.2.2

Lots within the Cluster Residential District may infill over time, at the discretion of Foothills County, provided that the proper planning process is followed and the requirements in Policy 7.6.8 are addressed.

In addition to single-detached dwellings on conventional-sized lots, a mixture of alternative forms of housing should be encouraged and supported in the core residential areas.

Alternative forms of housing may include, but are not limited to:

- single-detached housing (on narrow lots),
- two-family housing (duplexes, semi-attached dwelling units, villas),
- seniors oriented housing, and
- live-work housing.

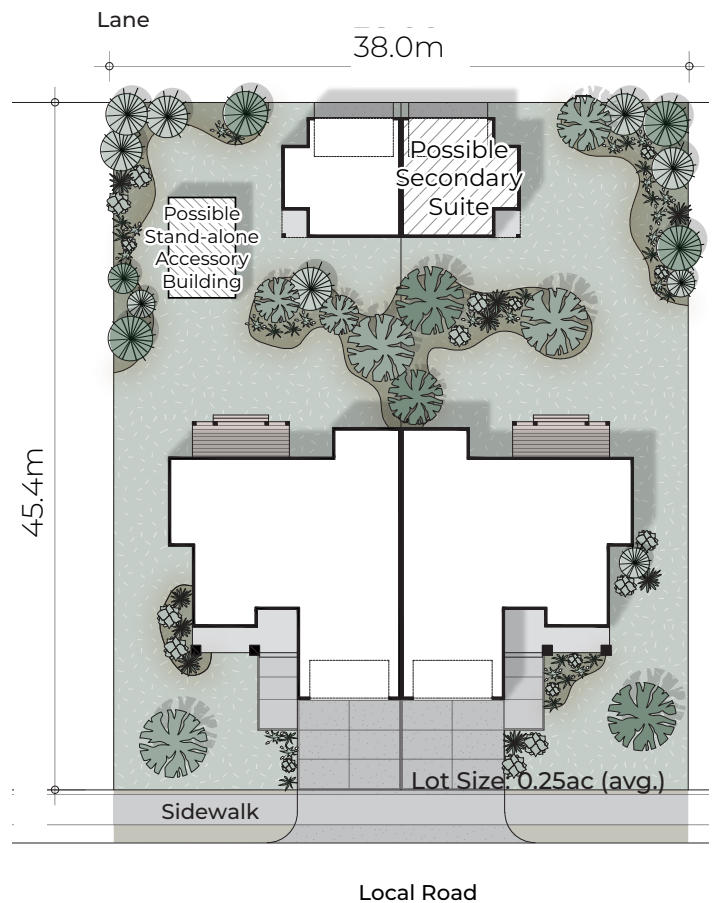


Figure 14a: Lot Profile: Residential Community District - Semi-Attached Dwelling (Highfield)



8.3 Residential Community District

The intent of the Residential Community District is to accommodate 0.11-0.80 acre lots. As per **Figure 10: Land Use Concept**, the Residential Community District is primarily located within the interior and centre core areas of both the Highfield and Rowland Acres neighbourhoods. In the Rowland Acres neighbourhood, the Residential Community District comprises the smallest lot sizes, while in the Highfield neighbourhood, the Residential-Community District serves as a transitional area between the lower density Cluster Residential District (**Section 8.2**) and the higher density and more flexible built form Residential- Multi-Family Districts. See **Figure 14: Lot Profile: Residential Community District** for a visual representation of a typical lot on this district.

This policy area is intended to accommodate core development areas. These residential areas are considered similar to those parameters described in the Foothills County Land Use Bylaw under the “Residential Community District” and “Residential Multi-Family District”. These are core areas where more density is located and can be considered on aggregate of comprehensive development cells to ensure an overall Plan Area density target of 2.5 to 5.0 upa is achieved as per **Policy 6.3.1**. It is important in the core areas to ensure convenient connections to pathways and walkways are made possible to provide greater area connection to the larger community network of multi-modal regional trails.

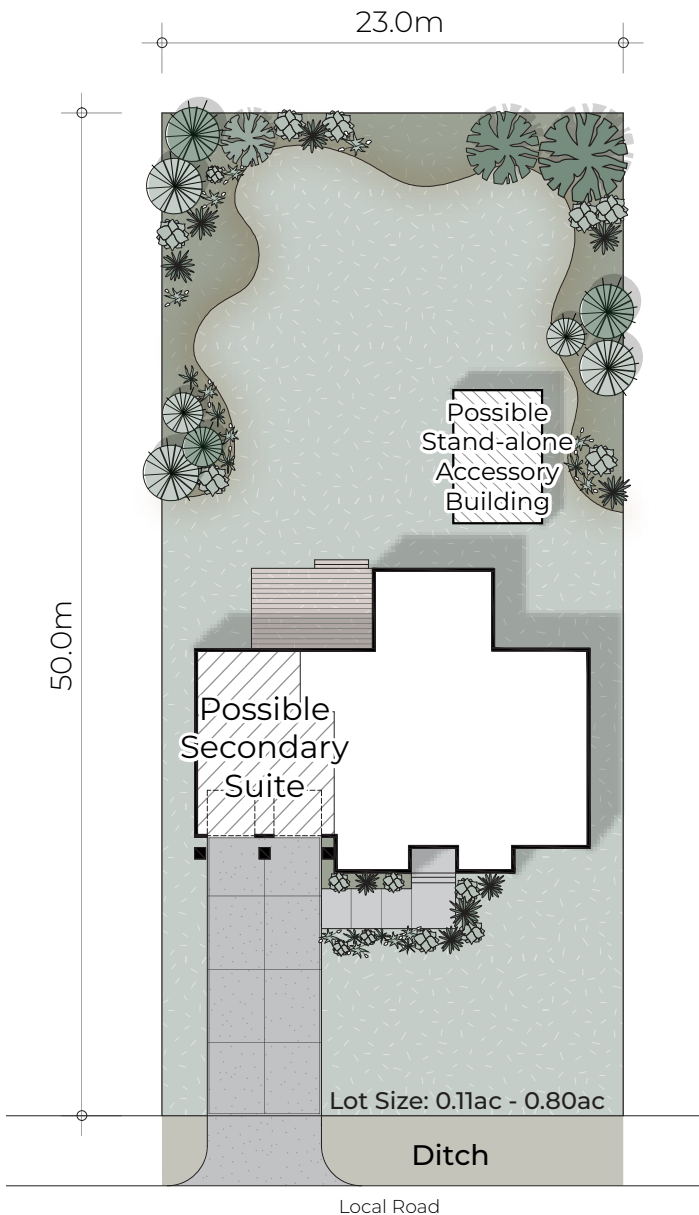


Figure 14b: Lot Profile: Residential Community District - Detached Dwelling (Rowland Acres)



POLICIES

Policy 8.3.1

Residential lots ranging from 0.11 to 0.80 acres in size are considered to be the core areas and are to be located centrally within the Neighbourhood areas, where identified on *Figure 10: Land Use Concept*.

Policy 8.3.2

Residential lots ranging in size from 0.11 to 0.80 acres in size should maintain a minimum lot foot frontage width of forty-five (45 ft) feet (13.7m) to fifty feet (50 ft) (15.2m) on average to ensure that lots retain a varied street character with a rural aesthetic.

Policy 8.3.3

For all residential lots 0.11 to 0.80 acres in size, front yard setback shall be a minimum of 4 m (13 feet), unless fronting the modified main street or collector road with rear lane access which allows for a 1 metre setback with a front porch facing a major collector.

Policy 8.3.4

Residential lots ranging in size from 0.11 to 0.80 acres in size shall utilize building separation and construction requirements in accordance with the Alberta Building Code and Alberta Fire Codes with specific regard to the High Intensity Residential Fires (HIRF) requirement to the satisfaction of the Municipality and/or Provincial regulatory agency.

Policy 8.3.5

Alternative housing forms may be located and designed in a compatible and integrated manner with adjacent residential development within the core (0.11 to 0.80 acre lot) areas at the discretion of the Municipality.



Figure 15: Low Density Residential Node - Highfield

The Residential Community District Housing is depicted in this image. 0.11 - 0.8 ac lots provide ample setbacks and open space for each residence. The backyards offer access to multiple amenities such as pathways and water features.

8.4 Residential Multi-Family / Mixed Use District

The intent of the Residential-Multi-Family / Mixed Use District (lots ranging from 0.125 to 0.25 acre) are to accommodate duplexes, triplex, fourplex and/ or townhomes. Along the modified main street mixed-use homes are appropriate within the centre and distinguishable spine of the community, these lots are intended to provide market driven and flexible housing types and offer small scale services to area residents. These are intended to be street oriented, front porch styles of development with rear lane access. Each unit will front a boulevard street, with at least one side sidewalk, and are intended to be the highest density areas among the overall Plan Area. These are located in the closest walkable or bikeable proximity to recreational, institutional and commercial opportunities for residents. Though not a housing typology that is commonly seen in Foothills County, the introduction of this mixed-use and flexible spine allows for increased diversification of housing types and efficient use of land as is required by higher order guiding provincial land use policies. See **Figure 16: Lot Profile- Multi-Family District - Highfield** for a visual representation of a typical lot in this district.

POLICIES

Policy 8.4.1

0.125 to 0.25 acre lots fronting the modified main street with a boulevard and a collector road with a boulevard, with rear lane access, are permitted a relaxation of 1.0m (3.28 ft) from the property line for the front yard setback provided the home is fronting the major collector street.

Policy 8.4.2

On Residential Multi-Family lots, the housing form may vary in accordance with the permitted and discretionary uses as outlined in the Foothills Land Use Bylaw and as outlined in this ASP. The Developer is seeking flexibility in this district and to allow for diverse housing typologies at the discretion of Foothills County.

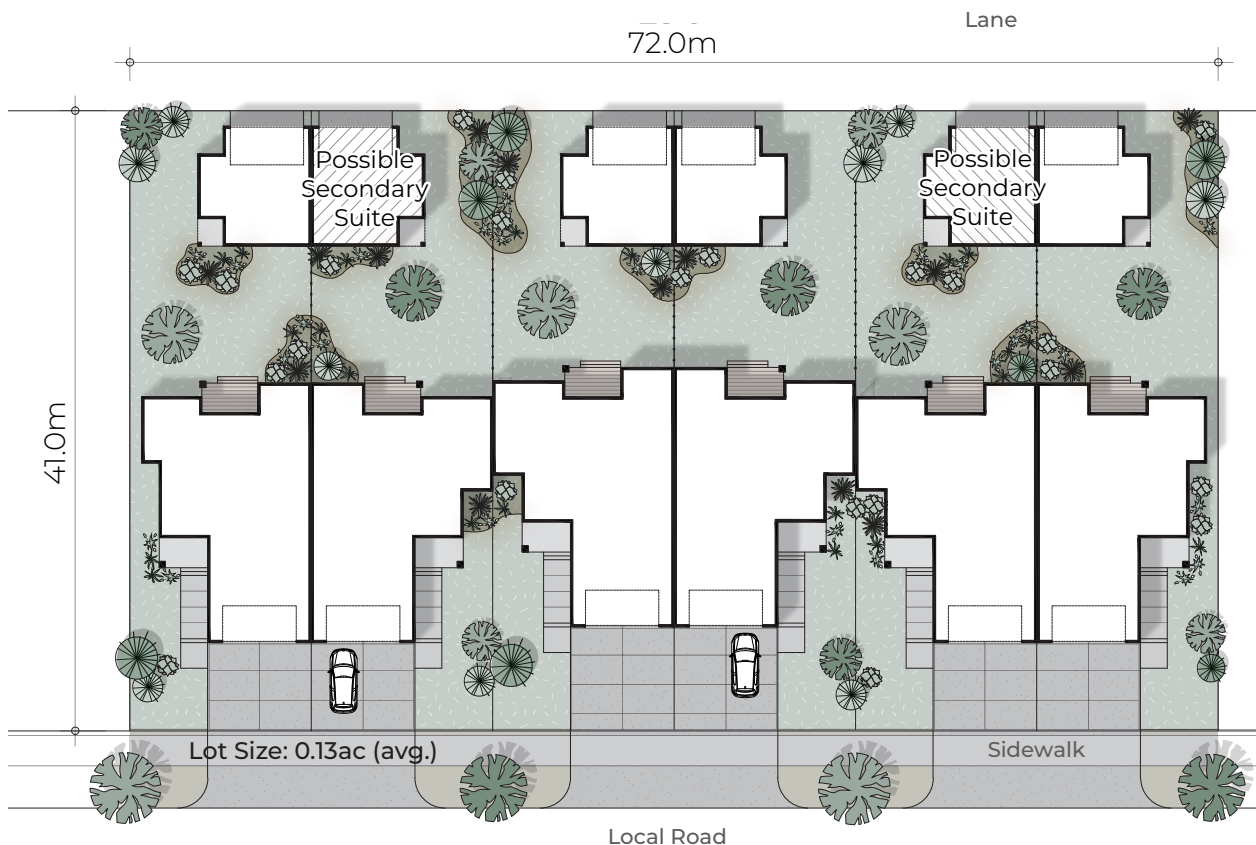


Figure 16: Lot Profile: Residential Multi-Family District - Highfield

8.5 Secondary Suites

All residential land use districts within the Plan Area shall accommodate secondary suites as permitted uses. A Site Specific Amendment at the Land Use stage shall be made to accommodate them as permitted uses. All homes built within these districts may have the option to integrate secondary suites into their designs but also to “rough in” secondary suites as may be required. Secondary Suites not only provide opportunities for an additional range of housing and tenure options within Foothills County, they also allow the Plan Area to achieve increased density each neighbourhood.



POLICIES

Policy 8.5.1

Secondary Suites shall be a permitted use within the Plan Area.

Policy 8.5.2

All units within the districts outlined in Policy 8.5.1 may be designed to accommodate or “rough-in” secondary suites at the Development Permit stage, to the satisfaction of Foothills County.

Policy 8.5.3

All Secondary Suites shall adhere to any relevant rules outlined in the Foothills County Land Use Bylaw but may vary from the guidelines if they do not address the housing form, lot size applicable within this ASP and it is suggested that the City of Calgary’s “Backyard Suites how to Guide” (2019 January 15) and the “Policy to Guide Discretion for Secondary Suites and Backyard Suites” (amended PUD2019-1203 November 18, 2019) and should at minimum include:

Parking: One parking stall for the tenant(s) on the parcel, in addition to the parking stall(s) required for the property, with the following minimum dimensions:

- a) · 2.5m (8'3") x 5.9m (20') when not abutting a structure (like a house or garage).
- 2.85m (9'5") x 5.9m (20') when abutting a structure on one side.
- 3.0m (9'10") x 5.9m (20') when abutting a structure on both sides.

Note: Street parking does not count toward the requirement, nor do tandem parking stalls located directly behind or in front of other required stalls.

Amenity Space:

- Secondary suite amenity space is an outdoor space designed for the tenants' active or passive recreational use.
- b) · The area must be shown on the site plan drawing.
- The amenity space must be at least 7.5m² (81 ft²), with no side smaller than 1.5m (5').

All Suite Area:

- Suites that are entirely located in a basement, do not have a maximum floor area.
- c) · Internal stairways and landings that provide access to the basement suite do not need to be entirely located below grade.
- Suites that are not entirely located within a basement, have a maximum suite floor area of 100 m²* (or about 1,076 ft²).
- Required floor area may be relaxed to a maximum of 10 per cent through development permit application.

** Maximum suite floor area does not include the area underneath stairs and landings.*

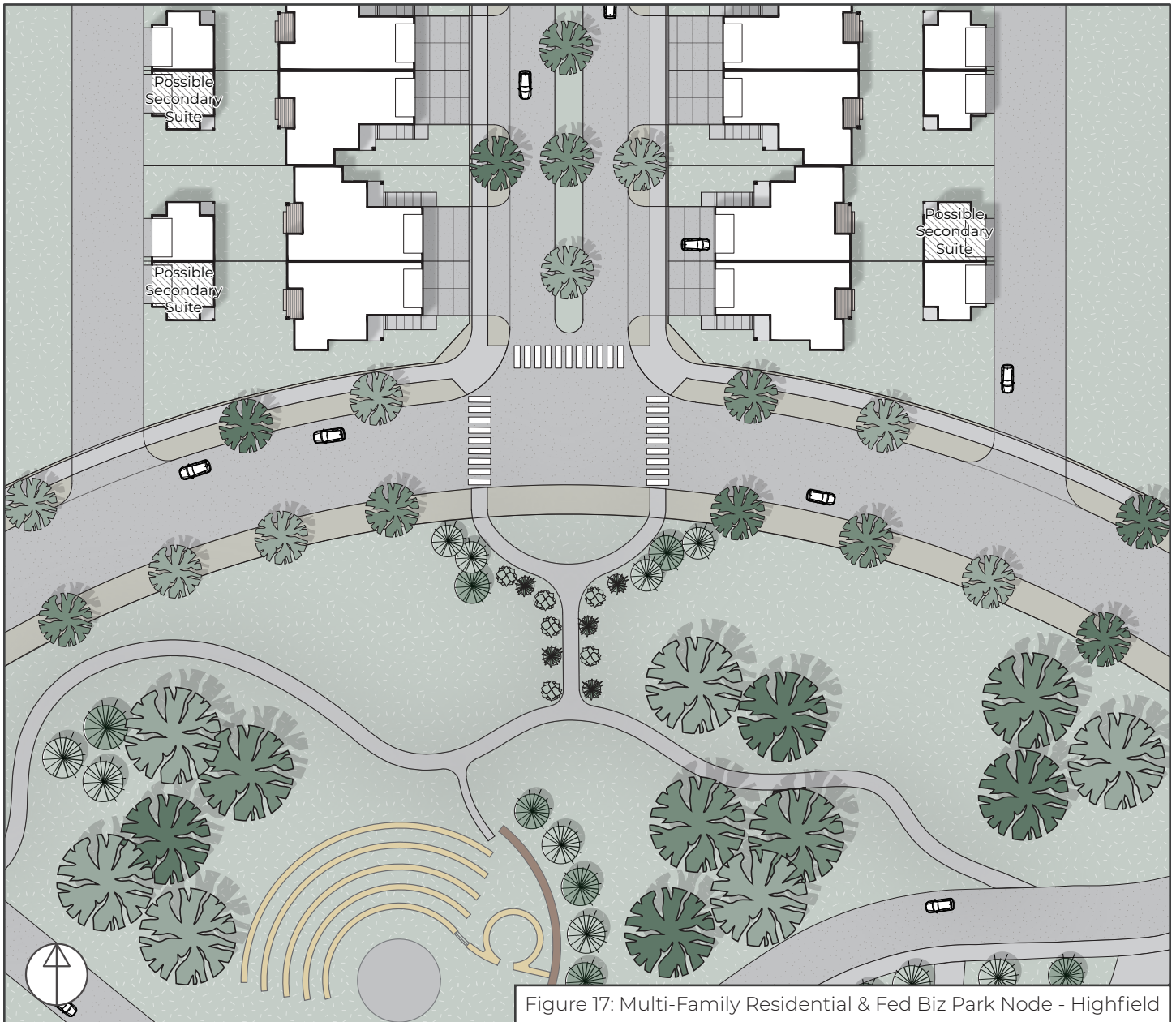


Figure 17: Multi-Family Residential & Fed Biz Park Node - Highfield

This example of Residential Multi-Family District housing within Highfield provides great flexibility in building typologies and higher density through duplexes. These units are secondary suite-friendly with both main street and back lane access, as well as walking distance from Recreation and Amenity spaces such as Fed Biz Park in the south end of the neighbourhood.

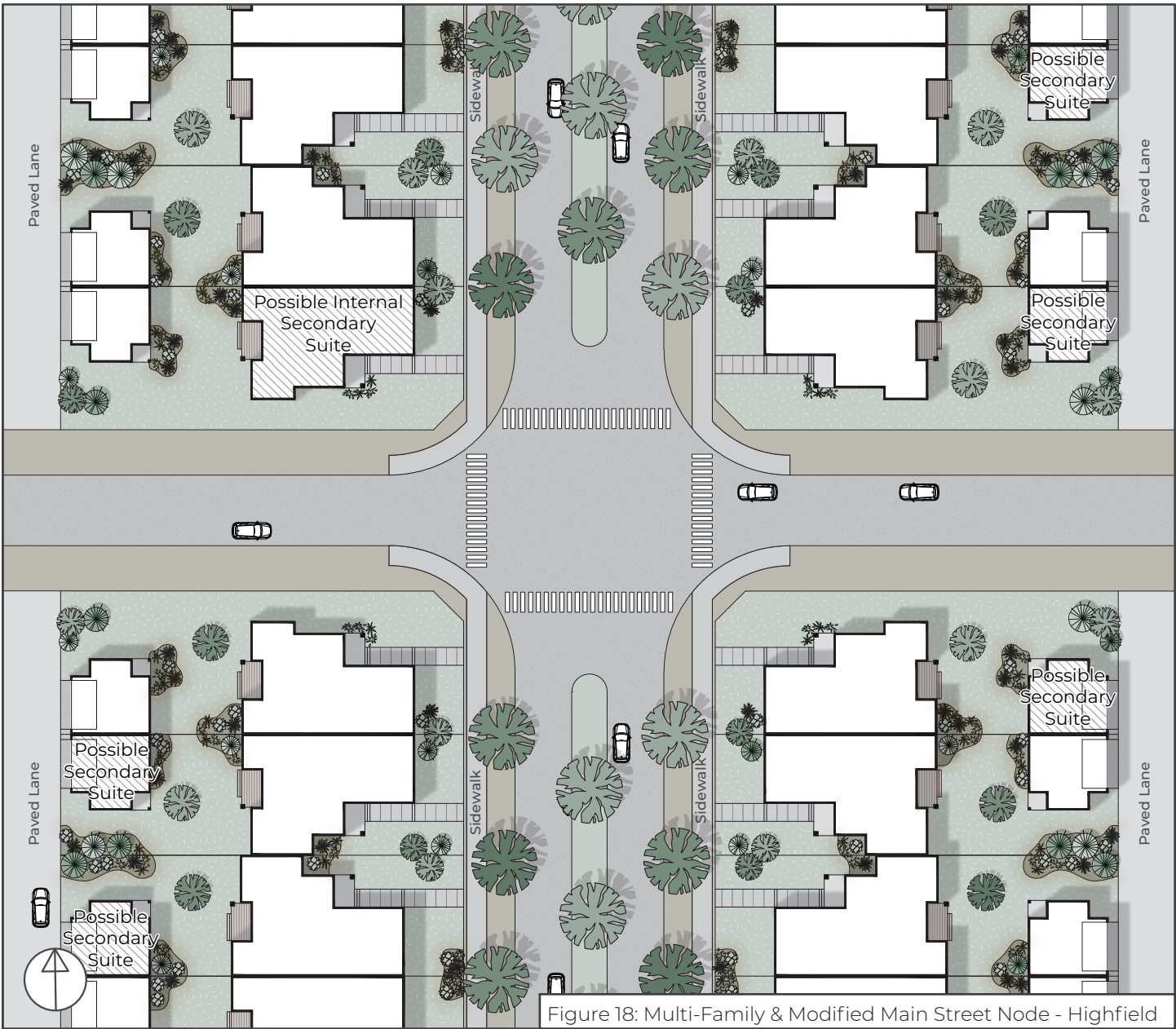


Figure 18: Multi-Family & Modified Main Street Node - Highfield

9.0 NON-RESIDENTIAL LAND USES

The Highfield and Rowland Acres ASP provides for a series of non-residential land uses to not only support the housing mix, but also to provide residents with opportunities to access everyday goods and services. The non-residential land uses outlined in this section, along with the open space policies in **Section 10.0** will provide residents with access to recreation and amenity spaces with enhanced connectivity through the plan area amenities, residential areas and neighbourhood commercial areas.

