



• STAGE 1 •
NEIGHBOURHOOD STRUCTURE PLAN





LANARK AIRDRIE

STAGE 1 • NEIGHBOURHOOD STRUCTURE PLAN

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← March 2022

Submitted to:
THE CITY OF AIRDRIE



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← **Add Urban Systems Ltd. and ISL
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Executive Summary



Melcor Developments Limited (“Melcor”) is embarking on the development of a new community in southeast Airdrie called Lanark. Located directly adjacent to King’s Heights and Ravenswood in a well-defined growth area, Lanark Stage 1 will logically integrate servicing from these existing communities through the approved Southeast Airdrie Community Area Structure Plan (“CASP”).

Planning for Lanark began with City administration as early as 2013. Through this process Melcor developed a master planned community, which includes the subject Stage 1 lands and 320 acres owned by Melcor in the newly annexed lands directly to the east. While Lanark Stage 1 is being proposed today; the long term vision is for Stage 1 to form part of a larger innovative and sustainable community once servicing is approved for the adjacent land holdings in the annexation area. Due to the timing of these broader City utility strategies, Melcor is seeking Neighbourhood Plan and Land Use approval for Lanark Stage 1 in order to allow development of Lanark to proceed in a logical and integrated manner over time.

The Lanark Neighbourhood Structure Plan will provide the connection between the Community Area Structure Plan and the future built form of the community of Lanark.





The design for Lanark Stage 1 seeks to be a model community in terms of building upon the guiding principles in the AirdrieONE plan and features the following key attributes:

- an extensive open space system comprised of a naturalized stormpond, linear open space connections to the SE Airdrie pathway system, and central parks serving as social focal points for the different quadrants within the community;
- a highly interconnected multi-modal network that promotes walkable neighbourhoods throughout the community;
- a diversity of housing options throughout the community that accommodates a broad range of uses, incomes and lifestyles including opportunities for mixed use, traditional, and innovative housing;
- and a phased development approach in partnership with the City to provide servicing upgrades in a sustainable and fiscally responsible manner.

Melcor is excited to work with Council and City Administration to ensure that the development of Lanark aligns with the expectations of Airdronians and Council's strategic priorities for growth.



Update date in all footers

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page numbers updated

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(*to match content)

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page numbers updated

The Lanark Stage 1 Neighbourhood Structure Plan

PART A: ***Plan Development***

Part A introduces the policy and the development history behind Lanark Stage 1.

PART B: ***Plan Context***

Part B sets the development context for the Lanark Stage 1 NSP. Existing site constraints, opportunities and technical studies will inform the design of Lanark Stage 1 in Part D.



(NSP) has been prepared in 4 parts:

PART C: ***Policy Direction***

Part C describes how Lanark Stage 1 meets City of Airdrie policy direction defined in relevant statutory and non-statutory planning documents.

PART D: ***Neighbourhood Plan***

Part D comprises the statutory portion of the Lanark Neighbourhood Structure Plan and provides the neighbourhood design elements, transportation and servicing components, and development policies for Lanark Stage 1



Plan Development



Part A introduces the policy and the development history behind Lanark Stage 1.

Purpose of the Lanark Neighbourhood Structure Plan (NSP)

A Neighbourhood Structure Plan (NSP) is a required land use concept plan that must be prepared by a developer for any large undeveloped parcel of land. As Lanark will be approximately 160 acres in size, a NSP is required to guide land use and subdivision applications to develop a complete community and sustainable phasing plan.

The Lanark NSP will be a statutory plan requiring City Council approval. This NSP must conform to the applicable Community Area Structure Plan (CASP) governing the subject site, the South East Airdrie CASP. The NSP will provide a detailed level of planning information for land uses, road locations, number of dwelling units, community open space network, utility infrastructure, storm water management facilities, population density, etc. to facilitate subsequent subdivision and detailed engineering approvals.

The purpose of this document is to:

- 1. Provide a description of a distinctive, progressive, and sustainable community implementing the AirdrieONE Sustainability Principles, to be named "Lanark"*
- 2. Demonstrate how Lanark will align with the City policy framework and Council's strategic priorities for new community development;*
- 3. Illustrate conformity with and justify the policies contained within the existing Southeast Airdrie CASP, the Airdrie City Plan and any other applicable higher-order planning documents; and*
- 4. Explain the layout, design, and future engineering and servicing requirements for Lanark.*



Background History of the Plan Area

In 2007, the ownership group responsible for King's Heights, under the management of Melcor Developments Ltd., acquired the Lanark Stage 1 lands south of the community of Ravenswood. This 1/4 section, legally described as SW34-26-29-W4M, is contained within the Southeast Airdrie CASP and is directly connected to the adjacent communities of King's Heights and Ravenswood from a servicing and policy perspective.

Melcor's King's Heights and Qualico's Ravenswood communities are nearing completion. It is desired by Melcor to have homes available in Lanark before these two communities are complete to ensure there is a continuous supply of housing options in southeast Airdrie.

City Administration has identified that community design expectations have evolved significantly since the adoption of the Southeast Airdrie ASP. The City desires a more innovative design for new communities moving forward. This guidance remains a cornerstone principle to the AirdrieONE Plan. Melcor and its team of consultants have responded with a comprehensively planned community of 480 acres, 160 acres of which comprise the proposed Lanark Stage 1 NSP.



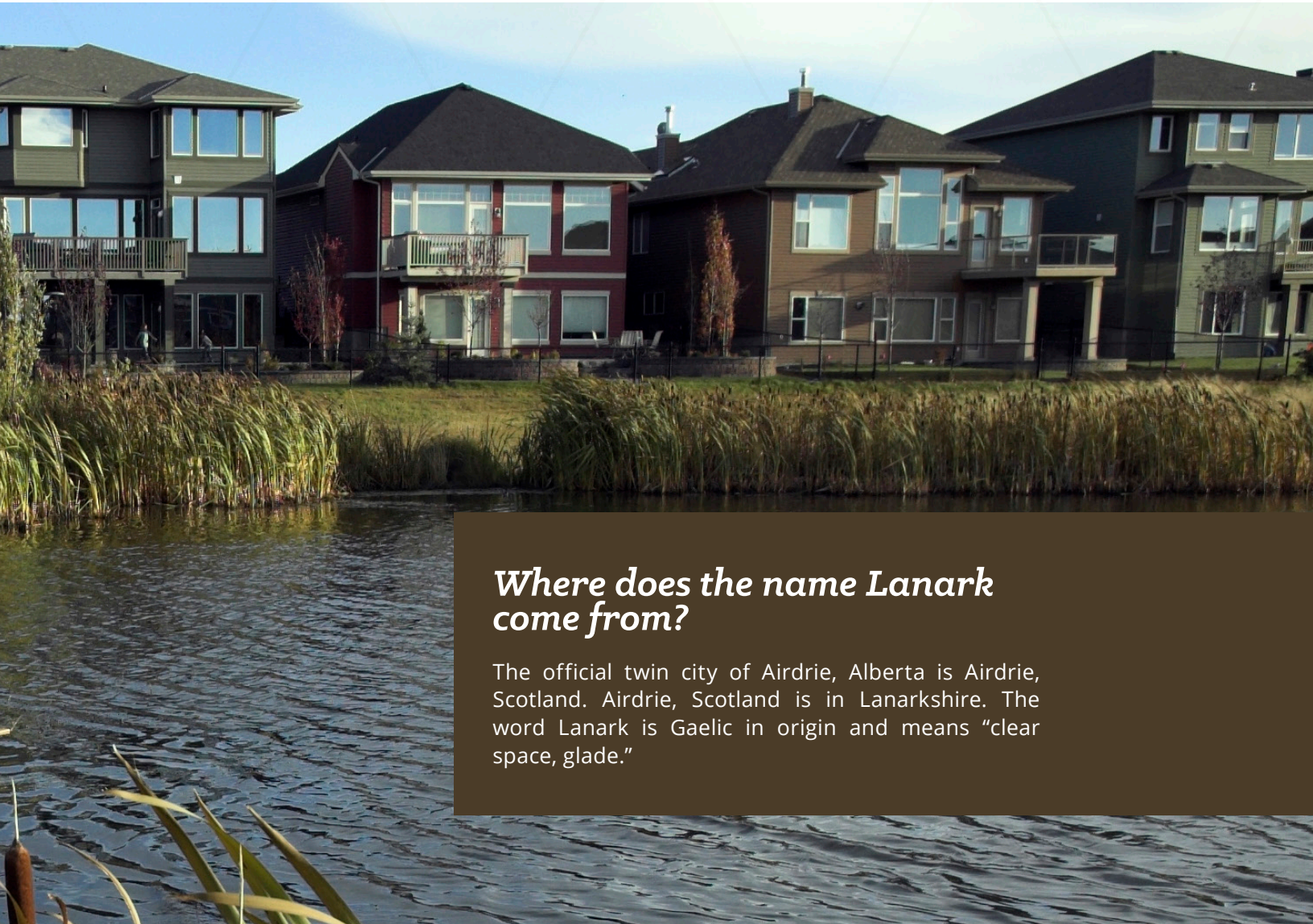
Lanark Stage 1 lands with King's Heights & Ravenswood in the background.

Collaborative Process & Outreach

The Lanark Stage 1 Neighbourhood Structure Plan has been prepared with extensive collaboration and discussion with City staff and its consultants. A number of working meetings occurred with City Departments to allow for a comprehensive and well thought-out submission.

Planning for Lanark began with City Administration as early as 2013. Melcor's desire was to provide for a comprehensive community plan which would include Lanark Stage 1 as well as the 320 acres in newly annexed lands. Due to timing of broader City utility strategies, Lanark Stage 1 is being proposed today but will form part of Melcor's vision for a larger, vibrant community in the future. The intended outcome is a community that meets the objective and desires of both the City of Airdrie and Melcor.





Where does the name Lanark come from?

The official twin city of Airdrie, Alberta is Airdrie, Scotland. Airdrie, Scotland is in Lanarkshire. The word Lanark is Gaelic in origin and means “clear space, glade.”

B

Plan Context

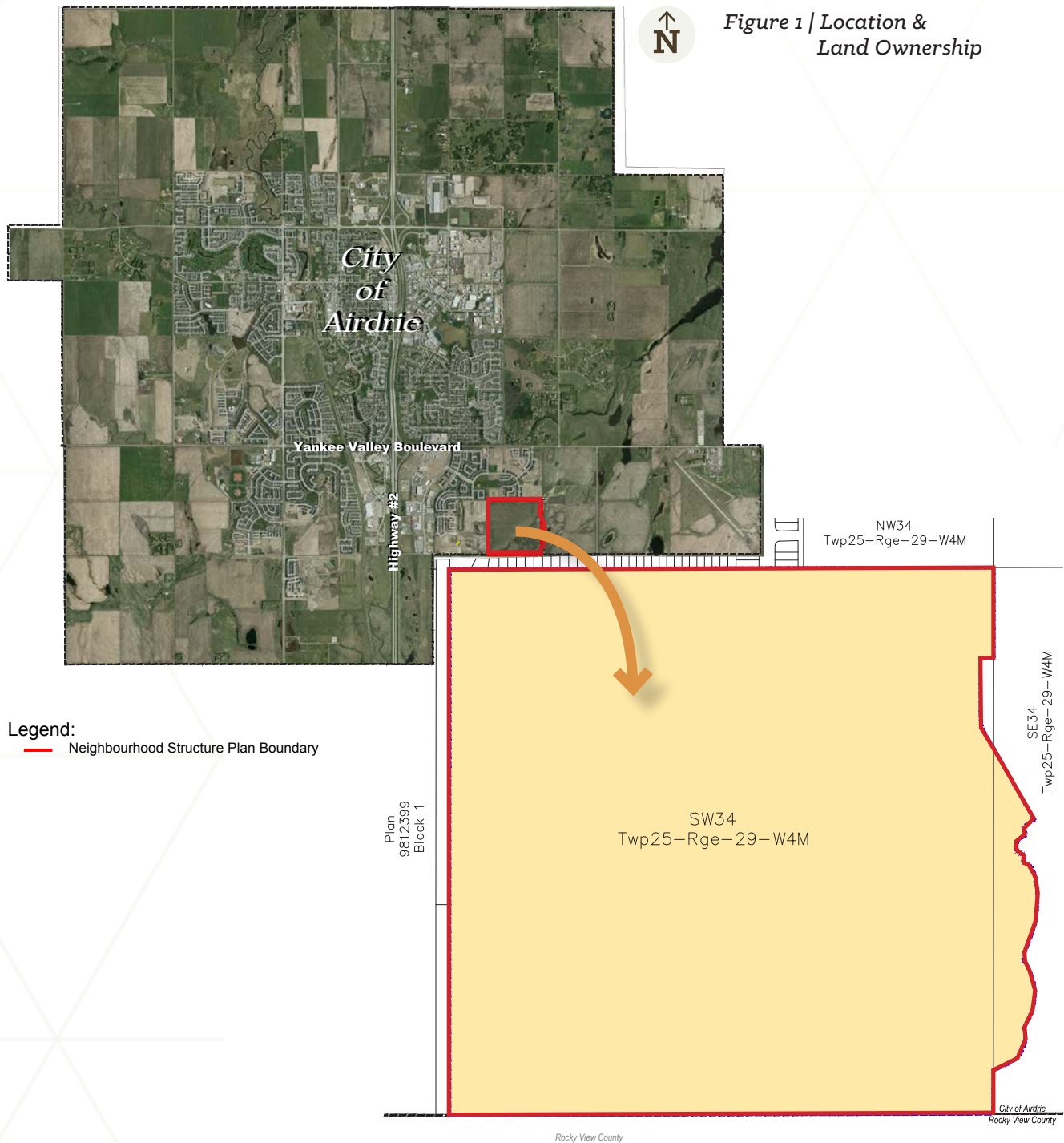
Part B sets the development context for the Lanark Stage 1 NSP. Existing site constraints and opportunities will inform the design of Lanark Stage 1 in Part D.

Location & Ownership

Lanark is comprised of 164.52 acres (66.58 hectares) of land, and consists of one full quarter section located at section 34, township 26, range 29, west of the 4 meridian (4; 29; 26; 34; SW), as well as a small portion of the quarter section located at section 34, township 26, range 29, west of the 4 meridian (4;29;26;34; SE) . The area is located in Airdrie's southeast sector. The subject lands represent the completion of a logical and well-defined approved growth area in the City.

Lands within the west quarter section of the NSP are owned by Highview Communities Inc. Melcor Developments Ltd. is the managing partner on behalf of the partnership. Melcor Developments Ltd. also owns the lands within the east quarter section of the NSP.





Site Context

The plan area is defined by:

- **THE COMMUNITY OF RAVENSWOOD TO THE NORTH** | Ravenswood is a substantially developed residential community. It contains a future school and joint use site.
- **THE COMMUNITY OF KING'S HEIGHTS TO THE WEST** | King's Heights is a substantially developed residential community. It is part of the King's Heights Neighbourhood Structure Plan, which also includes a +/- 35 acre (14 hectare) mixed-use commercial centre and a +/- 132 acre (53 hectare) business/industrial park adjacent to the QE II Highway.
- **VACANT FUTURE URBAN DEVELOPMENT LAND TO THE EAST** | Two quarter sections to the east are also owned by Melcor and were annexed to the City in 2012. These lands are currently proposed to form Stage 2 of the Lanark community.
- **VACANT FUTURE URBAN DEVELOPMENT LAND TO THE SOUTH** | The lands to the south are within Rocky View County and are currently designated for agricultural uses. Along this boundary between the municipalities runs the right-of-way for the future 40 Avenue, which also contains an ATCO gas pipeline right-of-way. This right-of-way will serve as the servicing corridor for the east annexation lands.

To the north of Yankee Valley Boulevard lie the communities of Big Springs and Meadowbrook, as well as rural residential development to the northeast.



Figure 2 | Site Context



Legend:
— Neighbourhood Structure Plan Boundary

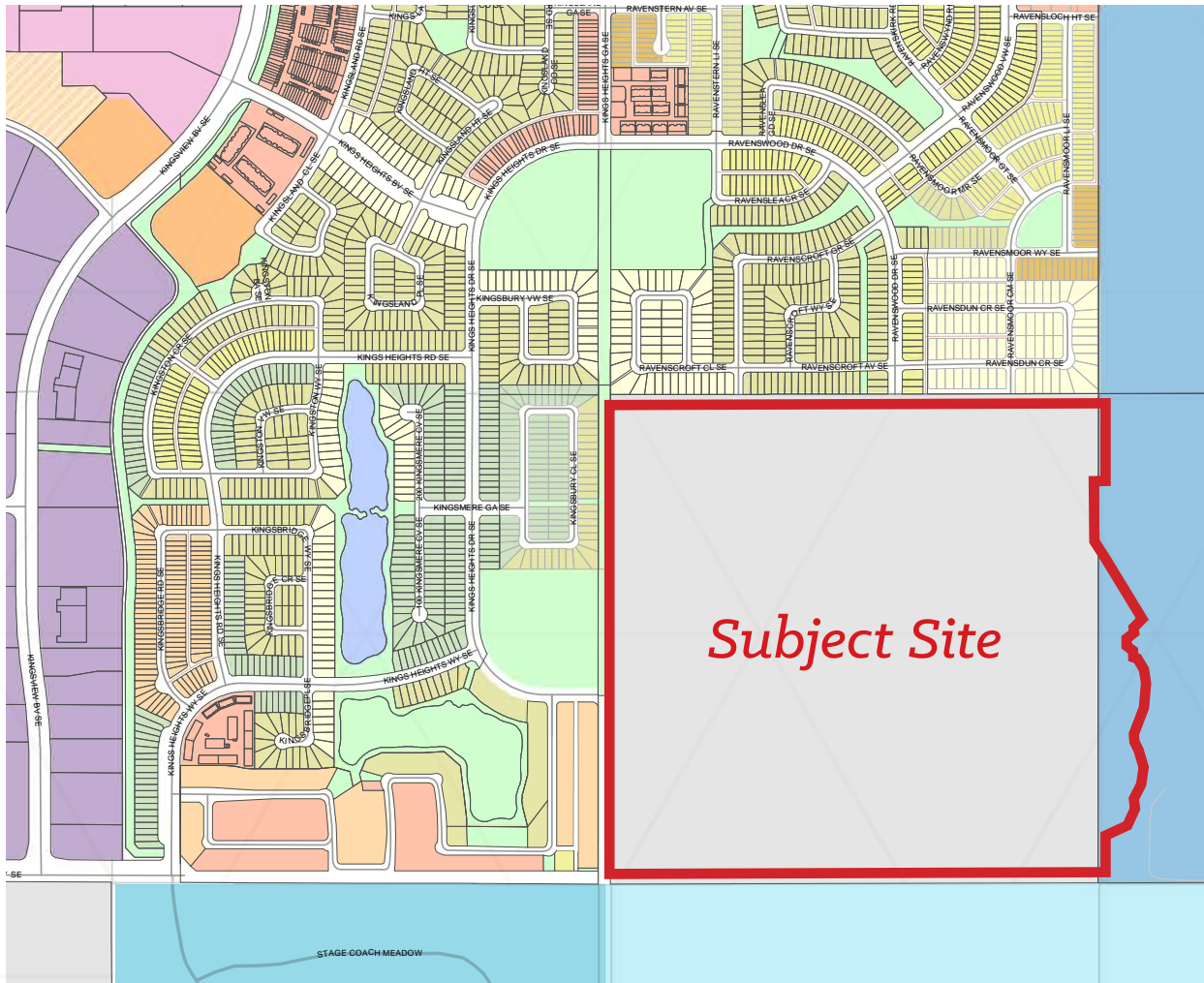
Existing & Adjacent Land Uses

The subject lands are currently indicated in the MDP and Southeast Airdrie CASP as residential lands. The majority of the lands are currently zoned as UH – Urban Holding District, and the lands within the eastern quarter section are zoned RF – Ranch and Farm District under the Rocky View Bylaw. The purpose and intent of the UH district is predominantly a holding district in the land use bylaw, used to protect land from premature subdivision and development. The purpose of the RF district is to allow agricultural activities. The lands have been used for agricultural purposes for decades.

The subject lands are directly adjacent to urban residential single family development and public parks and open space. Roads and servicing from the adjacent land are anticipated to continue through the subject site and into the newly annexed areas. The lands to the south and east consist primarily of agricultural land.



Figure 3 | Existing & Adjacent Land Uses



Airdrie Land Use

C-1 (Neighbourhood Commercial District)	R-1 (Residential Single Dwelling District)
C-3 (Regional Commercial District)	R-1C (Residential Single Dwelling Conservation District)
C-C (Commercial Convenience)	R-1N (Residential Single Dwelling Narrow Lot)
CB (Central Business District)	R-1S (Residential Single Dwelling Small Lot District)
CB-1 (Central Business District)	R-1SL (Residential Single Dwelling Small Lot Landed District)
CBT (Central Business Transition District)	R-1SS (Residential Single Dwelling Suited District)
CMU (Commercial Mixed Use District)	R-1W (Residential Single Dwelling Wide Lot)
(Direct Control)	R-2 (Residential Two Dwelling District)
IB-1 (Industrial Business Park One District)	R-3 (Residential Low Density Multi Dwelling District)
IB-2 (Industrial Business Park Two District)	R-4 (Residential Medium Density Multi Dwelling District)
IB-3 (Industrial Business Park Three District)	R-5 (Residential High Density Multi Dwelling District)
M-3 (Railway Industrial District)	R-BTB (Residential Back to Back Townhome District)
MH-P (Residential Manufactured Home Park District)	R-RA (Residential Single Dwelling, Semi Detached District)
P-1 (Public Service District)	RR-1 (Rural Residential Single Dwelling District)
P-2 (Quasi Public District)	UH (Urban Holding District)

Rocky View County Land Use

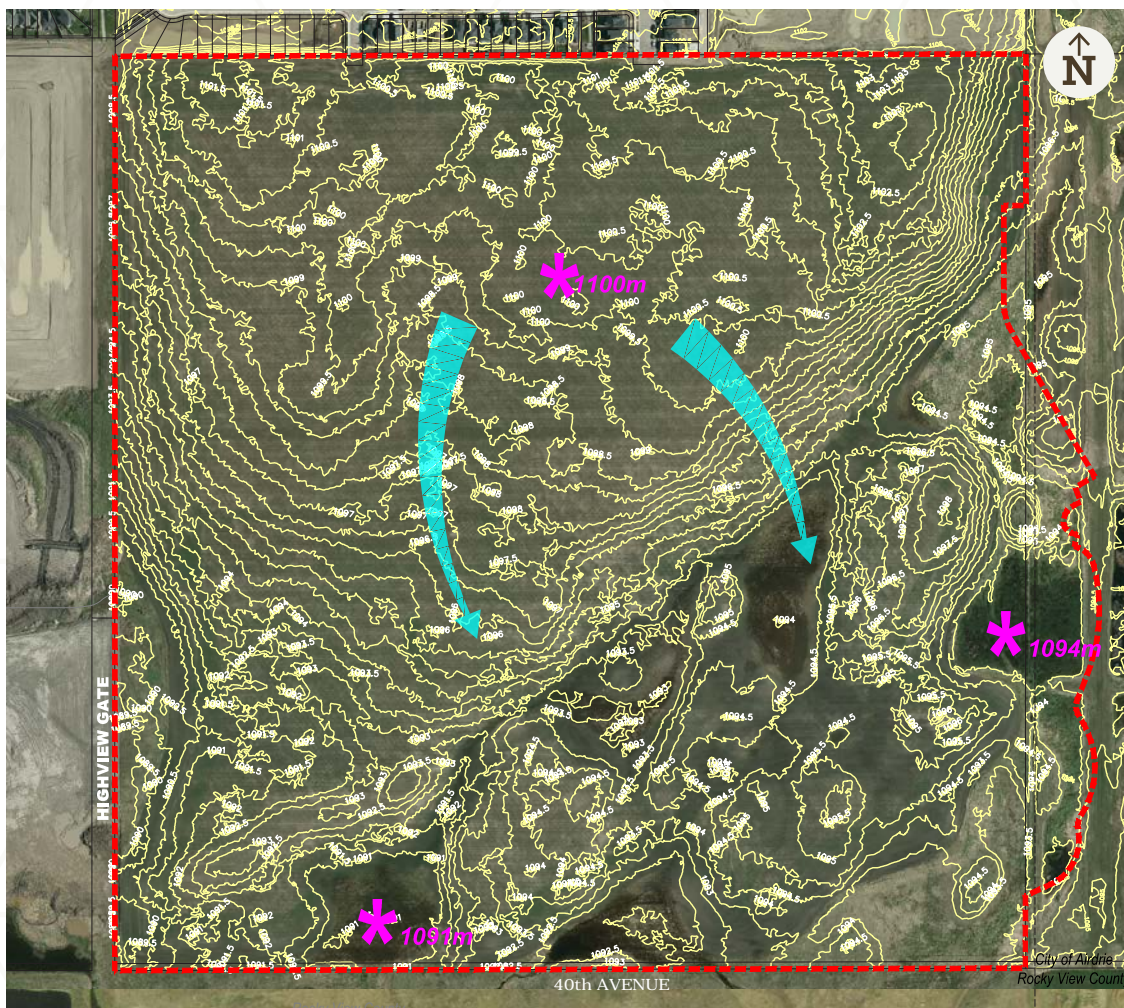
AH	B-AS	R-2
AP	B-HF	RF
B-2	DC	RF*
B-4	F	RF-2

Topography & Drainage

The surface of the subject site is undulating with a slight slope to the southwest and flat areas on the north, south and southeast portions of the site. According to Natural Resource Canada 1995 and Abacus Datagraphics 2013, the subject site sits at an elevation of 1,100 metres in the northeast and southeast corners of the plan area, and approximately 1,095 metres in the northwest and southwest corners.

