

Neighborhood Structure Plan Adopted June 21, 2021 Bylaw No. B-37/2021 Amended February 20, 2024 Bylaw No. B-02/2024

# CITY OF AIRDRIE PROVINCE OF ALBERTA BYLAW NO. B-37/2021

**BEING A BYLAW** of the City of Airdrie, in the Province of Alberta, to adopt Bylaw No. B-37/2021, being the Southwinds Neighbourhood Structure Plan.

**WHEREAS** under the authority and subject to the provisions of the *Municipal Government Act*, Revised Statutes of Alberta, 2000, Chapter M-26, and amendments thereto, the Council of the City of Airdrie may pass Bylaws adopting a Neighbourhood Structure Plan; and

**NOW THEREFORE** the Council of the City of Airdrie in Council duly assembled enacts that Bylaw No. B-37/2021 "Southwinds Neighbourhood Area Structure Plan", be adopted in the manner as written and illustrated in the attached Schedule 'A'.

Read a first time this 21st day of June, 2021.

Read a second time this 21st day of June, 2021.

Read a third time this 4th day of October, 2021.

THIS bylaw was executed as of the latest date evidenced by digital signature below.

Peter Brown
Date: 2021.11.02
14:33:51-06'00'

Mayor

Charlotte
Satink

Digitally signed by Peter
Brown
Date: 2021.11.02
12:34:40-06'00'

City Clerk

# BYLAW NO. B-02/2024 CITY OF AIRDRIE PROVINCE OF ALBERTA

Being a bylaw to amend the City of Airdrie SouthWinds Neighbourhood Structure Plan Bylaw No. B-37/2021

WHEREAS the *Municipal Government Act*, RSA, 2000, c. M-26, provides that a municipality may pass a bylaw to adopt an Area Structure Plan;

AND WHEREAS Council has adopted the Southwinds Neighbourhood Structure Plan Bylaw No. B-37/2021;

AND WHEREAS Council wishes to amend said Southwinds Neighbourhood Structure Plan Bylaw No. B-37/2021;

**NOW THEREFORE** the Municipal Council of the City of Airdrie in Council duly assembled enacts as follows:

1.0 That Bylaw No. B-37/2021, being the Southwinds Neighbourhood Area Structure Plan be amended as outlined and illustrated in the attached Schedule "A".

Read a first time this 20th day of February, 2024.

Read a second time this 20th day of February, 2024.

Read a third time this 20th day of February, 2024.

This bylaw was executed as of the latest date evidenced by digital signature below.

	02/21/2024	Peter Brown
		Mayor
	02/21/2024	Charlotte Satínk
•		City Clerk

# BYLAW NO. B-02/2024 SCHEDULE "A" (amended Southwinds Neighbourhood Structure Plan document)



# In Collaboration with:











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# **APPENDICES**

Neighbourhood Structure Plan - Schedule 'A'



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# 1.0 INTRODUCTION

# 1.1 Purpose

Airdrie is one of the fastest growing municipalities in Canada. As per the 2019 civic census, Airdrie now has a population of 70,564. The population has increased by approximately 12,000 people since 2015, while the average annualized five year growth rate is 5.16%. With such a high growth rate, it is important that all new communities grow in a thoughtful, logical and structured way, while adhering to the standards and policies laid out in the Airdrie Municipal Development Plan.

The Southwinds Neighborhood Structure Plan (SW NSP) provides the detailed planning policy to guide land use and future legal subdividing of the plan area. The NSP will serve as a statutory document that provides the rationale and logic behind the design for future development. Detailed background for the layout, design, and servicing strategies will be provided for the Southwinds community.

The Chinook Winds Community Area Structure Plan (CW CASP), originally adopted by Council in 2005 and most recently amended in 2016 illustrates many relevant policies that influenced the development of the Southwinds Plan. Though the preparation of the NSP it was determined that amendments would be required of the CW CASP to ensure the plan area could be developed efficiently and best meet the needs of the future residents. A City of Airdrie recreation centre and a Rocky View School District high school site are planned within the NSP area, which were not included in the current version of the CW CASP. Furthermore, the stormwater catchment areas are to be amended to locate the stormwater management facility in the north east corner of the parcel to better service the entire plan area. An amendment to the CW CASP will occur concurrently with the Neighbourhood Structure Plan.

# 1.2 Team

Mattamy Homes has prepared the NSP for the land within NW 26-26-1-W5M in close collaboration with:









- Freedom Planning, Planning Consultant
- Pasquini & Associates Consulting Ltd, Engineering Consultant
- Westhoff Engineering Resources Inc, Engineering Consultant
- NAK Design Strategies, Landscape Architecture and Planning Consultant

# 1.3 Process

The City of Airdrie, Rocky View School District, and Mattamy Homes are the co-owners of the land and have been working collaboratively to develop the plan into its present state.

In addition to the co-owners group, there have been a number of consultations with City administration to discuss the servicing strategy, visioning, and key land use areas which are discussed in this plan. Through informal consultation with a number of different City departments prior to submission of the plan, the proposed development was shaped to address the many varying needs of all the stakeholders.



# 2.0 BACKGROUND

# 2.1 Location and Site Context

The Southwinds Neighbourhood Structure Plan area is located in the southwest quadrant of the City of Airdrie and comprise approximately 155 acres of land within the Chinook Winds Community Area Structure Plan (CW CASP). Figure 1 shows the location of the SW NSP in Airdrie.

The plan area is bounded by:

- South Windsong NSP area to the east,
- 24th Street SW to the west,
- future Cobblestone community to the north, and
- Agricultural land to the south

Much of the surrounding land uses are undeveloped and currently are being used for agricultural purposes. The land to the south of the plan area and to the west of 24th street is future developable land within the Southwest Airdrie CASP.