9.1 Modified Main Street & Home-Based Businesses

Figure 10: Land Use Concept – Highfield Modified Main Street identifies the modified main street, this “t-shaped intersection” is of the strongest collector street and the main boulevard within the Hamlet of Highfield Plan Area. This modified main street is considered as an area where front porch and near sidewalk (considered as no greater than a 1.0m spacing between the sidewalk and the front porch) interactions are intended.

The modified main street area is designed as a hub allowing for small home-based Type I and Type II businesses within a walkable and amenity rich area of the community. This accommodates service businesses, such as hairdressers, acupuncturists, small pharmacy, tattoo parlours, nail salons, physiotherapy, psychology, etc., intentionally embracing a diversity of uses, fostering a sense of community and economic vitality.

The key features of this intentional modified main street include considerations of mixed-use zoning which supports a mix of commercial and home-based business accessible from the front of the street. The zoning of this area is intended to be flexible, and allows for home-based businesses, fostering entrepreneurship and economic opportunity for local residents. The mixed-use district will allow for increased commercial/retail and personal service

opportunities along this main street and increase the overall amenity offered to the community. This will require the preparation of a custom district in the Land Use Bylaw for Council consideration, with the intention that dwelling units, with a home based business type I or II are permitted, and to support the types of uses allowed in this main street.

In order to be successful, the modified main street area chosen on **Figure 10: Land Use Concept – Highfield Modified Main Street** may include:

- a) pedestrian friendly design;
- b) store front architecture that is inviting and welcoming, with large windows showcasing products and services;
- c) opportunities for front porch interactions, front porches should be setback no greater than 1.0m from the sidewalk;
- d) street furniture, “free little library” boxes, and outdoor seating opportunities for social interaction;
- e) connectivity to efficient public transportation options and bicycle lanes encouraging easy navigation and accessibility for all residents; and/or
- f) a diversity of Home-Based Business types I & II that encourage small boutique shops to home-based enterprises.

This intentional modified main street design prioritizes a balance between residential and commercial activities, fosters social interactions, and promotes economic diversity. The result is a vibrant, walkable community hub that reflects the unique character and needs of its residents. The Foothills County Land Use Bylaw does not currently include a mixed-use zoning district, as such, each of these uses would have to be achieved by Development Permit as home-based businesses on a site-specific basis at the appropriate time. A photo example of a development where this is effective in the urban context is included on the following page (*photo reference: Eversyde Boulevard SW, Calgary AB*)

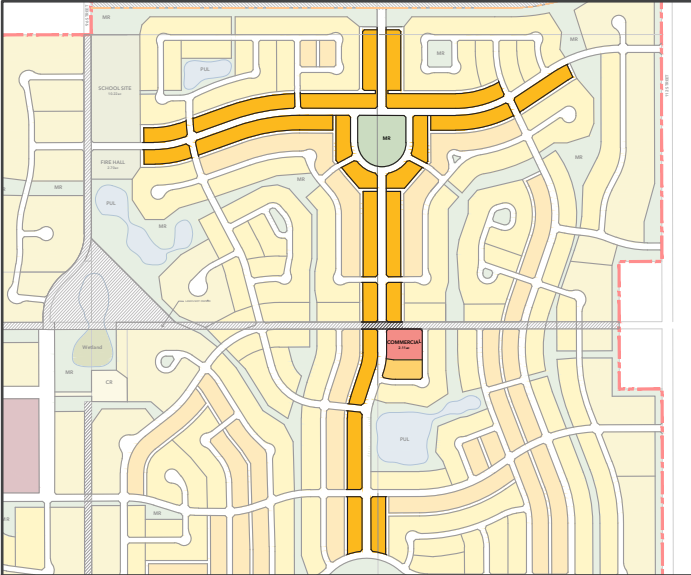


Figure 10: Land Use Concept - Highfield Modified Main Street



POLICIES

Policy 9.1.1

The modified main street is encouraged to support store fronts, mixed use, home-based businesses that offer a range of community and commercial/retail services for local area residents. The modified main street is intended to convey a walkable, front porch streetscape with ample opportunities for social interaction and small-scale retail or commercial services. Each home-based business in the modified main street may be required to meet the Home-Based Business Type I or Type II requirements as outlined in the Foothills County Land Use Bylaw and are considered at the discretion of Foothills County.

Policy 9.1.2

The homes along the modified main street shall be street oriented, may include a community or commercial/retail storefront, must be developed the human scale, may include a front porch, and must include a residential dwelling unit.

9.2 Neighbourhood Commercial Land Uses

Figure 10: Land Use Concept identifies the locations of the Neighbourhood Commercial areas within the Highfield and Rowland Acres ASP area. The Neighbourhood Commercial Areas within the Plan Area not only provide necessary goods and services for local residents but also allows space for community members to gather which contributes to greater community vitality within the Plan Area. There are two Neighbourhood Commercial Areas within the ASP: one in the central area of the Highfield Area, and one in the Rowland Acres area adjacent to Highway 2 and accessed from 392 Avenue East.

The Neighbourhood Commercial areas are intended to accommodate community supportive uses that provide retail and commercial services that meet the daily needs of local residents. While auto-oriented uses are discretionary within these areas, the primary emphasis will be smaller commercial units that support local convenience and personal services such as a hair or nail salon, dentist/doctor office, veterinarian, small restaurant, specialty grocery, medical office, coffee shop or café and fitness studios. See **Figure 19: Rowland Acres Neighbourhood Commercial Node** and **Figure 20: Highfield Neighbourhood Commercial Node** for a conceptual representation of how the commercial areas in the ASP could be designed.

Neighbourhood Commercial areas will exhibit high-quality architecture and urban design and will comply with the Foothills County Dark Sky Bylaw and operate within the community standards bylaw. This use may require a new land use district, at the appropriate time, for the consideration of Foothills County given the intention for less strip mall like uses and more unique architecture.



POLICIES

Policy 9.2.1

The Neighbourhood Commercial Area in Rowland Acres shall comply with the required setbacks from Highway 2 and 392 Avenue East to the satisfaction of Alberta Transportation and Economic Corridors and Foothills County.

Policy 9.2.2

The Neighbourhood Commercial Areas within Highfield and Rowland Acres shall align with the rules outlined in the Community Commercial District in the Foothills County Land Use Bylaw.

Policy 9.2.3

The Neighbourhood Commercial Areas may accommodate auto-oriented uses such as a gas station or convenience store on a permitted use basis, however, auto-oriented uses shall be sited to sensitively integrate with neighbouring uses and will be subject to additional design considerations such as screening and pedestrian connectivity and scale, subject to the satisfaction of Foothills County. Indoor or outdoor storage uses will not be supported in the Neighbourhood Commercial Areas.

Policy 9.2.4

The Neighbourhood Commercial Area should not have an adverse impact on adjacent residential development by way of noise, dust, odours, outdoor lighting or other emissions. Noise, dust, odours, outdoor lighting or other emissions should be contained within the building where they are generated.

Policy 9.2.5

The design of the Neighbourhood Commercial area should provide for a compatible interface with adjacent development and natural features; orient buildings towards the street; present an attractive building, fencing, berming and landscaping treatment along public roads and reserve land, and where visible from residential areas and transportation corridors; and be comprehensively designed at the Land Use and Outline Plan stage.

Policy 9.2.6

The Neighbourhood Commercial area within Rowland Acres may include Highway facing signage at the rear of the building and these should be designed with a high aesthetic standard and are subject to Roadside Development Permits from Alberta Transportation and Economic Corridors and Municipal Development Permits.

Policy 9.2.7

The Neighbourhood Commercial Areas shall comply with the Architectural Controls discussed in **Section 7.4** which may include provisions related to the following:

- a) Accommodate retail uses that maintain a pedestrian scale;
- b) Be designed with a high-quality aesthetic using natural materials and colours, and fully integrated and unified signage;
- c) Maintain no large pylon signs, light canopies, or back lit signage and use flush mount soffit lighting in the roof overhang to light signage;
- d) Use landscaping to buffer and soften parking areas and enhance pedestrian pathways;
- e) Design all loading and garbage functions to be at the rear side of buildings where possible and use appropriate visual screening techniques with complementary materials to the principal building materials; and
- f) Utilize streetscape furnishings such as bike racks, benches, and garbage bins.

Policy 9.2.8

As per **Section 7.1** and **Section 6.5**, the Neighbourhood Commercial Areas shall comply with the Dark Sky Bylaw and the Community Standards Bylaw.

Policy 9.2.9

A public amenity space or spaces shall be provided within the Neighbourhood

Commercial Area by the Developer, to the satisfaction of Foothills County.

Policy 9.2.10

Retail units shall primarily be small or medium format units and should not exceed 3,000 square feet within the Neighbourhood Commercial Area.

Policy 9.2.11

The design of the Neighbourhood Commercial Area should provide a sensitive and compatible interface with adjacent development and natural features where applicable. Buildings should be oriented towards the street, and present an attractive building, fencing, berming and landscaping treatment along public roads and public spaces.

Policy 9.2.12

The Neighbourhood Commercial Areas should be comprehensively designed at the Land Use and Outline Plan stage to the satisfaction of Foothills County.

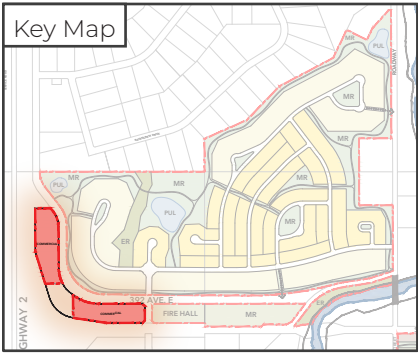
Policy 9.2.13

The mobility network in the Neighbourhood Commercial Area shall be designed to provide connectivity and safe conditions for pedestrians, cyclists and motorists. This will be achieved by:

- a) Adhering to the recommendations identified in the Transportation Impact Assessment (TIA) pertaining to vehicle access to the Neighbourhood Commercial Area;
- b) Providing safe and convenient walkway and pathway access from other areas of the Plan Area to the Neighbourhood Commercial Area; and
- c) Ensuring that convenient potential future regional transit access and facilities are provided if regional transit should be implemented in the Aldersyde Area in the future.



Figure 19: Rowland Acres Neighbourhood Commercial Node



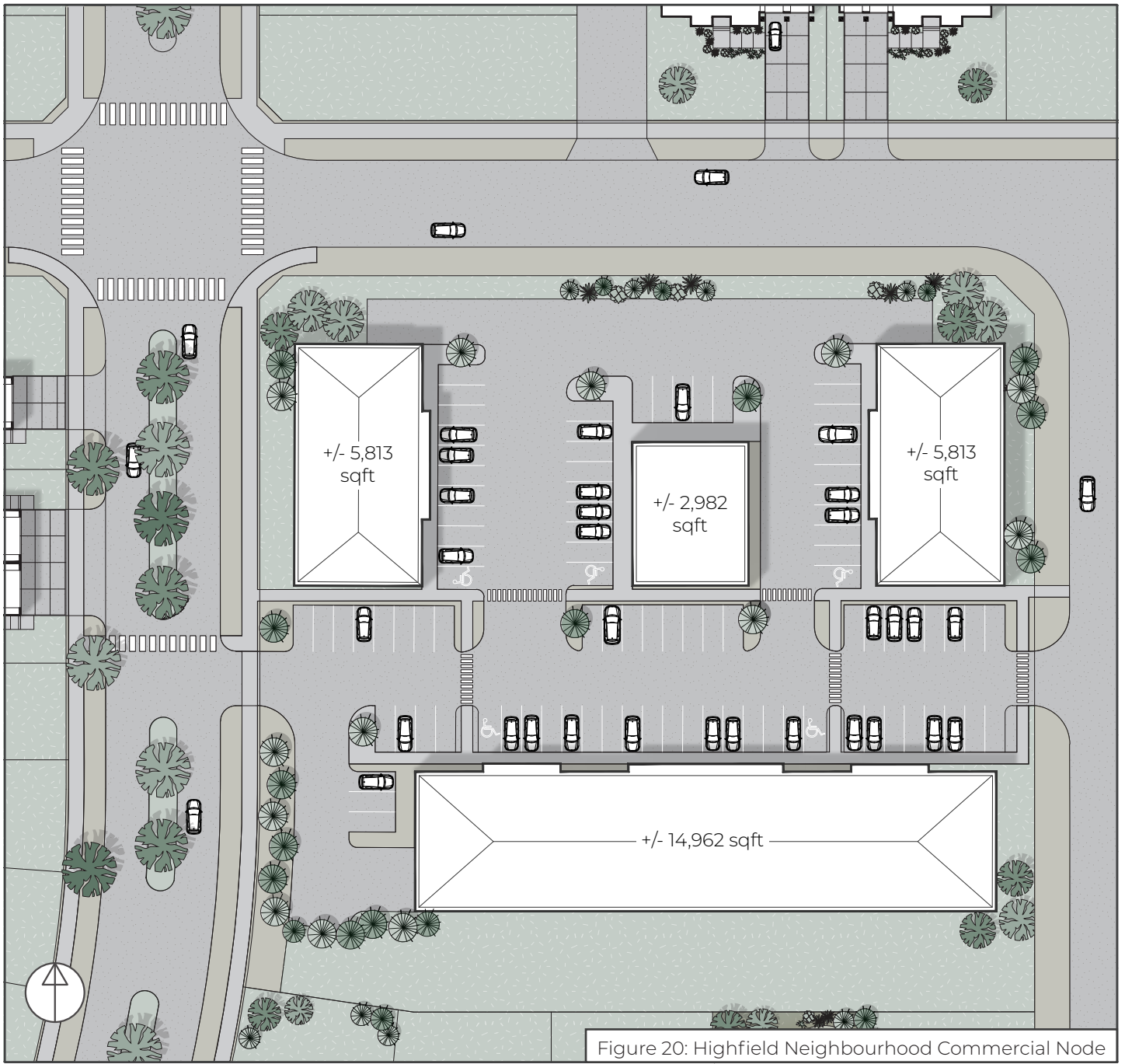
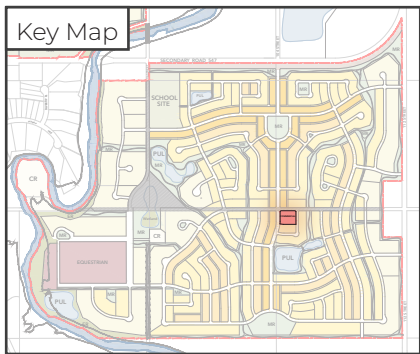
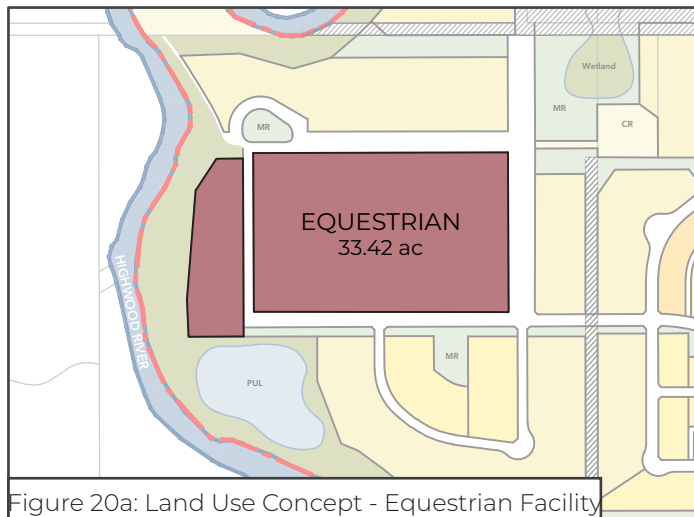


Figure 20: Highfield Neighbourhood Commercial Node



9.3 Equestrian Facility (Recreation)

The Highfield portion of the Plan Area contains a long-standing equestrian facility that will be retained for the foreseeable future. The equestrian facility will be integrated into the development and reflected as a form driver for future amenity spaces and development themes. The established internal roads and paddock structures and servicing will be retained and help shape the sense of place which will emerge by carrying forward the grid-like street patterns, setting similar street widths and continuing the tree-lined rural aesthetic in the development. At the Land Use or Outline Plan stage, the equestrian facility will become a semi-private amenity that may allow for the boarding of horses both inside and outside of the community. The facility will be permitted and zoned in accordance with the Foothills County Land Use Bylaw at the appropriate time within the Land Use and Outline Plan prepared for its applicable phase. The Municipality's Direct Control District #29 most closely resembles the land use proposed for the equestrian facility and it will be required to meet the Agricultural Operations and Practices Act with regard to manure management and animal handling. At the completion of the community, the Developer may offer the equestrian facility and structures to the HOA to own, operate, and maintain.



POLICIES

Policy 9.3.1

An equestrian facility is outlined in *Figure 10: Land Use Concept*. The facility shall be designated appropriately at the time of Land Use and Outline Plan submission for the applicable phase of development.

Policy 9.3.2

The requirements for equestrian facilities outlined by the Province of Alberta and the Municipality shall be met at the time under a subsequent Development Permit for this use.

Policy 9.3.3

The Equestrian facility will be provided to the HOA to own and maintain at the appropriate time to the satisfaction of Foothills County.

Policy 9.3.4

The provision of animal units within the Hamlet as it relates to the Equestrian Facility and horses shall be monitored by the Developer to the satisfaction of Foothills County. With the exception of horses in the Equestrian area, no livestock or other livestock related animal units shall be allowed in the Plan Area unless allowed by County Bylaw.



9.4 School Sites (Municipal Reserve)

The Highfield and Rowland Acres ASP identifies two (2) school site locations, one in Highfield (+/- 17.04 acres), the other in Rowland (+/- 13.77 acres). The Rowland site may support fire hall and recreational uses in the long term. The type, grade level, and size of student population the school can accommodate should be reviewed at the Land Use and Outline Plan stage in conjunction with the applicable school board.

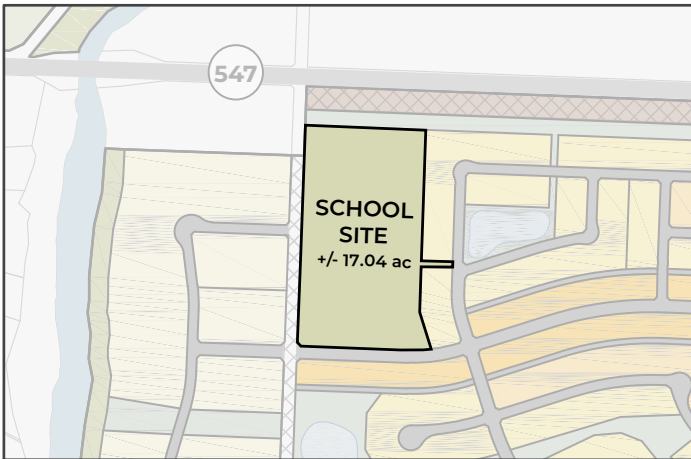


Figure 20b: Land Use Concept - School Site

POLICIES

Policy 9.4.1

The School Site identified within the Plan Area will be provided as Municipal Reserve and shall be designated as a Service District in accordance with the Foothills County Land Use Bylaw.

9.5 Fire Hall (Municipal Reserve)

The area is currently served by the Okotoks Fire Department, however, a Municipal Fire Hall site is allocated within Rowland Acres along 392 Street E at the main access to the neighbourhood at Highway 547 E. The Fire Hall site is +/-1.85 ha (+/-4.57 acres), is adjacent to a proposed Regionally Significant open space area, and would be a piece of infrastructure cost recovered through the off-site levy bylaw described in Section 648 of the MGA. The Fire Hall will assist Foothills County in responding to emergencies both in the ASP area as well as in the existing surrounding areas.

The Fire Hall will be contributed to by the Developer in the form of an off-site levy. The County is responsible for construction and utilizing the off-site levy contributions toward this service.



Figure 20c: Land Use Concept - Fire Hall

POLICIES

Policy 9.5.1

The Fire Hall site identified within the Plan Area will be provided as Municipal Reserve and shall be designated as a Service District in accordance with the Foothills County Land Use Bylaw.

10.0 OPEN SPACE

The Highfield and Rowland Acres ASP Open Space system (**Figure 23: Open Space & Multi-Modal Pathway System**), comprises a series of parks, public spaces, natural areas, and other open spaces that will provide social, biophysical, and aesthetic functions. Specifically, the Open Space within the Plan Area promote, conserve, and enhance an interconnected ecological and recreation network and provide for circulation within neighbourhoods and connection through the community. The Open Space network will not only serve to protect the Highwood River but will also facilitate opportunities for active and passive recreation and programming in the community. The Open Space system is comprised of a multi-modal pathways system, a series of interconnected community gathering spaces, special purpose recreation, and an equestrian facility (discussed in **Section 9.2** and outlined on **Table 3: Open Space Network Breakdown** below).

An intentional design consideration in Rowland Acres is to include 16.0m wide roads, with a ditch and swale profile. This was included in this community to reflect the existing road standard within the neighbouring community of Ravencrest. The 16.0m wide carriageway has 1.0m paved shoulders on each side for pedestrian movements, and does not include formal sidewalks in order to convey a rural development standard and similar aesthetic adjacent to an existing rural community.

10.1 Open Space Network

The design of the linear parkway and Open Space system is deliberate and is intended to provide for internal circulation within neighbourhoods and to connect neighbourhoods to one another. It is intended that the Highway 547 bridge crossing the Highwood River will be upgraded to include a pedestrian walkway, allowing for improved linkage between Highfield and Rowland Acres. The open space strategy includes a system of active and passive recreational spaces, with active programming in all Neighbourhoods to be detailed at the Land Use/Outline Plan stage with input from Foothills County. The Open Space system provides a buffer to the agricultural lands and a green amenity interface with the existing residential areas. The proposed Open Space pathway standards can be found in **Section 12.2**.



Table 3: Open Space Network Breakdown

NEIGHBOURHOOD	+/- ER	+/- MR	+/- PUL	+/- REGIONAL MR	+/- TOTAL
Highfield	12.00 ha / 29.65 ac	45.11 ha / 111.46 ac	7.37 ha / 18.22 ac	6.90 ha / 17.04 ac	71.38 ha / 176.37 ac
Rowland Acres	4.19 ha / 10.35 ac	26.54 ha / 65.59 ac	2.45 ha / 6.04 ac	5.57 ha / 13.77 ac	58.75 ha / 95.75 ac

*ER/MR lands: could include some MR at the discretion of the Municipality, primarily due to the need for a detailed geotechnical report in some locations at the Land Use/Outline Plan stage.

**MR/Open Space lands: could include some lands that are Open Space District and held by the Homeowners Association, at the discretion of the Municipality.