On-site overland surface water is expected to flow west and south to marshes located along the eastern border and south central portion of the subject site, as well as low lying depressions located on the southwest corner of the site. A drainage ditch located on the southeast portion of the lands directs water to the marsh on the south central portion of the site. Regional overland surface water is expected to flow to the west/ southwest following regional topography.

Figure 4 | Topography



Legend:



Neighbourhood Structure Plan Boundary



Drainage Direction



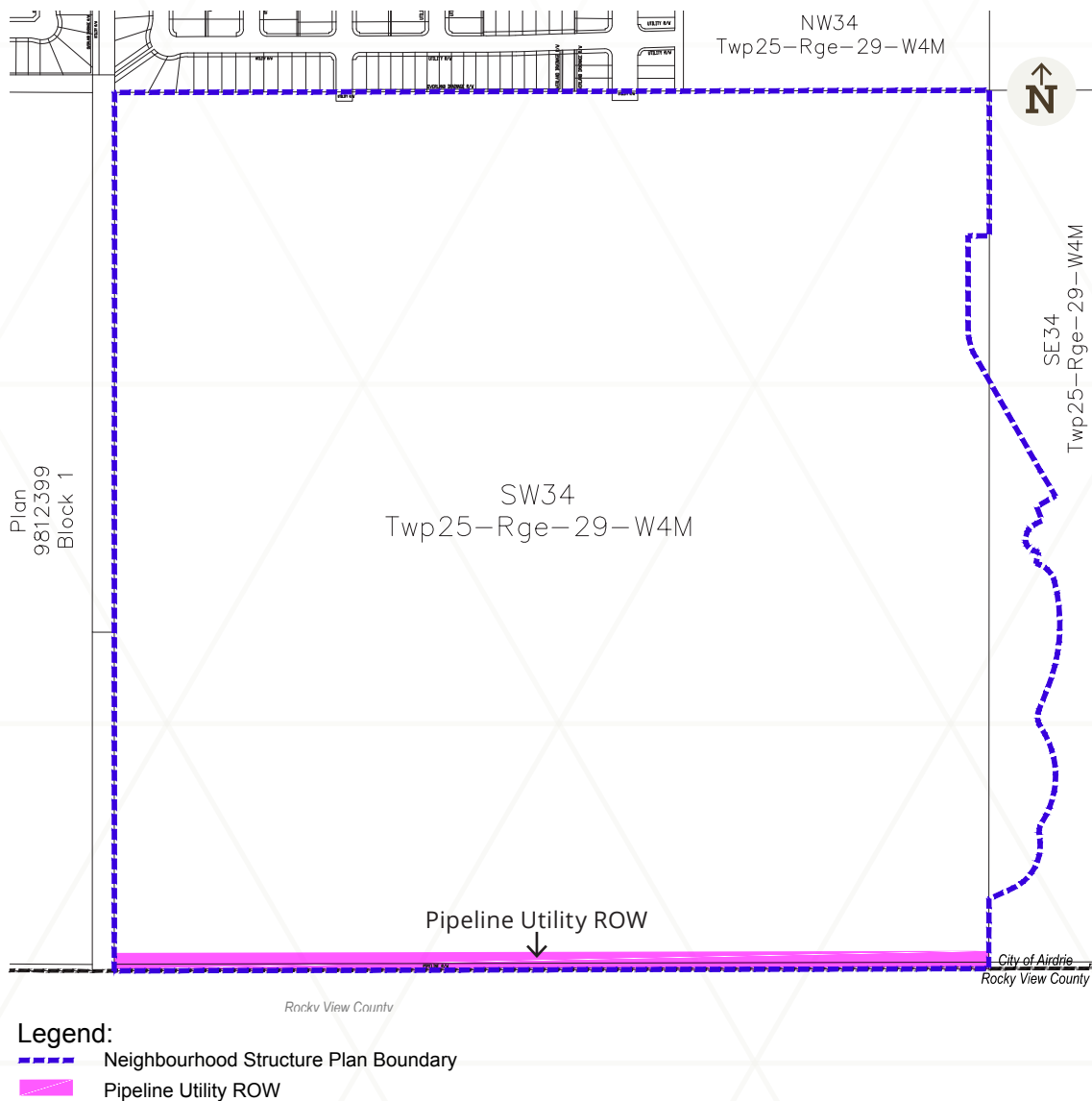
* 1091m Low and high points



Existing Utilities & Rights-of-Way

An ATCO Gas natural gas high-pressure pipeline borders the subject site along the southern boundary of the property. During the 2014 AMEC Phase 1 Environmental Site Assessment, there was no evidence of potential impacts on the subject site associated with the pipeline identified. This pipeline is anticipated to be located within the proposed 40th Avenue ROW.

Figure 5 / Existing Utilities and Right-of-Ways



Supporting Technical Reports

BIOPHYSICAL IMPACT ASSESSMENT (BIA)

A Biophysical Impact Assessment was prepared by Sweetgrass Consultants Ltd. in September 2014 for 480 acres. A subsequent biophysical summary was prepared in February 2015 as it relates to the Stage 1 lands. The report concluded the following:

- The sub-sites contain non-native grassland, crop/disturbed, and wetlands.
- A total of 7 wetlands within the Lanark Stage 1 lands (5 Class III, 2 Class II).
- All wetlands within the subject site are considered to be non-significant as classed according to Stewart and Kantrud.

The BIA has been submitted under separate cover. Melcor will obtain the necessary government approvals regarding the wetlands prior to stripping and grading.

GEOTECHNICAL EVALUATION

A geotechnical evaluation was conducted by McIntosh Lalani Engineering Ltd. in February 2011. The report concluded the following:

- The general soil composition consists of surficial topsoil overlying silts, silty sand, and/or silty clays of varying plasticity. Generally, these soils overlie siltstone bedrock.
- The conditions identified are considered reasonable and there are no geotechnical concerns with the site. If conditions differ from what was reported then additional review is required.



The Geotechnical Evaluation has been submitted under separate cover.

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT (ESA)

A Phase 1 ESA was completed by AMEC in November 2013. The report includes the 480 acres owned by Melcor. The Lanark Stage 1 area is impacted by the following findings:

- A Phase II intensive investigation of the site is recommended to evaluate the potential impacts associated with the domestic and agricultural waste dump on the site.

Melcor will obtain the necessary clearance for the dump site prior to stripping and grading. Apart from this, there are no additional concerns.



The Phase 1 ESA has been submitted under separate cover.

MASTER DRAINAGE PLAN

In 2005 a Master Drainage Plan (MDP) was prepared by Sunbow Consulting Ltd. The MDP was prepared in support of the Southeast Airdrie Community Area Structure Plan (CASP) and adopted by the City of Airdrie Council. The study area is located east of Highway 2 and south of Yankee Valley Road; comprised of approximately 343 ha of land in Sec. 33-26-29-W4M and the W ½ Sec. 34-26-29-W4M.

The study established the following stormwater management guidelines:

- Peak discharge – 1.84 L/s/ha
- Water Quality – The stormwater facilities must provide at minimum 85% removal of TSS greater than 75 µm.

It also estimated storage volume required in the three (3) proposed stormwater facilities; 1 & 2 are built and in service.

A detailed Stormwater Master Drainage Plan (SMDP) in support of Lanark Stage 1 has been submitted under separate cover.

HISTORICAL RESOURCES OVERVIEW

Lifeways of Canada submitted a Statement of Justification to Alberta Culture in Fall 2013. The subject lands received clearance on January 14, 2014. No further action is required on the lands. This clearance has been provided under separate cover.

TRANSPORTATION IMPACT ASSESSMENT

~~A Transportation Impact Assessment (TIA) by DA Watt has been completed to confirm what upgrades will be required to the road network in order to accommodate the daily traffic volumes generated by the development. The scope of the TIA was determined through consultation with City of Airdrie staff, and has been submitted under separate cover. A summary of key transportation elements can be found in Section 6.4 of this NSP.~~



In 2015, a Transportation Impact Assessment (TIA) by Watt Consulting Group (Watt) was completed to confirm the roadway improvements required in different phases of the development to accommodate the generated traffic. The Watt TIA was based on no interchange at QEII / 40 Avenue. In 2021, ISL Engineering & Land Services (ISL) completed a TIA Update focused on 40 Avenue and Yankee Valley Boulevard; the TIA Update confirmed the roadway improvements required with the inclusion of the QEII / 40 Avenue interchange. The scope of the TIA was determined through consultation with City of Airdrie, and has been submitted under separate cover. A summary of key transportation elements can be found in Section 6.4 of this NSP.



Policy Direction



Part C describes how Lanark Stage 1 meets the policy direction defined in relevant statutory and non-statutory planning documents.

AirdrieONE Sustainability Plan

The AirdrieONE Sustainability Plan is a strategic-level document that will guide the community of Airdrie into a sustainable future. Approved by Council in March 2012, AirdrieONE informs the City's strategic planning and business-planning functions and provides guidance for key planning documents, including the Airdrie City Plan. The Plan outlines 10 common goals to guide actions over the next 5-10 years as the City creates a more sustainable community and work towards the shared community vision. The plan provides objectives and strategies for developing on-the-ground actions, so that Airdrie can continue to thrive over the long term.

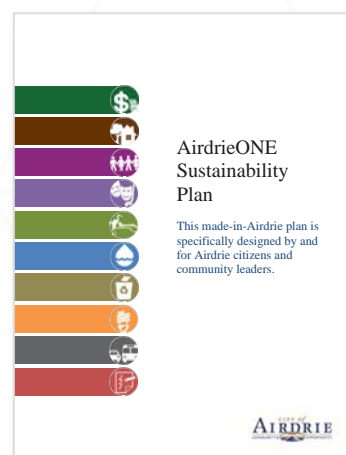
Lanark will reflect these principles (See AirdrieONE Sustainability Goals), and Melcor is committed to working with Council and the Administration to ensure that all facets of community planning, servicing and development meet the highest standards set by the City through the vision conveyed in the AirdrieONE Plan.

SMART GROWTH

One of the AirdrieONE Sustainability Plan's Built Form objectives is the promotion of smart growth. "Smart growth" is a collection of land use and development principles that aim to enhance quality of life, preserve the natural environment, and increase sustainability. Smart growth principles ensure that growth is fiscally, environmentally and socially responsible to recognize the connections between development and quality of life.

Smart growth principles are not so much a set of guiding policies, but rather a 'checklist' for innovative and sustainable communities. In addition to meeting the AirdrieONE Sustainability goals, Lanark Stage 1's Design Elements also meet the principles of smart growth as listed below:

1. **Mix land uses.**
2. **Build well-designed neighbourhoods.**
3. **Create a range of housing opportunities and choices.**
4. **Create walkable neighbourhoods.**
5. **Foster distinctive, attractive communities with a strong sense of place.**
6. **Create appropriate transitions with existing communities.**
7. **Preserve open spaces, natural beauty, and environmentally sensitive areas.**
8. **Provide a variety of transportation choices**
9. **Focus on implementation**





Statutory Policies

AIRDRIE CITY PLAN/MUNICIPAL DEVELOPMENT PLAN

The Municipal Development Plan/Airdrie City Plan is the policy that guides land use planning for the City of Airdrie. It reinforces the principles of the AirdrieONE Plan through its policies by encouraging sound and sustainable community design that provides for a variety of housing types, appropriate green spaces, walkable environments, and attractive neighbourhoods.

The Lanark community meets the intent of the plan's guiding policies by providing:

- complete community design through strategic placement of land use, open space and amenities.
- a walkable community
- well-planned open spaces strategically located for balanced enjoyment
- orienting higher densities to defined corridors
- meeting the need of the market with a variety of housing options

Lanark will represent a complete community both in terms of its housing, recreational, educational and civic components. Its development will proceed in a timely manner and serve to complete a logical and well-defined planning area in the southeast sector of the City.

AIRDRIE/ ROCKY VIEW INTERMUNICIPAL DEVELOPMENT PLAN (IDP)

The City of Airdrie and Rocky View County adopted an Intermunicipal Development Plan in August 2001. The intent of this plan is to address any issue on land of mutual interest between the two jurisdictions. The IDP addresses the coordination of future land use and development on land bordering both municipalities, and serves as a means of information exchange between the municipalities. The IDP identifies the subject lands as being within the Policy Area. Lanark meets the policies for residential growth within the Policy Area:

- Consideration has been given to the visual impact of the Lanark development on adjacent lands. Lanark is residential in nature and provides a transition between land uses, consistent with the adjacent King's Heights.
- Lanark will also be separated from Rocky View County residents by the future 40th Avenue SE, which is a four lane arterial roadway. This roadway will include a landscaped median and boulevard as well as fencing on at least one side, providing the necessary visual separation between existing and future Rocky View County residents to those of the City of Airdrie.
- Potential environmental and transportation impacts are considered and minimized through community design.
- The extension of 40th Avenue SE will minimize traffic impacts from Lanark on Rocky View roadway because of improved access and

reduced shortcutting through Rocky View to existing Airdrie communities.

- The majority of residential lots located north of and backing onto 40th Avenue will comprise larger, low density semi-detached R-2 residential lots.
- The development of Lanark Gate as part of this plan provides a logical connection point for the potential development of the lands directly to the south of Lanark which lie within Rocky View County and which would be developed in accordance with the adopted Balzac East ASP (2000).

SOUTHEAST AIRDRIE COMMUNITY AREA STRUCTURE PLAN (CASP)

The City of Airdrie requires a Community Area Structure Plan (CASP) to be adopted by Council prior to the adoption of a Neighbourhood Structure Plan (NSP), land use designation, or subdivision approval in newly developing areas. Adopted in July of 2004 as Bylaw B-29/2004, the Southeast Airdrie Community Area Structure Plan (CASP) sets out the overall vision and objective for approximately 415 hectares (1024 acres) of land in which the subject lands are located. The primary goal of the Southeast Airdrie Community Area Structure Plan (CASP) is intended to capture significant components of the Airdrie City Plan, and all other higher-order planning policy documents.

The principles and objectives established in the Southeast Airdrie CASP guide the growth of this future neighbourhood by setting out general locations for major land uses (i.e. residential, commercial, industrial, schools and parks), major roadways, utility servicing, trail systems and potential population density.

The Southeast Airdrie CASP identifies the Lanark NSP lands as primarily residential, with a townhouse/apartment residential component, featuring a stormwater management facility, a major open space, a regional pathway connection, and a looping collector roadway that connects to the adjacent communities. The residential density will follow the policy range of the Airdrie City Plan of 5.5 to 9.0 units per acre (13.6 to 22.2 units per hectare).

AIRDRIE LAND USE BYLAW

The City of Airdrie Land Use Bylaw is the final regulatory tool that established a framework to evaluate and render decisions on development permit applications. This is accomplished through a land use zoning mechanism, which outlines permitted and discretionary uses of land and specifies relevant development standards.

A land use application has been provided to redesignate the lands to various residential and public service uses to allow for the development of the Lanark community.

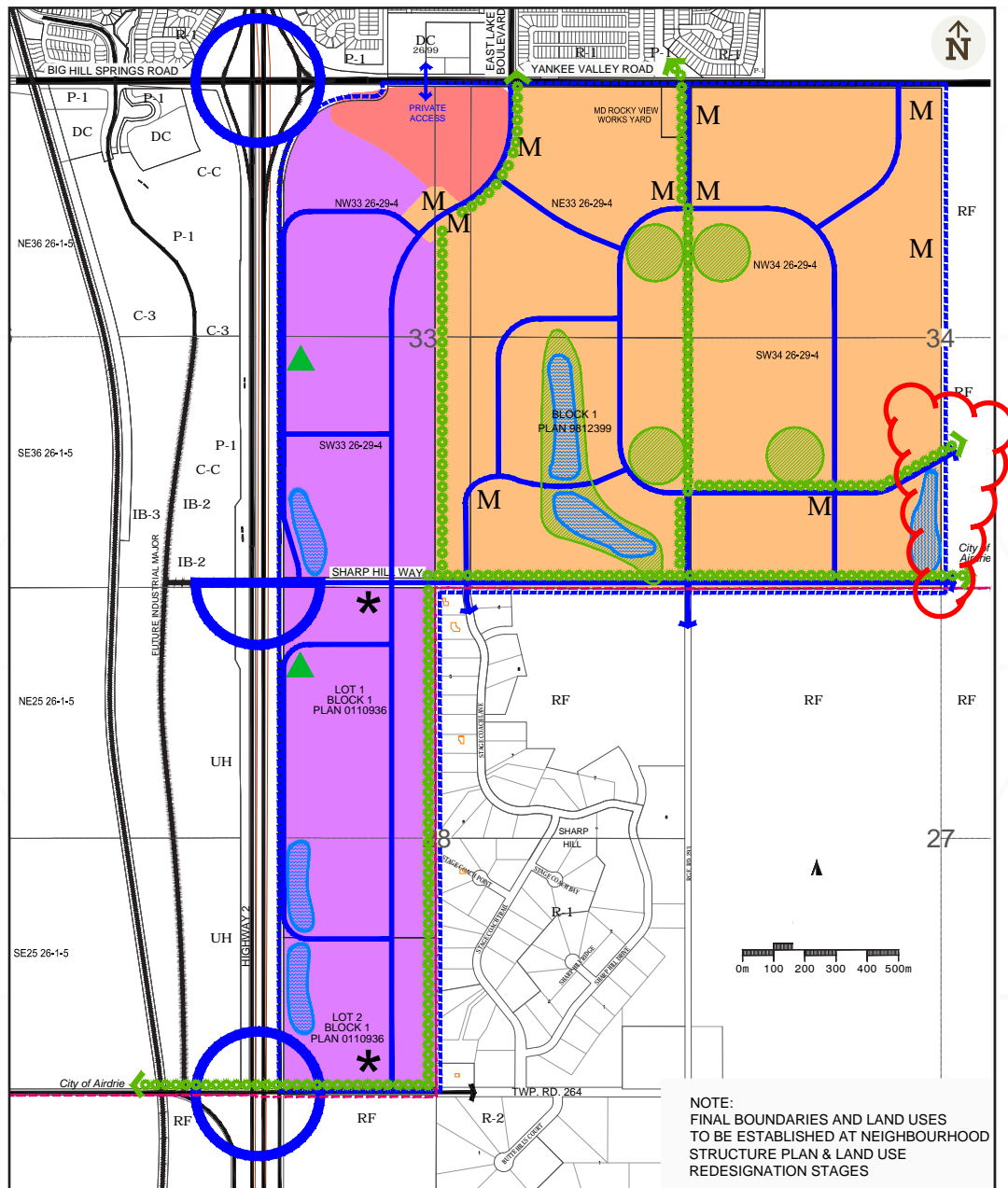
ECOLOGICAL INVENTORY EXPANSION AND ENVIRONMENTAL BEST PRACTICES REPORT

Lanark Stage 1 is outside and south of the ecological hotspot "Southeast Site 'Site D'" identified in the O2 report. There are no ecological hot spots identified for the land included in this NSP area.

Despite this, the Lanark NSP meets several of the Best Practices identified in the report such as providing naturalized landscaping around the stormpond and meeting standards for maintaining the quantity and quality of water in Nose Creek through stormwater management.



Figure 6 | Approved Southeast Airdrie CASP Land Use



- | | | | |
|--|--|--|--|
| | AIRDRIE CITY LIMITS | | REGIONAL PATHWAY |
| | SOUTHEAST AIRDRIE CASP BOUNDARY | | MAJOR OPEN SPACE |
| | RESIDENTIAL (SINGLE, SEMI - DETACHED) | | STORMWATER MANAGEMENT FACILITY |
| | RESIDENTIAL (TOWNHOUSE, APARTMENT) | | MAY REQUIRE RELAXATION OF INTERSECTION SPACING TO INTERCHANGE RAMP |
| | MIXED USE COMMERCIAL | | OXBOWS |
| | INDUSTRIAL | | ROAD NETWORK |
| | INTERCHANGE (ADDITIONAL LANDS WILL BE REQUIRED FOR THE ULTIMATE INTERCHANGE) | | |

D

Neighbourhood Plan



Part D comprises the statutory portion of the Lanark Neighbourhood Structure Plan and provides the neighbourhood design elements, transportation and servicing components, and development policies for Lanark Stage 1

1.0 Introduction

1.1 GENERAL

1.1.1 Title

This Area Structure Plan (ASP) shall be titled the “Lanark Stage 1 Neighbourhood Structure Plan” and it is also referred to as the “Plan,” the “Neighbourhood Structure Plan” or the “NSP.”

1.1.2 Authority

Section 663(1) and (2) of the Municipal Government Act (MGA) authorizes a Council to adopt an ASP. This section states:

- 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 the 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
 - (v) may contain any other matters the council considers necessary.