The South Windsong community to the east is currently undergoing development and is approximately 60% built out. The community consists of low-rise residential product being made up of single family and townhome housing types.

The community of Cobblestone to the north of the plan area has an approved NSP plan and has yet to begin servicing. The land currently is vacant.

Southwinds is close to many natural, commercial and recreational amenities, along with several schools. Figure 2 shows the location of these amenities relative to the NSP area.

# 2.2 Land Ownership and Uses

The Southwinds NSP area comprises approximately ±62.49 hectares (±154.42 acres), and is owned by three stakeholders. Mattamy Homes owns 108 gross acres, the City of Airdrie owns 32 gross acres, and Rocky View School District owns 14 gross acres. Mattamy Homes is the managing partner on behalf of the co-owners and will oversee the day to day development of the community.

The 5-acre parcel in the northwest corner of the plan area 991 3089 is owned by Anthony Daryl Skaalrud and Susan Joan Skaalrud and is not included within the boundaries of the plan, nor as part of the co-ownership of the site area. The development timing of the owner is unknown.

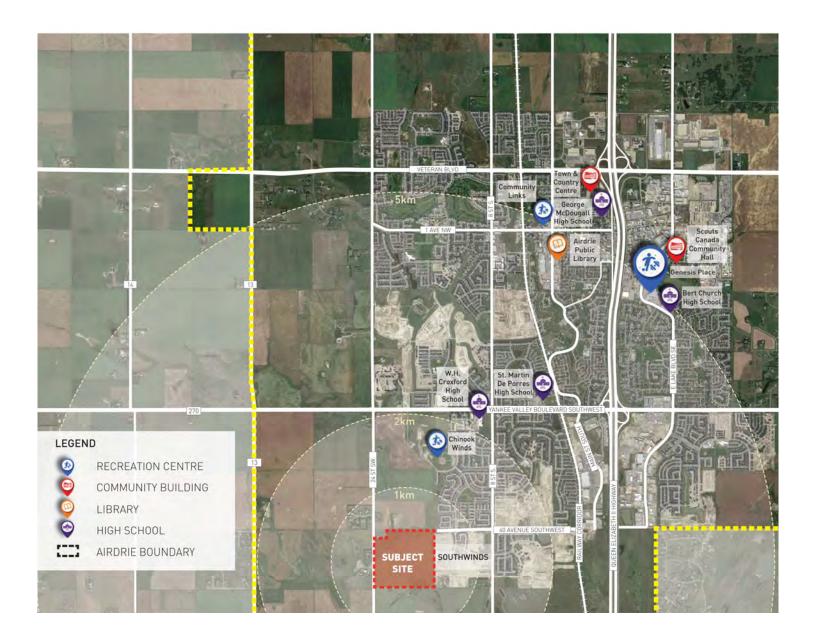
Table 1 shows land ownership within the NSP area, while Figure 3 shows the landowners of parcels in and adjacent to the NSP area.

Table 1 - Current Land Ownership

Legal Description	Owner	Parcel Size
NW 26-26-1-W5M	Mattamy (Westwinds) Limited.	43.82 ha (108.28 ac)
NW 26-26-1-W5M	City of Airdrie	13.03 ha (32.20 ac)
NW 26-26-1-W5M	RVSD	5.64 ha (13.94 ac)
Total		62.49 ha (154.42 ac)

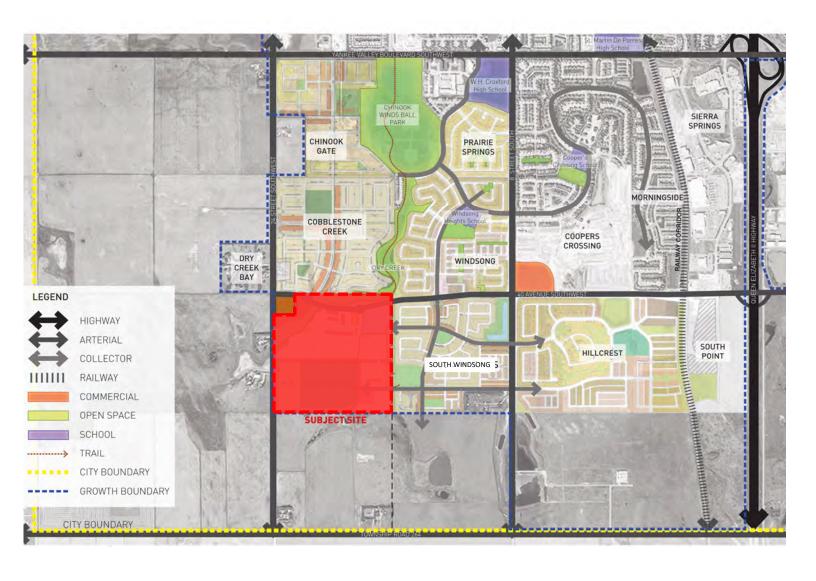
The land within the plan boundary has historically been used for agriculture and is zoned as Urban Holding for future development. Adjacent to the site, in the north west corner is a currently occupied single family residence on a parcel of land also zoned as Urban Holding. Figure 4 shows the existing land uses in the NSP and surrounding areas.

There are no right-of-ways or easements within the property, however the west edge of the site will be allocated to the future widening of 24<sup>th</sup> Street and 40<sup>th</sup> Avenue SW is proposed near the north boundary of the site.