***Flood Hazard Protection Overlay lands: may convey the MR or ER designations at the discretion of Foothills County.

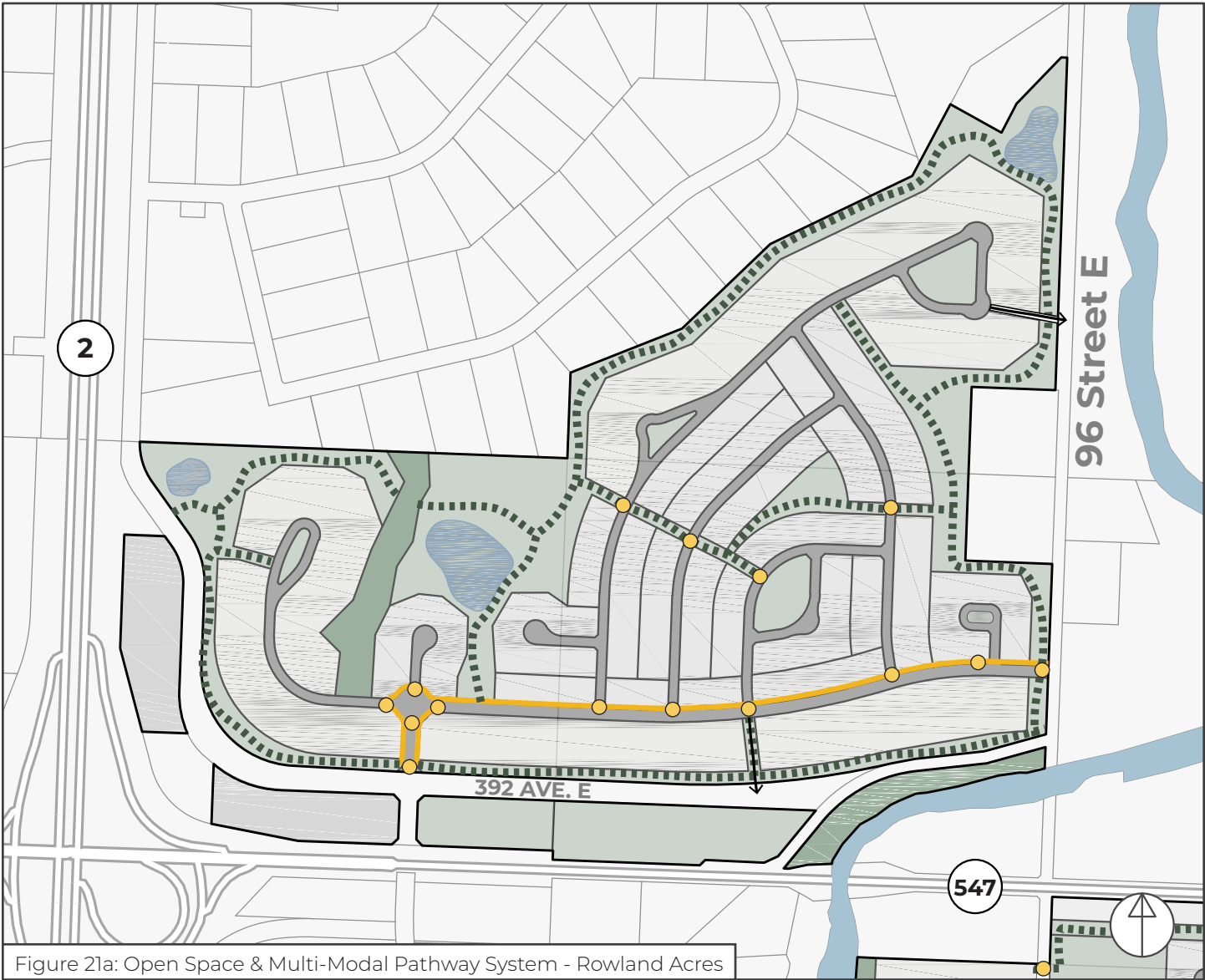








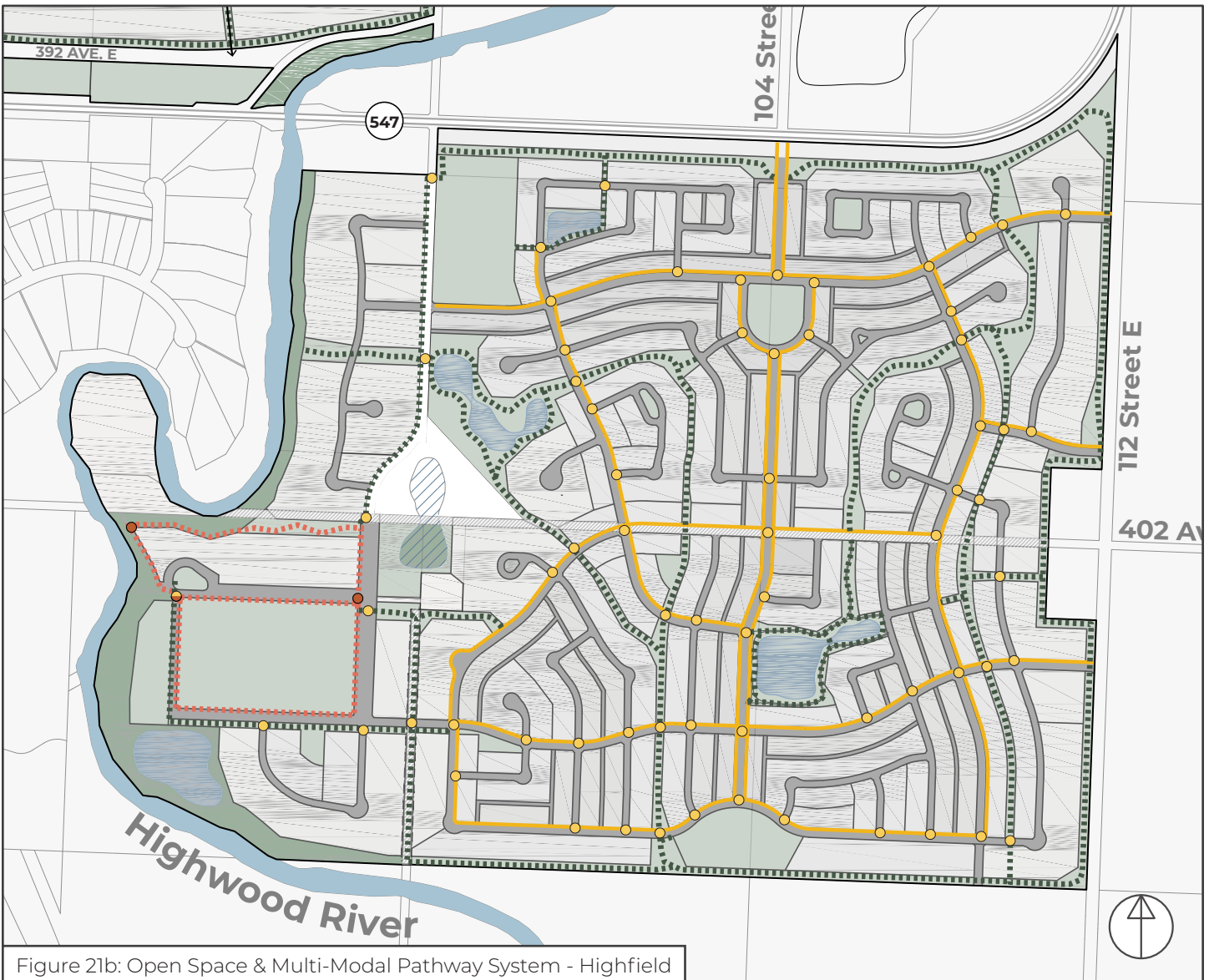


Figure 21a: Open Space & Multi-Modal Pathway System - Rowland Acres

LEGEND

- | | |
|--|--|
|  Open Space (MR) |  Sidewalk |
|  Protected Open Space (ER) |  Open Space Pathway |
|  Plan Area Internal Roads |  Pedestrian Crosswalk |
|  Storm Ponds (PUL) |  Emergency Egress |
|  Highwood River | |



LEGEND

- Open Space (MR)
- Protected Open Space (ER)
- Plan Area Internal Roads
- Storm Ponds (PUL)
- Highwood River
- Wetland
- Sidewalk
- Open Space Pathway
- Multi-Modal Pedestrian & Equestrian Pathway
- Pedestrian Crosswalk
- Multi-Modal Crosswalk

POLICIES

Policy 10.1.1

The Open Space Network recognizes the need to create an overall sense of individual well-being and to encourage social gathering. To achieve this, the following should be incorporated into the open space design at the Land Use and Outline Plan stage where appropriate and feasible to the satisfaction of Foothills County:

- a) Integrate the Open Space Network into the broader community through safe, pleasant, and efficient pathway routes. For more details on the Multi-Modal Pathway System, refer to **Section 10.4**;
- b) Ensure seasonal adaptability for year-long usability through appropriate landscaping, site design, provision of street furniture, and recreational facilities;
- c) Provide public visibility to the open space through visual corridors;
- d) Design and locate active amenities such as play equipment and passive amenities such as seating in a clustered arrangement;
- e) Encourage a diversity of user activities and opportunities through provision of recreational equipment or interpretive trails and signage;
- f) Encourage residential and local neighbourhood commercial development to incorporate vistas into Open Space;
- g) Promote “eyes on the street” by using active building edges to frame and define neighbourhood parks, plazas, and playgrounds where possible;

- h) Support linear parkways and linkages where appropriate to promote connectivity and to facilitate walking and cycling;
- i) Design parks and Open Space to provide opportunities for cultural enjoyment and artistic programming;
- j) Ensure Open Spaces and amenities are located and designed in accordance with the principles of universal access and barrier-free design;
- k) Provide opportunities to connect people with nature and provide environmental education, where appropriate and feasible;
- l) Provide opportunities for local food production, such as community gardens; and
- m) Encourage connections to green infrastructure such as bioswales.

Policy 10.1.2

At the Land Use and Outline Plan stage, the Developer shall provide a breakdown of the lands designated as part of the open space system including those lands that may be MR, ER, Public Utility District, Flood Hazard Protection Overlay, Open Space District, Recreation District and Service District and how those lands will be owned and maintained as part of the Outline Plan Area to the satisfaction of Foothills County.

Policy 10.1.3

At the time of the Highway 547 Bridge Upgrade, the Developer shall, at the Land Use and Outline Plan Stage, design, provide, and include a pedestrian connection across the Highway 547 bridge to ensure connectivity between Neighbourhoods within the ASP to the satisfaction of ATEC and Foothills County.

10.2 Recreation & Community

Gathering Spaces

There are intentionally planned sites throughout the community that give residents unique opportunities for expression, reflection, and recreation.

Cape Canaveral Court

As discussed in **Section 7.2**, Cape Canaveral Court forms the apex at the heart of the community, in a centralized location in the Highfield Neighbourhood. This feature is accessed by main 20-meter local roads with landscaped medians, green infrastructure additions, and paved sidewalks. This park was thoughtfully designed to invite users in and immerse themselves in a space that is foundational to the community character, much like Cape Canaveral who was a foundation sire to the breeding program at Highfield Stock Farm. The park will be home to two multi-sport fields, a significant horseshoe shaped fountain and monumental statue of Cape Canaveral, a multi-use building for possible concession/storage, and enlarged chess/checkers sets for residents to engage in friendly competition.

Please refer to **Appendix B: Cape Canaveral Court Conceptual Graphics** for details of how Cape Canaveral Court could be developed.

Fed Biz Park

Fed Biz Park is located on the south side of the Highfield Neighbourhood (see **Figure 23b: Open Space & Multi-Modal Pathway System - Highfield**) and is intended to facilitate community gathering and activities for residents. Fed Biz Park, named for Highfield Stock Farm's iconic stallion, is intended to be an all-season community destination and features a splash park and wading pool for families to enjoy, a toboggan hill, and an amphitheatre.

Please refer to **Appendix C: Fed Biz Park Conceptual Graphics** for details of how Fed Biz Park could be developed.



“Missy’s Place”

Missy’s Place is a gathering space along the river inlet and will give residents a place to bring their dogs to an off-leash park, that will be fenced along the east side, and give them access to jump and play in the river. Additionally, Missy’s Place will have a community garden along the river with integrated walkways and a central seating area. This inlet will be accessed by foot or bike and be a calming area for unwinding, enjoyment, and sharing common interests with neighbours. This site remains designated as country residential on the land use concept due to its private ownership currently. When the community is developed, the Developer will provide Missy’s place as the last public amenity space and the land use district will be revised.

Please refer to **Appendix D: Missy’s Place Conceptual Graphics** for conceptual site plans describing Missy’s Place.

POLICIES

Policy 10.2.1

Specific details around the design of recreational spaces including parking considerations, amenity provisions, placemaking, and landscaping shall be detailed at the Land Use and Outline Plan stage to the satisfaction of Foothills County.

Policy 10.2.2

The Developer shall be responsible for the construction of recreational areas to the satisfaction of Foothills County.

Policy 10.2.3

As per Policy 10.1.2, the Developer shall work with the County to identify ownership and maintenance responsibility for recreational spaces at the Land Use and Outline Plan stage to the satisfaction of Foothills County.

10.3 Municipal & Environmental Reserves

Municipal Reserve and Environmental Reserves form the basis of the Open Space network within the Plan Area and are delineated in **Figure 22: Municipal & Environmental Reserve**.

Municipal Reserve (MR) lands are intended to provide a suitable land base for the allocation of recreation facilities to be used and enjoyed by residents and the general public. MR may provide important access links to other lands, such as river access, and can also offer undeveloped green spaces that act as buffers between different land uses. MR lands can support recreation facilities such as sports fields, school sites, play structures, skating rinks, and associated facilities like parking lots and washrooms, public trails, and natural green spaces.

Environmental Reserve (ER) lands are intended to protect the natural environment, people and property from hazardous conditions (e.g. flooding) and provide public access to or along lakes and rivers. ER lands are intended to be generally left in their natural condition as much as possible. Public trails may be developed where conditions are suitable with Municipal approval. Along rivers, a limited number of public pathways and stairs may be permitted to allow safe access to the water. Along the steep valley banks associated with the Highwood River a geotechnical study will establish a factor of safety and appropriate setbacks required from the top of slope. Upon completion of the geotechnical study, the Developer and the Municipality will determine what the appropriate ER/MR split shall be with the goal of allowing for continuous pathways along the river valley and escarpment.

Adequate land should be provided through MR and ER dedication to meet the needs of area residents and the public. Pathways and parks should be provided where they can offer a pleasant and safe experience. In general, pathways and parks should be located in such a manner that maximizes safety and provides, where possible, a sense of detachment from developed areas. Common open spaces within development nodes should be planned to provide intermittent breaks in the development pattern, to open up views to the river valley and mountains, and to link to parks and open spaces. Development of parks serving the passive recreational needs of residents with pathways, sitting areas, grassy knolls, landscaped edges, and children's play areas may be created by the Developer and maintained through locally based Homeowners Association (HOA). The Developer will maintain all municipal reserve spaces until such time as the HOA has enough persons to adequately manage the takeover of landscape maintenance program.



POLICIES

Policy 10.3.1

Reserve shall be dedicated through the subdivision process in the full amount owing in accordance with the requirements of the Approving Authority, pursuant to the MDP and MGA.

Policy 10.3.2

The allocation of reserve shall be determined at the time of Land Use and Outline Plan at the discretion of the Municipality. Certain development cells within Outline Plans may be deficient of reserves, others may be over dedicated. The Developer shall ensure the required amount of reserve is dedicated throughout the course of the development over time to the satisfaction of the Municipality.

Policy 10.3.3

As outlined in **Section 6.4** a Homeowners Association will be formed by the Developer and they may be responsible for maintenance of community open spaces and MR areas at the discretion of the Municipality.

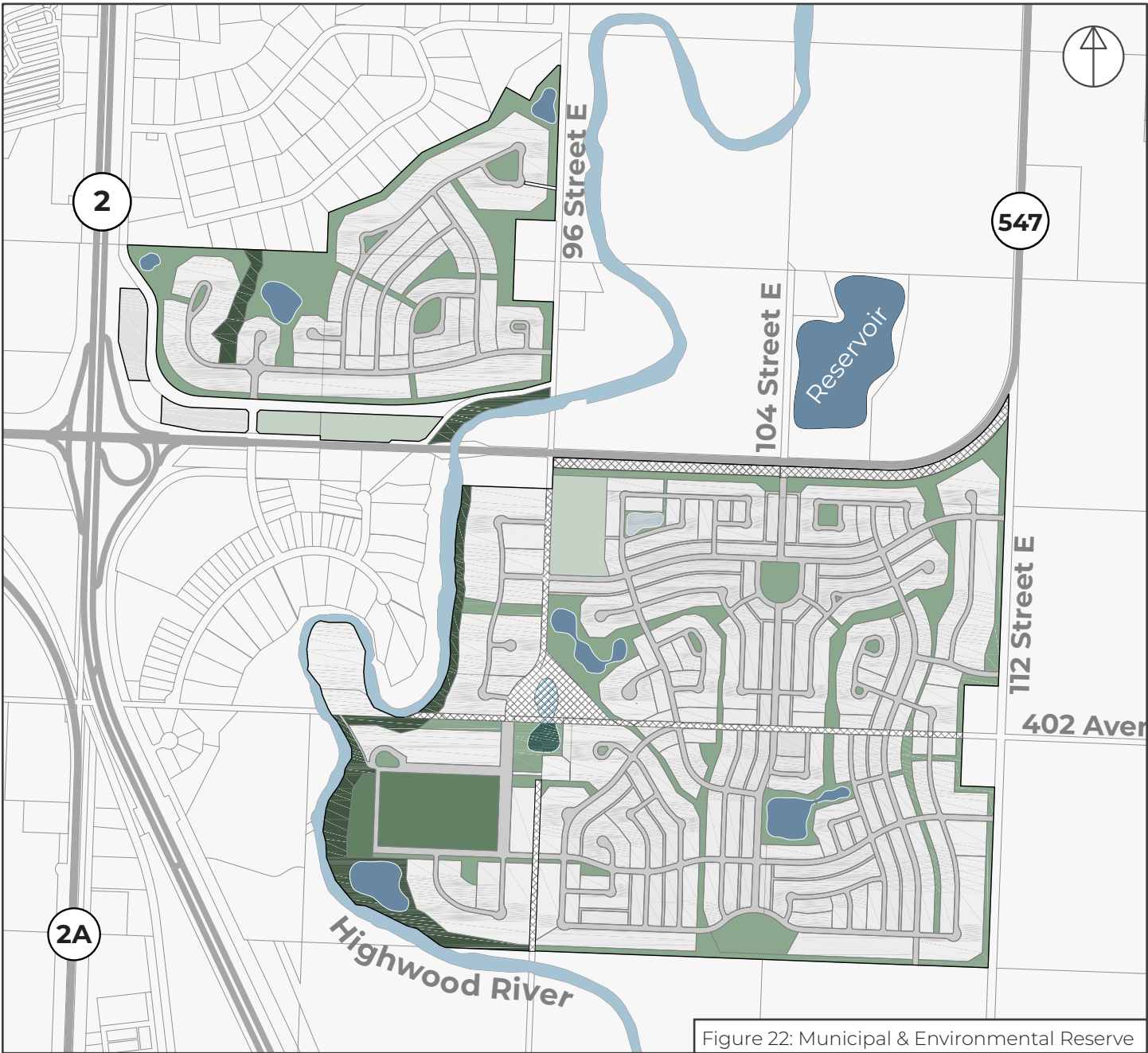


Figure 22: Municipal & Environmental Reserve

LEGEND

- Environmental Reserve
- Municipal Reserve
- Regional Municipal Reserve
- Storm Ponds (PUL)
- Highwood River
- Wetland

10.4 Multi-Modal Pathways

The Highfield and Rowland Acres neighbourhoods will benefit from substantial pedestrian and cycle connectivity options that will also provide access to transit and other modes of transportation. All local and collector roadways within the ASP area shall be developed with sidewalks, providing a general and focused direction for pedestrians in the community. Bicycle routes will be integrated with multi-modal pathways connecting internal networks (residential, commercial, and recreation) and the two neighbourhoods. Multi-modal pathways will accommodate efficient pedestrian and non-motorized transportation alternatives to connect nodes in the community. In keeping with the equestrian-oriented theme of the community, some multi-modal pathways will be suitable for equestrian use, as depicted in **Figure 23: Conceptual Multi-Modal Pathway Cross Section**. The multi-modal pathway network is shown on **Figure 21: Open Space & Multi-Modal Pathway System**. The pathways take advantage of natural corridors and vantage points to provide enjoyable and multi-use interpretive experiences for local residents, while at the same time, improving the safety, health, and well-being of the community.

POLICIES

Policy 10.4.1

The Developer shall be responsible for construction of all pathways, the specific design and locations of which shall be detailed at the Land Use and Outline Plan stage. The responsible party for pathways maintenance shall be identified to the satisfaction of the Municipality.

Policy 10.4.2

In alignment with Policy 10.4.1, the specific design and locations of the multi-modal equestrian pathways shall be detailed at the Land Use and Outline Plan stage and will ensure that any intersections between the internal road network and multi-modal equestrian trails are an appropriate materiality for horse crossings.

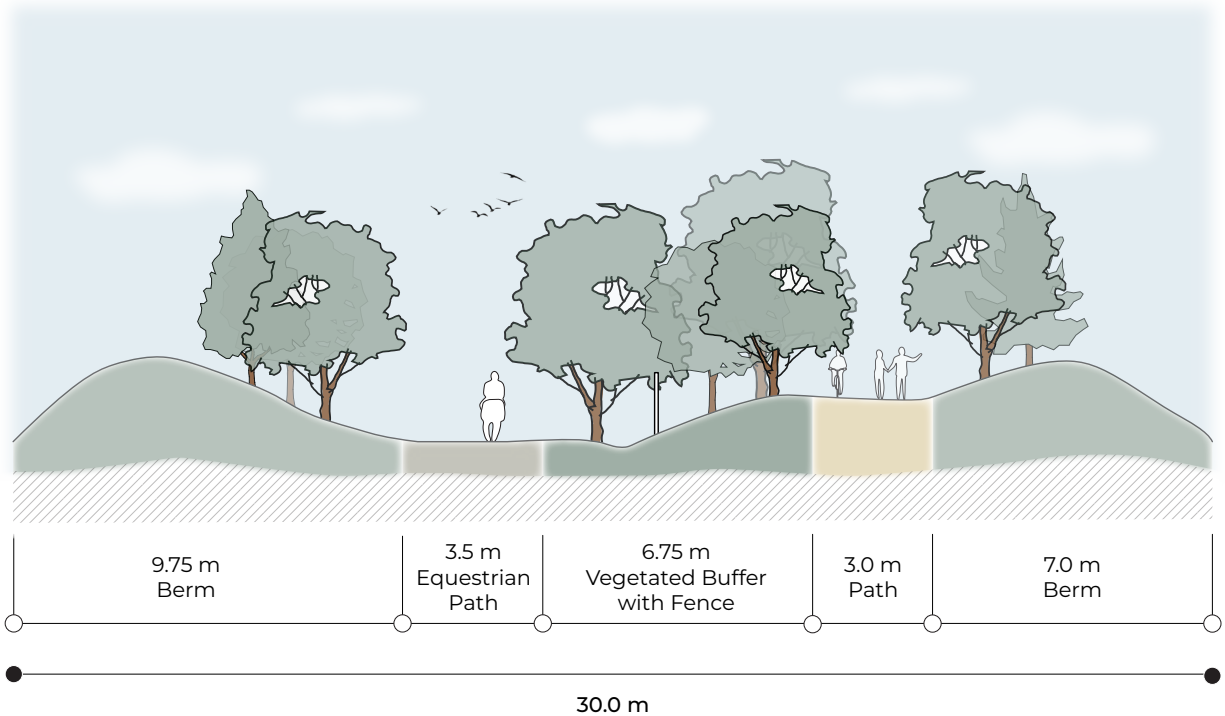


Figure 23: Conceptual Multi-Modal Pathway Cross Section

11.0 ENVIRONMENT & SUSTAINABILITY

This section outlines the integration of renewable energy sources, electric vehicle infrastructure, and environmental sustainability practices to be encouraged within the ASP Area. By promoting the utilization of solar panels and electric car plug-ins, this section aims to foster energy efficiency, reduce greenhouse gas emissions, and create an environmentally responsible community.

Environmental and sustainability policies in the Plan Area refer to the following set of guidelines and practices aimed at promoting sustainable and environmentally responsible development and management of residential communities.

The following is a description of the practices to promote environmental responsibility in new housing developments:

A) LAND USE PLANNING

Emphasize thoughtful land use planning to minimize environmental impacts. This includes preserving natural habitats, protecting sensitive ecosystems, and integrating green spaces into the community design. Land use decisions prioritize the conservation of open spaces, promote biodiversity, and consider the impact on local flora and fauna.

B) ENERGY EFFICIENCY

Encourage the implementation of energy-efficient measures in housing design and construction. This involves promoting the use of energy-efficient materials, appliances, and building systems. It may also require compliance with energy performance standards and the incorporation of renewable energy sources, such as solar panels or wind turbines, to reduce reliance on non-renewable energy and lower carbon emissions. This will be included in the architectural controls.

C) WATER CONSERVATION

Prioritize water conservation through the promotion of efficient water management practices. This includes the use of water-efficient fixtures, appliances, and landscaping techniques such as xeriscaping. Policies may encourage rainwater harvesting, greywater recycling systems, and the reduction of water-intensive landscaping practices to minimize water consumption and protect local water resources. This will be included in the architectural controls.