1.1.3 Composition

The adopted NSP comprises Part D, Plan Design with all text, policy and maps in the part included in the NSP. Parts A, B and C and the Appendices are included in the document for information purposes and do not form part of the adopted NSP. Administration may freely interpret any content within Parts A, B and C.

1.1.4 Map

An area, symbol or figure shown on a map in the adopted NSP shall be interpreted as approximate only and not absolute, except where the area or symbol coincides with a fixed and clearly defined physical or legal boundary such as a property line or road or utility right-of-way.

1.1.5 Text Interpretation

Text contained in the adopted NSP, including tables and illustrations, is provided for information purposes only, and will not be used in a regulatory manner. If a conflict should arise between text and policy statements, the policy will take precedence.

1.1.6 Policy Interpretation

Where a policy applies the verb “shall”, it is considered to be mandatory. However, any quantitative figures in a mandatory policy such as numerical targets can be relaxed, provided that the relaxation is considered to be minor and does not undermine the achievement of the overall intent of the policy.

Where a policy applies the verb “should”, the policy is intended to be complied with but may be relaxed where

- (i) the application of the policy is determined to be unworkable or impractical, or
- (ii) the policy will be achieved in an alternative manner that will result in an improved or equivalent development outcome,
- (iii) the relaxation does not undermine the achievement of the overall intent of the policy.

1.1.7 Plan Amendment

Any change to the text or maps in Section D shall require an amendment by Council to the NSP in accordance with the MGA.

Changes to the text or maps in Sections A to C and the Appendices can be undertaken at any time by the Administration without requiring an amendment to the NSP.

In addition, the City of Airdrie Guidelines for the preparation of Community Area Structure Plans, Neighbourhood Structure Plans, and Area Redevelopment Structure Plans (Section 5.1) should be used to inform the amendment process.

2.0 Neighbourhood Design

2.1 VISION

The vision for Lanark Stage 1 is a progressive community design that ushers in a new era for Airdrie – one that upholds the vision of its citizens, and serves as a model for smart and sustainable growth for the City. The goal is to provide an integrated, walkable community that provides a variety of traditional and innovative housing choices served by exceptional community amenities, open spaces and natural amenities.

Lanark Stage 1 ties into a broad community vision and plays a unique role in its sustainable development, particularly through the Design Elements outlined in the Concept Plan. The future development of Lanark will provide even greater opportunities to meet certain goals and objectives of the AirdrieONE Plan, particularly through the provision of the community's mixed-use elements, retention of environmental features, and energy and waste management.

2.2 GUIDING PRINCIPLES – AIRDRIEONE SUSTAINABILITY GOALS

The neighbourhood design for Lanark Stage 1 is guided by the policies and objectives of the AirdrieONE Sustainability Plan. The 10 goals of AirdrieONE form the guiding principles of the plan design for Lanark Stage 1 and inform specific aspects of the neighbourhood design as described by the Lanark Design Elements. In this way, Lanark Stage 1 provides a commitment to providing a sustainable and innovative community that meets the shared vision create by Airdrie residents and community leaders.





LANARK

AIRDRIE



AirdrieONE Sustainability Goals



1

ECONOMIC PROSPERITY

Goal: Modern, innovative and welcoming. Airdrie is an emerging city of opportunity for entrepreneurs and businesses of all sizes.



2

BUILT ENVIRONMENT

Goal: Our built environment is vibrant, diverse, inviting and contributes to people's health, safety and well-being.



3

SOCIALLY SUSTAINABLE COMMUNITIES

Goal: Our community is healthy and provides ample opportunity for social interactions and meeting people's needs.



4

ARTS, CULTURE & RECREATION

Goal: The unique arts, cultural and recreational aspects of Airdrie contribute to its overall identity, sense of place and quality of life.



5

SUSTAINABLE NATURAL ENVIRONMENT

Goal: Environmentally sensitive areas are protected and the Nose Creek natural areas are set aside for conservation and outdoor recreation purposes.



6

WATER

Goal: The Community recognizes that water is a scarce and valued resource in this region and takes the appropriate steps to steward it.



7

WASTE MANAGEMENT

Goal: The amount of solid waste that is generated in the community is greatly reduced as Airdrie citizens participate in waste reduction, waste diversion and recycling efforts.



8

ENERGY

Goal: Our community's energy use is sustainable and energy consumption is reduced in the community and in the City's operations.



9

SUSTAINABLE TRANSPORTATION

Goal: Our city has an integrated, efficient and affordable transportation system that provides a range of mobility options for people of all ages and abilities.



10

GOVERNANCE

Goal: Sustainability principles and approaches are integrated into the municipality's formal and day-to-day decisions making processes.

Throughout this document, these symbols will be used to show how Lanark meets the AirdrieONE Sustainability Goals through design and guiding policy

Figure 7: Lanark Design Elements

The design elements indicate key areas where the guiding principles are implemented in Lanark to meet the neighbourhood vision of an innovative and sustainable community.

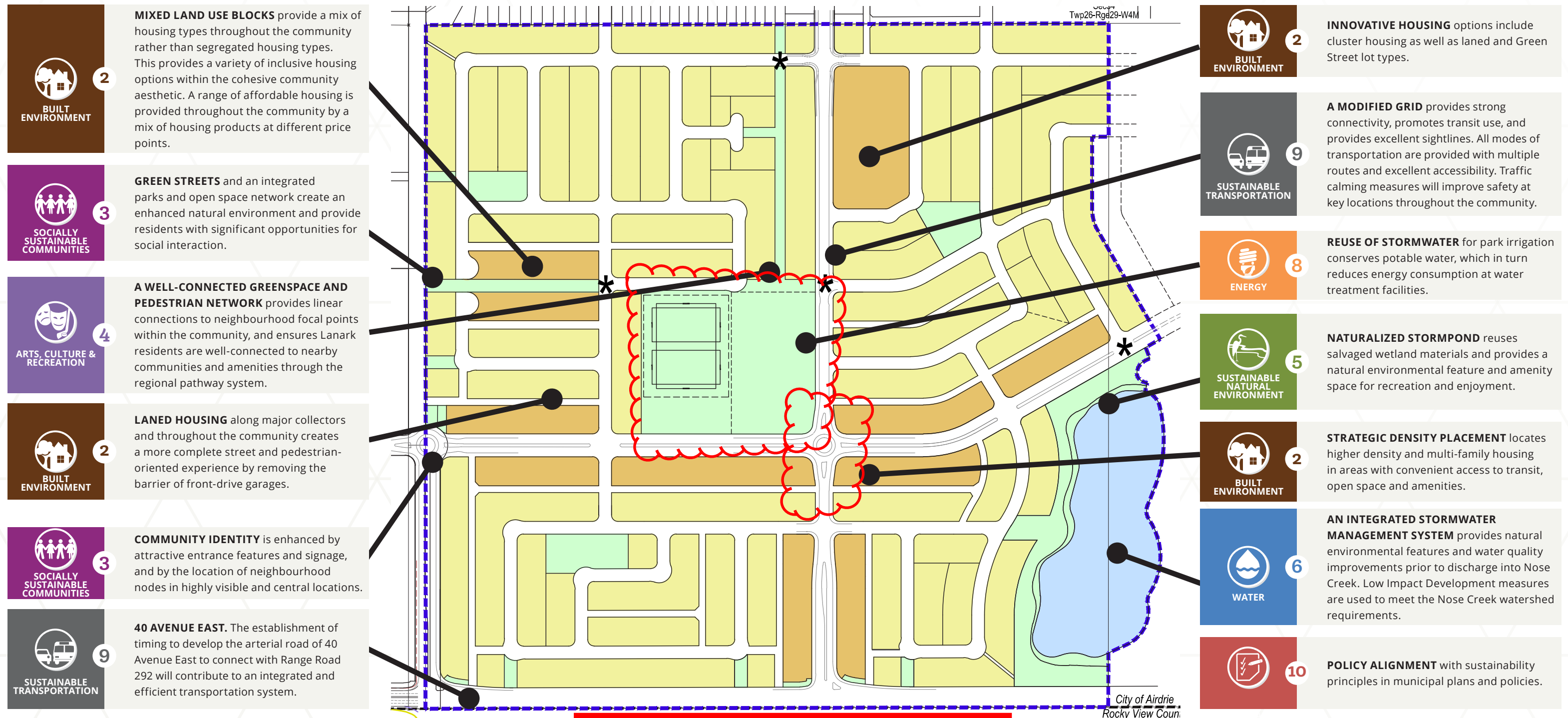




Figure 8 | Lanark Stage 1
Detailed Concept






3.0 Density & Land Use Statistics

3.1 NEIGHBOURHOOD POPULATION AND DENSITY

The Lanark Stage 1 Neighbourhood Structure Plan will provide an anticipated 1,218 residential units in a combination of single, semi-detached, townhomes and innovative housing forms. Lanark will be home to approximately 3,288 residents (based on 2.7 people per unit). The density of the Lanark Stage 1 area is approximately 18.3 units per hectare (7.4 units per acre), which falls within the Southeast Airdrie Community Area Structure Plan’s target density range of 13.6 to 22.2 units per hectare (5.5 to 9.0 units per acre). Table 1 provides the neighbourhood population and density statistics, as well as the breakdown of area by general land use.

Lanark Policy 1 | 

Lanark shall meet and exceed the minimum density range (13.6 to 22.2 units per hectare) as identified in the Southeast Airdrie CASP. [Southeast Airdrie CASP 3.2.1]

Table 1 | Neighbourhood Population & Density

LAND USE	AREA OF LAND USE		%	UNITS
	HECTARES	ACRES		
Gross Developable Area	66.58	164.52	100%	
RESIDENTIAL	37.57	92.84	56.4%	
Low-Density Residential	30.33	74.95	45.6%	915 units
Medium-Density Residential	7.24	17.89	10.9%	303 units
OPEN SPACE (CREDIT)	6.66	16.46	10.00%	
OPEN SPACE (NON-CREDIT)	0.26	0.64	0.4%	
PUBLIC UTILITY LOTS	3.67	9.07	5.5%	
ROADS	18.42	45.52	27.7%	
TOTAL UNITS				1,218
OVERALL DENSITY	18.29 UNITS/HECTARE (uph)		7.40 UNITS/ACRE (UPA)	

3.2 RESIDENTIAL LAND USE

Residential land uses make up the majority of the Neighbourhood Structure Plan area, totalling 37.62 hectares (92.96 acres), or 56.5% of the gross developable area. There are a number of different residential land uses identified to achieve a diversity of housing forms in the plan area.

As per Chapter 6 of the Airdrie City Plan, residential designations are divided into:

- Low Density Residential (LDR) - low rise, low-density housing forms including conventional single-detached dwellings, small-lot single-detached dwellings, semi-detached and duplex buildings.
- Medium Density Residential (MDR) - a variety of housing types including street-fronting townhouses, stacked and low-rise apartment buildings, and other attached housing forms.

Table 2 / Residential Land Uses

RESIDENTIAL LAND USE	APPROXIMATE # OF UNITS	% OF TOTAL UNITS
Low Density Residential (LDR)	915	75%
Single Detached- Front Drive	254	21%
Single Detached- Laned	270	22%
Single/Semi Detached Mixed- Front Drive	269	22%
Semi Detached/ Duplex- Laned	122	10%
Medium Density Residential (MDR)	303	25%
Low Density Attached	271	22%
Cluster Housing	32	3%
TOTAL UNITS	1218	100%

3.3 BUILT FORM AND HOUSING MIX

WELL-DESIGNED NEIGHBOURHOOD |

Higher density housing is located in areas in close proximity to transit and neighbourhood amenities. Front loaded lots are used alongside laned product and cluster housing, providing more lifestyle options for residents. Parks and open space are interspersed throughout the neighbourhood, but are located in areas with strong connectivity to promote access and use.

APPROPRIATE TRANSITIONS WITH EXISTING COMMUNITIES |

Lanark integrates efficiently with neighbouring communities through a well-connected transportation network and provision of a Joint Use school site. Land uses on the periphery of the site are reflective of those in adjacent communities, creating a seamless transition.

HOUSING DIVERSITY |

Lanark provides a range of housing forms, densities and tenures in a mixed-block format integrating multiple housing types and styles that will be a signature feature of Lanark. This provides choice in housing affordability without creating segregation of housing types.

ARCHITECTURAL CONTROLS |

Rich and detailed architectural styles will be provided throughout the community, and a comprehensive set of guidelines will be developed to ensure the Lanark streetscape is a picture perfect portrait of the vision. These guidelines have been submitted under separate cover.

Lanark Policy 2 |



Lanark shall provide a diversity of housing types, sizes and price ranges within a mixed land use block format to provide housing choice and promote inclusivity. [City Plan 6.14(b)]

Lanark Policy 3 |



Higher density housing forms within Lanark shall be oriented to the street and located in areas with good access to transit and amenity spaces. [City Plan 6.7]

Lanark Policy 4 |



Front-drive access to residential units located along collector roadways and at major intersections shall be avoided in order to achieve a more attractive streetscape and to eliminate driveway conflicts.

Lanark Policy 5 |



Lanark shall promote innovative residential options such as cluster housing, fee-simple townhomes and mixed land use blocks, which will promote the community identity of innovation and inclusiveness. [Southeast Airdrie CASP 3.2.7]



HOUSING MIX |

Housing will include a variety of both single detached and attached dwelling units. The Airdrie City Plan requires a minimum of 30% of the housing stock within the Neighbourhood Structure Plan area to be comprised of a mix of attached housing styles. Lanark Stage 1 will provide approximately 60% detached and 40% attached housing. Attached housing forms will include street-oriented townhouses and semi-detached homes, both in laned and front-drive configurations. An innovative cluster housing block is located in the north portion of the neighbourhood which integrates both these housing forms in a clustered format. Fee-simple townhomes are located in several areas along major collector roadways, and are one of the densest forms of development in Lanark.

A range of rear and front attached single-detached homes are located throughout the community. Single dwelling units will have a range of lot sizes. Larger lots, for the move-up buyer, are located in the southeast & northwest portion of the neighbourhood while starter family lots are located in the southwest and northeast sections of the plan. Lanark will also make use of land uses which allow both single-detached and semi-detached housing types within the same block, creating a diverse and more attractive streetscape while also providing housing variety.

City Plan Policy 6.16 indicates that small and narrow lot single-detached development should not exceed 35% of the housing stock within a Neighbourhood Structure Plan area. Table 3 below shows the calculation of small and narrow lots in Lanark Stage 1, which is under the 35% maximum. For the purpose of this calculation, 'small and narrow lots' were defined through discussion with The City as any lots which are less than 11.0m in width and provide a 2-car front-drive garage. This encourages an affordable housing mix while ensuring a more attractive streetscape.

SECONDARY SUITES |

Secondary suites will be encouraged in collaboration with the City of Airdrie.

Lanark Policy 6 |



Lanark shall exceed the City Plan's minimum of 30% housing stock that is comprised of attached dwelling units. [City Plan 6.15]

Lanark Policy 7 |



Lanark shall provide housing choice and affordable housing options by meeting the City Plan standards for small and narrow lot developments. [City Plan 6.16]



Table 3 | Small and Narrow Lots

RESIDENTIAL LAND USE	UNITS
Single-detached, front drive	260
DC-44 (R-2): a maximum of 50% of these units may be small / narrow lots	138
Small/Narrow Lots	398
Total NSP Units	1218
% OF UNITS THAT ARE SMALL/ NARROW LOTS	32.7 %

4.0 Design Elements of Lanark

4.1 PLACE MAKING

Lanark will create a strongly defined sense of community through innovation and exceptional design. The overall neighbourhood will have clear elements of branding and way-finding. Neighbourhood amenities include a naturalized stormpond, neighbourhood parks, linear green pathways and a Joint Use school site. While Lanark will be further integrated into the future vision of Lanark, it also represents a distinct neighbourhood component with its own identity and design elements. Some of the key elements contributing to the sense of place in Lanark Stage 1 include:



Lanark Policy 8 |



Lanark should provide for a unique neighbourhood theme that is supported through its architectural guidelines, landscaping and community signage.

Lanark Policy 9 |



Lanark should provide attractive and identifiable “gateways” to the neighbourhood through signage and landscaping at key neighbourhood entrance points. [City Plan 6.2(i)]

Lanark Policy 10 |



Lanark should introduce legible wayfinding consisting of a linear road network, identification signage, an understandable naming theme and logical placement of key public open space elements such as neighbourhood parks and joint use sites to support and define the neighbourhood. [AirdrieONE Socially Sustainable Communities]

Lanark Policy 11 |



Lanark should promote community-wide waste management reduction initiatives where possible. [AirdrieONE Waste Management]

Lanark Policy 12 |



Streets in Lanark should be complete and characterized by tree-lined boulevards, sidewalks on both sides of the street, on-street parking and suitable travel lanes to enhance the public realm and accommodate both pedestrian and vehicle traffic in a balanced manner. [City Plan 7.5]



Lanark Policy 13 |



Where possible, the roadways and linear pathways in Lanark should provide vistas and termination points comprised of such elements as central parks, schools and storm ponds. [City Plan 6.2(g)]



Lanark Policy 14 |



Lanark should contain a variety of housing types, including single-detached dwellings & attached dwellings, to cater to a range of incomes and market preferences. [City Plan 6.2(d)]



Lanark Policy 15 |



Lanark should provide for suitable and unique recreational amenities, including a storm pond that will serve as the focal point of the neighbourhood, together with linear green spaces and pathway that connect to and integrate these amenities. [AirdrieONE Arts, Culture and Recreation]

4.2 WALKABILITY, CONNECTIVITY AND SAFETY

Lanark will provide residents with a variety of amenities within walking distance. The community design will ensure that a strong street presence for its residents is provided by means of interconnected streets and blocks that:

1. promote “liveable streets” through an enhanced streetscape, grand boulevard entry and a pedestrian-friendly environment;
2. promote walking and cycling throughout the community on streets and within a linear pathway system;
3. avoid dead-end streets through a grid-like network that creates multiple routing options for vehicles and pedestrians;
4. encourage slow and deliberate vehicle traffic movements within the residential neighbourhoods; and
5. provide neighbourhood parks, amenities and open space at the terminus of streets and pathways.

Streets and open space have designed to connect with other neighbourhoods by way of pathways and sidewalks that serve to promote walkability in the community. The pathways within Lanark and future development will also link into the existing King’s Heights and Ravenswood communities, completing the regional pathway system extending throughout the area.

Lanark Policy 16 |



Lanark shall create safe, walkable streets by utilizing a modified grid street pattern that avoids single loop roads and dead-end cul-de-sacs. Any cul-de-sacs within the plan area should open to green space and provide continued pedestrian connectivity. [City Plan 6.2(h)]

Lanark Policy 17 |



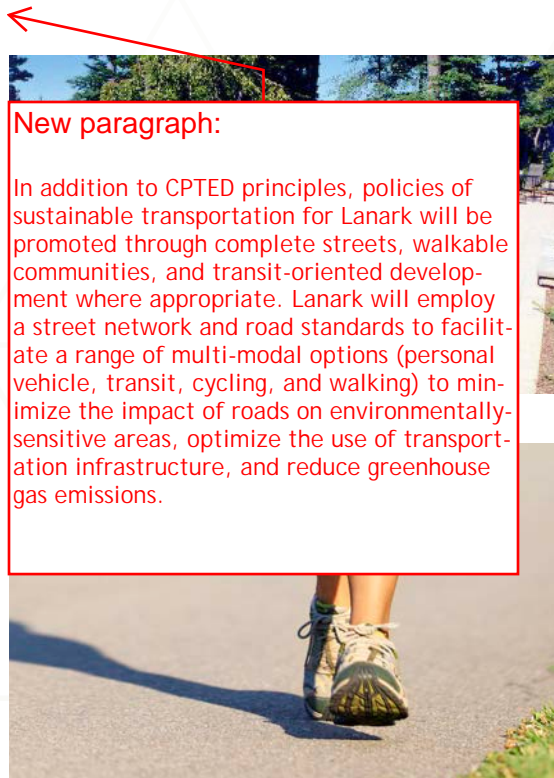
~~Lanark shall provide a safe and enjoyable pathway system promoting walking and cycling through appropriate links to parks, open space, public utility lots and school sites. Local pathways shall integrate and connect the neighbourhood to neighbouring communities and the regional pathway system. [City Plan 6.2(g)]~~

Lanark shall provide a safe and enjoyable pathway system promoting walking and cycling through appropriate links to parks, open space, public utility lots, transit stops, and school sites. Local pathways shall integrate and connect the neighbourhood to neighbouring communities and the regional pathway system using features including, but not limited to, major parks, open space, and future transit stops throughout the Plan area.



4.3 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

The AirdrieONE Sustainability Plan identifies the use of Crime Prevention Through Environmental Design (CPTED) as a means of enhancing Social Sustainability. The Lanark Stage 1 NSP is designed with a commitment to community safety, and implements the principles of CPTED by influencing the physical design of the built environment and encouraging positive social interaction.



New paragraph:

In addition to CPTED principles, policies of sustainable transportation for Lanark will be promoted through complete streets, walkable communities, and transit-oriented development where appropriate. Lanark will employ a street network and road standards to facilitate a range of multi-modal options (personal vehicle, transit, cycling, and walking) to minimize the impact of roads on environmentally-sensitive areas, optimize the use of transportation infrastructure, and reduce greenhouse gas emissions.



Lanark Policy 18 |



Lanark should provide for a modified grid road network that avoids culs-de-sac or dead end streets in order to achieve unobstructed sightlines and minimize hidden spaces. Where culs-de-sac are present, they should open onto a green street or open space. [City Plan 6.2(h)]

Lanark Policy 19 |



Lanark should orient housing to the street, and locate neighbourhood parks in higher density residential areas or in proximity to major streets, in order to maximize visibility and surveillance ("eyes on the street") and to create a sense of collective ownership of the public realm. [AirdrieONE Built Environment]

Lanark Policy 20 |



~~Landscaping in parks and along walkways in Lanark should be placed to provide for attractive pedestrian environments while retaining sightlines.~~ [AirdrieONE Socially Sustainable Communities]

Landscaping in parks, along walkways, and around transit stops in Lanark should be placed to provide for attractive pedestrian environments while retaining sightlines.

Lanark Policy 21 |

The Lanark design should include no entrapment spots or small shielded areas within parks or along walkways. [AirdrieONE Built Environment]

5.0 Open Space

5.1 OPEN SPACE NETWORK

A major amenity in Lanark will be its system of park and recreational amenities. The open space system will contribute to Lanark's identity, and represents a unique community feature for Airdrie. Open spaces within Lanark are located and configured in a way that maximizes access for residents and promotes usability in all seasons. Neighbourhood parks are located in central areas that are open and have good visibility, but are also sheltered from high levels of vehicular traffic to promote safety. Neighbourhood parks and linear open spaces are aligned with the road network to provide clear sightlines and provide connections through the community. By locating open spaces and parks along logical travelling routes in the neighbourhood, the design encourages active lifestyles and ensures that these areas are well-used and safe.

In addition to structured parks and open spaces, Lanark will include landscaping elements and entry features that contribute to the attractive, vibrant character of the neighbourhood. The cluster housing block also includes an internal private open space which is shared by these residents.