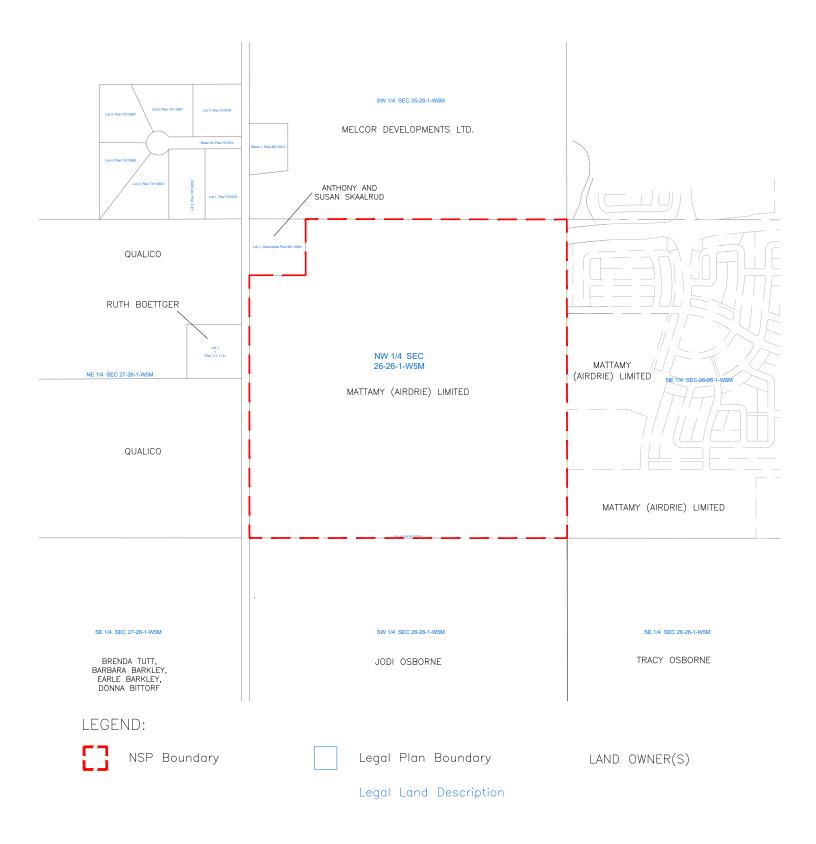








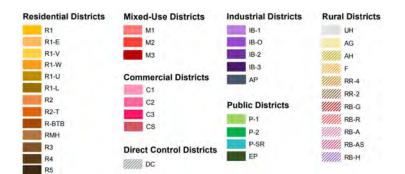




















# 2.3 Topography

The lands contained within the SW NSP have some topographical features dispersed throughout the site. The most notable feature is a small creek depression running from the west to the north east corner of the site. The centerline of the creek is the low point of the site at an elevation of 1092.5 metres at the north east corner. The site slopes upwards from this point to the south and west reaching a maximum elevation of 1109.5 metres at the west centre of the site. There is a natural drainage split that has the southern half of the quarter drain to the south east corner and the north portion of the site drain to the north east corner. Most of the site has historically been used for tilled crops with a small portion at the higher elevations and in the creek being used for agricultural grazing.

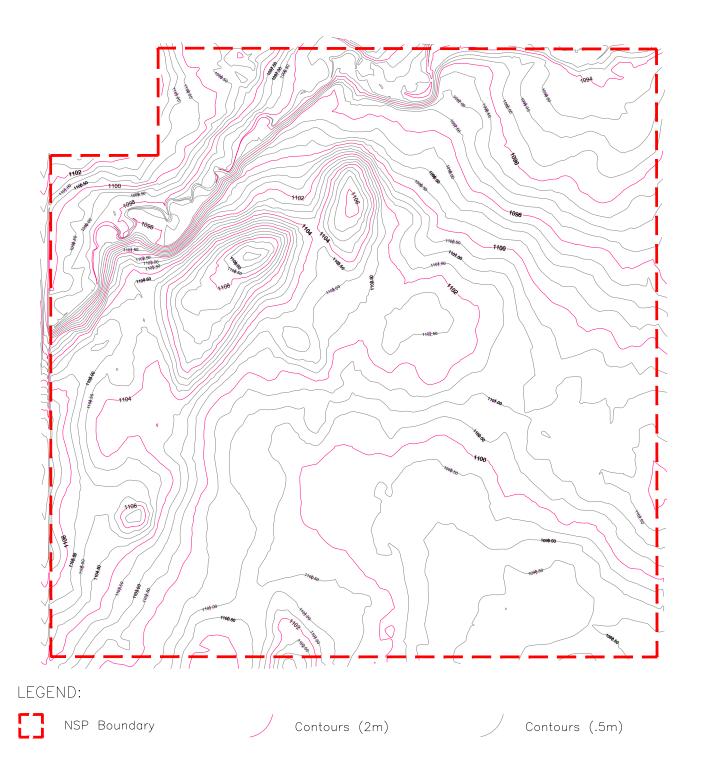
An earthworks balance will be achieved during the stripping and grading operations, converting the drainage of the entire site towards the north east corner. The current low point of the site will be the location for the stormwater management facility, which will outlet to Dry Creek just to the north. Figure 5 illustrates the existing topography of the SW NSP lands in 0.5m contour intervals.



# 2.4 Historical

A Historical Resources Overview (HRO) was prepared by Bison Historical Services Ltd. (Bison) in October of 2017 for the lands within the CW CASP. The HRO recommended an Historic Resource Impact Assessment (HRIA) be conducted as the project area had potential for the discovery of intact surface and subsurface archeological sites.