D) WASTE MANAGEMENT & RECYCLING

Through architectural controls, the Developer will establish guidelines for waste management and recycling programs within the community. Encouraging the use of recycling facilities and the promotion of composting and waste reduction practices is undertaken to emphasize waste reduction, recycling, and responsible waste management within the development. This includes the provision of recycling infrastructure, waste separation systems, and education on recycling practices for residents. Policies may also encourage composting, the use of recycled or sustainable materials in construction, and the reduction of construction and demolition waste. A central waste collection and blue / green / black bin cart system will be privately contracted within the community by the Developer and, at the appropriate time, the Homeowners Association.

E) STORMWATER MANAGEMENT

Require stormwater management to mitigate the impact of runoff on local water bodies and reduce pollution. This includes implementing green infrastructure techniques such as permeable pavements and retention ponds to promote infiltration, filtration, and natural water retention. The ASP policies require the integration of stormwater management systems into the design and the use of best practices for erosion control during construction.

11.1 Solar Panel Integration

F) TRANSPORTATION & MOBILITY

Promote sustainable transportation options to reduce reliance on single-occupancy vehicles. This includes the provision of pedestrian-friendly infrastructure, bike lanes, and public transportation access within the Plan Area. The Developer also encourages the installation of electric vehicle charging stations, car-sharing programs, and the promotion of alternative transportation modes to support a greener and more connected community.

Implementing policies and practices to promote environmentally responsible development in new communities can contribute to the preservation of natural resources, reduce environmental impacts, and create healthier and more sustainable communities for residents. These following sections promote long-term environmental stewardship and support a transition to a more sustainable and resilient future.



Solar panel integration in housing design refers to the strategic incorporation of solar panels into the architectural and structural elements of residential buildings. It involves considering the aesthetics, functionality, and energy efficiency aspects of the housing design to seamlessly integrate solar panels into the overall structure. It is expected that streetlights and amenity site lighting will be solar powered where possible. Solar panel integration in housing design may include:

- a) Placement and Orientation
- b) Roof Design
- c) Aesthetics
- d) Electrical Infrastructure
- e) Building Envelope
- f) Structural Integration
- g) Monitoring and Maintenance

Overall, solar panel integration in housing design aims to seamlessly incorporate solar energy generation while considering the architectural aesthetics, structural integrity, and energy efficiency of the building. It enables homeowners to harness renewable energy, reduce their dependence on the grid, and contribute to a sustainable future.



POLICIES

Policy 11.1.1

Solar panels may be incorporated in housing designs as part of the Environmental and Sustainability principles that form part of the fundamental goals of this ASP. The guidelines for consideration of solar panel integration are to be included in the architectural controls and implemented at the housing design stage.

11.2 Xeriscaping Requirements

This section outlines the implementation of xeriscaping as the preferred landscaping technique in the ASP Plan Area. Xeriscaping promotes water conservation, environmental sustainability, and the creation of aesthetically pleasing landscapes. This policy aims to encourage Developers, homeowners, and landscaping professionals to adopt xeriscaping practices in order to reduce water usage and create sustainable communities. This xeriscaping section aims to promote water conservation, environmental sustainability, and the creation of visually appealing and drought resistant landscaping.

Xeriscaping is a landscaping technique that focuses on minimizing water consumption while maintaining an attractive and functional outdoor environment. It involves selecting regionally appropriate plants, improving soil quality, implementing efficient irrigation systems, and utilizing water-conserving design principles. For examples of how Xeriscaping can be implemented, see **Appendix E: Low Impact Development Strategies**.

Benefits of Xeriscaping include:

- a) Water Conservation
- b) Cost Savings
- c) Environmental Sustainability
- d) Aesthetics and Property Value

Xeriscaping Guidelines include:

- a) Plant Selection
- b) Soil Improvement
- c) Efficient Irrigation
- d) Mulching
- e) Turf Reduction



POLICIES

Policy 11.2.1

All new housing developments must comply with the xeriscaping policy and include xeriscaping plans as part of their overall site plans. The Developer should work closely with landscape architects or professionals experienced in xeriscaping to ensure compliance.

Policy 11.2.2

The Architectural Controls shall include a mechanism to monitor compliance with the xeriscaping policy, such as periodic inspections, documentation review, or Homeowner Association guidelines.

Policy 11.2.3

Periodic review and amendment to the xeriscaping policy, in order to incorporate new research, best practices, and emerging technologies that further enhance water conservation and sustainability. Solicit feedback from stakeholders, landscape professionals, and the community to ensure continuous improvement.



11.3 Electric Vehicle Readiness

Electrical vehicle (EV) readiness refers to the intentional planning and infrastructure provisions made to accommodate EV ownership and charging within the residential community. It involves incorporating the necessary electrical infrastructure and design considerations to support EV charging in an efficient, convenient, and sustainable manner.

Figure 24: Potential Transit & EV Charging Station Network identifies locations where publicly available fast charging stations (Level 3, DC) waste recycling locations, bike lanes, transit stops could be provided by the Developer within the community to enhance overall sustainability. EV readiness in a new community may include considerations such as:

- a) Charging Infrastructure
- b) Electrical Capacity
- c) Number and Type of Charging Stations
- d) Placement and Accessibility
- e) Electrical Infrastructure Design
- f) Smart Charging Capabilities
- g) Collaboration with Utility Providers
- h) Education and Support
- i) Future-Proofing



POLICIES

Policy 11.3.1

Electrical Vehicle Readiness should be incorporated in housing designs as part of the Environmental and Sustainability principles that form part of the fundamental goals of this ASP. These EV Readiness guidelines are to be included in the architectural controls and implemented at the subdivision design and housing design stage.

11.4 Transit

With proximity to Highway 547 and the regional corridor of Highway 2, an internal potential transit network has been developed to connect to regionally significant transit hubs. The ASP is an opportunity to incorporate best planning practices to promote efficient, integrated and connected transportation options for residents. Transit stops shall be located in proximity to local institutions, employment areas, and higher density housing zones. Walk catchments will be defined around transit stops to encourage their placement to be situated around higher intensity uses. A transit stop map (**Figure 24: Potential Transit & EV Charging Station Network**) has been included to encourage future transit use, when or if, it becomes available or to encourage private charter bus use for commuters interested in that service, potentially at destination nodes within the community.

POLICIES

Policy 11.4.1

The County may at the appropriate time, establish guidelines for transit stop spacing, considering factors such as population density, land use patterns, access to key destinations, and connectivity with other modes of transportation, should transit service be offered municipally and the Plan Area density increases over time.

Policy 11.4.2

The Developer may encourage additional or denser mixed-use development in future around transit stops to create vibrant, walkable communities and reduce the need for long-distance commutes.

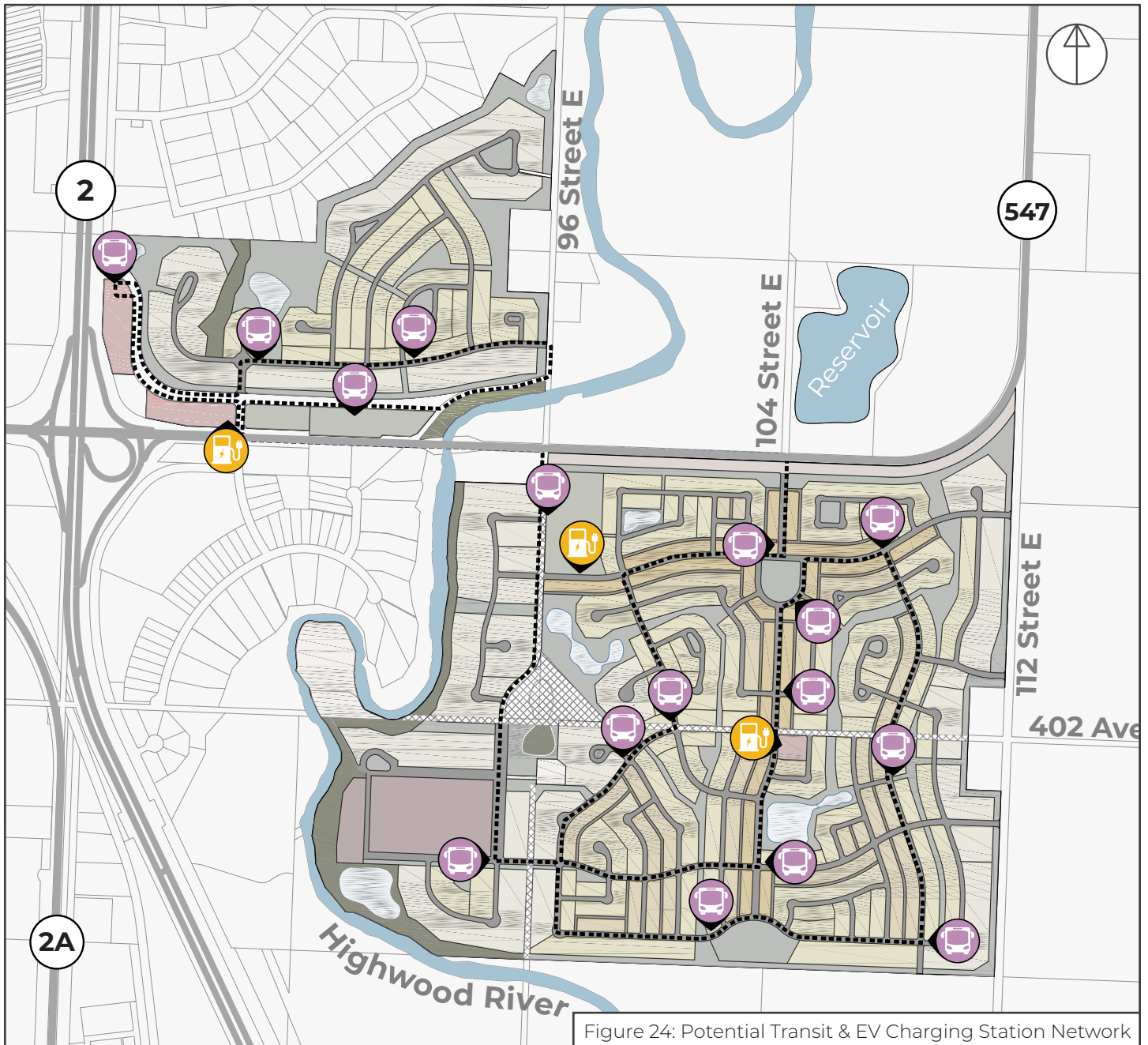




Figure 24: Potential Transit & EV Charging Station Network

LEGEND

- Potential Transit Route
-  Potential Transit Stop
-  Potential Public EV Charging Station

12.0 MOBILITY

12.1 Transportation Network

Effective transportation infrastructure is a fundamental component of community design and development. Internal and external roads play a crucial role in serving new communities, ensuring connectivity, facilitating mobility, and promoting safe and efficient transportation for both residents and visitors.

Internal roads, also known as local streets, form the intricate network within the community itself. These roads have been meticulously designed to provide convenient access to residential areas, commercial centers, schools, recreational facilities, and other community amenities. They are typically built with a focus on pedestrian safety, incorporating features such as well-marked crosswalks, sidewalks, and traffic calming measures. By offering a comprehensive and accessible road network within the community, internal roads enable residents to navigate their surroundings seamlessly and foster a sense of community interaction. In this community we make the assumption that 96th Street E is a local collector for the community as will be 104 Street E.

By contrast, external roads refer to the larger arteries and highways that connect the community to the broader transportation network. These roads serve as the vital link between the community and neighboring areas, providing access to employment centers, educational institutions, healthcare facilities, and other external destinations. External roads are typically designed to accommodate higher volumes of traffic, ensuring efficient movement, and reducing congestion. They may feature multiple lanes, signalized intersections, and dedicated turn lanes to facilitate the smooth flow of vehicles. Moreover, they often integrate pedestrian and cycling infrastructure, such as sidewalks, bike lanes, and multi-use paths, to promote multi-modal transportation and enhance connectivity for all users.

The development of internal and external roads is a comprehensive process that involves rigorous planning, design, and construction. It requires close collaboration between Developers, planners, engineers, and Provincial and Municipal authorities to ensure adherence to established guidelines, safety standards, and traffic management principles. In addition to providing functional transportation infrastructure, these roads are designed with aesthetics in mind, incorporating landscaping elements, streetscape enhancements, and architectural features that contribute to the overall visual appeal and character of the community.

12.1.1 INTERNAL ROADS

Figure 25: Internal Road Network outlines the internal road network within the community and *Appendix F: Internal Road Network Cross Sections* contains the proposed cross section diagrams of each road classification.

The development of custom internal road cross-sections is a strategic and integral part of the intentional land use planning approach, aimed at achieving overarching objectives of ensuring safety and fostering community cohesion within the built environment. By tailoring the design of internal streets to meet the specific needs and aspirations of our community, we aim to create a vibrant, inclusive, and pedestrian-friendly environment that encourages social interaction, enhances safety, and promotes a strong sense of community identity.

The custom internal road cross-sections prioritize the safety of all users, including pedestrians, cyclists, and motorists. We achieve this through the inclusion of ample sidewalks with clear demarcations, properly marked crosswalks, and strategically placed traffic calming measures, such as speed humps or raised intersections. By employing these measures, we aim to promote reduced vehicle speeds, enhance visibility, and create a shared space that encourages safe and comfortable movement for all. To achieve this our internal roads lead to and include some elements such as landscaped buffers, street furniture, public gathering spaces, and designated areas for community activities. These features not only enhance the aesthetics of the street but also provide opportunities for informal encounters, socializing, and community events, thereby strengthening the social fabric of the neighborhood. These features are demonstrated on *Figure 26: Main Street Concept*.



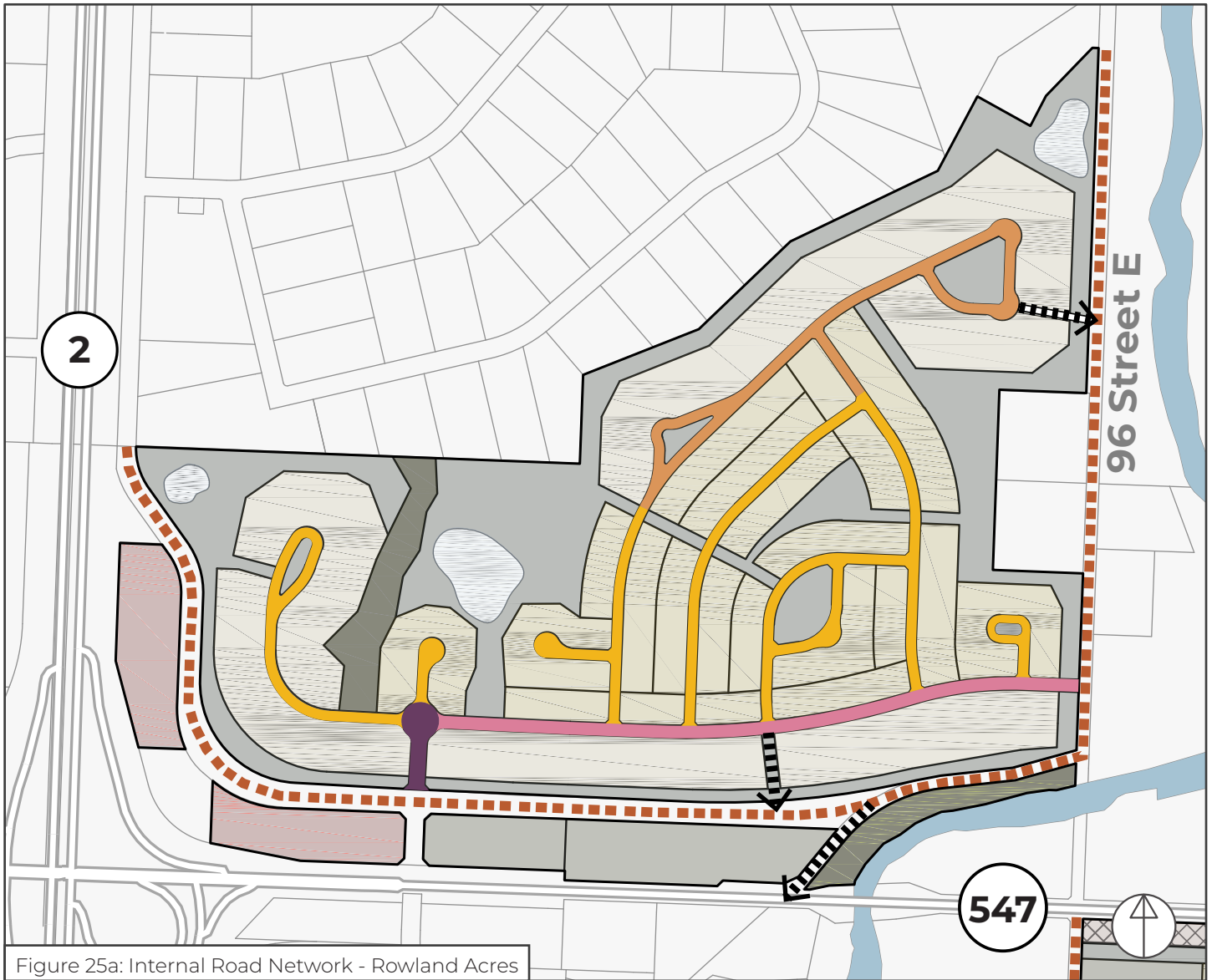


Figure 25a: Internal Road Network - Rowland Acres

LEGEND

- 25m Main Street with Median
- 20m Local Road with Curb
- Existing County Road
- 16m Local Road with Curb
- 16m Local Road with Ditch
- Emergency Egress

Note: Emergency Egress to Highway 547 is at the review and approval of ATEC, alternate locations may be selected.

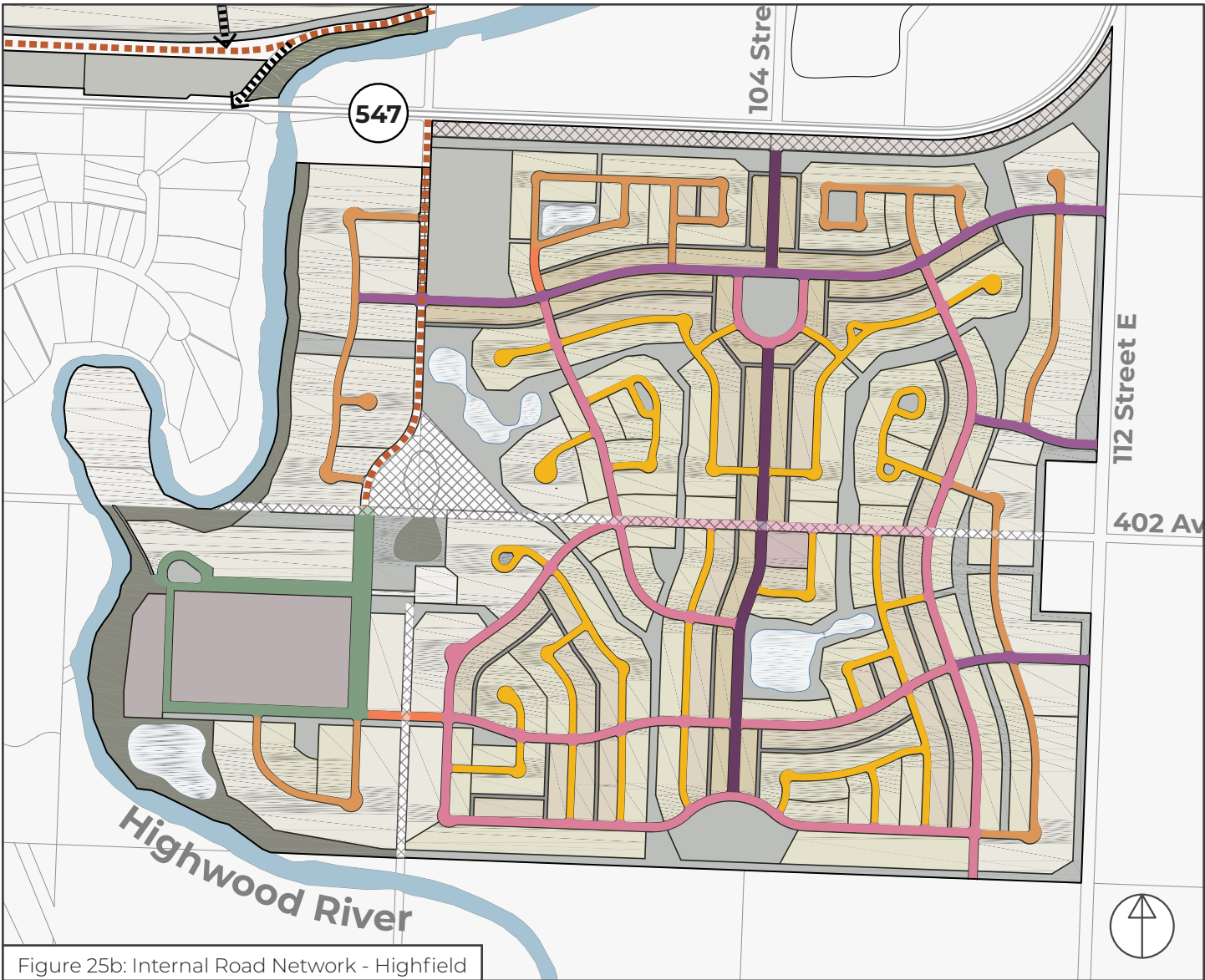


Figure 25b: Internal Road Network - Highfield

LEGEND

- 25m Main Street with Median
- 20m Local Road with Median
- 20m Local Road with Curb
- Existing Tree-lined Paved Road (to remain)
- 16m Local Road with Curb
- 16m Local Road with Ditch
- Existing County Road
- Alleyways

Figure 26: Main Street Concept



12.1.2 EXTERNAL ROAD NETWORK & TIA SUMMARY

A thorough Traffic Impact Assessment (TIA) has been conducted by a team of professional engineers (Bunt & Associates) to evaluate the potential effects of the proposed development on the existing transportation network. The original TIA prepared in 2017 was updated in 2023 and provided to Foothills County and ATEC. The assessment aims to identify the anticipated changes in traffic patterns, volumes, and operations resulting from the development and to propose appropriate upgrades to the external road infrastructure based on defined development thresholds.

The TIA considers various factors, including projected trip generation, existing road capacities, peak-hour traffic demands, and the surrounding transportation context. Through the utilization of advanced traffic modelling techniques and industry-standard methodologies, we have determined the potential impacts of the development at various stages and identified the thresholds at which external road upgrades will be necessary to maintain acceptable levels of service, safety, and operational efficiency.

The proposed upgrades to the external roads intention is to address the impacts and improve the overall functioning of the transportation network. These upgrades may include widening of lanes, construction of additional turn lanes, signal optimization, improvements to intersection geometry, and enhancements to pedestrian and cycling infrastructure. The specific nature and extent of the upgrades will be determined in coordination with Foothills County and ATEC.

The TIA and the subsequent identification of upgrades to the external road infrastructure are essential components of our commitment to responsible and sustainable development. By pro-actively addressing the transportation impacts associated with the proposed development, we aim to minimize congestion, improve safety, and enhance the overall accessibility and efficiency of the transportation system. This approach supports the long-term viability and compatibility of the development within the surrounding context while prioritizing the well-being and mobility of the community as a whole.

Figure 27: Ultimate Road Network Improvements delineates overall improvements due to ambient background traffic growth and site traffic growth at specific buildout milestones.

The TIA goes into detail with regard to the staging and timing of upgrades required in order to support development within ASP. However, only the 2035 and 2045 future time horizons were analyzed, and the unit thresholds and upgrades between these horizons are estimates only. The thresholds depend on the timing due to the anticipated background growth on the network. If the unit threshold is reached earlier than forecasted, then higher unit counts may be accommodated, but if development is slower than anticipated, the upgrades may be required before the thresholds.