Open space elements within Lanark are indicated on the Concept Plan as either Municipal Reserve (P1 MR) or Public Utility Lot (P1 PUL). Lanark Stage 1 provides 10% of its developable land as Municipal Reserve, as well as non-credit Municipal Reserve features. The Open Space elements within Lanark Stage 1 include:

- Two neighbourhood parks providing local amenity space.
- A protected and naturalized wetland feature that serves a dual stormwater and recreational function by accommodating a range of passive recreational activities along its perimeter.
- A Joint Use Site located centrally to the site.
- Linear parks and open spaces that provide for walking and cycling, and promote pedestrian connectivity.

- Linear connections into the existing communities of King's Heights and Ravenswood.
- Landscaped entrance features at the south entry points to the neighbourhood, included as non-credit MR.

Lanark Policy 22 |



Lanark shall provide inclusive place-making through the placement of a green space in every quadrant of the neighbourhood and the situation of the school site as a central organizing green space with multiple uses.

Lanark Policy 23 |



Lanark Stage 1 shall provide a minimum of 10% of its developable land as Municipal Reserve [City Plan 8.12]

Lanark Policy 24 |



The design and orientation of parks and social spaces, including the pathways and equipment located within them, should provide for intuitive delineation of users and user groups such as age groups and activity types, as appropriate.

Lanark Policy 25|



All residential land uses shall be within a 400 metre walking distance of greenspace and the regional pathway, ensuring accessibility to parks and open space. [City Plan 6.2(f)]

Lanark Policy 26 |



Where homes front onto a green street and are accessed primarily by a lane, Lanark should provide bollard-style lighting in the green street to improve wayfinding, safety and the quality of the public space.

5.2 NEIGHBOURHOOD PARKS

These parks are integrated into blocks in the northeast and southwest portions of the site, and offer a variety of programmed and passive activities. As shown in Figure 10, the components of the Neighbourhood Parks are:

Figure 10 | Neighbourhood Park Concepts

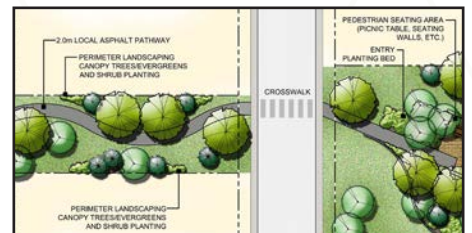
Southwest Neighbourhood Park



Highview Gate Entrance Park and PUL



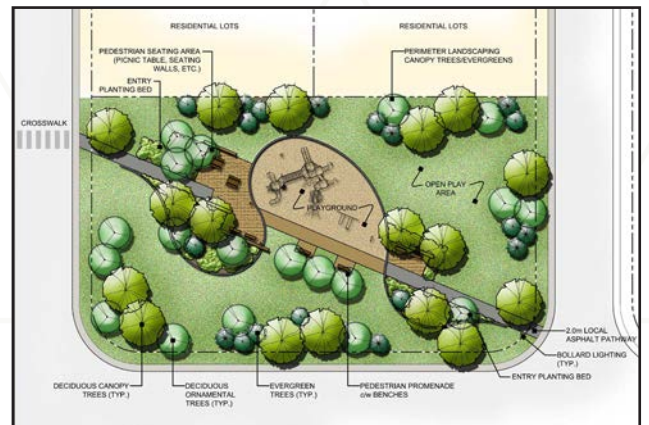
NW Neighbourhood Park Pathway Connection



Northeast Neighbourhood Park



Northwest Neighbourhood Park



**Concepts are for illustrative purposes and are subject to change*

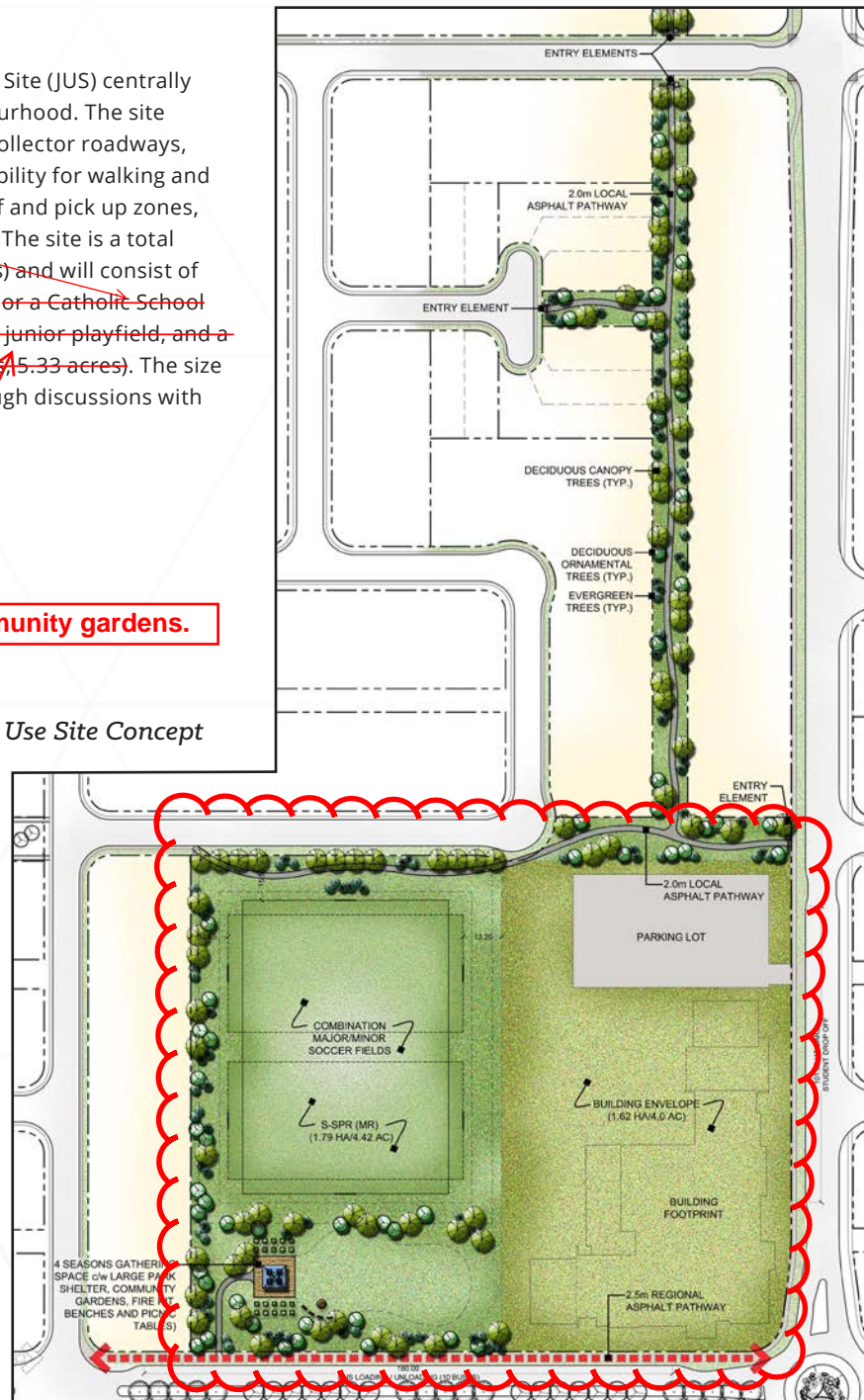
5.3 JOINT USE SITE

Lanark includes a Joint Use Site (JUS) centrally located within the neighbourhood. The site is bordered by two major collector roadways, providing excellent accessibility for walking and cycling, future bus drop-off and pick up zones, and parent drop-off areas. The site is a total of 3.78 hectares (9.33 acres) and will consist of either a Rocky View School or a Catholic School (1.62 hectares, 4.0 acres), a junior playfield, and a ball diamond (2.15 hectares, 5.33 acres). The size has been established through discussions with the City of Airdrie.

Delete

ADD...a pump track and community gardens.

Figure 11 | Joint Use Site Concept



*Concept for illustrative purposes and is subject to change

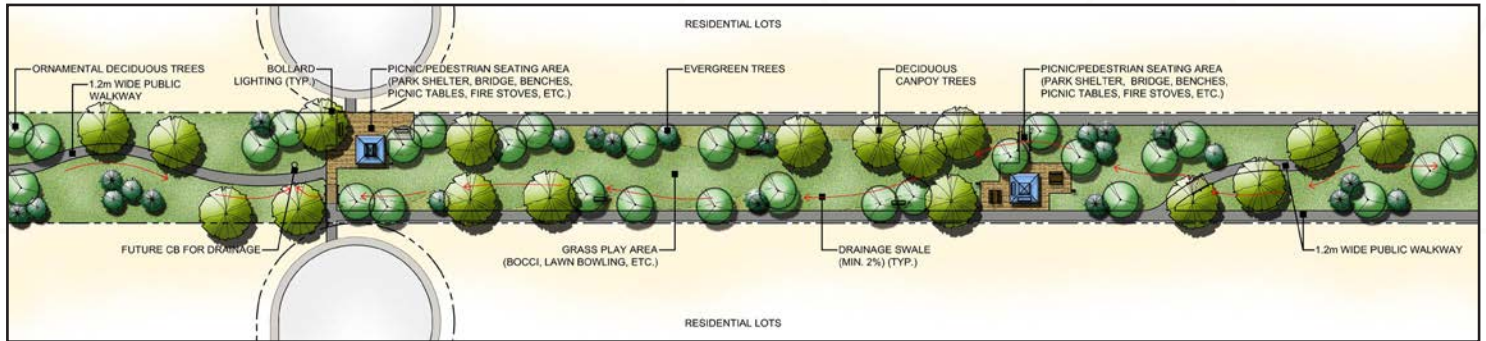
Revised Figure

5.4 GREEN STREETS/TOWNHOMES FRONTING ONTO LINEAR SPACE

Melcor is proposing innovative housing cells within Lanark Stage 1. Green streets are strategically located in the west section of the plan area to allow for green linkages between the King's Heights School Site and the proposed Lanark School, in addition to connecting directly into the north/south regional pathway system. The green streets are envisioned as 15m rights-of-way containing a variety of passive recreational opportunities. These streets will offer safe and meaningful public area. The housing product adjacent to the primary green street is proposed as townhomes with rear garage access. Visitor parking could occur as small pockets within the lane or on the adjacent public streets. This green street will contain an enhanced crossing/bulb out as it crosses Braedale Drive. The concepts below are illustrative in nature. The internal design of the green streets, including the width and location of pathways, will be further defined at the detailed design stage.

Figure 12 | Green Street and Linear Space Concepts

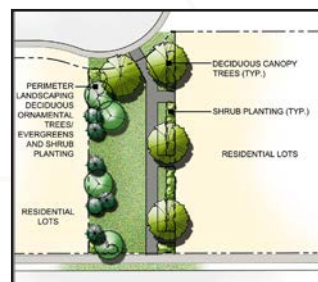
Green Street



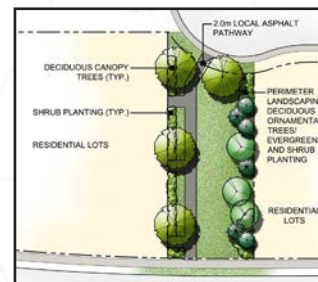
Green Street Enlargement



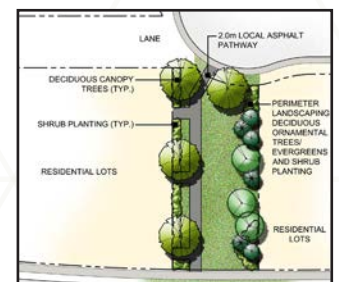
East Lanark Gate Entrance



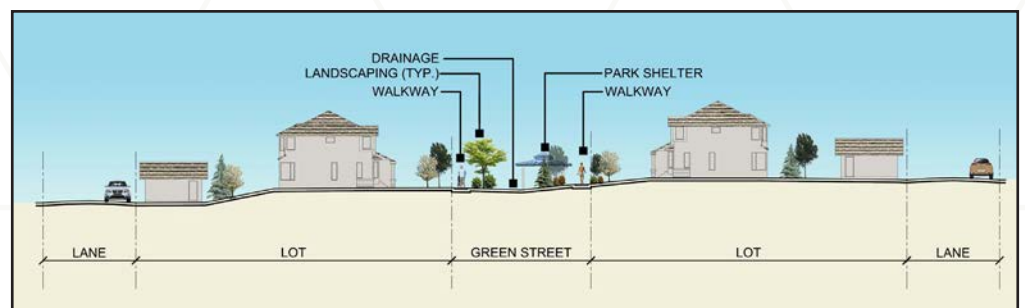
West Lanark Gate Entrance



West Highview Gate Entrance



Cross-Section A-A



*Concepts are for illustrative purposes and are subject to change

New sub-section + new detail figure (part of Figure 12):

Optional - Green Street Crossing

Rather than having local roads terminate at the green streets in bulbs, an optional configuration for green street crossings is an enhanced road crossing which prioritizes the pedestrian and has additional signage and landscaping. Design priority will be given to the pedestrian and the green street continuity and will encourage reduced vehicular speed. This optional crossing allows vehicular and pedestrian connectivity, allows for logically-shaped residential parcels and added opportunity for on-street visitor parking.

Revised Figure
Revised Street Crossing

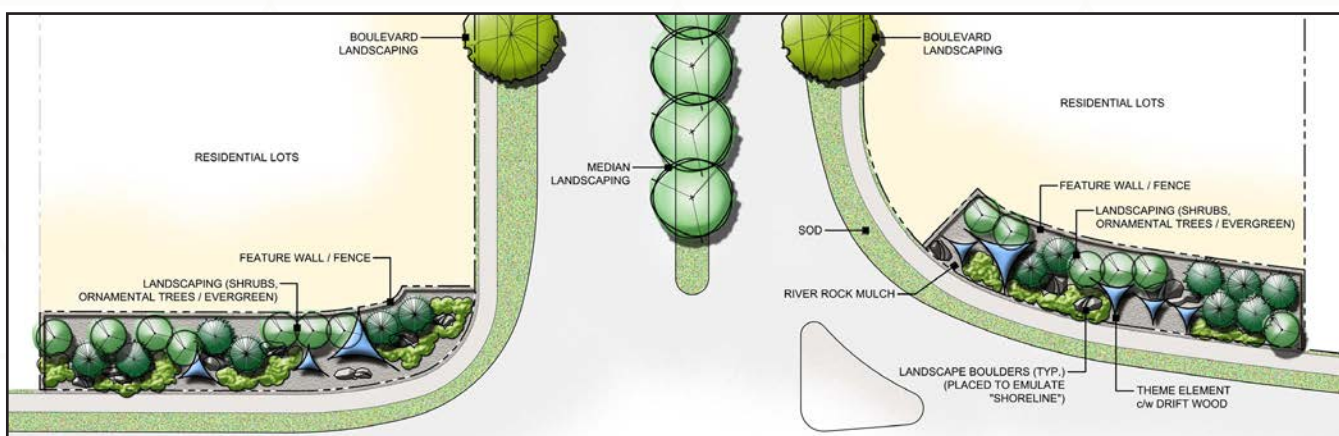
**Page 40, page numbers
updated going forward**

5.5 ENTRANCE FEATURES

Entrance features will be located at the major access points to Lanark, comprising a landscaped area and entrance sign. There will also be a plaza and pedestrian seating area located at the north end of the storm pond where Lanark will transition to Stage 2 of the community. This amenity may include a viewing deck, seating walls, benches and overhead pergola. These features are intended to enhance a sense of place and community for Lanark.

Figure 13 | Entrance Feature Concepts

Lanark Gate Entrance Features



East Lanark Boulevard Entrance Feature



**Concept for illustrative purposes and is subject to change*

Section 6.3 has been moved to the next page to accommodate additional text under 40th Avenue Header

6.0 Transportation

ADD... via adjacent arterial roads...

Delete

6.1 LANARK STAGE 1 TRANSPORTATION NETWORK

Lanark Stage 1 has 4 neighbourhood quadrants serviced by a modified-grid street layout that promotes connectivity and accessibility for all modes of transportation. The interconnected street, pathway and parks network of Lanark allow residents to access important destinations within and outside the community by vehicle, bus, cycling or walking. Several features of the transportation network are designed to reduce congestion along major collectors, including a strong internal road and pathway network and the use of laned housing products along major roadways.

6.2 BOUNDARY ROADS LAYOUT

The Lanark community is surrounded by the existing communities of King's Heights and Ravenswood. The existing road network within these communities provides a direct commute to and from the adjacent retail stores, downtown Airdrie, and the regional economic centre of Calgary.

Access into the community will mainly be achieved from south via two access points along future extension of 40th Avenue SE.

A Transportation Impact Assessment (TIA) is underway from Watt Consulting Group, and a final version of the TIA will be submitted under separate cover.

40TH AVENUE SE

The extension of 40th Avenue SE, east of Highway 2 will become a significant east/west arterial connection for the east side of Airdrie. The alignment and the two access locations align with the City of Airdrie Master Transportation Plan. Based on the TIA submitted by Watt Consulting Group, no upgrades to 40th Avenue SE are required until Lanark reached 75% build-out, at which time the extension of 40th Avenue SE is required.

6.3 INTERNAL ROAD LAYOUT

Lanark Stage 1 is served by a two primary collector roads providing vehicular access through the community. Lanark Boulevard runs east-west and provides connectivity to King's Heights to the west and the future extension of the Lanark community, to the east. Lanark Gate runs north-south and connects to Ravenswood to the north and the future 40th Avenue extension to the south. These collectors service the neighbourhoods four quadrants. A roundabout at the intersection of these two primary collector roads provides a central anchor in the community which also reduces congestion and provides traffic calming. The number of access points into the community ensures conformance with the National Fire Protection Agency (NFPA) standards.

The balance of the local road network supports development within Lanark by providing strong internal access to and through each of the four quadrants of the community. Based on the preliminary data and transportation assessment, the ROW requirements described within this section have been identified to accommodate anticipated transportation needs.

Lanark Policy 27 |



Lanark shall be designed as complete streets, accommodating a range of uses, including pedestrians, transit uses and vehicles. [CityPlan 7.4]

Lanark Policy 28 |



Lanark shall utilize the City of Airdrie General Design Standards and Construction Specifications. [CityPlan 7.10]

The ISL TIA Update (Sept 2021) analyzed Lanark Landing with the QEII / 40 Avenue interchange in two scenarios in the 2028 horizon: "with" and "without" the connection of 40 Avenue to Range Road 292. The analysis concluded that four total east-west lanes are required to connect to Range Road 292.

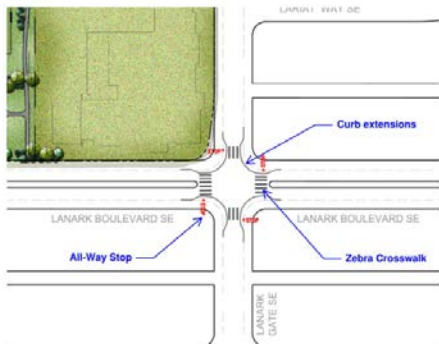
Access into the community will also be achieved from the south via two access points along the future extension of 40 Avenue SE (Highview Gate and Lanark Gate).

The TIA Update by ISL is complete and has been submitted under a separate cover.

6.3 INTERNAL ROAD LAYOUT

Lanark Stage 1 is served by a two primary collector roads providing vehicular access through the community. Lanark Boulevard runs east-west and provides connectivity to King's Heights to the west and the future extension of the Lanark community, to the east. Lanark Gate runs north-south and connects to Ravenswood to the north and the future 40th Avenue extension to the south. These collectors service the neighbourhoods four quadrants. ~~A roundabout at the intersection of these two primary collector roads provides a central anchor in the community which also reduces congestion and provides traffic calming.~~ The number of access points into the community ensures conformance with the National Fire Protection Agency (NFPA) standards.

The balance of the local road network supports development within Lanark by providing strong internal access to and through each of the four quadrants of the community. Based on the preliminary data and transportation assessment, the ROW requirements described within this section have been identified to accommodate anticipated transportation needs.



Add intersection example, caption:
Traffic calming at intersection of Lanark Gate SE and Lanark Boulevard SE

Lanark Policy 27 |



Lanark shall be designed as complete streets, accommodating a range of uses, including pedestrians, transit uses and vehicles. [CityPlan 7.4]

Lanark Policy 28 |



Lanark shall utilize the City of Airdrie General Design Standards and Construction Specifications. [CityPlan 7.10]

Lanark Policy 29

Pedestrian safety enhancement measures shall be implemented at the intersection of Lanark Gate SE and Lanark Boulevard SE such as curb extensions, zebra crosswalks and extensions of school/playground zones. Specific measures shall be implemented at the detailed design stages to the satisfaction of the City of Airdrie.