In April of 2019 Bison conducted field investigations that resulted in the identification of four archeological sites of moderate significance and were recommended for either avoidance or further investigation. A Historic Resource Impact Mitigation (HRIM) investigation was conducted on site in 2020 and concluded that no further investigation or preservation is required. The final HRO and HRIM reports have been submitted under separate cover.









# 2.5 Geotechnical Evaluation

A geotechnical evaluation was conducted by McIntosh Lalani Engineering Ltd. (ML) in October of 2003 for the CW CASP lands. Further geotechnical evaluation was conducted by Alberta Materials Testing Ltd. (AMT) in July 2018 for the SW NSP project site. A total of twenty-two (22) boreholes were drilled to a maximum depth of 6.1m below the existing ground surface.

The evaluation determined conventional spread and/or strip footings are suitable for single family dwellings. The general stratigraphy of the soils at the borehole locations were comprised of topsoil underlain by a dense, mostly compacted sandy sand / silt layer which was further underlain by a layer of moderately weathered sandstone bedrock.

Groundwater readings were conducted in the summer and fall of 2018 and identified groundwater in 12 of the borehole locations, varying from 1.7m at the shallowest to more than 6.1m below existing ground surface. Weeping tile is recommended around the perimeter of the houses and a sub-floor drainage system is recommended in areas where the adjusted groundwater table is higher than the sub-floor elevation.

A slope stability analysis was also conducted on the slopes located in the northwest of the site and found there is a sufficient Factor of Safety for both critical sections to allow for the proposed development.

The full geotechnical evaluation has been submitted for review under separate cover.

# 2.6 Environmental Site Assessment

An Environmental Site Assessment (ESA) was completed in February of 2004 by Base Property Consultants for the lands within the CW CASP. A Phase I Environment Site Assessment (ESA) was completed in September 2017 by Trace Associates. Trace did not identify actual or potential sources of contamination from on-site or off-site sources which would warrant further investigation at the

Site. Trace did note a high-pressure natural gas line located along the east edge of the site in a north – south direction (located in the South Windsong NSP area) but did not recommend any further investigation. A Phase II (soil or water) intrusive investigation was not recommended. A copy of the assessment has been submitted under separate cover.

# 2.7 Biophysical Assessment

A Biophysical Impact Assessment (BIA) was completed by Westhoff Engineering Resources, Inc. (Westhoff) in January of 2020. Westhoff identified three wetlands within the project site totaling 7.32 ha of area.

Two wetlands are considered moderate in value with the third being considered moderately low in value. Alberta Public Lands indicates that there are no Crown-claimed waterbodies within the site. The watercourse in the north of the site running from west to east is identified as Dry Creek and is classified as a transitional watercourse based on field observations.

Twenty-Seven species identified as Sensitive in Alberta were observed within the natural habitat along Dry Creek. On a local scale, the Dry Creek Valley provides some cover for wildlife traversing the site, however the existing upland area provides limited security cover. On a regional scale, residential development is ongoing to the north, north east, and east of the site with more agricultural habitat to the west of the site. 24th Street SW is likely to create a barrier to wildlife travelling between the project site and the land to the west.

Due to the limited habitat available within the project site, the fatality risk to wildlife is considered negligible. This is aided by following best management practices for stripping and grading operations occurring outside the breeding season. Loss of wetland habitat on site will be compensated for through existing provincial approval processes under the Alberta Wetland Policy.

The full report has been submitted to the City of Airdrie under separate cover.









# 2.8 Transportation Impact Assessment

A Transportation Impact Assessment (TIA) was conducted by Scheffer Andrew in 2020 to confirm whether the proposed road network within the project site will be able to accommodate the daily traffic volumes forecasted. The TIA accounted for the additional trips generated into the community as a result of future recreation facility and high school sites, above the typical development traffic volume from a residential development.

Conclusions from the TIA indicate that the proposed road network can accommodate the assumed traffic volumes. The full TIA has been submitted under separate cover.

# 2.9 Opportunity Review

The lands contained within the Southwinds NSP area contain numerous site specific opportunities. Figure 6 provides a summary of existing site features and opportunities.

# **Environmental Features**

The most significant natural feature is the depression which forms the transitional watercourse known locally as Dry Creek. The creek flows from the centre west to the north east corner of the site, and provides the greatest opportunity for environmental/habitat preservation and enhancement.

Immediately south of the creek are two knolls which form the highest elevation of the site. The elevation of these knolls provides an opportunity for great views to the west, with a stunning view of the foothills.

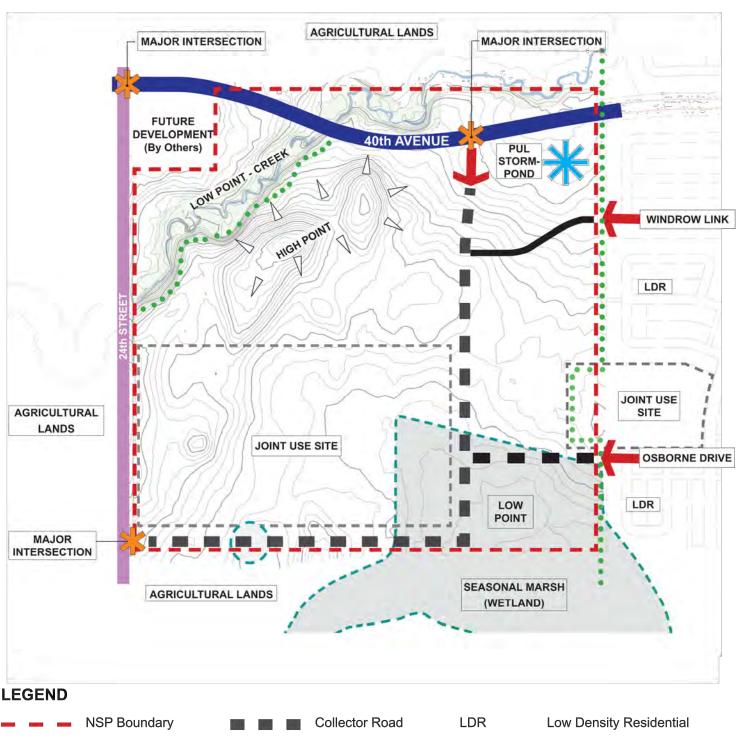
# Connectivity

Dry Creek flows from the centre west to the north east corner of the site and connects to the pathway system running along the southwestern boundary of the Windsong community, then continues north to Chinook Winds Regional Park. This natural corridor provides an excellent pedestrian connection and will allow for off street multimodal connectivity along a Type A open space area,