A) 79 STREET & HIGHWAY 7

Background – Acceptable operations.
After Development – A westbound left turn arrow may be needed at the 2045 horizon.

B) HIGHWAY 2 & HIGHWAY 7 (WEST)

Background – Traffic signal required at the 2035 horizon per the Watt study recommendations.
After Development – Movements near capacity at the 2045 horizon. Second southbound left turn lane and associated receiving lane upgrades may be necessary at this full build out horizon.

C) HIGHWAY 2 & HIGHWAY 7 (EAST)

Background – Acceptable operations.
After Development – Traffic signal required at the 2045 horizon.

D) 85 STREET E & HIGHWAY 547

Background – Acceptable operations.
After Development – Traffic signal or two lane roundabout is required at the 2045 horizon.

E) 96 STREET E & HIGHWAY 547

Background – Acceptable operations.
After Development – Traffic signal (with turn lanes) or roundabout is required at the 2045 horizon.

F) 104 STREET E & HIGHWAY 547

Background – Acceptable operations.
After Development – Traffic signal or roundabout is required at the 2045 horizon. Sensitivity analysis with no development connection to 112 Street E confirms acceptable operations.

G) 112 STREET E & HIGHWAY 547

Acceptable operations at all horizons. After Development 2045 - Delineation lighting is warranted.

Below are the required improvements based on completed analysis (intersection capacity, daily volume) and warrants (intersection treatment type, illumination) as outlined on **Figure 27: Ultimate Road Network Improvements**. The Background column forecasts the interim (2035 - one third of development) and long term (2045 - full build out) horizon volumes and the After Development column forecasts development traffic added to the existing network based on industry standards and observed demand in Foothills County.

Table 4: Network Improvement Summary

TYPE	LOCATION	CURRENT CONDITION	BACKGROUND		AFTER DEVELOPMENT	
			2035	2045	2035	2045
Intersection	A) 79 St & Hwy 7	Signal	-	-	-	Consider WBL turn arrow
	B) Hwy 2 & Hwy 7 (West)	Stop Control	Add Signal	-	-	Consider second SBL lane
	C) Hwy 2 & Hwy 7 (East)	Stop Control	-	-	-	Add signal
	D) 85 St & Hwy 547	Turn Lanes	-	-	-	Add signal*
	E) 96 St & Hwy 547	Type 1	-	-	Type 3 + illumination	Add signal*
	F) 104 St & Hwy 547	Type 1	-	Type 3	Type 2 + illumination	Add signal*
	G) 112 St & Hwy 547	Type 1	-	Type 3	Type 2	Type 3 + illumination
Roadway	Hwy 7 (West of Hwy 2)	4-lane	-	-	-	-
	Hwy 547 (West of 85 St)	4-lane	-	-	-	-
	Hwy 547 (85 to 96 St)	2-lane	-	-	Shift 80 km/h speed limit to east of 96 St.	Widen (4-lane) including new bridge
	Hwy 547 (96 to 104 St)	2-lane	-	-		Protect for 4-lanes. Shift 80km/hr speed to 104 St
	Hwy 547 (East of 104 St)	2-lane	-	-	-	-

*ATEC has exclusive judgement of traffic control type. Traffic signals (85 St, 96 St, 104 St) may be replaced by roundabouts. 2035 horizon speed limit reduction (extending to east of 96 St) recommended to address sight line conflicts at 96 St E. 2045 horizon speed limit reduction required due to traffic control changes (roundabout or signal)

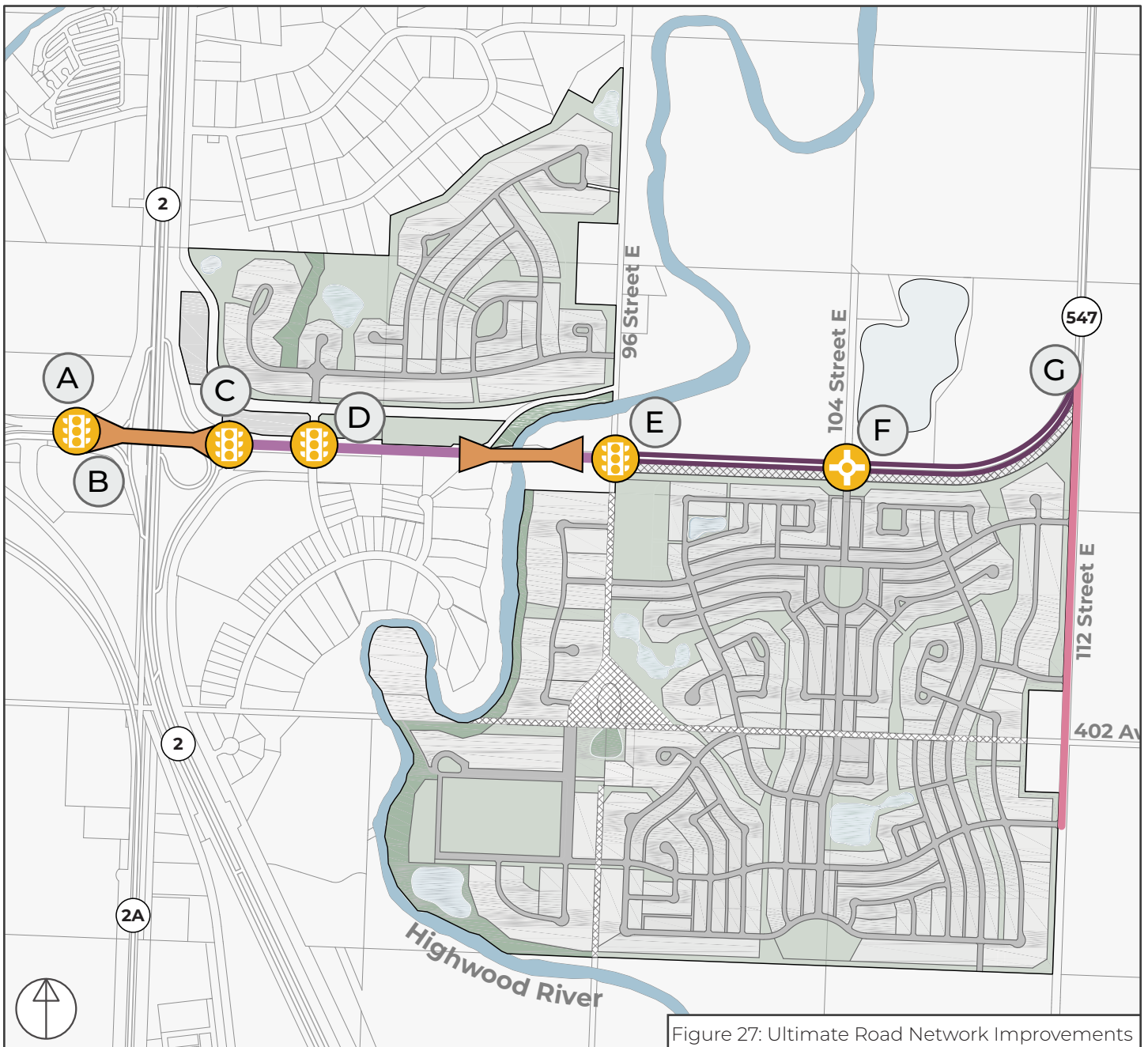















Figure 27: Ultimate Road Network Improvements

LEGEND

-  Two Lane Roadway
-  Four Lane Roadway
-  Four Lane Twinned Roadway (2045)
-  Bridge (with pedestrian upgrade)
-  Traffic Signal
-  Roundabout
-  **A** 2045 - Consider Westbound Turn Arrow
-  **B** 2035 - Add signal, 2045 - Consider Southbound Lane
-  **C** 2045 - Add Signal
-  **D** 2045 - Add Signal or round about
-  **E** 2035 - Delineation lighting 2045 - Add signal or round about and illumination
-  **F** 2035 - Delineation lighting, 2045 - Add signal or roundabout
-  **G** 2045 - Delineation lighting is warranted

POLICIES

Policy 12.1.1

Upgrades to the transportation network shall be undertaken at the expense of the Developer at the appropriate subdivision stage of development as outlined in a Traffic Review Letter in accordance with the TIA prepared in support of the ASP, to the satisfaction of the Municipality and/or Alberta Transportation and Economic Corridors (ATEC).

Policy 12.1.2

All roadside Development Permits and additional approvals shall be obtained from ATEC for any work within the provincial highway system and associated right-of-ways.

Policy 12.1.3

The Developer will execute development agreements to the satisfaction of the Municipality for the construction of all necessary off-site transportation infrastructure required to service ASP development, and/or payment of off-site levies associated with the development of off-site transportation infrastructure which will benefit the development.

Policy 12.1.4

The Developer shall provide a Traffic Review Letter in support of the ASP's TIA at the Land Use and Outline Plan stage preparation and/or subdivision application process to determine if potential off-site road improvements that are required to support any proposed development and outlining all required internal road construction and improvements that may also be required. Any costs associated with transportation improvements identified through a Traffic Review Letter are the responsibility of the Developer.

Policy 12.1.5

Emergency vehicle and vehicular connectivity shall be maximized for emergency vehicles and passenger vehicles in the Plan Area.

Policy 12.1.6

Roundabout/signalization design on highways shall be to the satisfaction of ATEC.

Policy 12.1.7

The exact road and street pattern, including detailed design, roundabouts, typology/classification, street sizing, sidewalk location and intersection/access spacing shall be determined at the Land Use and Outline Plan stage and may require a Detailed Land Use and Design Analysis, to the satisfaction of Foothills County.

Policy 12.1.8

The movement of pedestrians and multi-modal considerations (ie: bike lanes) should be accommodated, to the satisfaction of Foothills County, in proposed road upgrades.

Policy 12.1.9

Internal roads shall be constructed to a standard acceptable to Foothills County. The City of Calgary's Complete Streets manual may be referred to for guidance on these standards.

Policy 12.1.10

The municipality owns or controls several roads within, and bounding, the plan area (104th Street, 96th, 112th Street, 392nd Street) that may require upgrade at the sole cost of the Developer in order to accommodate the project. These upgrades will be determined at the subdivision stage to the satisfaction of Foothills County.

12.2 Pedestrian & Cycling Network

Community development initiatives play a pivotal role in fostering vibrant and inclusive neighbourhoods that prioritize the well-being of residents and promote sustainable transportation practices. As part of our comprehensive approach, we recognize the critical need to incorporate pedestrian, equestrian, and multi-modal transportation options to enhance connectivity, accessibility, and liveability within the community.

By prioritizing pedestrian infrastructure, such as well-maintained sidewalks, crosswalks, and pedestrian-friendly pathways, we aim to create a safe and inviting environment that encourages active transportation and fosters a sense of community. Our commitment extends beyond just pedestrians, as we recognize the importance of accommodating equestrian enthusiasts by providing dedicated equestrian trails or designated equestrian-friendly routes.

Additionally, we understand the significance of multi-modal transportation options that cater to the diverse needs of our residents. Integrating reliable public transportation systems, such as potential future bus networks, alongside comprehensive bike lanes and shared mobility services (as demonstrated on **Figure 28: Conceptual Pathway Cross Section**), ensures seamless connectivity and reduces reliance on private vehicles. This multi-modal approach not only enhances mobility but also contributes to reducing congestion, improving air quality, and mitigating the overall environmental impact of transportation. By doing so, we aim to create a more connected and resilient community that promotes active living, enhances quality of life, and supports the well-being of all residents.

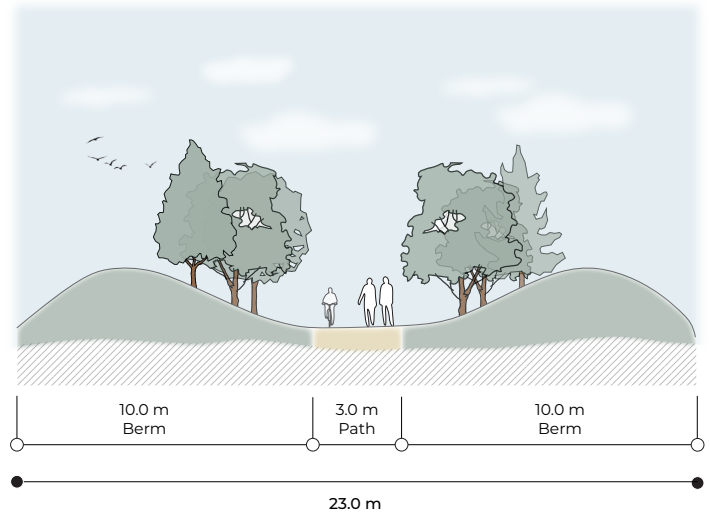


Figure 28: Conceptual Pathway Cross Section

POLICIES

Policy 12.2.1

At the time of the Highway 547 Bridge Upgrade, as identified by the ongoing traffic analysis by phase of development, the Developer shall design, provide, and include a pedestrian connection across the bridge to ensure connectivity to other Neighbourhoods within the Plan Area to the satisfaction of Foothills County.

13.0 SERVICING

13.1 Offsite Infrastructure Levy

An off-site levy is a charge established by a municipal bylaw. It is imposed as a condition of approval for some developments and subdivisions. The Municipal Government Act contains principles and criteria for Municipalities in the creation and applicability of off-site levies. It is deemed just and reasonable that subdivisions, developments and redevelopments should bear a fair portion of the cost of constructing or expanding certain municipal infrastructure facilities required outside or “off” the site that will directly or indirectly serve that development.

Although not within the Highway 2A Industrial Area Structure Plan boundary, the Highfield and Rowland Acres ASP will support the 2A corridor by introducing residential, institutional, and small-scale commercial land uses that enable people who work, or own businesses within the H2A/ASP area, to live in close proximity to their place of employment. The Highfield and Rowland Acres Area Structure Plan also completes the “four corners” of the grade separated interchange at Highway 2 and Highway 547 which allows for some future highway commercial and convenience commercial for the travelling public.

The Highfield and Rowland Acres Plan Area contains a portion of the Highwood River, which can be protected in a manner consistent with the objectives of the H2A/ASP and, most importantly, also provides an opportunity to contribute, by bringing license, off stream storage, and contributions, to the construction of communal water and wastewater system that can have both local and regional benefits.

POLICIES

Policy 13.1.1

An assessment of future infrastructure requirements driven by ASP development inclusive of water, wastewater, transportation, and utility servicing, and capital costs of community facilities in accordance with Section 648 of the MGA shall be prepared by the Developer, in conjunction with the Municipality, outlining the total benefiting area, the planning horizon and cost. This assessment shall ensure regional infrastructure is financed, managed

and properly implemented by Developers over time to the satisfaction of Foothills County.

Policy 13.1.2

The required off site levy amount will be included in the Municipality’s Standard Development Agreement and paid by the Developer at the subdivision stage. Infrastructure may be constructed in advance by the Developer and endeavored back to benefiting parties by virtue of the same agreement.

Policy 13.1.3

The Developer shall provide a Servicing Report outlining servicing requirements, a water use assessment, a wastewater servicing study, staging of infrastructure, required rights of way, required upgrades, and cost contributions for regional infrastructure. The Servicing Report will also include the detailed location and size of utility rights-of-way and easements, and related line assignments to be identified at the Land Use and Outline Plan stage to the satisfaction of the Municipality.

Policy 13.1.4

The Developer shall determine servicing capacity requirements and allocations within and external to each Land Use and Outline Plan area at the Land Use and Outline Plan stage to the satisfaction of the Municipality. Developers relying on regional piped utility services shall be required to front-end the costs and install utility service upgrades to the satisfaction of Foothills County.

Policy 13.1.5

Developers relying on utility infrastructure improvements provided by other developments shall be required to pay cost recovery. These cost recoveries, with identified endeavourable parties, shall be detailed in the Servicing Report required at the Land Use and Outline Plan Stage.

Policy 13.1.6

Developers relying on the regional piped water and wastewater utility shall be required to pay all applicable Water and Wastewater Off-Site Levies to the satisfaction of the Foothills County.

13.2 Water

The current concept for the proposed development of Highfield and Rowland Acres anticipates that the development will be completed in a number of phases over 20 to 30-years. With this in mind, the full buildout of the Plan Area can be completed and successfully serviced with a series of upgrades to the Aldersyde North Water Treatment Plant (WTP), providing adequate water licensing for additional supply and storage of raw water and by accounting for the area in the design of the future Aldersyde North Wastewater Treatment Plant (WWTP). **Figure 29: Potable Water Mains**, and **Figure 30: Raw Water** delineates the proposed water servicing for the community.

The Developer will work with Foothills County to ensure Phase 1 has adequate capacity to meet the project needs and assure service to non-residential growth demands.

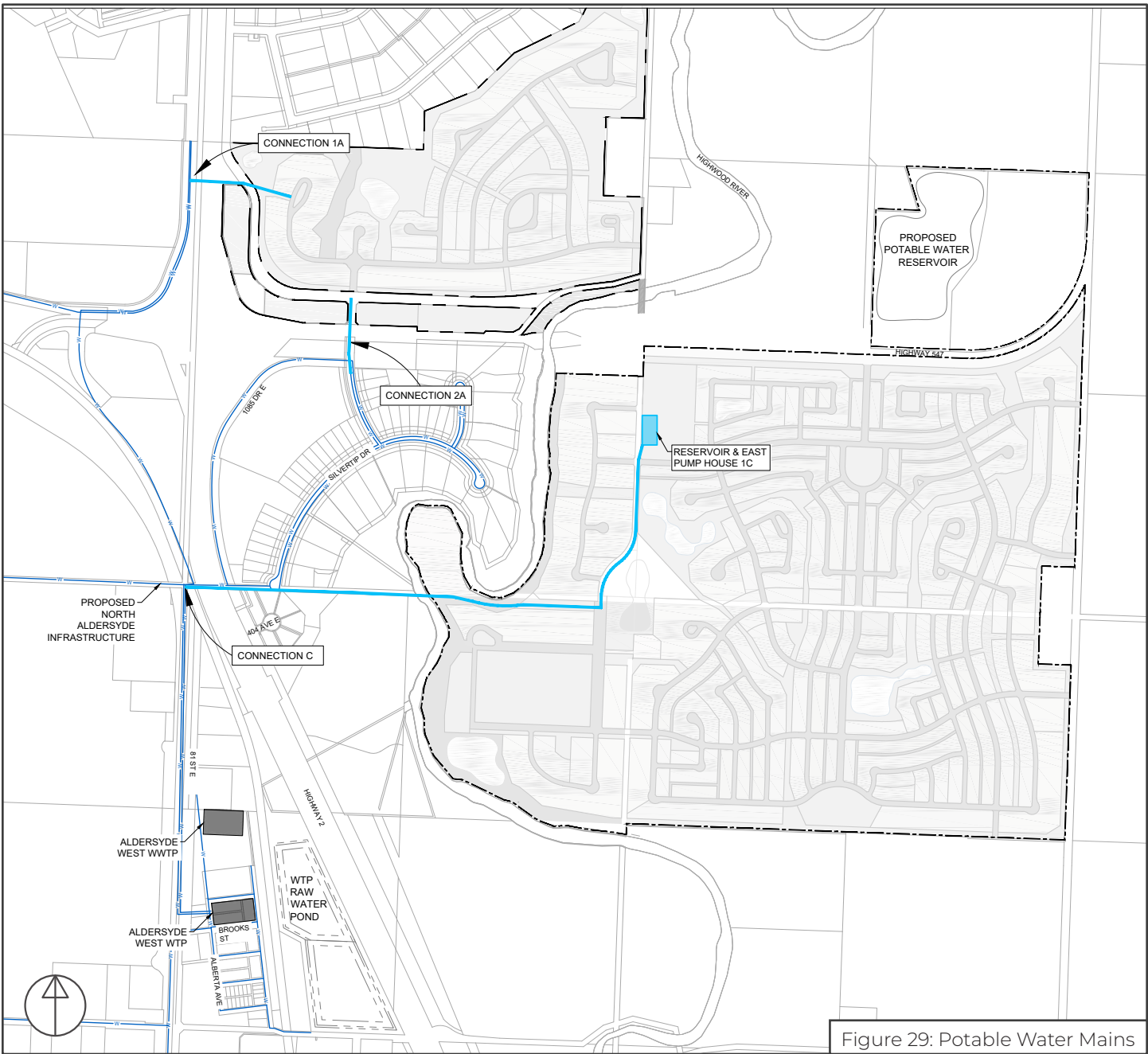


Figure 29: Potable Water Mains

LEGEND

- Proposed North Aldersyde Infrastructure
- Potable Water Connection Lines
- Reservoir & East Pump House 1C

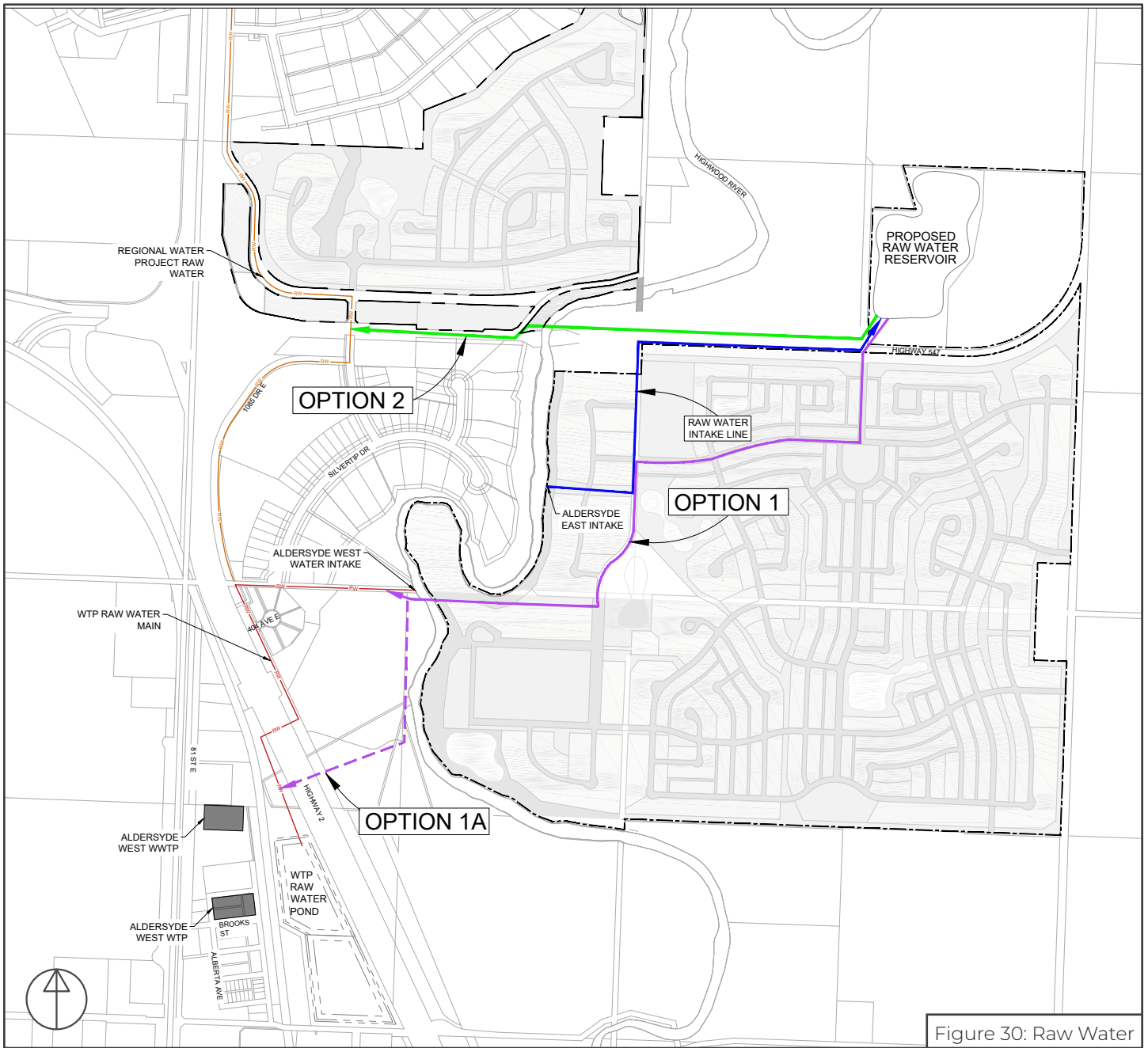


Figure 30: Raw Water

LEGEND

- Raw Water Line Option 1
- - - Raw Water Line Option 1A
- Raw Water Line Option 2
- Regional Water Project Raw Water
- WTP Raw Water Main

A) TREATED WATER DISTRIBUTION

Once upgraded, the planned Phase 1 Aldersyde North WTP capacity will be sufficient to service approximately 680 lots, including all commercial areas and 50% of the area designated for recreational uses. **Table 5: Water Demand Projections** outlines the anticipated water demands between the Highfield and Rowland Acres neighbourhoods.