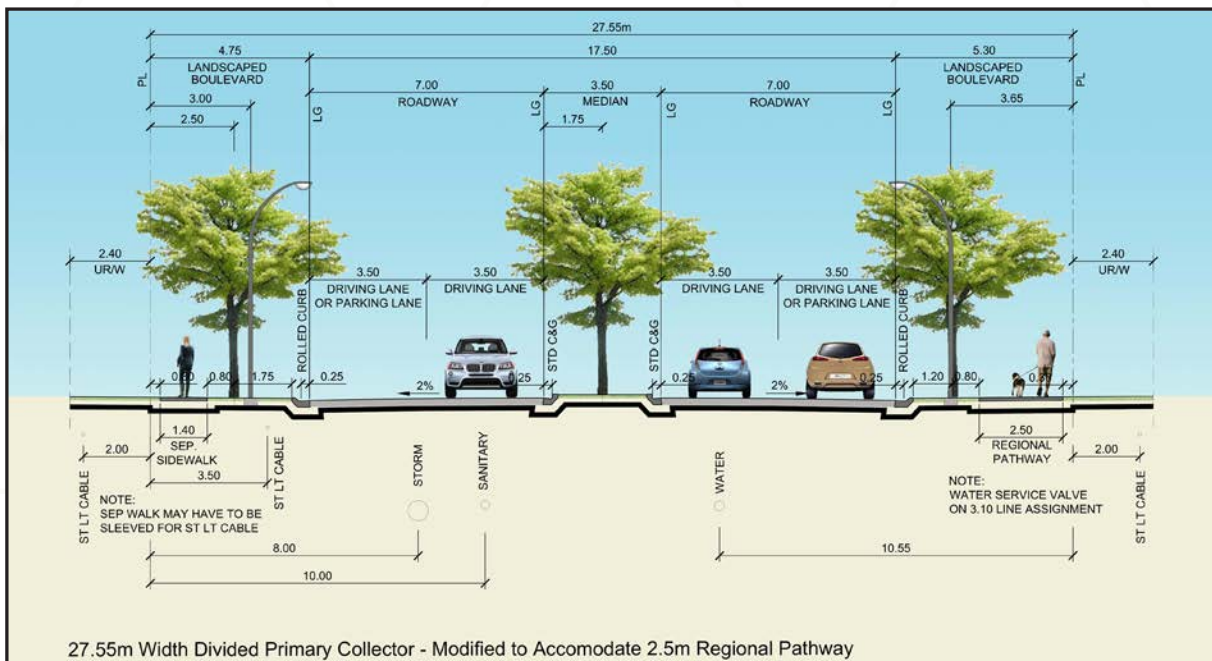
Update all policy numbers going forward

6.3.1 MODIFIED ROAD CLASSIFICATIONS – CROSS-SECTIONS

The City of Airdrie has identified the desire to implement some of the design elements of the City of Calgary Complete Streets road cross-section for residential streets within Airdrie. These design elements include sidewalks on both sides of the street and public trees. A majority of the roads in the Lanark community have been designed to include those elements. Lanark is proposing some unique modified cross-sections and they include:

CROSS-SECTION A1 – MODIFIED 27.55M DIVIDED PRIMARY COLLECTOR ROAD WITH REGIONAL PATHWAY

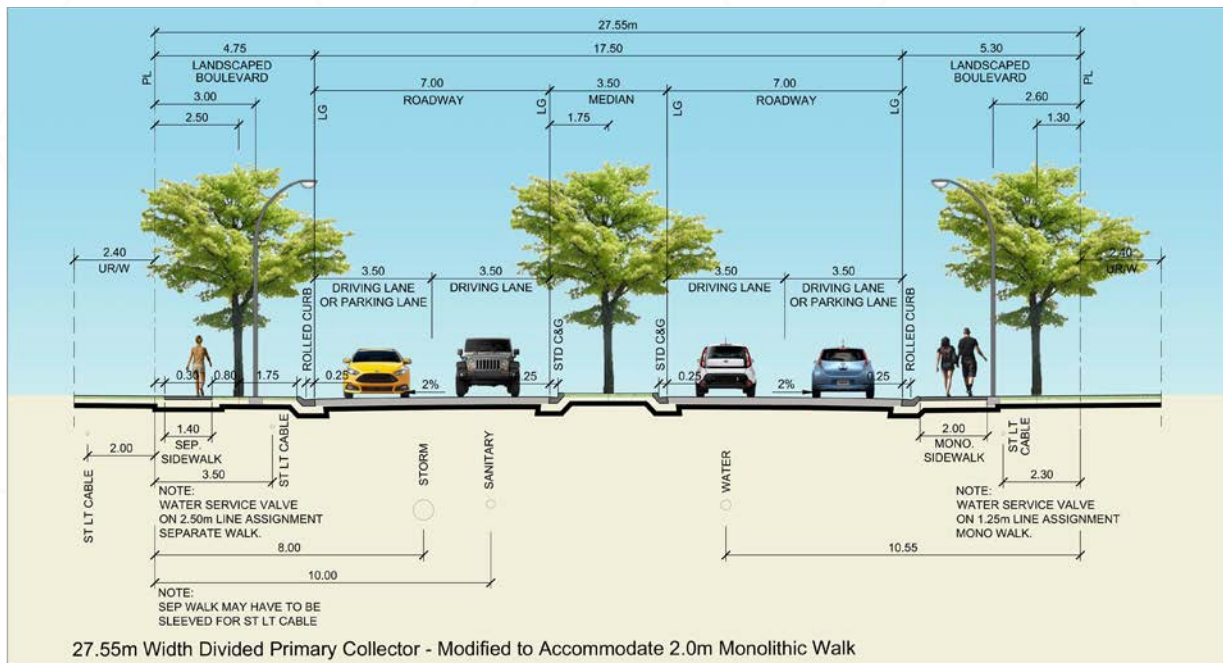
Cross-Section A1 (Lanark Boulevard) illustrates a 27.0m right-of-way Divided Primary Collector Road. This road will collect traffic from surrounding arterial streets and primary collectors for the distribution of traffic onto other local streets. This road classification is modified to accommodate a 2.5m Regional pathway on one side of the street and a 1.5m separate sidewalk on the other. Transit and direct access to adjacent properties off of this Collector Road is permitted; transit and private vehicles will be accommodated by two lanes of traffic. This road standard holds a high priority for transit, cycling and walking modes.



**For conceptual purposes and is subject to detailed design and City approval*

CROSS-SECTION A2 – MODIFIED 27.55M DIVIDED PRIMARY COLLECTOR ROAD WITH REGIONAL PATHWAY AND MONOLITHIC SIDEWALK ADJACENT TO SCHOOL SITE

Cross-Section A-2 illustrates where the north boulevard of the Modified Divided Primary Collector is modified to accommodate a monolithic sidewalk adjacent to the school site. This allows for better driver-pedestrian visibility and facilitates pick-up and drop-off.

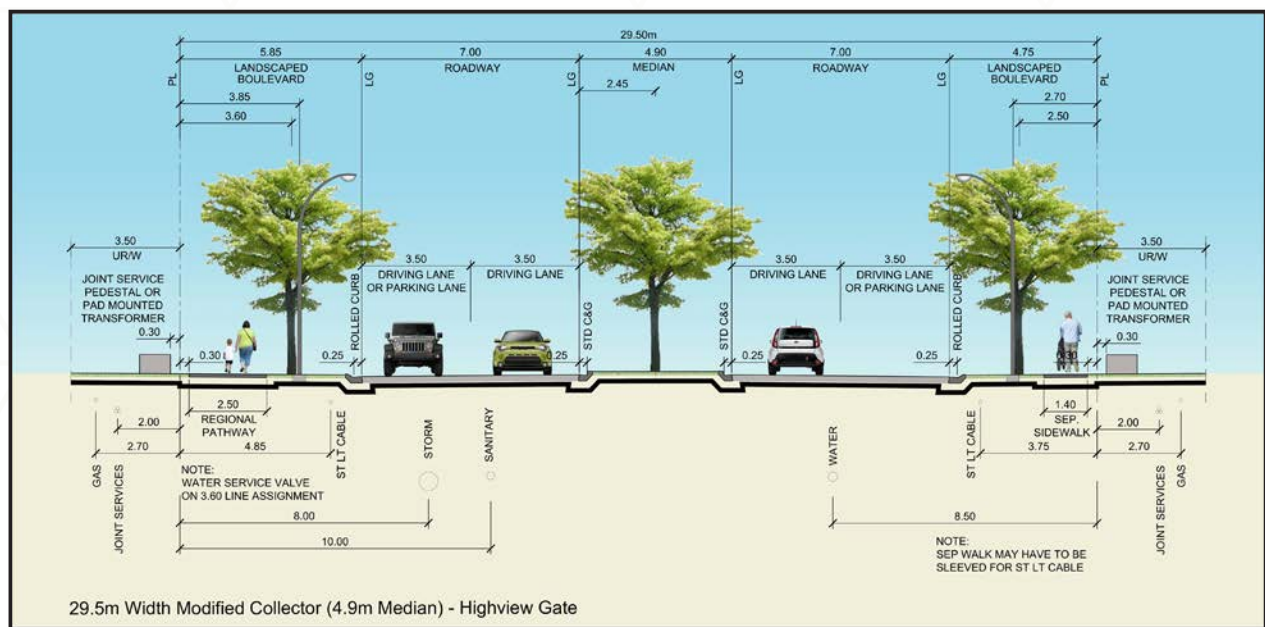


**For conceptual purposes and is subject to detailed design and City approval.*

The 2.00m monolithic sidewalk may be replaced with a 2.50m monolithic regional pathway at the detailed design stage, subject to municipal approval.

CROSS-SECTION B1 - MODIFIED 29.5M DIVIDED RESIDENTIAL ENTRANCE STREET WITH REGIONAL PATHWAY AND MODIFIED MEDIAN

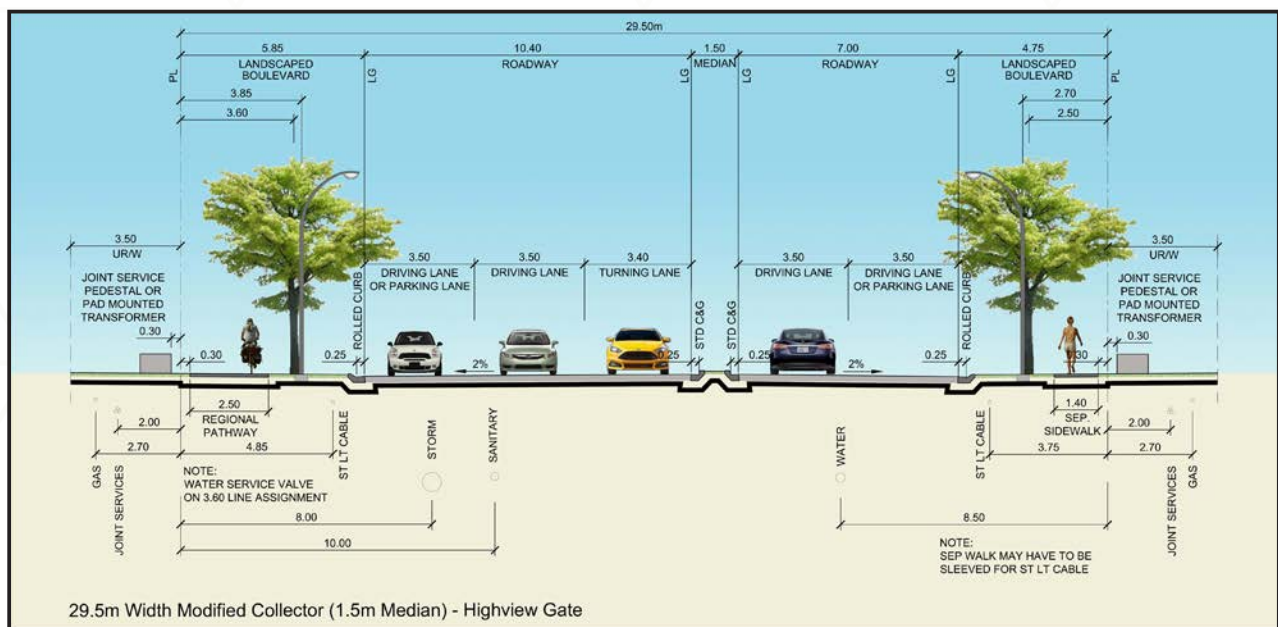
Cross-Section B is a 29.5m right-of-way Divided Residential Entrance Street within Lanark (Highview Gate and Lanark Gate). This Street is accessed off 40th Avenue and will collect traffic between the Arterial Street (40th Avenue) and the Divided Primary Collector (Lanark Boulevard) for distribution into the community. Transit and direct access to adjacent properties off this Entrance Street is permitted. The roadway contains a regional pathway alignment and a modified boulevard to accommodate turning bays and street trees. Cross-Section B1 illustrates the the north portion of the street with two driving lanes and a treed median.



**For conceptual purposes and is subject to detailed design and City approval*

CROSS-SECTION B2 - MODIFIED 29.5M DIVIDED RESIDENTIAL ENTRANCE STREET WITH REGIONAL PATHWAY AND MODIFIED MEDIAN TO ACCOMMODATE LEFT TURN LANE

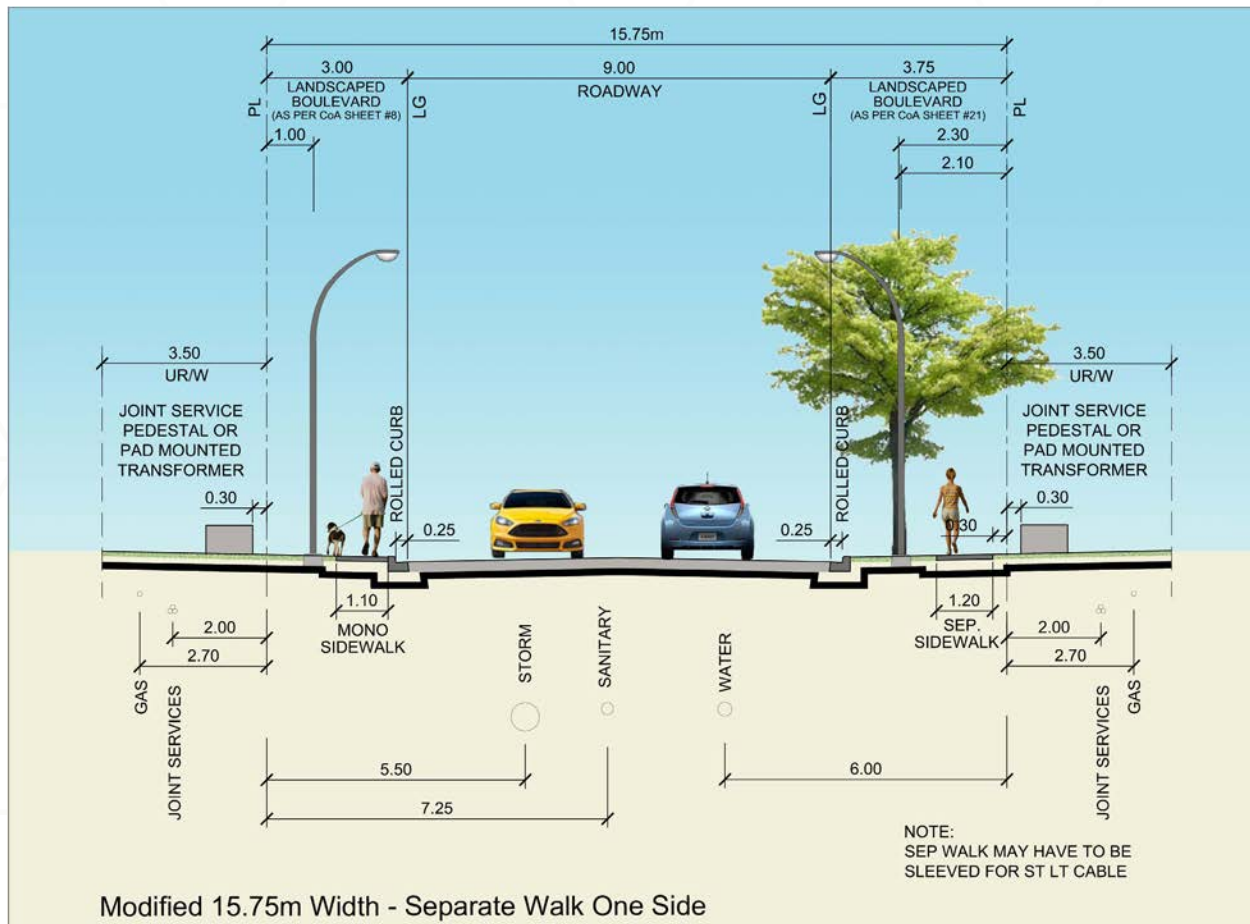
Cross-Section B2 illustrates the south portion of Highview Gate and Lanark Gate. The median shown in Cross-Section B1 tapers down to accommodate the left turn lane and movements onto 40th Avenue as shown below. This cross-section design was recommended by consultant to The City as part of the 40th Avenue East design work.



**For conceptual purposes and is subject to detailed design and City approval*

CROSS-SECTION C – 15.75M MODIFIED RESIDENTIAL STREET FOR FLANKAGE LOTS

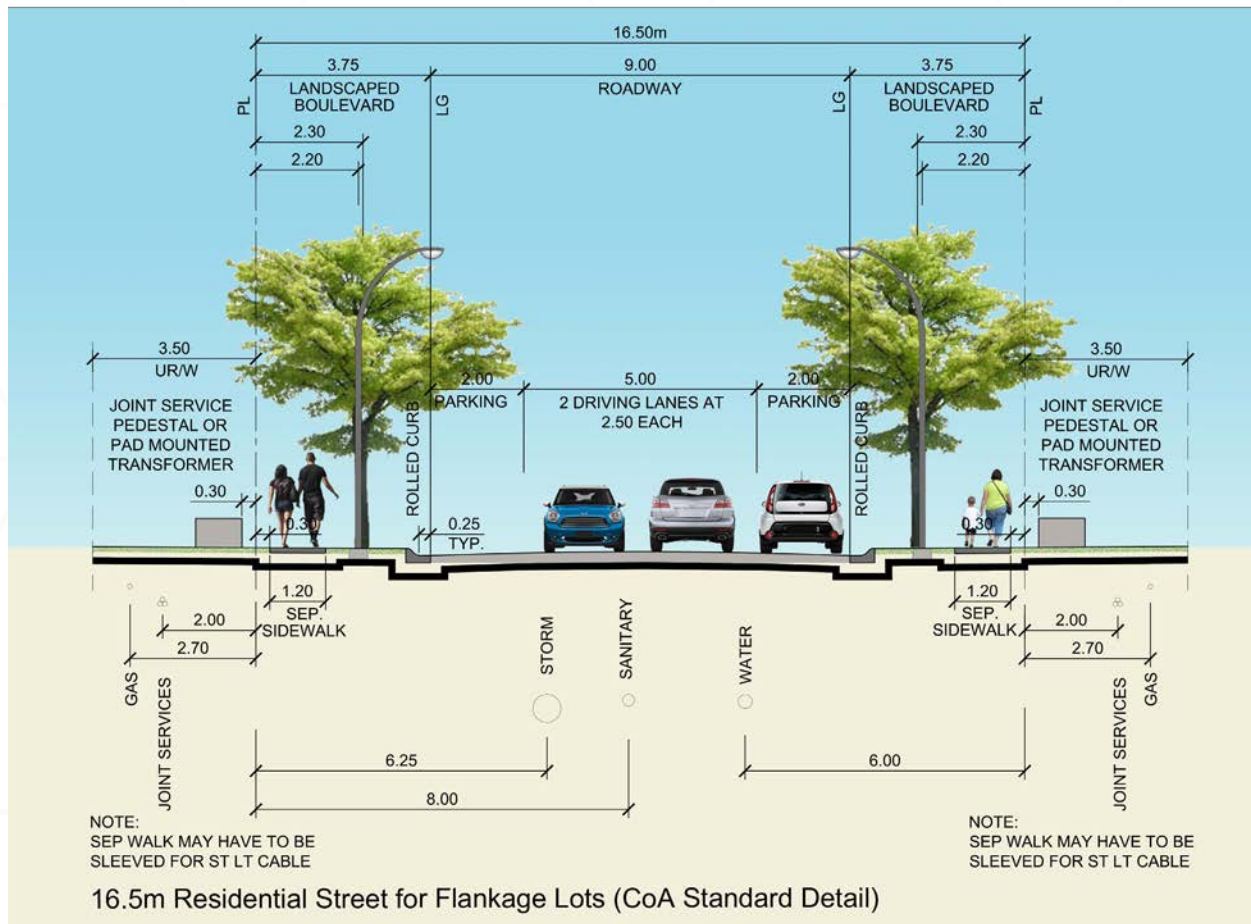
Cross-Section C illustrates a modified 15.6m right-of-way residential street which will accommodate local traffic flow as well as providing a separate sidewalk and treed boulevard on one side of the street. This residential street will be utilized in locations where a local residential street is directly adjacent to the side facing of a residential lot (referred to as “flankage”), with the intent of providing a more attractive and pedestrian streetscape. In all instances, the separate sidewalk is to be located on the side of the street with flankage lots.



**Concept for illustrative purposes and is subject to change*

CROSS-SECTION D - 16.5M MODIFIED RESIDENTIAL STREET FOR FLANKAGE LOTS

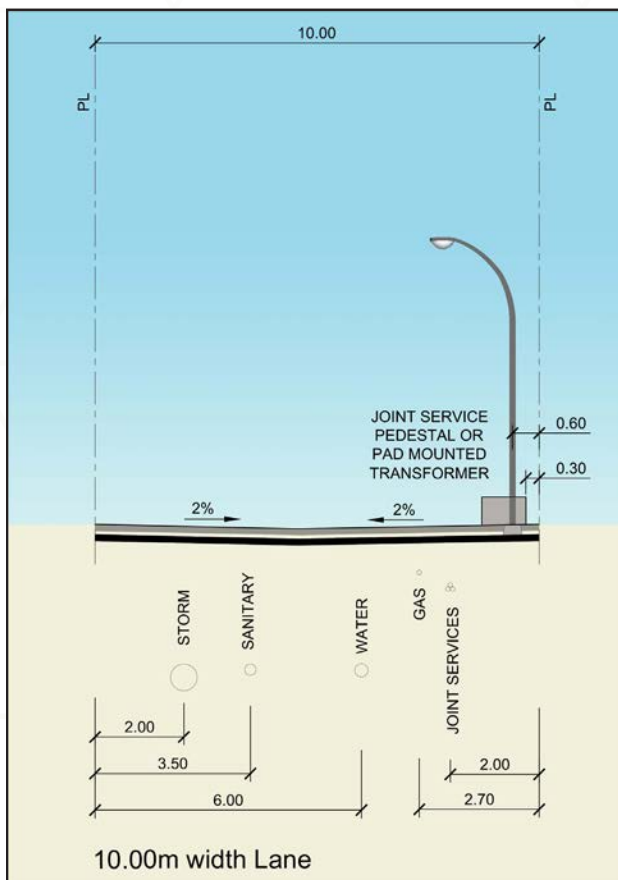
Cross-Section C illustrates a modified 16.2m right-of-way residential street which will accommodate local traffic flow as well as providing a separate sidewalk and treed boulevard on each side of the street. This residential street will be utilized in locations where both sides of a local residential street are directly adjacent to the side facing of a residential lot (referred to as "flankage"), with the intent of providing a more attractive and pedestrian streetscape.



**Concept for illustrative purposes and is subject to change*

CROSS-SECTION E – 10.0 M LANE

Cross-Section E illustrates a modified 10.0m lane. This lane width will be provided to the rear of laned housing that fronts onto a green street. This provides increased room for vehicles to pass and access rear parking.