from the Regional Park to 24<sup>th</sup> street in the Southwinds NSP area.

Bounding the site to the east is a 15m R/W for an ATCO gas line. This right of way is used as a linear pathway which extends north towards Chinook Winds Regional Park and is planned to continue to the south boundary of the NSP area upon completion of the South Windsong Development. This provides for a north – south connection that is off street, and pedestrian friendly. The right of way also intersects a future school site that straddles South Windsong and the Southwinds NSP area.

Vehicular connectivity with the surrounding area is also available at several scales, 40th Avenue is an east – west arterial road that sits near the north edge of the site, just south of Dry Creek. Osborne Drive is a collector road that will extend from 8th street in South Windsong west into the Southwinds NSP area, and Windrow Link is a local road that also extends from 8th Street west into Southwinds. These connections to existing developments allow easy access to schools, parks, commercial areas and public services in the immediate vicinity and surrounding region. With Dry Creek being a natural constraint on development, only one north - south connection to the future Cobblestone Creek development is planned. Where possible these street connections should extend through the NSP area in a logical manner and lead to key destinations within Southwinds.









Regional Pathway (2.5m)

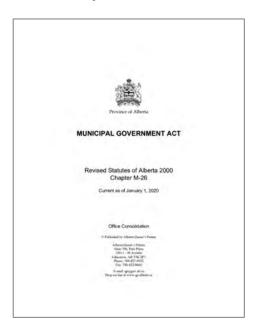






# 3.0 POLICY CONTEXT

# 3.1 Statutory Documents



Alberta's Municipal Government Act (MGA) requires that all municipalities in the province develop a Municipal Development Plan which must address matters such as land use and development, transportation, the provision of municipal services, municipal reserves and schools.

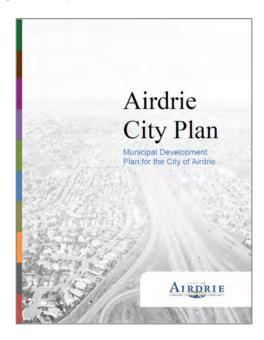
The City of Airdrie's Municipal Development Plan (MDP), as amended, was adopted by Council in July 2018. MDP policy requires the preparation of Community Area Structure Plans (CASPs) and Neighbourhood Structure Plans (NSPs) prior to the development of new communities within the City of Airdrie, while also setting out guiding policies for CASP's and NSP's.



The MDP designates the SW NSP lands for

general urban use; this includes residential, local commercial, and neighbourhood parks. The CW CASP identifies objectives and policies to further guide development within the Plan area. Big picture items are identified at the CASP level with the expectation that greater detail will be provided in the subsequent NSPs. The SW NSP incorporates guiding policy from the MDP and builds upon the opportunities and constraints identified in the CW CASP.

Municipal Development Plan – Airdrie City Plan (July 3, 2018)



The Southwinds neighbourhood has been designed to conform to the Airdrie City Plan. The new neighbourhood builds upon logical extensions of existing infrastructure in a cost effective manner that is in keeping with the City's growth management policies.

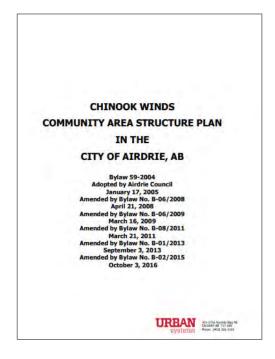
Environmental factors, as detailed in the Open Spaces section, have been taken into consideration in the layout of the Plan. The most significant of these features, the creek traversing the north west corner of the site as well as the north boundary, will be retained and form a continuation of the natural pathway network that extends all the way north to Yankee Valley Boulevard SW, functioning as a pedestrian corridor.



The community addresses sustainable development by ensuring a minimum density of 8.0 units per net developable acre with the higher density areas focused around activity nodes, open spaces, and collector roads with transit accommodations. The variety of housing mix not only diversifies the density available, but also offers various levels of affordability and size. Higher density product will transition through to lower density single family product through a shift of product from rear lane townhomes, to front loaded townhomes and semi-detached product to the single family product. A mixing of product within single blocks avoids segregated use areas, while still directing the heavier densities towards the collectors to prevent excess traffic being routed internally through the community.

All areas of the plan have been designed to be easily navigable by multiple modes of transportation with destinations within walking distance of all houses. A combination of street based and off street pathways connect the various neighbourhood parks, and environmental reserves to the regional recreation center and further to the regional park to the north.

# Chinook Winds Community Area Structure Plan (CW CASP)



The CW CASP was adopted by Council originally in 2005, and since this time there have been several revisions approved including the most recent amendment adopted on October 3, 2016.

The CW CASP defines the overall vision for the subject lands, including general land uses, high level servicing strategies, the internal road network and connections to the regional transportation network. Implementation provisions are also contained within the CW CASP.