Based on current planning, the ultimate servicing capacity the Water Treatment Plant is established to service around 1,870 lots, including all commercial areas and 70% of the area designated for recreational uses within the Highfield and Rowland Acres ASP. Once connected to the Aldersyde North WTP, capacity and growth discussions will need to be ongoing with the County as the Plan Area development advances. There is, however, adequate capacity to begin development and strategize upgrade and improvement timelines of the Aldersyde North WTP to include the Plan Area and potential future commercial/industrial users partnered with the County all while servicing the Highway 2A Industrial corridor through one facility.

B) RAW WATER

The ASP reserves a portion of land northeast of the site, outside of the Plan Area (NE-17-20-28-W4M) that is owned by the Developer, to construct a staged raw water reservoir that will provide storage for a 4-month maximum day demand for the users within the Plan Area, requiring roughly 417,000 m³ of storage capacity at full buildout. The reservoir size will be determined in conjunction with AEP.

The County is developing a raw water storage reservoir (369,000 m³ at full buildout) on the west side of Highway 2, within the Hamlet of Aldersyde, that draws from the Highwood River and Bow River. There are also plans in place for the construction of the Town of Okotoks/Foothills County Regional Raw Water Project by 2026, a line supplying water from the Bow River that will eventually supplement the north storage reservoir and support the Town of Okotoks. The Highfield and Rowland Acres development will bring enough water diversion licensing from the Highwood River to accommodate the full planned buildout population. This provides an early opportunity for the Developer to collaborate with the County to accommodate required storage requirements while providing redundant supply networks to supplement the County's storage cells or the WTP during times of low flow in the area and acting as a regional asset to support commercial and industrial developments.

Table 5: Water Demand Projections

ASSESSMENT CRITERIA	STAGE 1 10 YEARS		STAGE 2 ^b 20 YEARS	
	ROWLAND	HIGHFIELD	ROWLAND	HIGHFIELD
Estimated Population	435	2,813	872	5,646
Number of Lots	123	672	247	1,348
Number of Additional Suited Units	38	370	76	743
Average Day Demand (m ³ /day)	192 ^a	814 ^a	347	1,623
Maximum Day Demand (m ³ /day)	349	1,432	623	2,851
Peak Hour Demand (m ³ /day)	672	2,850	1,214	5,680

^a Assuming the whole commercial area and half the recreational area will be developed in this time frame

^b Stage 2 includes Stage 1 water demands

C) FIRE PROTECTION

The fire protection criteria will be based in the flow rate requirement for commercial spaces as the County would like to achieve a minimum level of fire protection consistent with commercial development.

The flow rate requirement for commercial spaces is based on the City of Calgary's Standards of 166 l/s and a flow duration requirement from the Fire Underwriters Survey of 2 hours. The preliminary estimated fire flow is 1,196m³ for commercial spaces.

POLICIES

Policy 13.2.1

The Developer shall be responsible for all cost necessary to expand and/or upgrade the water utility system capacity to service the ASP Plan Area, including Water Act and Environmental Protection and Enhancement Act approvals to satisfaction of Foothills County and the provincial regulatory approvals agencies.

Policy 13.2.2

All new development shall connect to a piped potable water system to the satisfaction of the Municipality and/or the applicable provincial regulatory body.

Policy 13.2.3

The Municipality encourages the reduction and reuse of water in accordance with provincial laws and regulations. Development and buildings within the ASP Plan Area shall use low-flow fixtures and appliances to promote water conservation and this shall be part of the Developer Architectural Controls.

Policy 13.2.4

The Developer shall prepare a water use assessment, included in the Servicing Report, at the Land Use and Outline Plan stage, subdivision applications and/or development permit applications stage to determine water demand and infrastructure required to meet that demand is in place.

Policy 13.2.5

The Developer will execute development agreements to the satisfaction of the Municipality for the construction of all required on site utility infrastructure, including that required for the water (including fire flows) utility and is required to provide adequate water license to the County.

Policy 13.2.6

The Developer will execute development agreements to the satisfaction of the Municipality for the construction of all necessary off-site utility infrastructure required to service this development, and/or payment of off-site levies associated with the development of off-site utility infrastructure which will benefit the development.

Policy 13.2.7

Land Use and Outline Plan applications relying on piped utility services shall not be supported until the Municipality has confirmed servicing capacity and raw water licensing either exists or will be provided by the Developer in support of the application.

Policy 13.2.8

No irrigation using potable water shall be permitted.

Policy 13.2.9

Should the location of the water treatment plant and other infrastructure associated with water utility servicing be revised over time, an amendment to the ASP Plan Area may require at the discretion of the Municipality.

Policy 13.2.10

Opportunities for potential future connections for water servicing outside of the Plan Area or extending to existing communities, within close proximity to the Plan Area, should be considered in the Land Use and Outline Plan stage servicing plans at the appropriate stage of development. Future connections for existing communities are at the sole discretion of Foothills County and may be at the sole cost of the requesting party.

13.3 Wastewater Servicing

A) WASTEWATER COLLECTION

Each home and business within the development will be constructed with a service line to a collection main in the road or other public right of way. The majority of wastewater gravity mains will be 200mm pipes. The topography of the study area indicates that each geographically distinct area inside the Plan Area will likely be able to collect wastewater to one low point of that area. Sanitary Sewer Servicing for Highfield and Rowland Acres will require installation of new sanitary sewers within the proposed roadways and utility right-of-way within the concept plan area. The servicing concept (see **Figure 31: Wastewater Mains**) also includes two lift stations that will pump sewage collected in gravity mains to the proposed wastewater system presented in the North Aldersyde Study.

B) WASTEWATER GENERATION

A design average dry weather flow rate of 250 litres per capita per day was used for residential planning purposes, as stated in the North Aldersyde Study 2 as well as in the WTP Associated Report 1, and 0.46 l/s/ha for commercial and recreation spaces. Peaking factors were applied to calculate peak dry weather flow rates. Inflow and Infiltration (I&I) allowances were included based on 0.28 l/s/ha for the net developable area.

Table 6: Wastewater Flow Projections outlines the anticipated sewage generation between the Highfield and Rowland Acres neighbourhoods.

Table 6: Wastewater Flow Projections

ASSESSMENT CRITERIA	STAGE 1 10 YEARS		STAGE 2 20 YEARS	
	ROWLAND	HIGHFIELD	ROWLAND	HIGHFIELD
Estimated Population	435	2,813	872	5,646
Number of Lots	123	672	247	1,348
Number of Additional Suited Lots	38	370	76	743
Average Dry Weather Flow (m ³ /day)	335	1,189	555	2,350
Peak Dry Weather Flow (m ³ /day)	662	2,924	1,174	5,449
Contributing Area (ha)	73.73 ^a	240.07 ^a	85.41	281.71
I&I Contribution (m ³ /day)	1,784	5,956	2,066	6,815
Peak Wet Weather Flow (m ³ /d)	2,445	8,731	3,240	12,264

^a Assuming the whole commercial area and half the recreational area will be developed in this time frame. Lands not owned, agricultural parcels, Municipal and Environmental Reserves are not included in the contributing area.

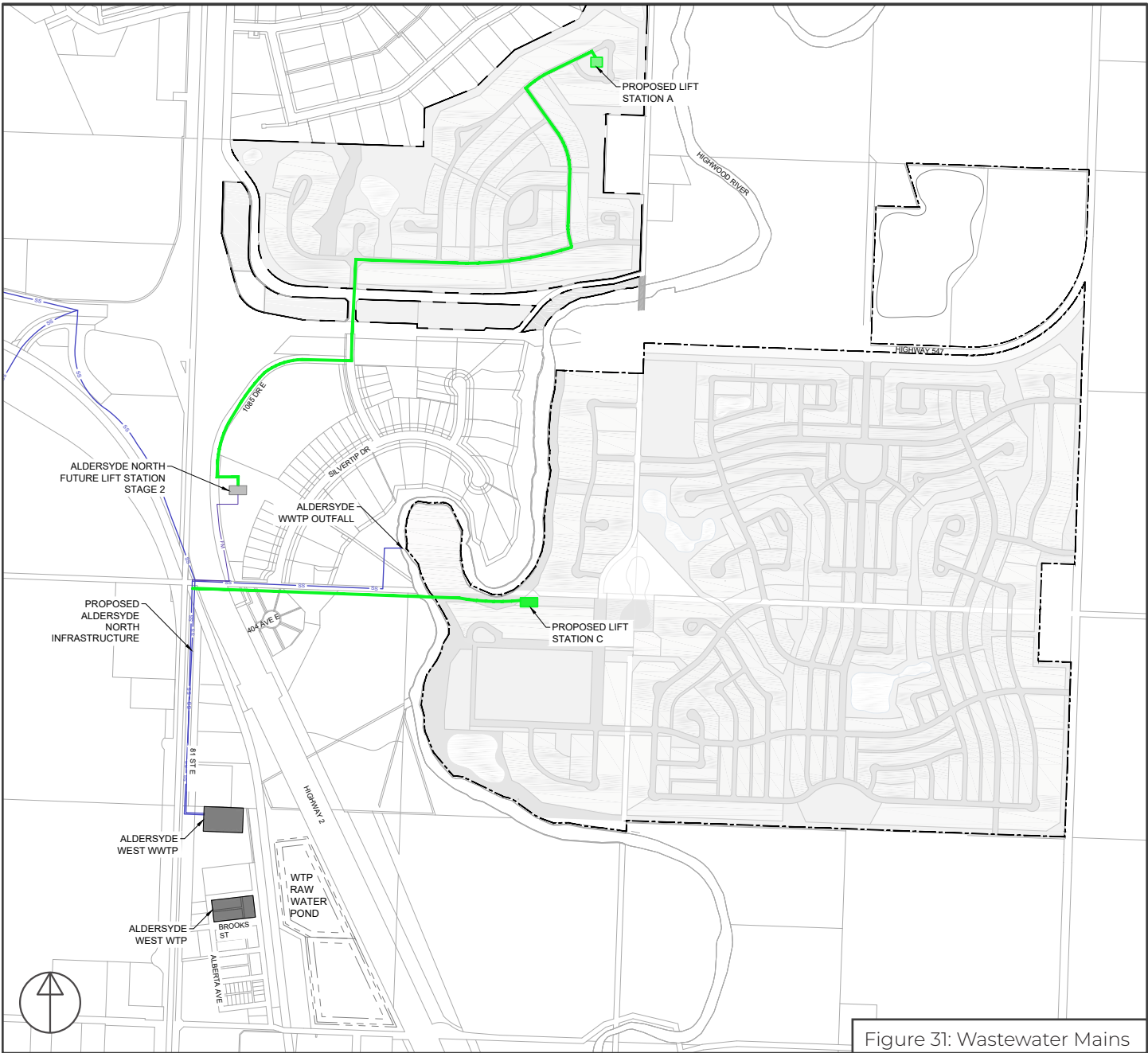


Figure 31: Wastewater Mains

LEGEND

- Proposed North Aldersyde Infrastructure
- Sanitary Connection Lines
- Proposed Lift Station A
- Proposed Lift Station C
- Aldersyde West WWTP
- Aldersyde West WTP

To service Stage 1 and Stage 2 of the proposed development within the Plan Area, the capacity of the proposed WWTP will need to be increased as per the values in **Table 7: WWTP Capacity Assessment for Stage 1**, and **Table 8: WWTP Capacity Assessment for Stage 2**. The flows discussed in the capacity assessments only consider the users connected to the existing County water distribution infrastructure system. Further developments to Aldersyde North will, in return increase the capacity requirements for the WWTP to accommodate the flows from both the North and East.

The WWTP capacity can be increased and constructed at Aldersyde North at a capacity to accommodate the combined flows from Aldersyde North and Stage 1 of the Plan Area developments. The WWTP can further be expanded as needed to meet the demands as development occurs in both the Plan Area and Aldersyde North since WWTP treatment capacities can be increased to meet growing flows through the addition of more treatment trains that provide the required capacity. However, the ultimate sizing of components such as footprints and layout will need to be considered at the early stages of design.

Table 7: WWTP Capacity Assessment for Stage 1

CAPACITY	FLOW-WATER SERVICE USERS (NORTH)	FLOW - EAST ROWLAND	FLOW - EAST HIGHFIELD	COMBINED FLOW (EAST + NORTH)	CURRENT APPROVAL CAPACITY	REQUIRED ADDITIONAL CAPACITY
WWTP Average Daily Flow (m ³ /day)	665 ^a	355 - 378	1,189 - 1,471	2,209 - 2,514	850	1,404 - 1,709
WWTP Maximum Daily Flow (m ³ /day)	1,200 ^a	662 - 836	2,924 - 3,899	4,786 - 5,935	1,530	3,286 - 4,405

^a Based-on users in Aldersyde North currently connected to the existing County water distribution infrastructure system.

Table 8: WWTP Capacity Assessment for Stage 2

CAPACITY	FLOW-WATER SERVICE USERS (NORTH)	FLOW - EAST ROWLAND	FLOW - EAST HIGHFIELD	COMBINED FLOW (EAST + NORTH)	CURRENT APPROVAL CAPACITY	REQUIRED ADDITIONAL CAPACITY
WWTP Average Daily Flow (m ³ /day)	665	555-642	2,350 - 2,914	3,570 - 4,221	850	2,720 - 3, 371
WWTP Maximum Daily Flow (m ³ /day)	1,200	1,174 - 1,508	5,449 - 7, 253	7,823 - 9,961	1,530	6,293 - 8,431

C) EXISTING COMMUNITIES

Silver Tip community currently relies on private septic for sewage disposal. If there is a future request for Silver Tip to tie to the Plan Area this can be accommodated by oversizing the Highfield lift station. Silver Tip sits at an elevation approximately 5 metres higher than the Highfield lift station, therefore flows would be able to be directed to this lift station via gravity.

If there is a future request for the Ravencrest community to tie to the Rowland Acres Plan Area waste water system (municipal infrastructure), it may be subject to capacity and municipal approval and will not be funded by the Developers.



D) TREATED EFFLUENT DISCHARGE

Treated effluent from the wastewater treatment plant in Aldersyde is proposed to be pumped north via a 375mm HDPE pipe to an outfall dispersal system located downstream of the raw water intake. The effluent discharge will be maintained as a part of the overall Foothills County water and wastewater system.

POLICIES

Policy 13.3.1

The Developer shall be responsible for all costs and studies, and/or attributable off-site levies, necessary to expand and/or upgrade the wastewater utility system capacity to service the ASP Plan Area, including Water Act and Environmental Protection and Enhancement Act approvals to satisfaction of the Municipality and the provincial regulatory approvals agencies.

Policy 13.3.2

All new development shall connect to a piped wastewater collection system to the satisfaction of Foothills County and/or the applicable provincial regulatory body.

Policy 13.3.3

The Developer shall prepare a wastewater servicing study, included in the Servicing Report, at the Land Use and Outline Plan stage, subdivision applications and/or development permit applications stage to determine wastewater demand and wastewater infrastructure required to meet that demand is in place.

Policy 13.3.4

The Developer will execute development agreements to the satisfaction of the Municipality for the construction of all required on site utility infrastructure, including that required for wastewater.

Policy 13.3.5

The Developer will execute development agreements to the satisfaction of the Municipality for the construction of all necessary off-site utility infrastructure required to service this development, and/or payment of off-site levies associated with the development of off-site utility infrastructure which will benefit the development.

Policy 13.3.6

Land Use and Outline Plan applications relying on piped utility services shall not be supported until the Municipality has confirmed wastewater servicing capacity exists or will be provided in support of the application.

Policy 13.3.7

Sump pumps and stormwater drainage systems shall not be connected to the wastewater system.

Policy 13.3.8

Should the location of the wastewater treatment plant and other infrastructure associated to wastewater feeder mains, lift stations, and utility servicing be revised over time, an amendment to the ASP may required at the discretion of Foothills County.

Policy 13.3.9

Opportunities for potential future connections for wastewater servicing from ASP extending to existing communities, within close proximity to the ASP, should be considered in the Land Use and Outline Plan stage servicing plans at the appropriate stage of development. Future connections for existing communities are at the full discretion of Foothills County and may be at the sole cost of the existing community.

13.4 Stormwater Management

A Preliminary Stormwater Management Plan was prepared which describes and supports the stormwater management pond locations and principles prescribed in the ASP Plan Area. From a stormwater catchment perspective, the Plan Area is divided into two overall subcatchments by the Highwood River that runs from south to north towards the Sheep River. The west side slopes from the west to east, from an approximately average elevation of 1037 m along Highway 2 to an approximately average elevation of 1019 m at the Highwood River. The east side slopes from east to west from an approximately average elevation of 1049 m along the east boundary to an approximately average elevation of 1019 m at the Highwood River.

Figure 10: Land Use Concept identifies Public Utility Lots (PUL) for stormwater retention as identified in the Preliminary Stormwater Management Plan prepared in support of the ASP. It is recognized that development of the Plan Area over time will cause an increase in imperviousness and therefore, runoff volumes and peak flows from the site will increase. Also, water quality will be affected by the changes in the land use composition of the catchment area; however, the proposed Low Impact Development (LID) techniques listed below, will reduce the runoff volume and enhance the water quality of the runoff from the development. Given the size of the site, potential discharge to the river may possibly require four (4) new outfalls; two (2) on each side of the Highwood River.

The management of stormwater under post development conditions will include an overland drainage system (runoff conveyance) with culverts for vehicle crossings. In areas of high density, lots smaller than 0.5 ac, a dual storm system (underground pipe and overland) will be required. The development of these drainage system components will require a hydro-technical analysis to ensure that the conveyance system is capable of routing runoff generated from a 1:100 year design storm event. It is also recommended that LID strategies (described in **Section 13.5**) be integrated for which the site is well suited for.

POLICIES

Policy 13.4.1

Management of the stormwater shall not exceed pre-development runoff discharge, both volume and peak discharge. The analysis supporting such a stormwater management strategy shall be undertaken using a continuous simulation, Water Balance Model approach and needs to consider impact on the Highwood River.

Policy 13.4.2

Prior to Land Use and Outline Plan approval where a stormwater management facility is proposed, the Developer shall submit a detailed Stormwater Management Plan that is consistent with the Preliminary Stormwater Management Plan that also addresses operations and maintenance, a conceptual design plan, a landscape plan, a preliminary grading plan, and any other information determined to be necessary by the Municipality to evaluate the proposed facility.



13.5 Low Impact Development Strategies

Low Impact Development (LID) techniques work alongside natural processes and systems to create a healthy landscape, defining characteristic features through environmental responsibility. Their organization and location is a principal element of Open Space strategies and an overall conservation focused design. Please see **Appendix E: Low Impact Development Strategies** for visualizations of these techniques.

LID design can be achieved via the replication of surrounding natural landscapes. The introduction of native plants that require minimal watering needs to the entirety of the Plan Area will allow for increased ecological integrity and a natural system that can better deal with the ebbs and flows of the Highwood River. It is also achieved by placing minimal anthropogenic impact on natural areas. Therefore, trails in Municipal and Environmental Reserves should be kept as informal as possible to allow for ground permeation. Land will be used conscientiously in the ASP Plan Area through the open space plan layout serving a dual purpose of buffering adjacent land uses while providing recreation opportunities for residents.

LID design in the Plan Area will also aim to control runoff rates and volumes. Following is a list of recommended LIDs to reduce the impact of the proposed development in the environment, more specifically will help control the runoff volume, peak discharge and at the same time enhancing the quality of the runoff:

A) LOT LEVEL

- Direct downspouts to grassed surfaces;
- Collect roof runoff into rain barrels or cisterns for landscape irrigation;
- Rain gardens as part of the lot landscape;
- Bio-retentions as part of the lot landscape;
- Maintain a minimum of 300 mm of topsoil on the lots;
- Stormwater reuse in the form of irrigation of public green spaces.

B) CONYENYANCE-SYSTEM

Conveyance of runoff should be via vegetated channels (road ditches) to allow some level of groundwater recharge and to allow the vegetation to filter sediments that may be carried by the runoff from hard surfaces; Strategically placed stormwater facilities (wet ponds) that in combination with the existing wetlands will enhance evaporation, infiltration, and will help improve water quality and reduce runoff volume, preliminary location of these ponds is shown on **Figure 10: Land Use Concept**.

POLICIES

Policy 13.5.1

Low Impact Development strategies shall be applied across all land uses in the ASP Plan Area as part of an integrated stormwater management approach in order to maximize the growth and strength of the landscape through stormwater retention techniques to the satisfaction of Foothills County.

Policy 13.5.2

Low Impact Development strategies shall be incorporated in the detailed Stormwater Management Plan at the Land Use and Outline Plan stage to the satisfaction of Foothills County.



13.6 Shallow Utilities

Significant electrical power and natural gas upgrades will be required to service the ASP.

Electrical service for ASP Plan Area shall be provided by Fortis Alberta. Electrical upgrades will require a three phase power connection to the north south line running along the east side of Highway 2. A future underground three phase line will service Rowland Acres. A three-phase transformer will be required at the future Rowland Acres lift station. The northern portion of Highfield will be serviced via an upgraded three-phase overhead line on an existing alignment running from west to east from Aldersyde. The southern portion of Highfield will be serviced from an upgrade to existing single-phase lines to three-phase power on the alignment just north of 1085 Drive E and east along the undeveloped 402 Avenue E right of way.

Natural gas service for the lands west of the Highwood River will be provided by ATCO Gas. A gas feeder connection at 81 Street East south of Ravencrest will be required to provide Rowland Acres with access to natural gas service. Highfield will be serviced by a gas feeder from Aldersyde across Highway 2. There is potential that a pressurization station within these lands will be required in order to service the full development.

POLICIES

Policy 13.6.1

Development in the ASP Plan Area shall be serviced by shallow utilities including electricity, gas, cable, telephone, and high-speed internet, to be installed at the sole expense of the Developer to the extent required in the Standard Development Agreement. Any upgrades required for shallow utility service shall be the responsibility of the Developer to the satisfaction of the Municipality.

Policy 13.6.2

The location of all shallow utilities and the provision of rights-of-way and easements and related line assignments should be addressed to the mutual satisfaction of the Municipality, the Developer and the utility companies.

Policy 13.6.3

Utility rights-of-way and easements, public utility lots and road rights-of-way may be required as determined necessary to facilitate orderly and sequential development. The Developer may be required to provide the utility rights-of-way or easements necessary to accommodate the extension of Municipal utilities through or adjacent to a site to allow for its servicing.

13.7 Emergency Services

Emergency services within the ASP Area include fire, EMS and protective service needs. While Fire is discussed in **Section 9.4** and fire services will be provided via a new fire hall in the Highfield Neighbourhood, police response is from local Royal Canadian Mounted Police (RCMP) detachments. The High River Detachment responds to anything that would occur on the lands East of the River and the Okotoks Detachment would respond to anything that would occur on the lands West of the River. As growth and development occurs within the ASP Plan Area, the Developer needs to ensure an appropriate and efficient level of fire and protective service is made available for current and future residents in order to provide a safe and liveable community.