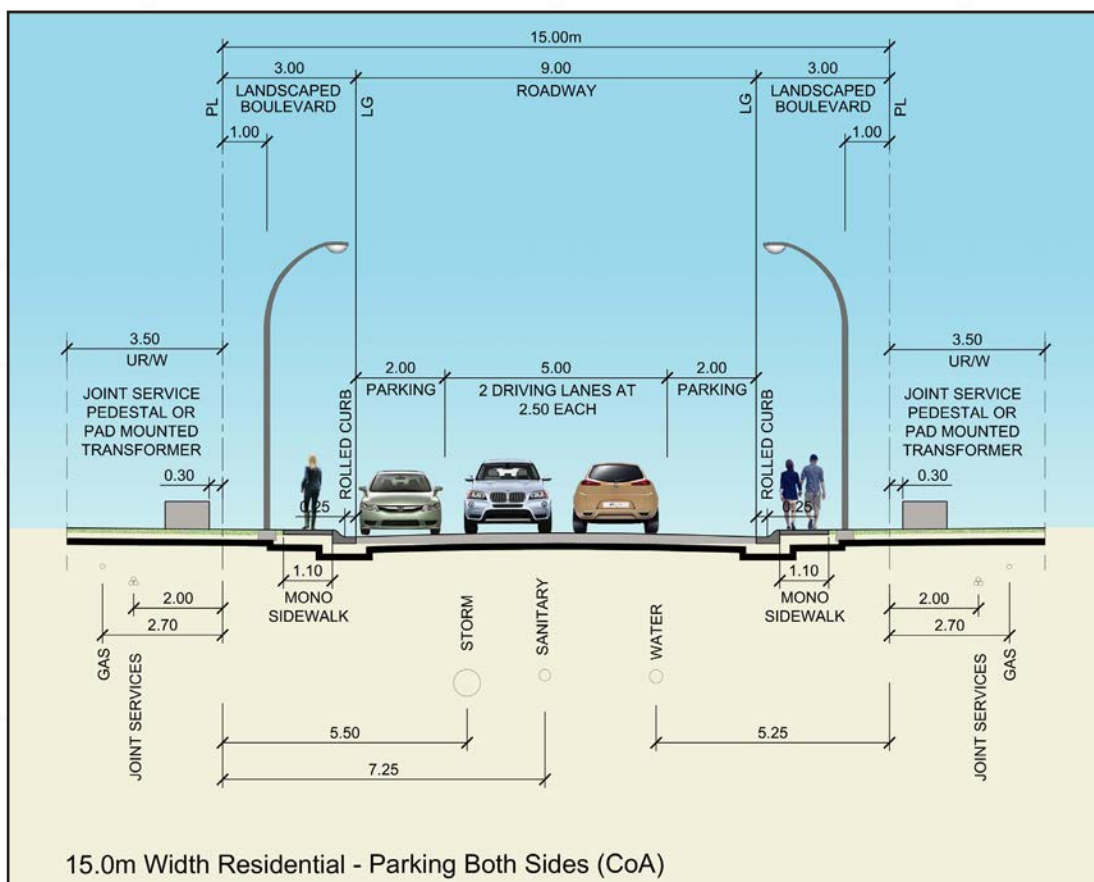


**Concept for illustrative purposes and is subject to change*

6.3.2 STANDARD ROAD CLASSIFICATIONS – CROSS-SECTIONS

CROSS-SECTION F – 15.0M RESIDENTIAL STREET

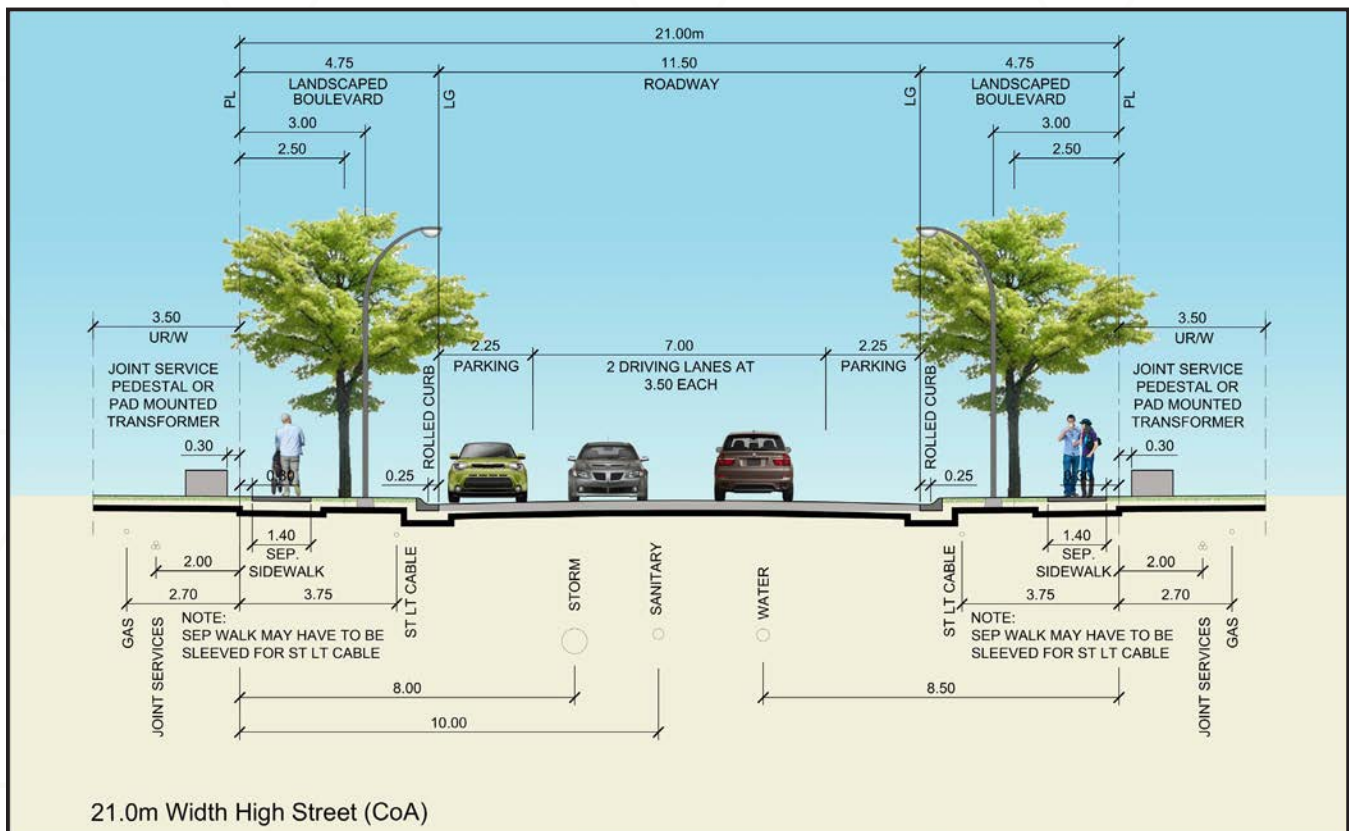
Cross-Section F illustrates a 15.0m right-of-way residential street and will accommodate local traffic flow, providing access to adjacent properties and providing connections to primary collector roadways. Parking is permitted on both sides of the street.



*Concept for illustrative purposes and is subject to change

CROSS-SECTION G – 21.0M COLLECTOR

Cross-Section G illustrates a 21.0m right-of-way collector. This road will collect traffic from surrounding arterial streets and primary collectors for the distribution of traffic onto other local streets. Transit and direct access to adjacent properties off of this Collector Road is permitted; transit and private vehicles will be accommodated by a single lane of traffic and parking lanes on each side of the road. This road standard holds a high priority for transit, cycling and walking modes. The 1.40m separate sidewalk will convert to 2.00m monolithic sidewalk along the perimeter of the school site for parent drop-off.



**Concept for illustrative purposes and is subject to change*

6.4 TRANSPORTATION IMPACT ASSESSMENT

Lanark is primarily serviced via Yankee Valley to the current lack of a second primary connection interchange, the City of Airdrie must be prudent in its planning. As such Watt Consulting Group

In 2015, a TIA was undertaken by Watt, assuming there was no interchange at QEII / 40 Avenue. With the Government of Alberta's recent announcement of funding of the interchange and commencement of construction in 2021, ISL undertook a TIA Update that included the QEII / 40 Avenue interchange and focused on 40 Avenue and Yankee Valley Boulevard, in the "with" and "without" 40 Avenue extension to Range Road 292 scenarios.

New Lanark Policy 30

As a condition of subdivision for each Phase of development, a traffic signal warrant assessment shall be undertaken to determine the necessity and timing of signalization at the intersections of 40 Avenue at Highview Gate and 40 Avenue at Lanark Gate. The warrant assumption shall consider the 40 Avenue connection between the 40 Avenue interchange and RR292 using the volumes of the upcoming phase of Lanark and the unbuilt lots of the previously approved phase(s), plus the current traffic volumes on 40 Avenue, as collected by updated traffic counts.

In the last Phase of development, a final signal warrant shall be undertaken using the proposed development traffic plus background traffic from the current version of the Transportation Master Plan, which shall include the 40 Avenue connection between the 40 Avenue interchange and RR292 in the warrant assumptions.

If the traffic signal warrant is met in any of the interim Phases or the last Phase of development, the full contribution to the traffic signal will be conditioned with that Phase of development.

Added photos



Delete

~~Trip distribution was assigned in all scenarios based on updated modelling from Airdrie's 2015 Transportation Master Plan (TMP). Several additional trip distribution assumptions were made including no connection of 40 Avenue SE to Highway 2, despite its inclusion in the TMP modelling.~~

~~Traffic generation from Lanark was layered in with the existing background traffic volumes at four different horizons to determine the trigger point for the various transportation infrastructure requirements throughout phased development of the community. These horizons represent 25%, 50%, 75% and 100% build-out. The timing for improvements in the TIA is listed below. Phase numbers are provided for reference only. Total subdivided units shall serve as the actual trigger for improvements.~~

~~• 25% build out (304 subdivided units – Phases 1 to 2)~~

- ~~o Kingsview Boulevard, East Lake Boulevard and Yankee Valley Boulevard signals re-timed and optimized.~~
- ~~o Kingsview Boulevard and 40 Avenue SE (Sharp Hill Way) signalization and intersection improvements. An 80m. westbound left turn lane is required.~~
- ~~o Lanarkshire Drive connection to Ravenswood Drive SE for a second access to/from the community. It is also noted that according to section 1141 of the NFPA, a secondary street access is required when the distance from the center line of the primary access street to the closest point of the access route at a building's principal entrance exceeds 200 meters and/or the total number of households exceeds 100.~~
- ~~o Two-lane construction of 40 Avenue SE from Highview Street to Range Road 292 in order to address capacity issues in Southeast Airdrie in the absence of the 40 Avenue SE interchange. Note that this improvement was not recommended or required by the TIA report but has been added to this schedule through discussion with The City.~~



Delete

- ~~50% build-out (608 total units – Phases 3 to 5)~~
 - ~~King's Heights Gate and Yankee Valley Boulevard signalized. A 50m. westbound left turn lane is required.~~
- ~~75% build-out (912 total units – Phases 6 & 7)~~
 - ~~40 Avenue SE widened to 4 lanes (from service road to 200m. east of Kingsview Boulevard).~~
- ~~100% build-out (1218 total units and 900 students – Phases 8 & 9)~~
 - ~~Lanark Gate and 40 Avenue SE intersection constructed for a third access to/from the community.~~
 - ~~Kingsview Boulevard extended southward to 40 Avenue SE (Sharp Hill Way).~~
 - ~~Signalization of the intersection at Lanark Gate and 40 Avenue SE.~~

~~Technical details related to each improvement are referenced in the TIA and will be further refined through future functional studies and detailed design.~~

~~The TIA notes that a 75% build-out of Lanark can be achieved without the connection of 40 Avenue SE to Range Road 292. However, in the absence of the 40 Avenue SE interchange with Highway 2, this additional traffic volume marginally worsens traffic flows and levels of service at Yankee Valley Boulevard & Highway 2. Understanding that the City's priority is to improve traffic flows in southeast Airdrie, the connection of 40 Avenue SE to Range Road 292 has been brought forward to 25% build-out. This will improve SE Airdrie traffic capacity in the interim, while providing a relief valve for existing and future traffic in SE Airdrie during the absence of the 40 Avenue SE Interchange. Once the 40 Avenue SE connection to Highway 2 is complete, operating conditions in the area will improve significantly.~~

~~Notwithstanding the foregoing, the City may accept revised timing or alternatives to the noted infrastructure improvements without requiring an NSP amendment. However, any modifications shall be rationalised through an updated TIA study to the satisfaction of Administration.~~



6.5 PUBLIC TRANSIT

Lanark Stage 1 will accommodate public transit service in the future and is anticipated to be integrated into routing that connects the neighbourhood to the surrounding communities of King's Heights, Ravenswood, and Lanark in the future. The logical routing for public transit service would collect transit riders from the primary collector network, which runs both north-south and east-west and is centrally located.

The closest City of Airdrie transit service route that provides local transportation for the community is Route 3 which circles through the Kings Heights community. It is recommended that Bus Route 3 be extended into the Lanark area once it is fully developed. This bus route will provide sufficient coverage of the proposed development, increasing possible destinations throughout the city and increasing the number of people and activities that benefit from the service. This route will provide the Lanark community with easy access to public transportation.

Approximately 95% of the lots in Lanark Stage 1 are within a 400m walking distance of the major public transit service route - the maximum walking distance typically accepted for effective transit service. This provides a high level of connectivity to transit routes around the community. The proposed school site is located directly adjacent to Lanark Boulevard and Lanarkshire Drive, and will be directly serviced by transit stops.

The Lanark community will achieve a street connectivity index of 1.64 and an active modes connectivity index of 1.77, both of which exceed the target for new communities established in the City of Calgary's Draft Connectivity Handbook. Therefore, no additional pathways are recommended to improve connectivity.

Lanark Policy 29 |



Lanark should promote energy efficiency and reduce automobile reliance by improving residents' access to sustainable transportation alternatives. [AirdrieONE Energy]

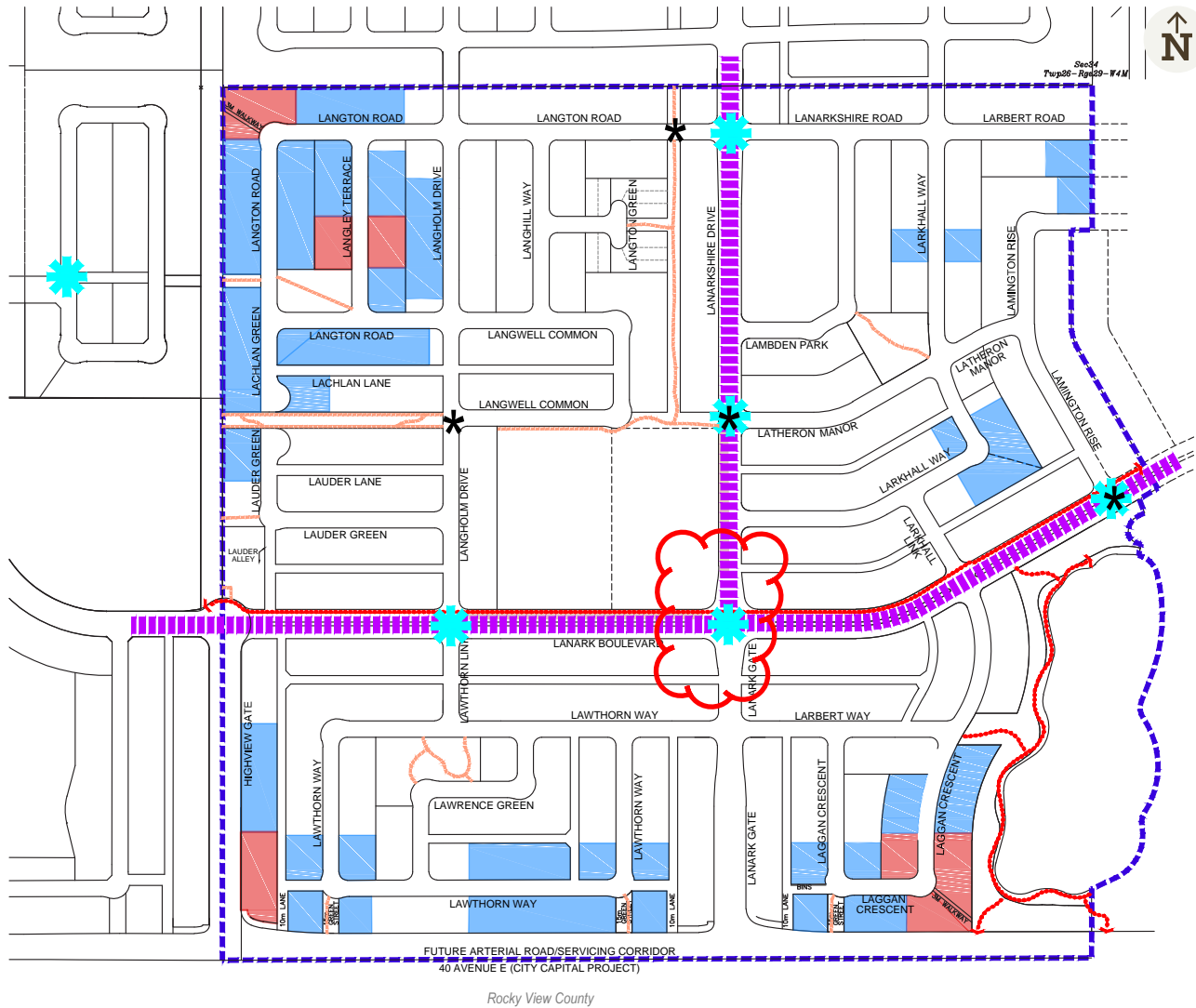
Lanark Policy 30 |



Lanark should provide an integrated multi-modal transportation network that improves residents' access to job opportunities and commercial services. [AirdrieONE Economic Prosperity]



Figure 15 | Transit Concept

**Legend:**

- Neighbourhood Structure Plan Boundary
- Potential Future Transit Route
- ★ Potential Future Transit Stop
- Regional Pathway
- Local Pathway
- ★ Traffic Calming

	UNITS	% OF UNITS
WALKING DISTANCE WITHIN 300m	957	78.6%
WALKING DISTANCE BETWEEN 300m-400m	223	18.3%
WALKING DISTANCE OUTSIDE 400m	38	3.1%
TOTAL *	1218	100%

Revised Figure
Updated Street Names

6.6 PEDESTRIAN CIRCULATION AND ACTIVE TRANSPORTATION

The pedestrian circulation and open space network is an important feature of Lanark Stage 1. Parks, pathways and open spaces are integrated throughout the community and provide connections to important destinations, improving residents' access to natural amenities and options for recreation.

Pedestrian circulation is facilitated throughout the site by a network of neighbourhood parks and pathways, a school site and the regional pathway corridor. Multi-use pathways and linkages throughout the neighbourhood connect pedestrians and cyclists to neighbourhood focal points and open spaces for local recreation and enjoyment.

Additionally, Lanark Stage 1 is strongly integrated with the City-wide regional pathway, which will run through the community along the major collector roadway and provide access to major amenities such as the school site and stormpond. In addition, the regional pathway extends east to the future extension of the Lanark community.

Sidewalks are provided on both sides of all roads at a minimum of 1.5m wide. Separate sidewalks along the primary collector system will provide greater pedestrian safety and allow for a more relaxing walking experience.

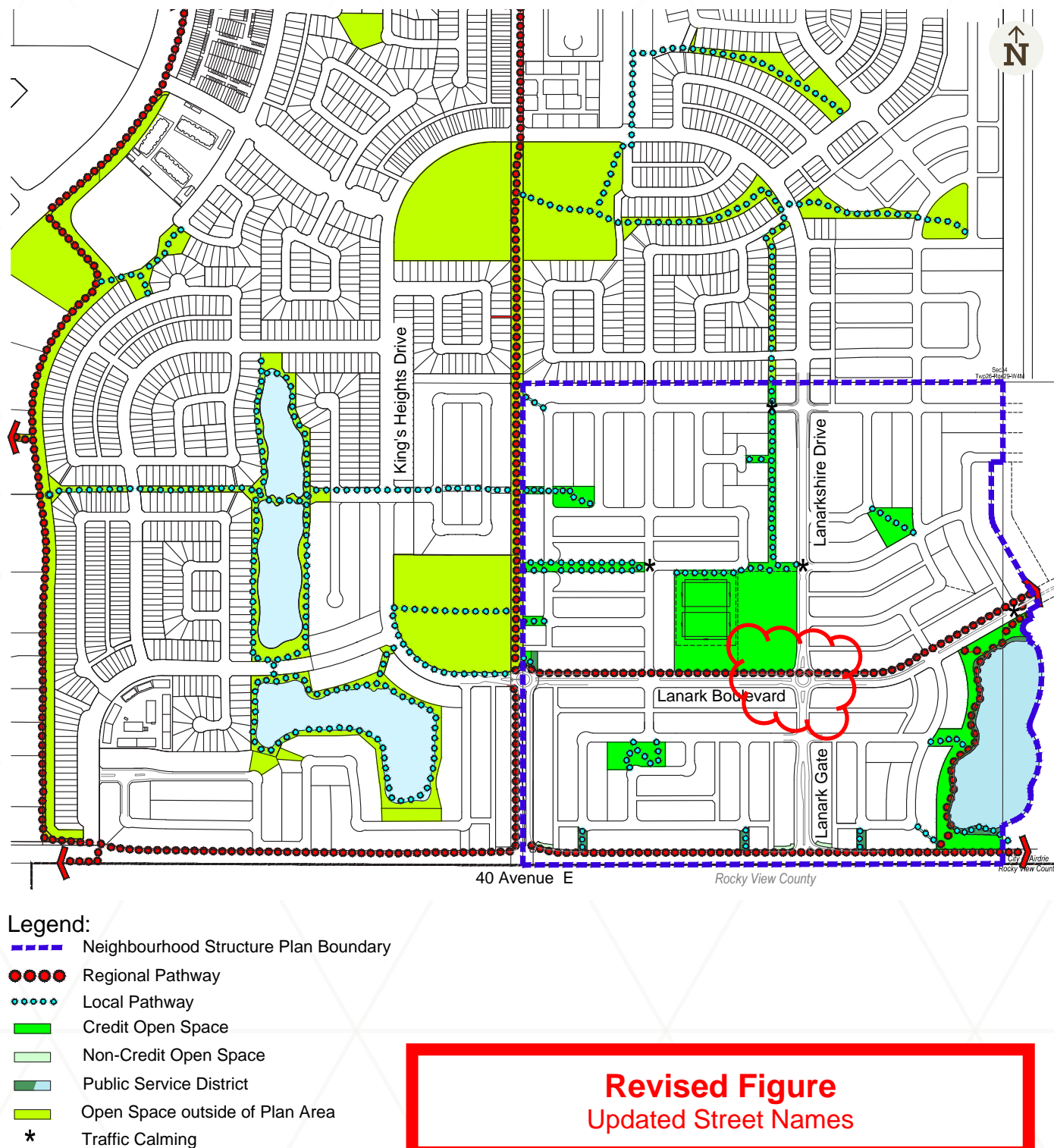
Lanark Policy 31 |



Lanark shall provide all residents with access to pathways, open space and amenities through the implementation of a strong multi-modal transportation system and the placement and configuration of neighbourhood amenities.
[AirdrieONE Sustainable Transportation]



Figure 16 | Pedestrian Pathway Network



Revised Figure
Updated Street Names

STREET CONNECTIVITY INDEX

The Street Connectivity Index is a tool currently used by many municipalities, and is identified within the City of Airdrie's Transportation Master Plan and Complete Streets toolbox as a guideline for measuring high connectivity. This index measures the density of connections in path or road networks and the directness of the links. It quantifies how well vehicular and pedestrian networks are connected on-site, as well as their links to connection points off-site. An index rating of 1.40 is the minimum needed for a community to be considered walkable, and is the minimum recommendation for new residential areas as indicated by the Connecting Airdrie Complete Streets Toolbox.

The calculation is completed by identifying the ratio of links and nodes. Nodes are identified at any intersection or cul-de-sac, while links are any connection between two nodes or between a node and the external road network. In Lanark Stage 1, some lanes are included in the calculation where they provide the only access to homes.

The proposed road network for Lanark follows a modified grid network approach similar to other Melcor communities. This approach results in multiple internal connections to each community access point. The Lanark community will achieve a street connectivity index of 1.66 based on the current outline plans, well above the target of 1.4 for new communities. The regional road network permits community access on all four sides of Lanark, providing multiple opportunities to access the community. The connectivity for vehicles is illustrated in Figure 19.

Lanark Policy 32 |



Lanark shall achieve a minimum Street Connectivity Index score of 1.4. [Connecting Airdrie Complete Streets Toolbox, Transportation Master Plan]



ACTIVE MODES INDEX

The Active Modes Index reflects the average active modes connectivity of residential community. Active Modes refers specifically to walking and cycling for the calculation of this index rating. In new residential areas, a score of 1.6 is the minimum recommendation as indicated by the Connecting Airdrie Complete Streets Toolbox.