As per Section 8.1, a neighbourhood plan application may be prepared for all of a stage area or for the portion under the control of the ownership making the application. The SW NSP includes the lands owned by Mattamy (Westwinds) Limited, the City of Airdrie, and Rocky View School District. A shadow plan has not been shown on the northwest parcel, however, the development of the remnant parcel included in this plan cannot be developed until the remainder of the parcel is developed.

During the development of the Southwinds NSP it was determined that amendments to the existing Chinook Winds CASP were required to capture important changes to the Southwinds plan area including:

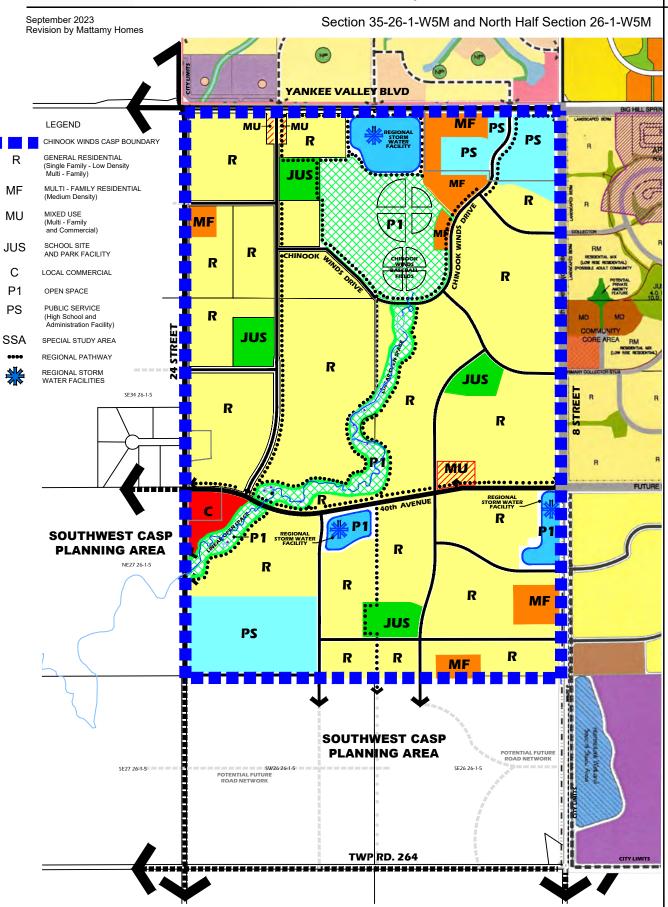
- The addition of a City of Airdrie recreation facility and high school site to the plan area
- The relocation of the stormwater management pond to the northeast corner of the site

The amendment is to run concurrently with the NSP submission. Figure 7 shows the proposed land use concept for the CASP amendment.

# chinook winds community area structure plan



1:15,000



# land use concept

FIGURE

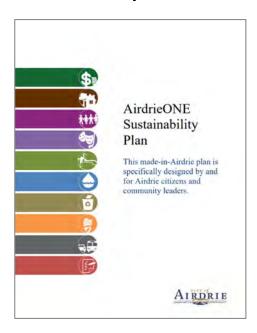


# Land Use Bylaw (No. B-01/2016)

The lands contained within the SW NSP are currently designated as Urban Holding District (UH) under the City's Land Use Bylaw. A separate application will be submitted to redesignate the lands to various residential and public service land use districts to allow for the phased development the Southwinds NSP area.

# 3.2 Non-Statutory Documents

# AirdrieONE Sustainability Plan



AirdrieOne is the City of Airdrie's official sustainability plan. The document was accepted by resolution of Council on March 5, 2012 after years of consultation and involvement from citizens, committees and council. It is a high level overarching document that guides the community into the future by identifying sustainability goals, objectives, actions and measures

The overarching vision is that:

"Airdrie is a vibrant, caring community rich in urban amenities and opportunities for everyone. We value a healthy, sustainable environment connecting people and places."

To guide the direction and development of AirdireONE eight (8) principles were adopted by council:

- 1) Well managed growth
- 2) Whole Communities
- 3) Fiscal balance
- Environmental stewardship and sustainability
- 5) Inter-municipal cooperation
- 6) Walkable neighbourhoods
- 7) Distinct, attractive communities with a strong sense of people and place
- 8) Variety of transportation choices

Similarly, Mattamy has used these principles to guide the design of Southwinds and the development of the NSP. Many of these principles such as: whole communities, environmental stewardship and sustainability, walkable neighbourhoods, and distinct attractive communities with a strong sense of place, are reflected in the five key principles referenced in the Neighbourhood Design part (Section 5) of this NSP.

Additionally, the AirdrieONE plan outlines goals, objectives and strategies to guide its sustainability actions in the future. They focus on the following ten (10) topics:

- 1) Economic prosperity
- 2) Built environment
- 3) Socially sustainable communities
- 4) Arts, culture & recreation
- 5) Sustainable natural environment
- 6) Water
- 7) Waste management
- 8) Energy
- 9) Sustainable transportation
- 10) Governance

Mattamy is committed to a sustainable future, and these topics are referenced throughout the Southwinds NSP.