POLICIES

Policy 13.7.1

At the Land Use and Outline Plan stage, the Developer, in association with Municipal Fire Services, the RCMP, and other emergency service providers, needs to ensure an adequate level of service shall be provided to meet current and future needs based on projected population growth and demographic change in the Outline Plan Area.

Policy 13.7.2

All development within the ASP Plan Area shall provide fire suppression in accordance with Municipal Servicing Standards.

Policy 13.7.3

Policing will be provided by the RCMP as per the Provincial Police Service Agreement, until such time as another policing solution is required or sought out.

Policy 13.7.4

At the Land Use and Outline Plan stage, the Outline Plan shall address emergency management, fire and protection response measures, as well as on-site firefighting requirements through consideration of such factors as efficient road design, safe and efficient access for emergency service vehicles, hydrants, efficient access for emergency egress, wild-land fire protection, and fire control measures to the satisfaction of the Municipality. This may take the form of a risk and/or needs assessment to the satisfaction of Foothills County.

Policy 13.7.5

Crime Prevention Through Environmental Design (CPTED) features should be considered and incorporated into the design and construction of all new development wherever possible.

14.0 PHASING STRATEGY

As outlined in *Figure 32: Phasing Strategy*, there is a general phasing of identified Neighbourhood cells. The following outlines the proposed phasing strategy for the orderly development of the ASP lands over the next 20 to 30 years. A significant amount of new infrastructure will be required to service the ultimate development of the Plan Area.

Development sequencing from an infrastructure perspective is based upon the following criteria:

- Drainage and topography
- Boundary conditions
- Road access
- Looped water distribution
- Gravity sewer connection to lift station
- Shallow utilities, power and gas
- Minimizing off-site costs

The purpose of the phasing strategy is to outline the ideal sequencing of development of the Plan Area from a servicing standpoint. From an infrastructure perspective, the ability to service a proposed development phase will depend upon the availability of the required infrastructure and the cost to develop the infrastructure, therefore, there may be some variance in phasing. Having an idea of infrastructure phasing aids in attaining an estimate of housing build out over the twenty-five to thirty year time frame.



POLICIES

Policy 14.0.1

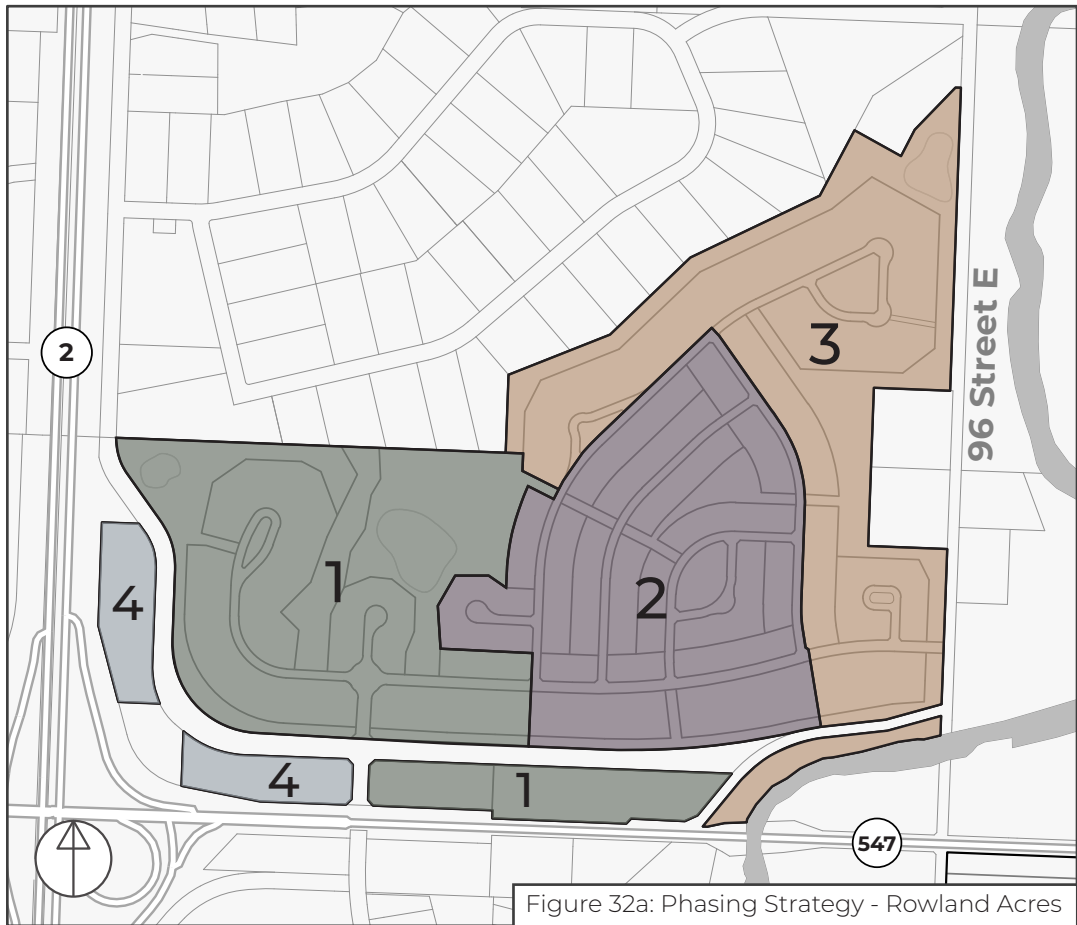
The Developer shall detail the phasing strategy at the Land Use and Outline Plan stage to the satisfaction of Foothills County.

Policy 14.0.2

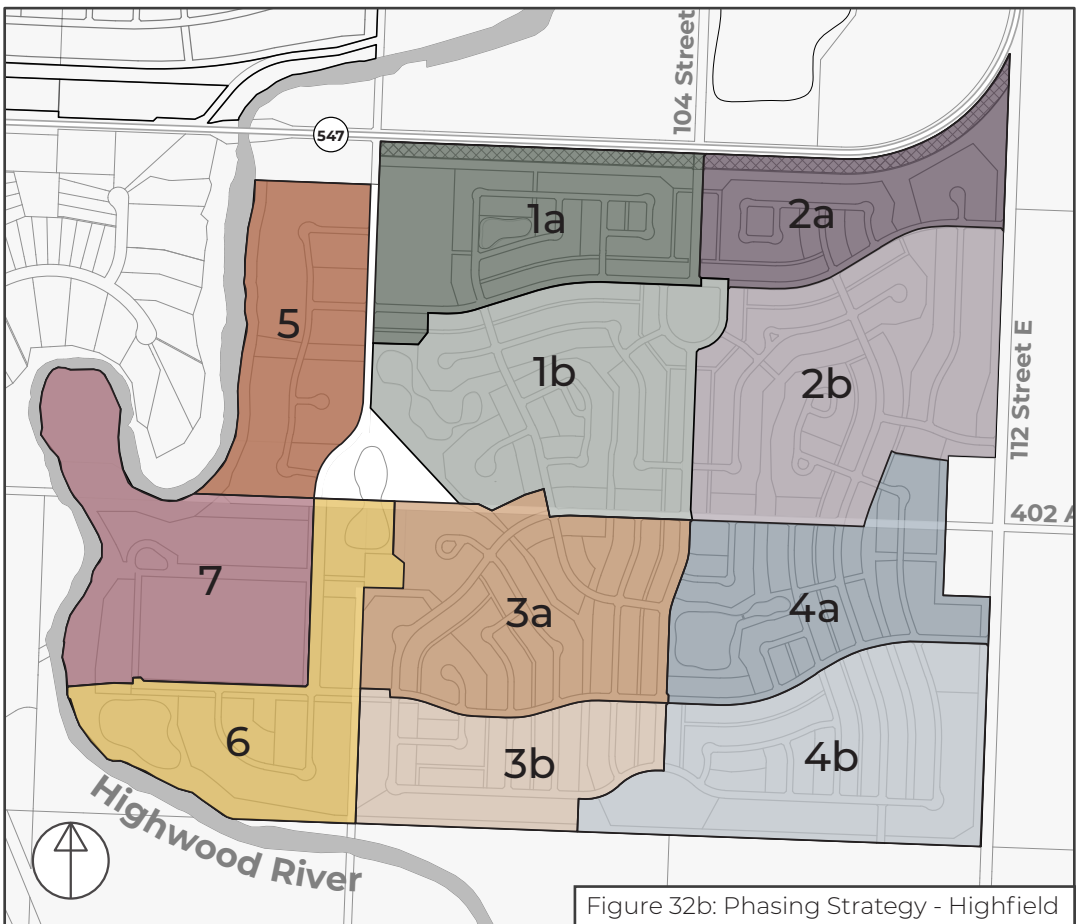
The ASP shall be developed in accordance with a phasing strategy, as outlined on *Figure 34* and be aligned with available servicing capacity. The timing of development in any phase shall be at discretion of the Developer.

Policy 14.0.3

The Land Use and Outline Plan for any stage may include breaking phases down further or, conversely, simultaneous development of phases based on current economic and market conditions. This may occur without further amendment to the ASP at the discretion of the Municipality.



- LEGEND
- Phase 1
 - Phase 2
 - Phase 3
 - Phase 4



- LEGEND
- Phase 1a
 - Phase 1b
 - Phase 2a
 - Phase 2b
 - Phase 3a
 - Phase 3b
 - Phase 4a
 - Phase 4b
 - Phase 5
 - Phase 6
 - Phase 7

14.1 Projected Population

There are a number of dwelling construction milestones over a 20 to 30 year build out period that inform the population projections for the Plan Area. The 2021 Canadian Census indicated that there was an average of 2.9 persons per private household in the Foothills County. The persons per private household reflects an average person per dwelling number and is multiplied by the average number of lots to obtain an estimate of the population over the build out period at certain milestones. The milestone and population projections are estimates and market demand, build out and County approvals over time will determine the actual pace of development. These projections are required by statute and are considered approximate based on the approved density range as outlined in **policy 6.3.1**.

Table 9: Population Statistics Within the Plan Area

ESTIMATED PROJECTED POPULATION			
2.5 UPA		5.0 UPA	
ROWLAND ACRES	HIGHFIELD	ROWLAND ACRES	HIGHFIELD
Estimated Population		Estimated Population	
1980	6152	3961	12,304
Number of Units		Number of Units	
683	2121	1366	4243

15.0 PLAN IMPLEMENTATION, REVIEW, & AMENDMENT

This section contains policy necessary for plan implementation including Plan Adoption and Amendment, Timeframe of the Plan, Monitoring and Review, Plan Amendments, and Public Consultation, in addition to requirements associated with future approvals.

15.1 Plan Adoption & Amendment

The Highfield and Rowland Acres ASP falls within a hierarchy of applicable plans including the Municipal Development Plan (MDP), CMR Growth Plan, the Foothills County Growth Management Strategy and the Foothills County Land Use Bylaw. Development in the Plan Area is required to be consistent with the policy contained in this document. The ASP does not supersede, repeal, replace, or otherwise diminish any other statutory plan in effect in the Plan Area.

POLICIES

Policy 15.1.1

The policies contained within this document shall be reviewed and applied by Foothills County at their discretion.

Policy 15.1.2

Given that the Highfield and Rowland Acres ASP is adopted by bylaw, a formal process as outlined in the Municipal Government Act is required to amend the Plan.

15.2 Timeframe of the Plan

The Highfield and Rowland Acres Area Structure Plan is a long-term planning document that establishes the vision and framework to guide development over an extended period and outlines a series of private sector initiatives and investments that enhance local and regional infrastructure to the benefit of the County. The timeframe for full build-out of the Plan Area is 20 to 30 years, dependent on the expansion and delivery of servicing within the Plan Area and market rate absorption.

15.3 Monitoring & Review

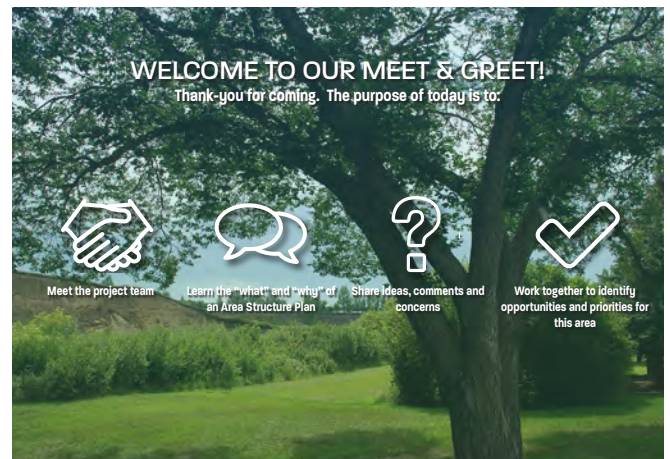
The policies within the Highfield and Rowland Acres Area Structure Plan will be monitored over time in relation to the MDP and other guiding policies to ensure they remain current and relevant. Where determined necessary, the policies of the ASP will be updated through the Foothills County's amendment process either generally or in response to a specific issue. The project will be staged and phased, and there will be future public hearings at the land use stage as the project progresses over time, in order to ensure that the Developer is meeting the objectives of the ASP and also their commitments to the County as a willing partner in the process.

15.4 Plan Amendments

Amendments to this ASP may be required from time to time and shall be undertaken to the satisfaction of the County. Unless otherwise specified in this document, any change to the text or maps may require an amendment, in accordance with the MGA and as may be determined necessary by the County. Where an amendment to the Plan is requested in relation to a County or development-related initiative, the supporting information necessary to evaluate the potential amendment must be submitted to the County for review.

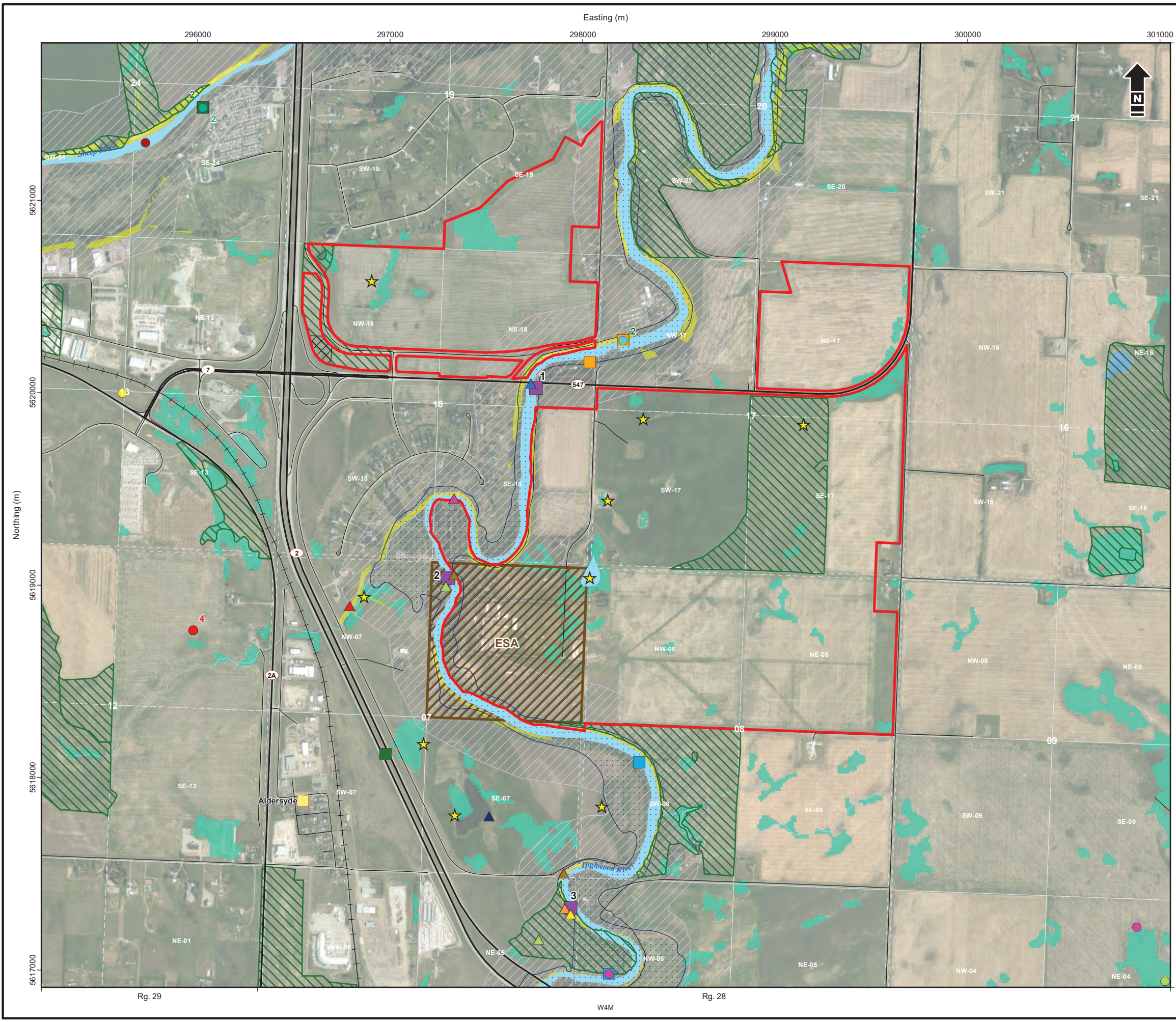
15.5 Community Engagement

A robust community engagement process was undertaken during the creation of the Highfield and Rowland Acres ASP. The overarching goal of the public consultation program was to effectively engage with the public and stakeholder groups to raise awareness of the plan, encourage participation and feedback on its details, and ultimately gain overarching support for the resulting Highfield and Rowland Acres Area Structure Plan. The public consultation program integrated an array of feedback mechanisms that allowed both event attendees and those who could not attend the opportunity to provide their thoughts and concerns to the project team in a variety of ways. The Project Team aimed to be transparent, inclusive, responsive, and timely throughout the process to build community and stakeholder trust. **Appendix G: Community Engagement Details** outlines the engagement strategies applied during the consultation process and graphically displays the most common feedback, both positive and negative, received by the planning team at all Open House events.



APPENDIX A

BIOPHYSICAL CONSTRAINTS IN THE PLAN AREA



- Project Area
- Community
- Federal Provincial Jurisdiction
- Environmentally Significant Area (ESA)
- GVI (> 85% Native Upland)
- Flood Hazard Protection Overlay Area*
- Slope > 15 Degrees
- Key Wildlife and Biodiversity Zone
- Highway
- Road
- Railway
- Riparian Setback Calculation Location
- ★ Field Verified Wetland
- Alberta Merged Wetland Inventory**
- Marsh
- Open Water
- Altalis Water Feature**
- Water Body
- Watercourse
- Species at Risk (FWMIS)**
- Barn Swallow (1)
- Burrowing Owl (4)
- Great Blue Heron (2)
- Green-Winged Teal (3)
- Northern Leopard Frog (3)
- Northern Pintail (2)
- Osprey (1)
- Plains Garter Snake (1)
- Red-Sided Garter Snake (2)
- Wandering Garter Snake (3)
- 2016 Species at Risk and Raptor Observation**
- ▲ Eastern Kingbird (1)
- ▲ Great Blue Heron (1)
- ▲ Osprey (1)
- ▲ Swainsons Hawk (1)
- ▲ Cooper's Hawk (1)
- ▲ Red-tailed Hawk (2)
- 2016 Important Wildlife Habitat Observation**
- ▲ Bank Swallow Colony (2)
- ▲ Cliff Swallow Colony (1)

Notes:
 The entire map extent is within the Sharp-Tailed Grouse Range and Sensitive Raptor Range for Bald Eagle, Ferruginous Hawk, Golden Eagle, and Prairie Falcon.
 Some 2016 Species at Risk and Raptor Observations are offset to enable better visibility on the map.
 *The Flood Awareness Map Application available at: https://floods.alberta.ca/?app_code=FI&mapType=Draft should be reviewed to accurately identify the current extent of flood mapping available in the project area.

Reference: Flood Hazard Protection Overlay Area provided by the client January 5, 2023. Data obtained from Altalis © Government of Alberta used under license. Environmentally Significant Areas data obtained from Fiera Biological Consulting Ltd. used under license. Grassland Vegetation Inventory obtained from Government of Alberta used under license. Alberta Wildlife Sensitivity data obtained from Government of Alberta used under license. Federal Provincial Jurisdiction obtained from the Government of Alberta used under license. GDM transportation infrastructure data provided by IHS © 2023 used under license. Imagery (2021) Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community.

1:20,000 metres
 200 0 200 400
 NAD 1983 UTM Zone 12N



Township Planning + Design Inc.
 Aldersyde East Biophysical Assessment

Biophysical Constraints in the Aldersyde East Project Area

Date: March 2023 Project: 23829 Submitter: K. Makos Reviewer: K. Ostermann

Disclaimer: The information contained herein may be compiled from numerous third party materials that are subject to periodic change without prior notification. While every effort has been made by Matrix Solutions Inc. to ensure the accuracy of the information presented at the time of publication, Matrix Solutions Inc. assumes no liability for any errors, omissions, or inaccuracies in the third party material.