The proposed pedestrian and bicycle network for Lanark includes sidewalks or pathways on both sides of all public streets, regional pathways along some internal primary collector roads, local pathways surrounding the wetlands in the community, and strategic placements of pathway/walkway links. Taken as a whole, this network provides excellent connections within the community as well as to adjacent communities. The Lanark community achieves an active mode connectivity index of 1.83, which exceeds the target of 1.6 for new communities established in the Complete Streets Toolbox. In addition to this pathway and walkway network, linear parks also provide additional connectivity and options for active use. The connectivity for active modes is shown in Figure 18. Regional pathways will be provided along Lanark Boulevard and the storm pond in the southeast quadrant of the community to facilitate pedestrian and cyclist connectivity with the adjoining community to the east.

Lanark Policy 33 |



Lanark shall achieve a minimum Active Modes Index score of 1.6. [Connecting Airdrie Complete Streets Toolbox, Transportation Master Plan]



Photo replaced

7.0 Servicing

7.1 WATER

Water servicing of the Lanark – Stage 1 NSP area can occur through the extension of the water distribution system from the existing King’s Heights development to the west and the existing Ravenswood development to the north. Water main extensions are available from the following locations:

- Extension of the existing 400mm water main east along King’s Heights Drive to Lanark Boulevard where it continues east as a regional water main through the NSP area and into future lands to the east. Water main ties can branch off from this main.
- The 200mm water main at Ravenscroft Green along the north boundary can be extended south into the NSP area.
- The 250mm water main at Ravenswood Drive along the north boundary can be extended south into the NSP area.
- The 300mm water main at Ravensmoor Common along the north boundary can be extended south into the NSP area.
- A tie can be extended from the water main that will be in place at Highview Gate and 40th Avenue with the completion of the King’s Heights development in this area.

The extension of ties from these locations will allow for a looped system to be established for servicing of the NSP area.

Lanark Policy 34 |



Lanark shall provide utility servicing through cost-effective and efficient

- (a) staging of services in concert with development;
- (b) sizing of services to meet land use and density requirements;
- (c) alignment of services within road rights-of-way and public utility lots;
- (d) design of services to meet the established standards and requirements of the City.

Lanark Policy 35 |



Utility services shall be developed in Lanark in a manner that will support the City Development Strategy through,

- (a) logical servicing extensions and staging of development;
- (b) co-ordination of grading and water main locations to take advantage of gravity drainage and avoid pumps;
- (c) appropriate looping of municipal servicing;
- (d) facilitation of necessary community facilities and amenities, such as pre-serviced and rough grading school sites, etc.

Lanark Policy 36 |



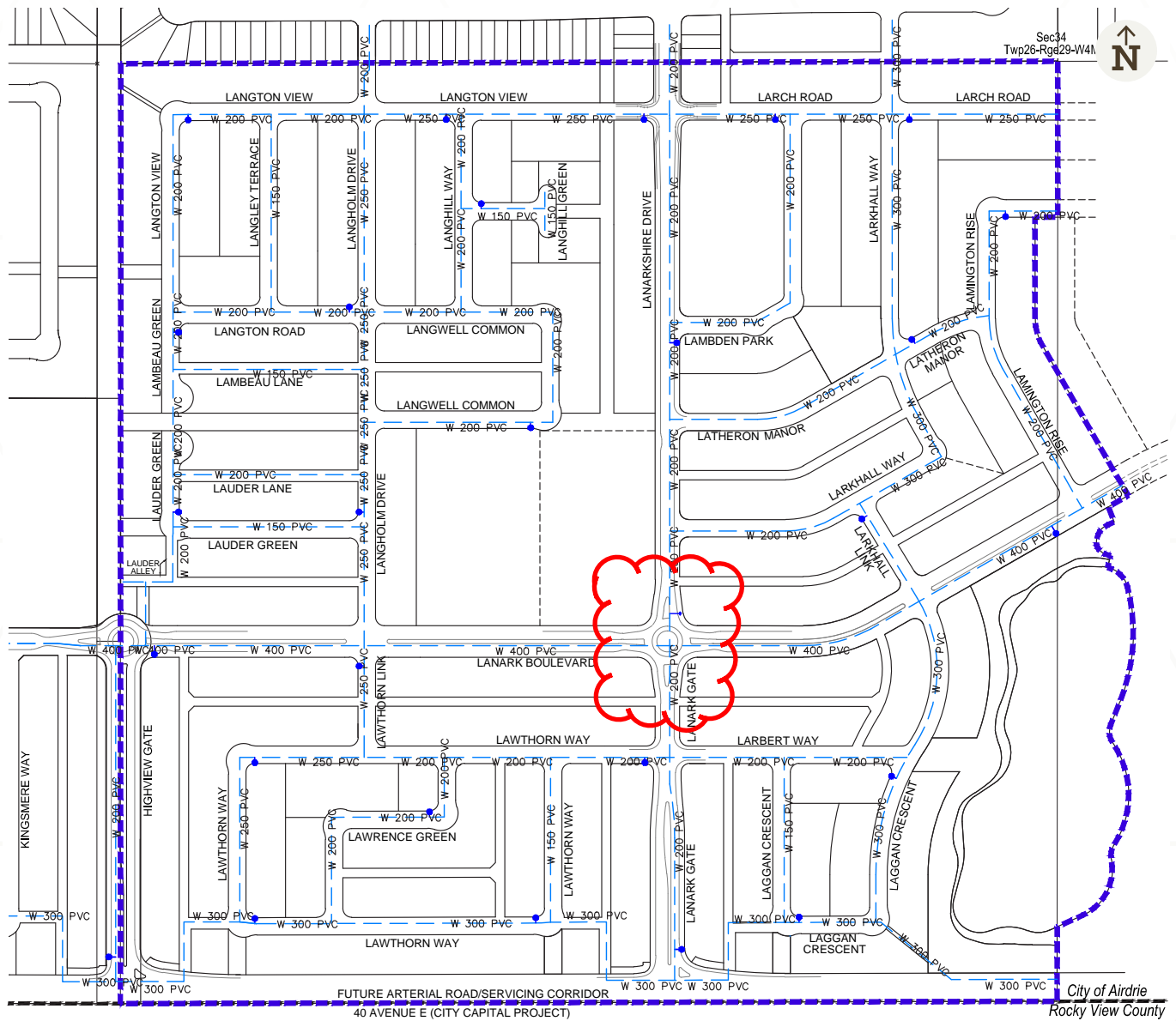
Lanark shall contribute to environmental sustainability through innovative stormwater management such as irrigation of open spaces and by meeting the release targets for the Nose Creek Watershed Management Plan. [AirdrieONE Water]

Lanark Policy 37 |



Lanark Stage 1 shall adhere to the relevant recommendations of the Biological Impact Assessment provided in support of this NSP application. [City Plan 3.32]

Figure 19 / Water Servicing Concept



Legend:

- Neighbourhood Structure Plan Boundary
- Water Servicing

Revised Figure

Updated Street Names

7.2 SANITARY

The sanitary flows from the Lanark – Stage 1 NSP area will be conveyed through the existing sanitary sewer system in the adjacent King's Heights development to the west. The existing 375mm sanitary sewer main along King's Heights Drive will be extended east to Lanark Boulevard within the NSP area. Sanitary sewer laterals, in turn, will branch off from this main along proposed roadways and utility rights-of-way for servicing of the full NSP area. Sanitary servicing of the NSP area will occur completely by way of a gravity sewer pipe system.



7.3 SHALLOW UTILITIES

Existing shallow utility infrastructure (electric, telecommunications, cable and gas) services the existing adjacent King's Heights and Ravenswood developments to the west and north of the NSP area. It is anticipated that shallow utility servicing for the NSP area will occur through the extension of infrastructure from these existing developments.



7.4 STORMWATER

Storm servicing of the NSP area will occur entirely by way of a gravity sewer pipe system constructed along proposed roadways and rights-of-way. The storm sewer pipes will convey storm drainage to a stormwater wet pond which will both control the quantity and improve the quality of discharge prior to release into the receiving downstream storm sewer system.

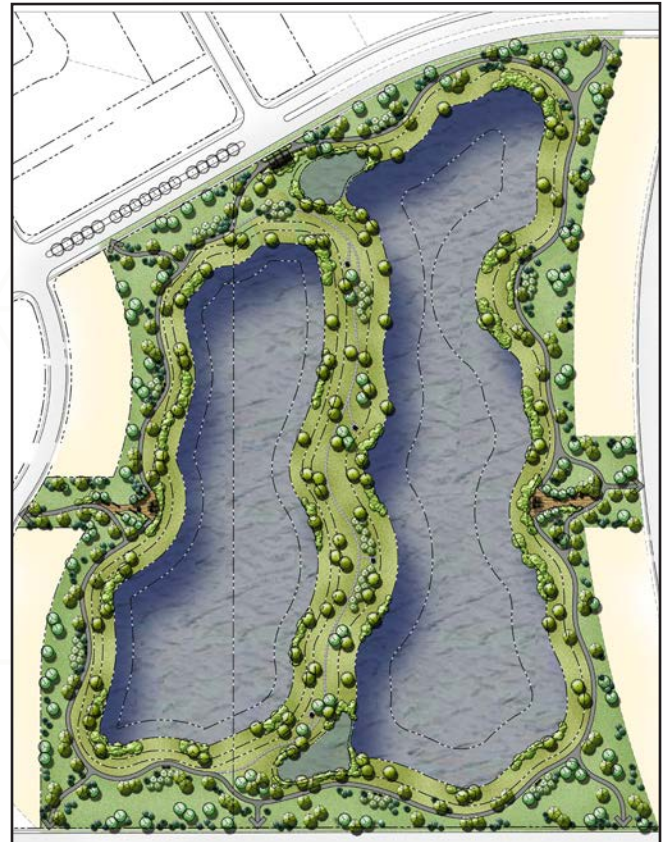
The stormwater wet pond in King's Heights (just west of the NSP area) has capacity to service approximately 10 ha of development from the NSP area which is anticipated will comprise portions of the development along the west and south. Storm sewer pipes will be extended from the existing system in the King's Heights development east along King's Heights Drive to Lanark Boulevard and from another tie that will be available at Highview Gate and future 40th Avenue.

The balance of the NSP area will be serviced by a storm sewer pipe system which will convey drainage to the proposed stormwater wet pond at the southeast corner of the NSP area. Controlled discharge from this facility will be conveyed in a storm sewer pipe to be installed in a dedicated line assignment along future 40th Avenue. This storm sewer will also convey drainage from some of the south development slated for servicing by the King's Heights wet pond (described previously). The storm sewer along 40th Avenue will tie into the King's Heights storm sewer system at Highview Gate. Storm drainage from the NSP area flows through the King's Heights pond and into the downstream storm sewer system ultimately discharging into Nose Creek.

~~A Staged Master Drainage Plan (SMDP) is being prepared to address stormwater management of the NSP area in support of this application. The SMDP will recommend methods to ensure water quality and quantity meet the targets established by the City of Airdrie and the Nose Creek Watershed Water Management Plan.~~

A Staged Master Drainage Plan (SMDP) has been prepared to address stormwater management of the NSP area. The SMDP recommends methods to ensure water quality and quantity meet the targets established by the City of Airdrie and the Nose Creek Watershed Water Management Plan.

Figure 21 | Storm Pond Concept



**Concept for illustrative purposes and is subject to change*

Lanark Policy 38 |



The stormwater pond located at the eastern edge of Lanark shall

- (a) function as a naturalized feature performing both a stormwater servicing and passive recreational function;
- (b) contain naturalized vegetation and treed landscaping along its perimeter;
- (c) accommodate pathways, viewing areas and pedestrian seating;
- (d) form part of a larger stormwater management network to be expanded eastward with the development of the adjacent lands to the east;

serve as a central recreational and amenity focus for the surrounding recreational area.

8.0 Phasing

8.1 PHASING

Lanark Stage 1 will be developed in nine phases as shown in Figure B1 in Appendix B.

The phase boundaries have been ordered sequentially based on servicing reviews and forecast lot inventory and absorption numbers for different housing product types. The plan is based on pursuing a two-pronged phasing approach from the west and north, via Ravenswood and King's Heights. Two accesses (from the north and west) are present from the initial build-out to allow vehicles to access the development from either the Ravenswood or Kings Heights communities depending on the origin/destination of the traveller. Phasing in this manner allows servicing to be extended from the existing communities and creates a looped system within Lanark Stage 1.

~~The Transportation Impact Analysis for this site reviewed traffic generation and volumes for four different build-out horizons, 25%, 50%, 75% and 100%, as shown in Figure B2 in Appendix B. The projected Phasing shown in Figure B1 aligns closely with the 25%, 50%, 75% and 100% horizons.~~

At the time of this plan's submission, the school within the NSP site is not currently identified on Rocky View Schools' three year capital build plan. If the school is projected in their capital budget, it will be graded and serviced by the developer in line with the school board's timing and objectives, which will supersede its proposed phasing in Figure 21.

Actual stage size and location will be dependent on future market conditions and infrastructure requirements.

Lanark Policy 39 |



The development of Lanark Stage 1 shall be phased in a way that allows infrastructure and utilities to be extended in a logical and economically practical manner. [City Plan 11.1]

Appendix A

Concept Plan

LANARK STAGE 1

NEIGHBOURHOOD STRUCTURE PLAN

Legal Description:

SW1/4SEC34-TWP26-RGE29-W4M

May 2015

Prepared for:

MELCOR
DEVELOPMENTS LTD.

Prepared by:

WATT CONSULTING GROUP
PASQUINI & ASSOCIATES CONSULTING LTD.
b&a PLANNING GROUP
L.A. West LANDSCAPE ARCHITECTURE CONSULTANTS
LGN CONSULTING ENGINEERING LTD.

	AREAS		% OF GDA
	HA	ACS	
TOTAL AREA	66.58	164.52	
GROSS DEVELOPABLE AREA (GDA)	66.58	164.52	100%
LAND USES			
RESIDENTIAL	37.56	92.81	56.7%
Low Density Residential (LDR)	30.32	74.92	45.5%
Medium Density Residential (MDR)	7.24	17.89	10.9%
OPEN SPACE MR (CREDIT)	6.66	16.46	10.00%
OPEN SPACE MR (NON-CREDIT)	0.26	0.64	0.39%
PUBLIC UTILITY LOTS (PUL)	3.67	9.07	5.5%
ROADS	18.43	45.54	27.7%
ANTICIPATED NUMBER OF LOTS	1218		
MAXIMUM NUMBER OF LOTS	1321		
Density			
MIN	7.4 UPA	18.3 UPH	
MAX	8.0 UPA	19.8 UPH	

Legend:

- Deep Services - Proposed
- Sanitary Sewer / Manhole
- Storm Sewer / Manhole
- Water Main / Hydrant
- City of Airdrie Limits
- Neighbourhood Structure Plan (NSP) Boundary
- Regional Pathway
- Local Pathway
- Monolithic Sidewalk
- Separate Sidewalk

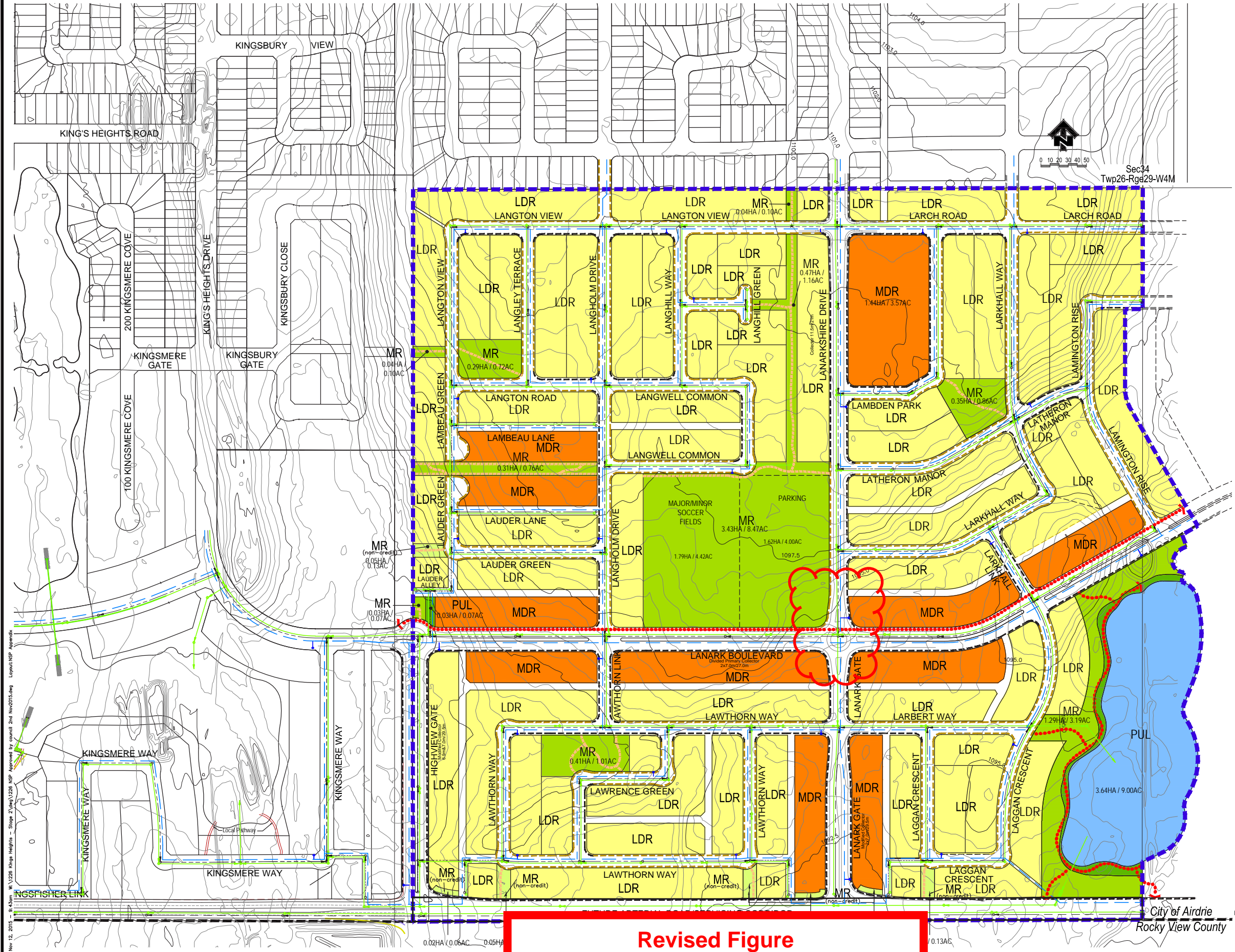
Prepared for:

MELCOR LTD.

Prepared by:

BROWN AND ASSOCIATES PLANNING GROUP
in consultation with
PASQUINI AND ASSOCIATES,
L. A. WEST, WATT CONSULTING GROUP and
L.G.N. CONSULTING ENGINEERING LTD.

REVISIONS	DATE
Approved by Council	2 November 2015



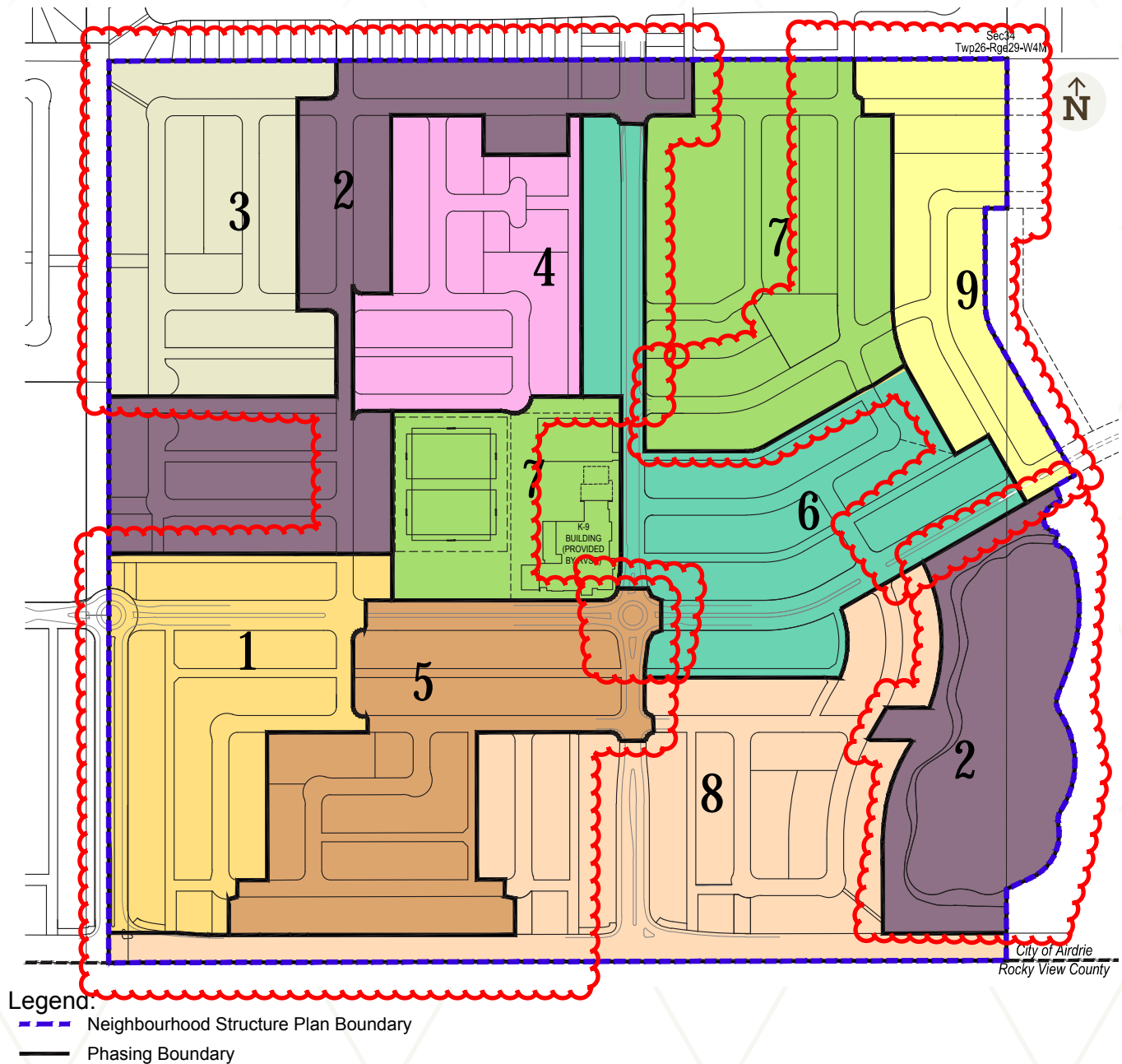
Revised Figure

Notes:
All roads are residential standard (9m/15m)
unless otherwise noted.
Standard lanes are 8.0m
unless otherwise noted.