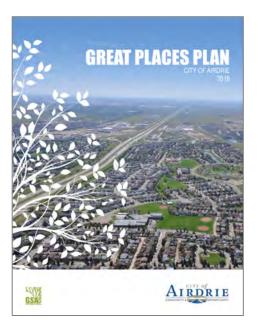


# Nose Creek Watershed Water Management Plan



The Nose Creek Watershed Water Management Plan (NCWWMP) was initially completed in 2008 as a means to protect riparian areas and improve water quality, while recognizing that watershed management is a shared responsibility. In 2018 an updated version was published to address new knowledge and challenges in water management. Recommendations in the update were made to work toward achieving desired outcomes for improved stormwater management, good water quality, retention of riparian areas and wetlands in urbanizing areas, and preservation of biodiversity in the watershed. The NCWWMP contains several recommendations and items to be implemented over the short, medium and long term. These include such measures as maximum allowable release rate, runoff volume control targets, internal drainage area and low impact development. The Southwinds NSP will conform to the recommendations and requirements outlined in the NCWWMP, and further details are provided in section 7.4.

# City of Airdrie Great Places Plan



Southwinds is also guided by the Great Place Plan (GPP) and has been designed around key open spaces. This design philosophy is in keeping with the notion of building a great city and the impact that all types of open spaces have on that process.

The Great Places Plan establishes 8 open space types for the City of Airdrie:

- Type A. Natural and Semi-natural Green Space
- Type B. Historic Resource, Cultural Landscape, or Landmark
- Type C. Neighbourhood Parks, Gardens, and Civic Spaces
- Type D: Joint Use Sites
- Type E. Outdoor Sport and Recreation Facilities
- Type F. Linear Systems, Green Corridors
   & Other Linkages
- Type G. Campgrounds and Day Use/Picnic Areas
- Type H. Non-Contributing Green Space

Southwinds will contain many of the open space's types including types A, C, D, E, and F. In developing the SW NSP concept the development considerations, guidelines and



action steps outlined in the Great Places Plan were considered. The SW NSP document will positively contribute to the Great Places vision:

"By 2026, Airdrie's Open Space System will be a model of environmental stewardship and a highly valued community asset."

Detailed information regarding the Southwinds open space network is found in section 4.5.



# 4.0 NEIGHBORHOOD PLAN

# **Concept Brief**

Southwinds will be the home to several residential and public land uses. A variety of housing types will be available including single detached, laned townhomes, lane-less townhomes, live-work townhomes. A special study area in the north west part of the site is also under review and could function as a residential site such as low-rise multifamily, commercial use, or any other use as deemed appropriate in the future.

Southwinds contains a large proportion of public land use districts in the form of environmental reserve, parks, a storm pond, schools and recreation facilities. These areas have been thoughtfully integrated into the open space and road network throughout the NSP area.

This section provides a summary of the key components of the Southwinds NSP plan. The land use concept can be seen in Figure 8.

Policy A: A range of housing styles and

forms shall be distributed throughout the neighbourhood

Policy B: Particular attention shall be paid to

views and vistas of amenity areas

Policy C: Collector roads shall be fronted by

residential units; units backing onto the interior road network shall be

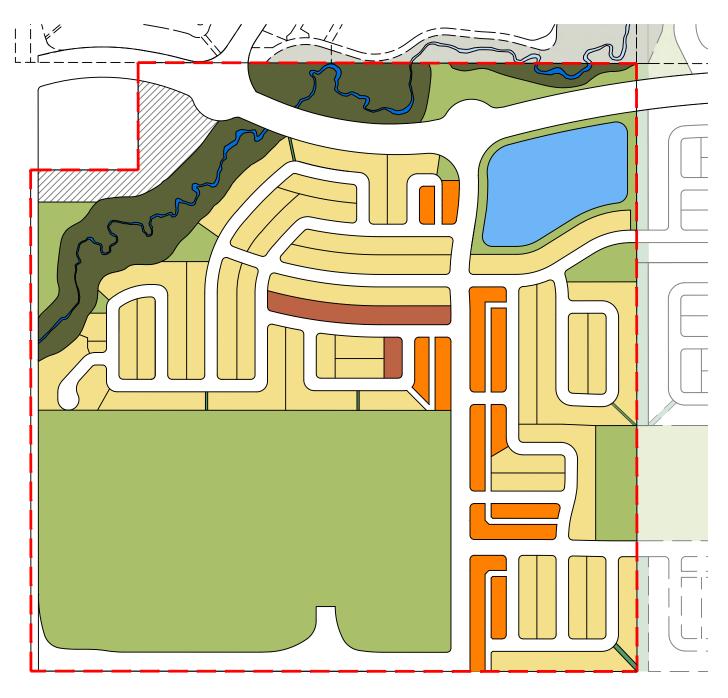
avoided wherever possible

Policy D: The land use pattern of the

community shall be organized around open space nodes







# LEGEND:

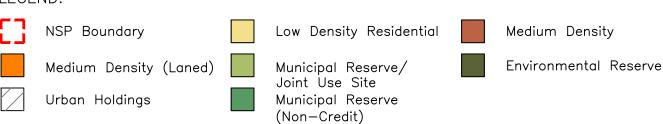






Figure 08



# 4.1 Land Uses

# Residential

# Low Density Residential

As shown on Figure 8, This NSP area will include low density single family residential development. These will be in all front loaded with attached single or double garages and are currently planned to be a mix of 36', 38', 44', and 46' wide lots.

# Medium Density Residential

There will be multiple types of medium density residential development in Southwinds. Attached townhome dwellings, all with attached single or double car garages, will be available in both laned and front drive models.

Laned townhomes will be primarily located along the collector street network, where access to garages is provided through the lane. Front drive townhomes will be located strategically to function as a density transition from the higher density areas along nodes and corridors, to the lower density single detached housing. The offering of two distinct types of townhomes provides multiple affordable options for prospective homeowners with varying preferences.

# **Urban Holding**

A small node in the northwest part of the site will continue to be zoned as Urban Holdings. This area has been identified as needing further study and discussion with the adjacent landowners to ensure the site is planned effectively. The area is currently shown as commercial in the Chinook Winds CASP, however it may include residential or other uses as deemed appropriate at a later date.