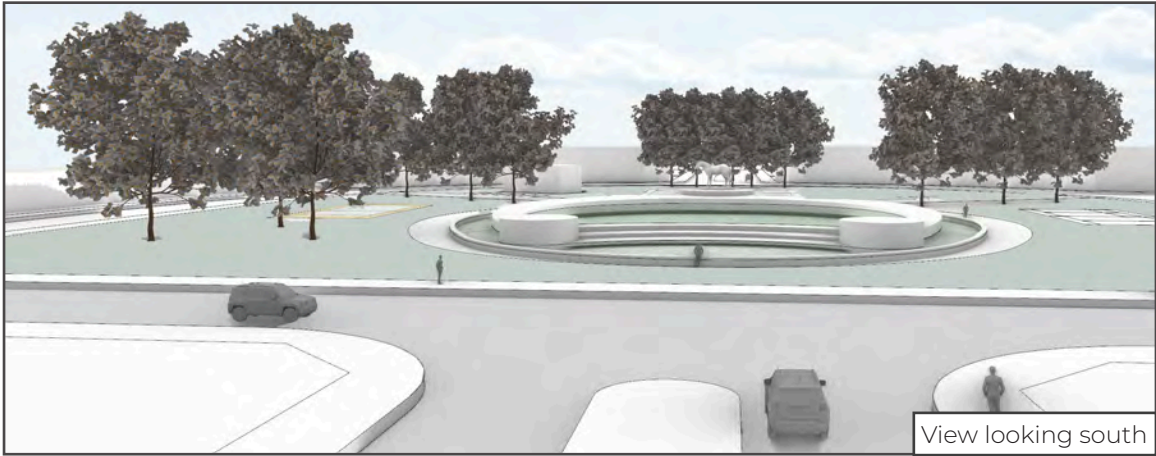
I:\TownshipPlanning\AndDesign\23829\FiguresAndTables\BA\2023\Report\Figures\2_Biophysical_Constraints_in_the_Aldersyde_East_Project_Area.mxd, Tabloid_L, 28.Mar.23, 11:32 AM, slyam, T10005

APPENDIX B

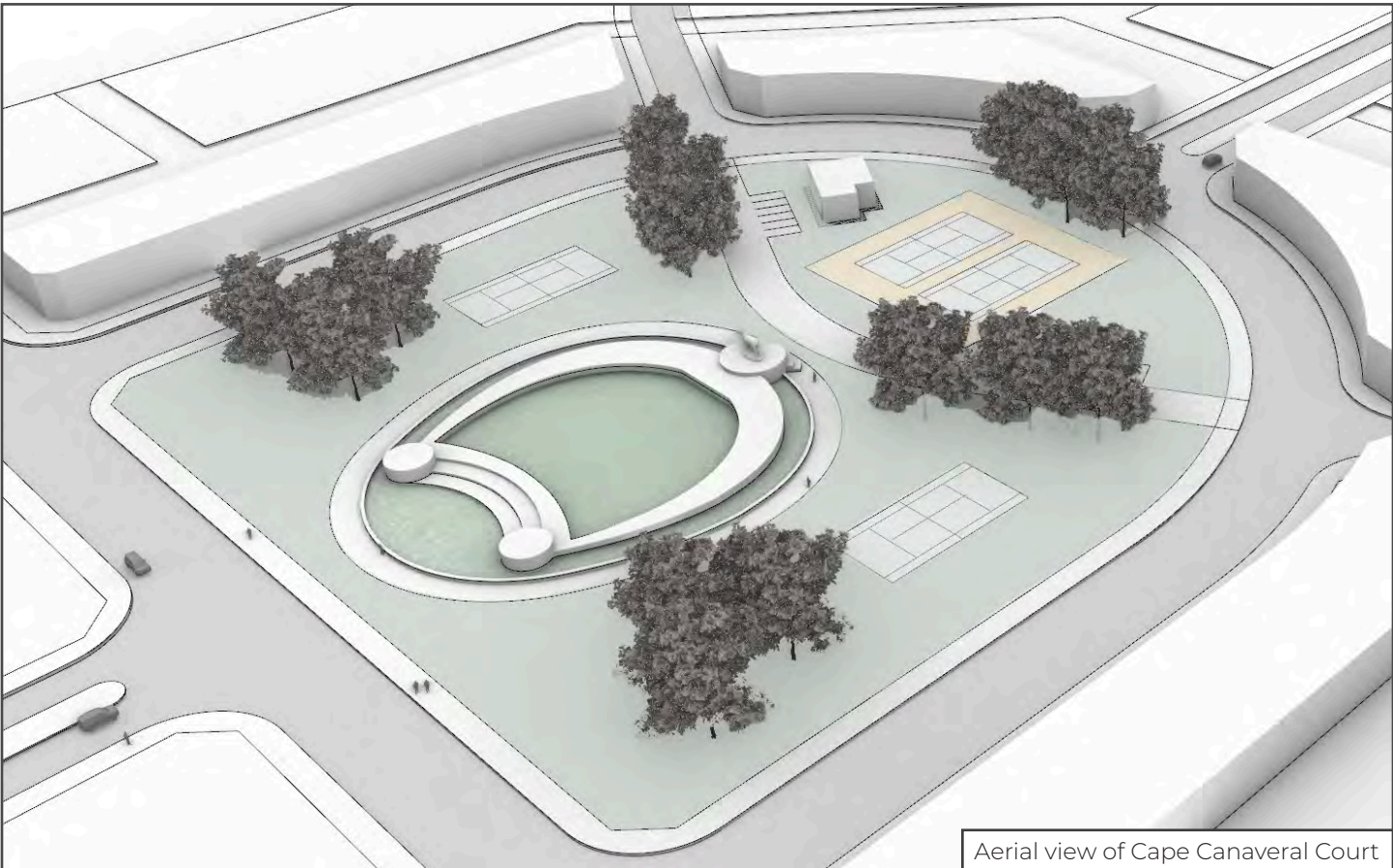
CAPE CANAVERAL COURT CONCEPTUAL GRAPHICS



View looking northeast



View looking south



Aerial view of Cape Canaveral Court

APPENDIX C

FED BIZ PARK CONCEPTUAL GRAPHICS



APPENDIX D

MISSY'S PLACE CONCEPTUAL GRAPHICS



APPENDIX E

LOW IMPACT DEVELOPMENT STRATEGIES



Downspout disconnection involves directing rainwater runoff from a roof to a permeable surface that will allow water to infiltrate into the ground. This permeable surface is typically a vegetated area with good infiltration that is "disconnected" from a direct path to a storm sewer.



Building parking lots, driveways and roads using permeable pavement helps to restore natural infiltration to the landscape and reduce impacts to watercourses by allowing rainwater to slowly infiltrate into the ground. Some contaminants are removed from the stormwater as it infiltrates slowly through the gravel sub-base and into the native soil.

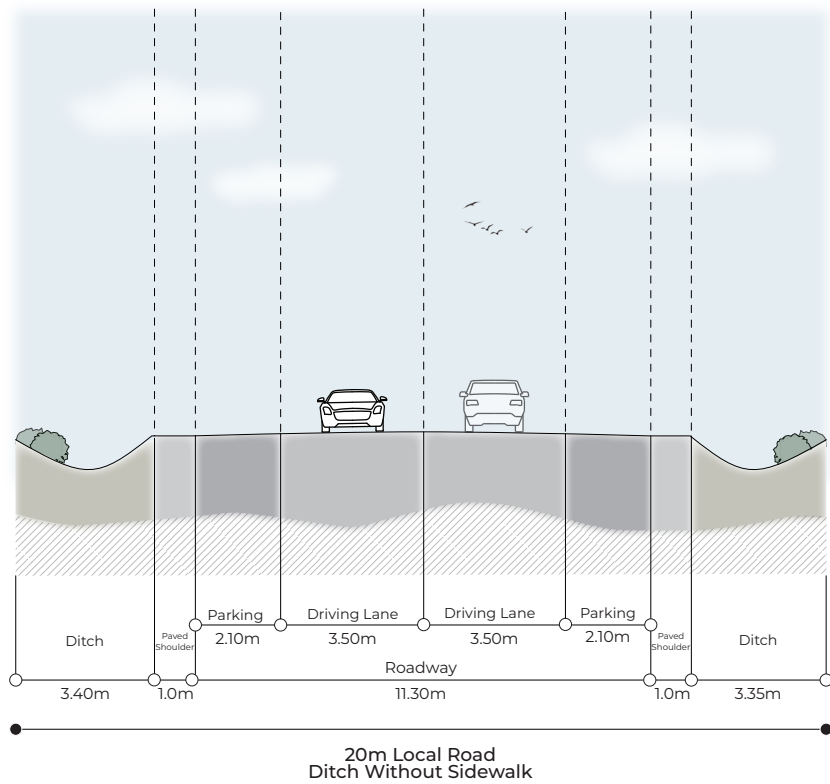
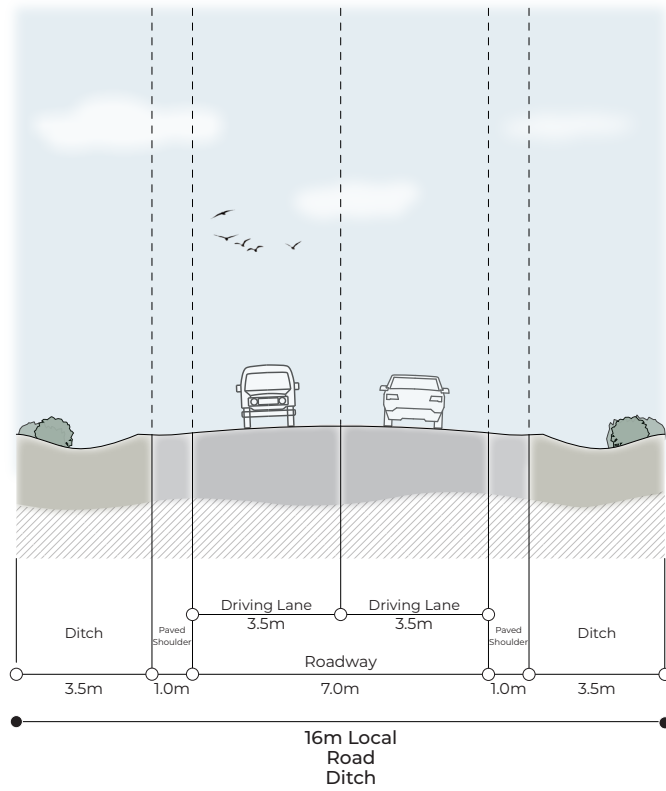
Bioretention is a stormwater infiltration practice that treats runoff from paved areas by using the natural properties of soil and vegetation to remove contaminants. Other names commonly used for these types of practices include rain gardens, bioswales, dry swales, stormwater planters and biofilters. This practice has the potential to provide significant improvements in contaminant removal over other stormwater infiltration practices due to the added treatment benefits of microbial activity and plant uptake. By increasing infiltration and evapotranspiration, bioretention systems also help to recharge groundwater and reduce pollutant loads to watercourses.

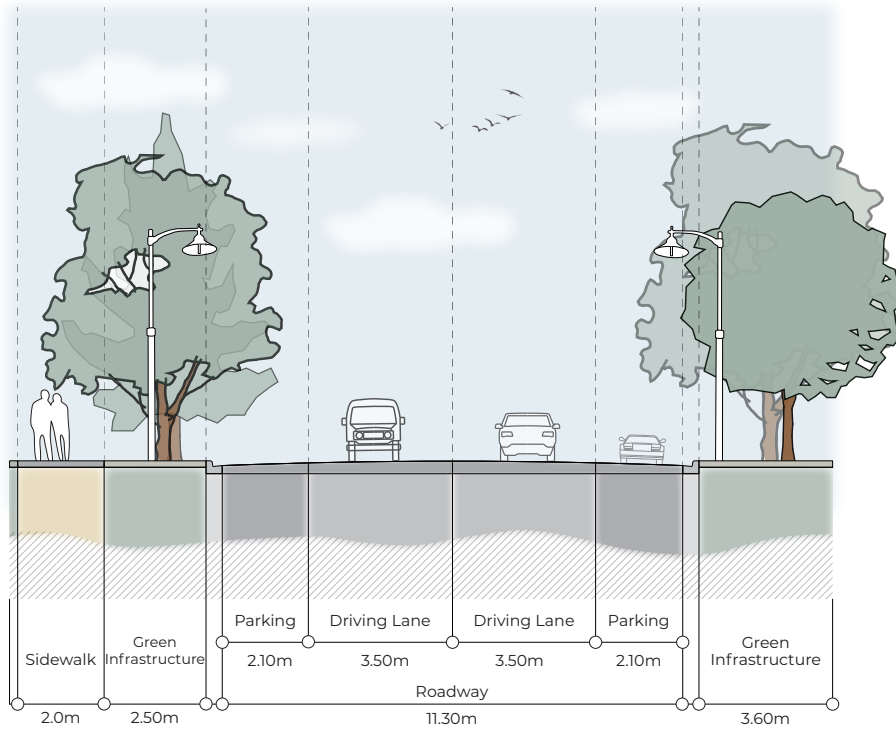


Enhanced grass swale is a vegetated channel that is designed to collect, transport, treat and reduce stormwater runoff. Vegetation in the swale and check dams slow down the flow of water in the channel and allow for sedimentation, filtration of pollutants in the water, and infiltration into the underlying soil. A dry swale is similar to an enhanced grass swale, but it also includes a soil filter media bed and optional perforated pipe underdrain which increases the rate of infiltration

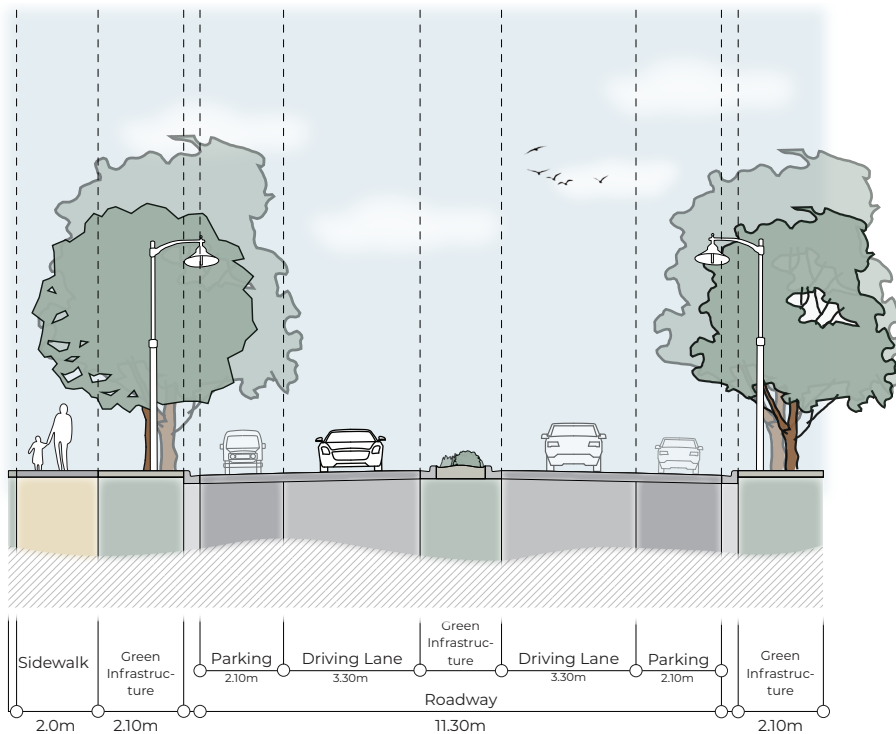
APPENDIX F

INTERNAL ROAD NETWORK CROSS SECTIONS

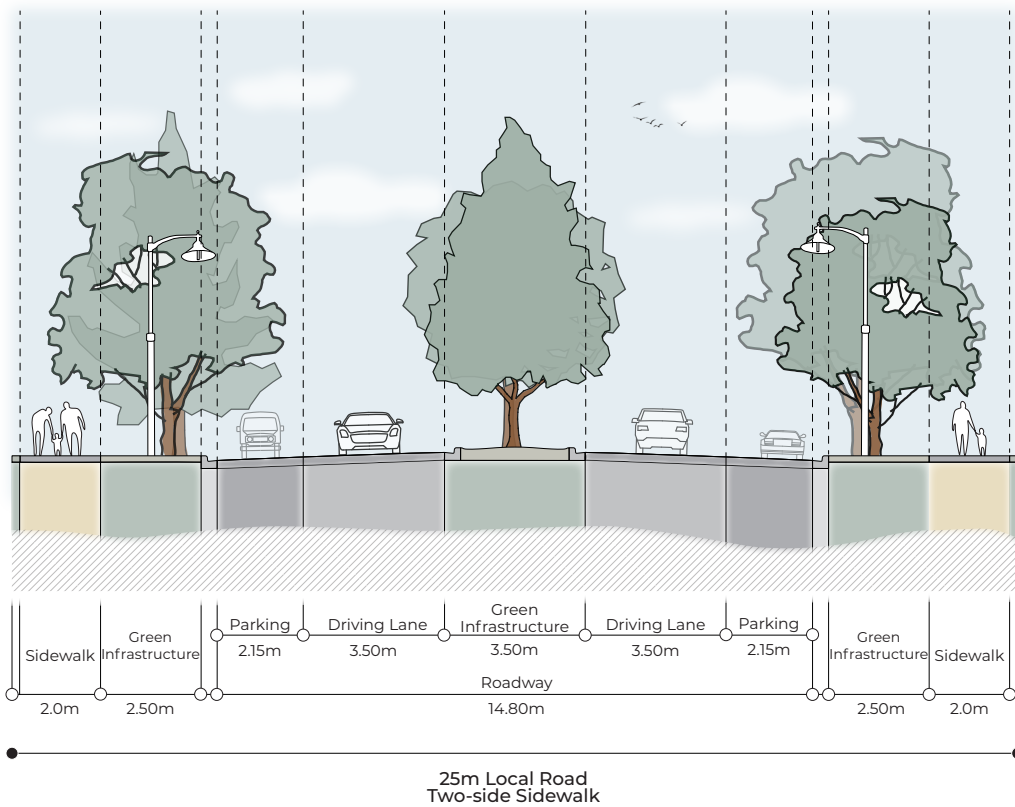
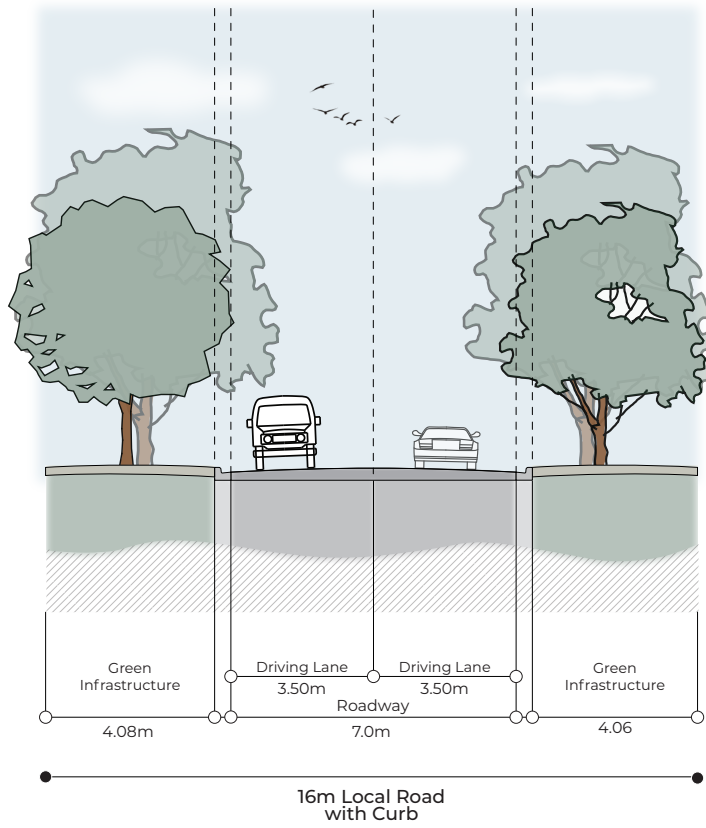


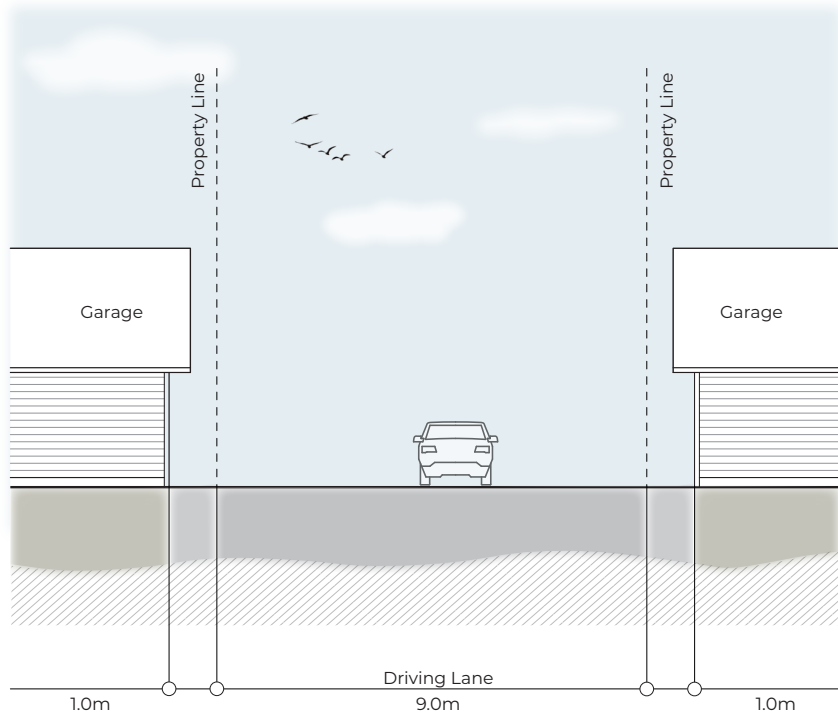


20m Local Road
One-side Sidewalk



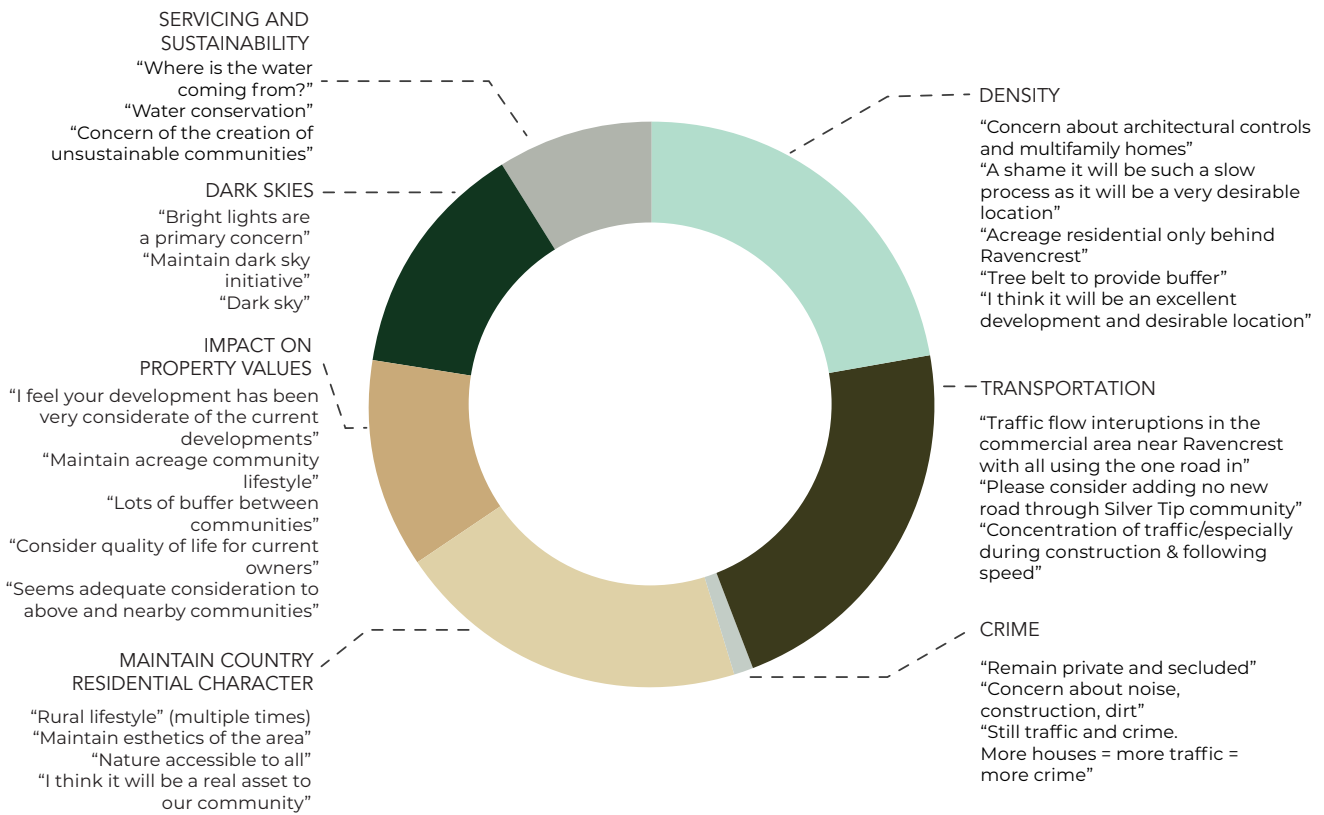
20m Local Road
Median + One-side Sidewalk





APPENDIX G

COMMUNITY ENGAGEMENT SUMMARY



Website



2,676 total visits
 2,042 audience size
 8 response forms submitted
 Advertising for all open houses

Individual Landowner Meetings



4 meetings with community landowners.

Newspaper Ads



Newspaper ads in the Western Wheel 2 weeks prior of all Open Houses.

Dedicated Phone



3 calls received.

Community Member Meetings



Ravencrest Homeowners Association 2017.01.23
 Silvertip Homeowners Association 2016.11.16

Working Group Meetings



15 meetings
 Landowners/Developers
 M.D. of Foothills Staff
 Ravencrest Community Representative
 Strategic Partners (Transportation,

Mailouts



Mailers 2 mile radius around site 2 weeks prior of Open House 1, 2 and 4.

Working Group Meetings



15 meetings
 Landowners/Developers
 M.D. of Foothills Staff
 Ravencrest Community Representative
 Strategic Partners (Transportation, Engineering)

Open Houses



1 2016.09.26
 109 Attendees
 53 Feedback Forms

2 2016.12.01
 73 Attendees
 15 Feedback Forms

3 2017.03.16
 63 Attendees
 3 Feedback Forms

4 2017.04.13
 50 Attendees
 3 Feedback Forms

5 2017.09.14
 65 Attendees
 6 Feedback Forms



prepared by:

TOWNSHIP
planning + design inc.