Appendix B

Phasing of Lanark Stage 1

Figure B1 | Phasing



Revised Figure
Updated Phasing Boundaries

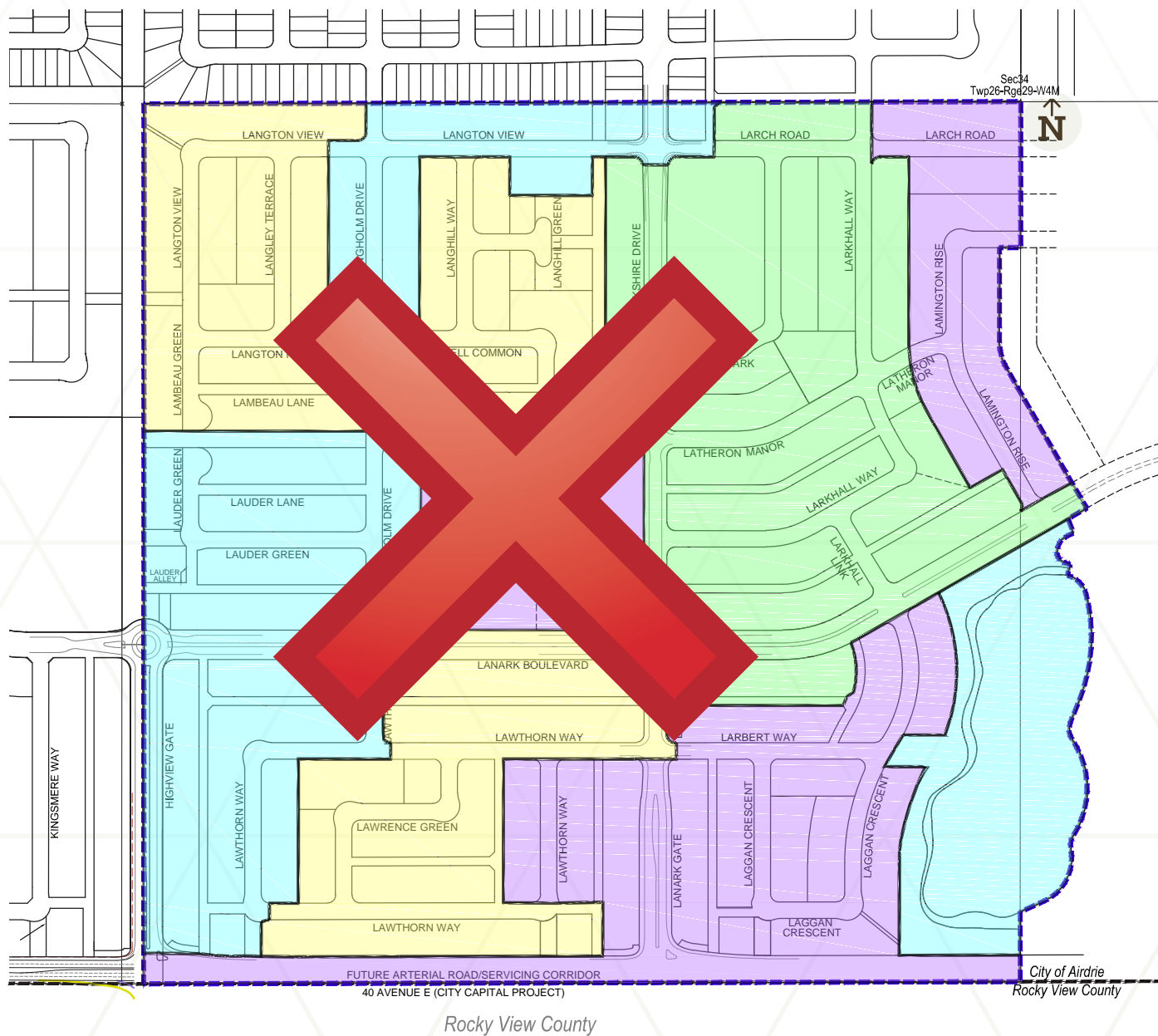
Delete

~~PHASING AND TRANSPORTATION HORIZONS~~

~~The Transportation Impact Analysis for this site reviewed traffic generation and volumes for four different build-out horizons, 25%, 50%, 75% and 100%. Lanark Stage 1 is proposed to have 9 development phases. In an effort to balance housing product types and for the purpose of the TIA, the 9 development phases were combined in to the four build-out horizons.~~

~~The preliminary build-out plan, detailing what sections of the plan are in each buildout horizon, is shown in Figure B2. As shown in Figure B2, two accesses (from the north and west) are present from the initial build-out to allow vehicles to access the development from either the Ravenswood or Kings Heights communities depending on the origin/destination of the traveller. The TIA compared the actual number of trips generated in each build-out to the targeted horizon. The projected Phasing shown in Figure B1 aligns closely with the 25%, 50%, 75% and 100% horizons.~~

Figure B2 | Transportation Build-out Horizons



Legend:

- Neighbourhood Structure Plan Boundary
- 25%
- 50%

- 75%
- 100%

Appendix C

Land Use Designation

Land Use Redesignation

LAND USE REDESIGNATION

The following table presents a summary of the land use redesignation for the Lanark Stage 1 lands. Figure C1 illustrates the Land Uses that will be applied to Lanark Stage 1. The anticipated land uses for the remaining lands within the NSP are also shown in Figure C2. Figure C2 is shown for informational purposes only and does not form a part of the land use redesignation.

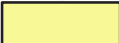






Land Use Statistics				
Land Use				acs
	UH	TO		8.13
	UH	TO	R	7.09
	UH	TO	DC-	9.54
	UH	TO	DC	7.24
	UH	TO		21.10
	UH	TO		10.08
	RF			4.57
TOTAL				67.76

Figure C1 | Lanark Land Use Concept

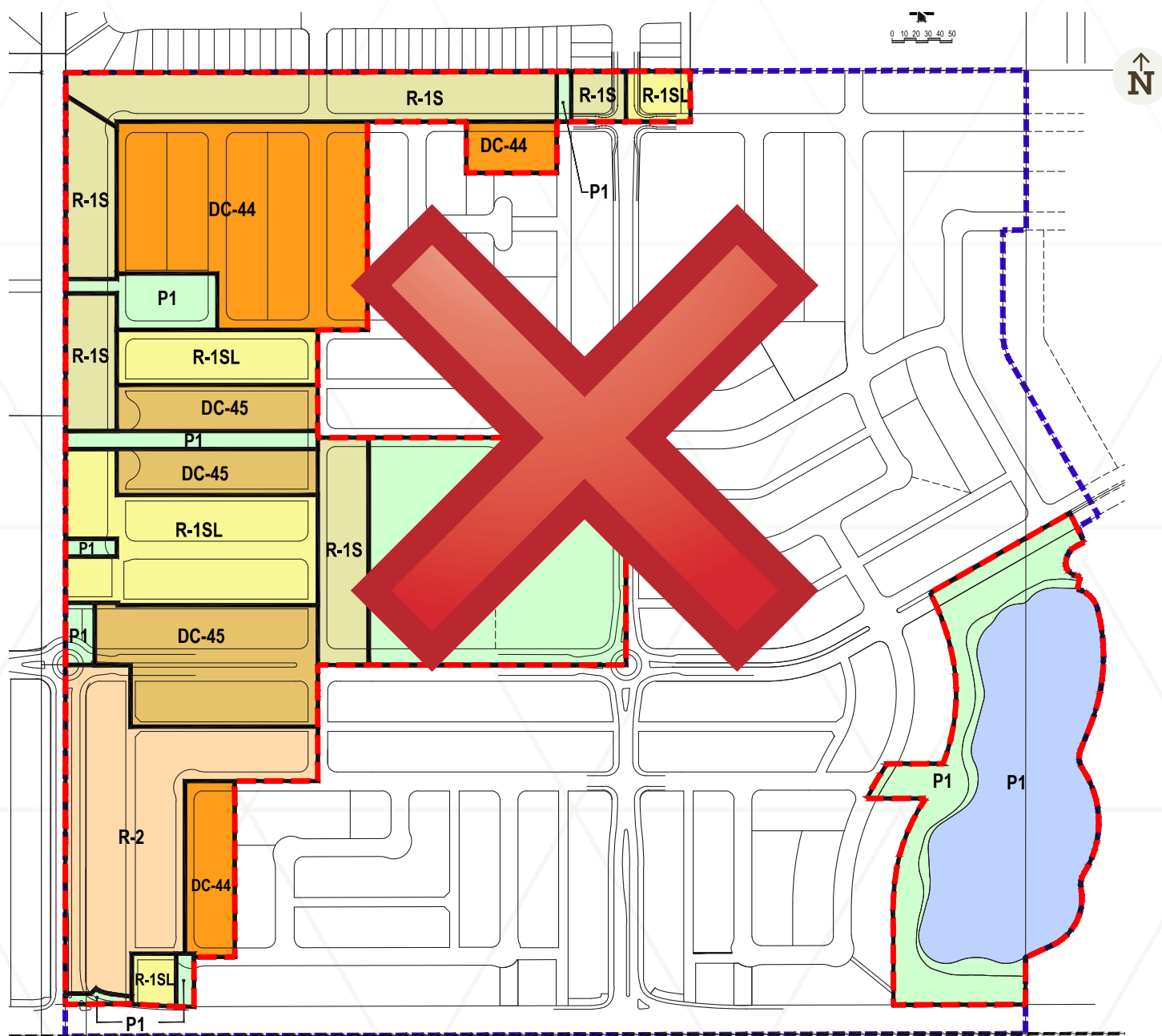
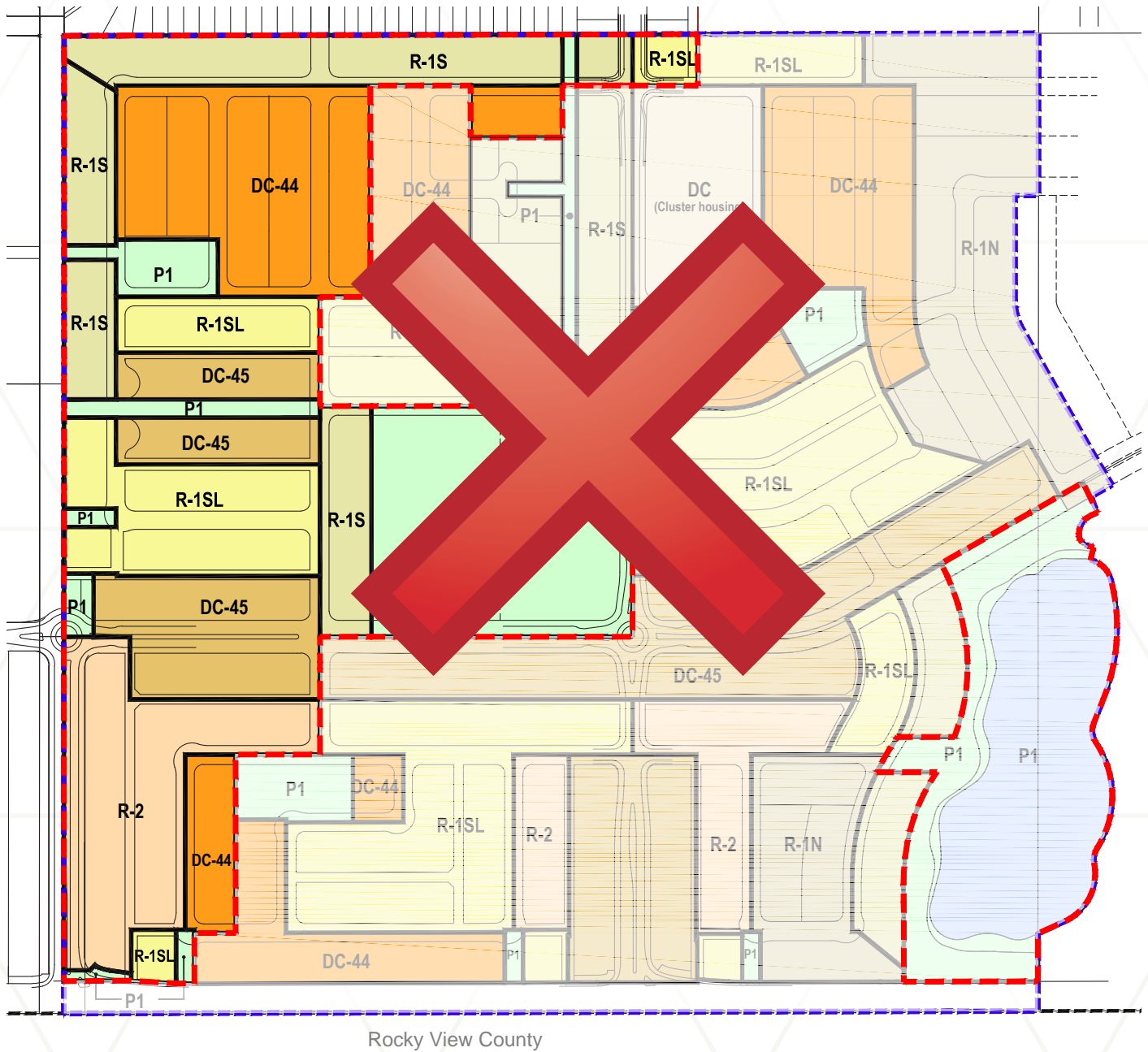


Figure C2 | Lanark Overall Land Use Concept



R-1S SINGLE DWELLING DISTRICT

The purpose of this residential district is to provide move-up Single Detached dwellings on lots with larger area and width compared to typical starter-size detached dwellings. This district is applied primarily in areas directly adjacent to amenities with the goal of maximizing the number of units that have access to these amenities.



R-1SL SINGLE DWELLING DISTRICT

The purpose of this City of Airdrie residential district is to provide single-family housing options without front-drive garages, resulting in better traffic flow on collector roadways and a more pedestrian-oriented streetscape. This district is applied throughout the community and in areas adjacent to laned townhomes.



R-2 TWO DWELLING DISTRICT

The purpose of this City of Airdrie residential district is to provide laned semi-detached dwelling types. This district is applied in areas in close proximity with neighbourhood amenities and open space with the goal of locating density in areas with strong access to recreation opportunities.



DC-44: SEMI- AND SINGLE-DETACHED HOMES WITH TANDEM PARKING

The purpose of this district is to provide for residential development in the form of a mix of semi-detached dwellings and single-detached homes. This district allows for a mix of low-density housing forms intended to have a prominent relationship with the adjacent public streets and designed to be consistent with the surrounding neighbourhood. This district also allows for dwelling units to provide tandem parking. In this Direct Control District, Tandem Parking Space means a parking space located outdoors on the driveway of an attached garage that is considered to be a parking space for the purpose of the calculation of the parking



space requirements for a Dwelling.

This district will be applied in the northwest and southwest corners of the site.

DC-45: FEE-SIMPLE TOWNHOMES

The purpose of this District is to provide for street-facing townhouse development with a maximum residential density of 22 units per net acre. Housing forms will be primarily fee-simple townhomes with a slightly higher density than is currently allowed under the base district. A portion of interior units are permitted to provide two-car parking pads at a slightly reduced width, with the intent of providing a greater product mix.

This district will be applied along the major collector roadway and along the green street, in areas where higher-density townhomes are desired.





Appendix

Directional Districts



Direct Control Forty four (DC-44)

Purpose and Intent

The purpose of this district is to provide for residential development allowing up to two dwelling units per building, primarily accommodating Semi-Detached and Duplex Dwellings. This district also contemplates a mix of other low-density housing forms intended to have a prominent relationship with the adjacent public streets and designed to be consistent with the surrounding neighbourhood.

Permitted Land Uses

Dwelling, Duplex
Dwelling, Semi-Detached
Dwelling, Single Detached
Accessory Building
Home Business, Limited
Child Care, Limited

Discretionary Land Uses

Accessory Suite
Accessory Dwelling, Garage Suite
Home Business, General
Supportive Housing, Limited

Unless otherwise stated in this Bylaw, all development in this Direct Control (DC) District shall comply with Parts 1 and 3, and Section 4-1 of the Land Use Bylaw.

Minimum Dimensions

Lot/Unit Type		
Single Detached, with Lane Access	280m	
Single Detached	300m ²	
SD with Accessory Suite OR Garage Suite	400m ²	10.4m
Duplex, Lane Access	320m ²	10.4m
Duplex, Front Access	400m ²	13.0m
Semi-Detached	210m ²	
Per Unit		

Minimum

Front	5.0m
Front	3.5m
	1.2m
	3.0m
Garage	8.0m
	1.0m

Minimum Coverage

Minimum Building Height	11.0m
Minimum Coverage	60% of Site Area
Minimum Coverage	25% of Site Area
Minimum Coverage	40m ² per Unit

Development Standards

- Notwithstanding the list of Permitted and Discretionary uses above, no more than 50% of the lots contained within a subdivision phase shall be designed to accommodate Single Detached Dwellings. For any subdivision of less than 10 lots, the application of this standard shall be at the discretion of the Development Authority.
- Up to 50% of the lots designed for Semi-Detached Dwellings in this district within a Neighbourhood Structure Plan may be permitted to have one side of the adjoining units contain a garage capable of accommodating two side-by-side parking stalls. For any subdivision of less than 10 lots, the application of this standard shall be at the discretion of the Development Authority.
- Overall, no more than 50% of the lots in this district within a Neighbourhood Structure Plan shall be permitted to meet all of the following criteria:
 - The lot contains a garage capable of accommodating two side-by-side parking stalls;
 - Access to the garage is not provided by a lane, and;
 - The lot is less than 11.0 m wide

Parking, Access and Connectivity

- A dwelling unit within this Direct Control District may provide a maximum of one Tandem Parking Space, at the discretion of the Development Authority.
- Where a detached garage of sufficient width and depth has not been constructed on a property so as to meet the parking requirement of this bylaw for that property, then a parking pad of concrete or similar hard material must be provided so as to provide the required parking area for the approved use(s) on the property.

Definitions

In this District:

- Tandem Parking Space** means: A parking space located outdoors on the driveway of an attached garage that is considered to be a parking space for the purpose of calculating the parking space requirements for any dwelling unit.

Direct Control Forty five (DC-45)

Purpose and Intent

The purpose of this district is to provide for townhouse development and support other types of ground-oriented attached housing. The predominant form of development in this district is intended to be street-facing townhouses and urban brownstones, including both freehold and condominium units, and is intended to integrate with other housing forms within a neighbourhood

Permitted Land Uses

Dwelling, Townhouse
Accessory Building
Home Business, Limited
Child Care, Limited

Discretionary Land Uses

Dwelling, Semi-Detached
Dwelling, Live-Work
Home Business, General
Supportive Housing, Limited

Unless otherwise stated in this Bylaw, all development in this Direct Control (DC) District shall comply with Parts 1 and 3, and Section 4-1 of the Land Use Bylaw.

Development Dimensions

Minimum Dimensions

Lot/Unit Type	Area	Width
Townhouses with 1-Car Garage	145m ²	6.0m
Interior Lot/Unit	180m ²	7.2m
End Lot/Unit	225m ²	9.0m
Corner Lot/Unit	270m ²	9.0m
Townhouses with 2-Car Garage	180m ²	6.0m
Interior Lot/Unit	225m ²	7.2m
End Lot/Unit	270m ²	9.0m
Corner Lot/Unit	315m ²	9.0m
Townhouses with 2-Car Parking Pad	165m ²	6.0m
Interior Lot/Unit	210m ²	7.2m
End Lot/Unit	255m ²	9.0m
Corner Lot/Unit	300m ²	9.0m
Semi-Detached	145m ²	7.5m
Live-Work Dwellings	350m ²	12.0m

Development Density

Standard	24-49 Units/Ha
Density Range	10-22 Units/Acre
Subject to Site	Up to 62 Units/Ha
Design Criteria	Up to 25 Units/Acre

Minimum Required Setbacks

Front Yard	3.0m
Side Yard, Interior Unit	N/A
Side Yard, End Unit	1.5m
Side Yard, Corner Unit	3.0m
Rear Yard	8.0m
Rear Yard for Garage	1.0m

Massing and Coverage

Maximum Building Height	13.0m 3 Storeys
Maximum Site Coverage	65% of Site Area
Minimum Landscaping	20% of Site Area
Minimum Amenity Area	25m ² per Unit
Max Contiguous Frontage	
-District Standard	6 Units
-Subject to Design Criteria	8 Units

Development Dimensions

Alternate Road

Where the 10m Cross Section (City of Ayr) Standards & Construction Appendix A, Sheet 24, as shown, is met, the Development shall comply with the following Development

Minimum Dimensions

	Area	Width
2-Car Garage	110m ²	6.0m
2-Car Garage	145m ²	7.2m
2-Car Garage	180m ²	9.0m
Semi-Detached	145m ²	7.5m
Per Unit		

Minimum Required Setbacks

Front Yard	1.2m
Side Yard, Interior Unit	N/A
Side Yard, End Unit	1.2m
Side Yard, Corner Unit	3.0m
Rear Yard for Garage	0.6m

Massing and Coverage

Maximum Site Coverage (Entire Townhouse Block)	70% of Site Area
Minimum Landscaping	15% of Site Area

Parking, Access and Connectivity

- Access to garages and parking pads shall be provided only from lanes in this district.
- Where a detached garage of sufficient width and depth has not been constructed on a property so as to meet the parking requirement of this bylaw for that property, then a parking pad of concrete or similar hard material must be provided so as to provide the required parking area for the approved use(s) on the property.
- Notwithstanding the provision above, up to 40% of interior townhouse lots/units within a subdivision phase or Development Permit application, as determined to be applicable by the Development Authority, may be developed with a minimum width of 5.5m provided that the parking pad for such lots is at least 5.5m wide to accommodate two contiguous (side-by-side) parking stalls. This standard shall only be applied where all adjoining Corner and End townhouse lots/units are developed with garages.
- When considering the conversion of parking pads into detached garages for interior lots developed with a width of less than 6.0m, the Development Authority shall consider minimum parking stall dimension requirements, Accessory Building setback requirements, and/or *Alberta Building Code* Requirements, and may require tandem parking configuration accordingly.
- Where a Development Permit is approved and gives authorization for interior townhouse lots/units with a width of less than 6.0m, the owner(s) shall enter into an agreement with the City regarding the potential future conversion of detached garages. The agreement may be required to be registered against the title or the Land Titles Office.

Site Design Criteria for Additional Development

The Development Authority may allow an additional development, shown above, subject to the merits of the application and the following conditions:

- The location of the development site along a street frontage to a community commercial centre.
- Incorporation of site design and site planning consistent with the standards outlined in the land use bylaw.
- The development's provision of additional amenities that meet or exceed the minimum requirements of this Bylaw, that support broader policy goals and objectives, or CASP/NSP.
- The development's ability to support street-level activity and the provision of additional amenities and features to support Street Activation, Transit, or similar initiatives.
- Other innovative design and planning that may be approved at the discretion of the Development Authority.

Design Requirements for All Development Standards

- The elevation of the townhouse units shall be articulated in a manner that provides variation, and reinforces common characteristics that visually unify the block.
- Architectural styles of individual townhouse units and blocks should complement each other.
- A variety of architectural elements such as entry porch, dormers, material detailing should be employed to create a distinctive character for each unit and block.
- Façade treatments on corner lots shall wrap around the side of the building to provide a consistent profile along both facing streets.
- Where side and rear elevations of units are exposed and visible from a public space, including environmental reserve, school sites, arterial roads (etc.), façade treatments on all visible sides of the unit shall be consistent in design quality with the front elevation. A continuation of the same materials and detailing is required on all visible façades. In cases where the first floor elevations are not visible due to visual buffers architectural treatments shall be provided on the remaining visible elevations, including the second floor and roof.
- Buildings adjacent or opposite one another should be compatible in massing and height. Extreme variation in massing should be avoided.



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