Policy E: Medium density housing forms shall be located close to major roadways

Policy F: The community shall be developed to a minimum density deemed satisfactory to the approving authority

Policy G: Units located at neighbourhood entrances and major intersections shall be designed to respond to the public exposure with articulated building faces and special consideration to massing, orientation and siting



# **Public Service**

The Southwinds NSP area will have a large proportion of public service lands that range in land use districts:

- Environmental reserve (ER)
- Municipal reserve parks (MR)
- Public utility lots (PUL)
- Municipal reserve (schools)
- Recreation facility

The Dry Creek area will be preserved and designated as an environmental reserve, with a regional pathway proposed within the ER. MR areas are located adjacent to the ER, encouraging easy pedestrian connectivity between the MR destinations.

A large parcel of land in the southwest part of the site will be the location of a joint Rocky View Schools high school site and City of Airdrie recreation site. This site will be easily accessible from the regional pathway network that runs through the Dry Creek ER area, and also accessible through local pathway connections.

Another future school site (joint use site) held by Rocky View Schools is located on the eastern edge of the site and extends into the South Windsong NSP area.

The stormwater management facility will be located in the northeast part of the plan and designated as a PUL surrounded by municipal reserve.

The joint use school site, neighbourhood parks and linear open spaces will be designated as MR spaces intended to accommodate a variety of programmed, impromptu, active and passive recreational needs. Logical pathway corridors and urban pedestrian connections link the entire community to the internal open space network and also to the regional pathway network. Specifically, the existing linear PUL (pipeline right of way) that runs along the entire eastern boundary of the site provides great connectivity to the stormwater pond area, the joint use school site, and another neighborhood park.

Detailed descriptions of each park space can be found in Section 4.5.

Policy H: A minimum of ten percent of

the net developable area shall be dedicated as Municipal

Reserve

Policy I: Useable open space shall be

dedicated as credit Municipal

Reserve

Policy J: Municipal Reserve shall be

distributed throughout the neighbourhood and provide for a variety of active and passive

recreational activities



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# 4.2 Population and Density

Upon the full build out of the Southwinds community, it will be home to approximately 610 dwelling units. Per the 2019 census Airdrie has an average of 2.7 people per residence, which translates to approximately 1647 new residents. The resulting residential density of Southwinds is 17.3 uph or 7.0 upa. Of note is the undetermined use of the special study area, which may contribute additional density to the NSP area.

The community will include a variety of different housing types including single family (detached), laned townhomes and front drive townhomes. A breakdown of the different product types and their unit counts can be found in Table 2.

Table 2 - Land Use Area Summary

Note: all numbers are approximate ±10% (exact counts/areas to be determined at subdivision stage)

PLAN STATISTICS	Hectares	Acres	%	Density (units)
TOTAL GROSS AREA	62.49	154.41	70	(driid)
Environmental Reserve (ER)	5.04	12.47	8.1%	
Major Roads (40th Avenue)	3.00	7.42	4.8%	
Boundary Roads (24th Street 2m widening)	0.13	0.33	0.2%	
NET DEVELOPABLE AREA	54.31	134.20	-	
Recreation Centre & High School	17.45	43.13	27.9%	
Internal Roadway (1/2 width) for Rec Centre & HS	1.12	2.76	1.8%	
REMAINING DEVELOPABLE	35.74	88.30		
Required 10% Municipal Reserve	3.57	8.83	10.0%	
Municipal Reserve Provided	3.59	8.87	10.0%	
JOINT USE SITE (JUS)				
(School Sites / Playfields)	0.83	2.05	2.3%	
Municipal Reserve (MR)	2.76	6.82	7.7%	
Stormwater Pond	2.28	5.63	6.4%	
Boundary Road (24th Street)	0.53	1.30	1.5%	
Internal Roadways	10.34	25.54	28.9%	
Public Service (NMR)	0.06	0.16	0.2%	
Residential Area	17.44	43.08	48.8%	
Single Dwelling Residential	14.23	35.16	39.8%	419
Attached Dwelling Residential	3.21	7.93	9.0%	200
Urban Holdings	1.50	3.72	4.2%	
Total Units				619
Units per hectare				17.3
Unites per acre				7.0



# 4.3 Recreation Centre and High School

The recreation and high school joint use site between the City of Airdrie and Rocky View School District will be an integral part of the plan area, accounting for a combined 17.45 ha (43.12 acres) or 28% of the total plan area. It will allow for a large variety of recreational programming and educational services that will support the needs of the local and regional community.



# 4.4 Open Space Network

As communities evolve, the public realm becomes the most permanent aspect and is therefore instrumental in creating the underlying framework of the neighbourhood form. Creating open spaces that have a strong relationship to the landscape helps to create a strong sense of place and pride among residents.

The Southwinds open space network aims to develop a strong network of community trails and pathways to key destinations, while enhancing the connectivity within and beyond Southwinds. The proposed open space network builds off of the existing regional and local open spaces such as Dry Creek and the pipeline PUL pathway. Each resident has easy access to open spaces, with at least one within a 400m walking distance. Figure 9 shows the proposed open space network with key pathways and pedestrian connectivity between destinations.

# **OPEN SPACE ELEMENTS**

Southwinds will contain at least 10% of the net developable area as Municipal Reserve as per the Municipal Government Act.

A summary of the open space elements is shown in Figure 9; with individual open space concepts are shown in *Figures 12* through *21*.

Much of the larger active use programming will exist within the recreation and high school site, and therefore, the neighbourhood parks around the community have been designed to supplement those active uses.

Policy K: All open space elements shall

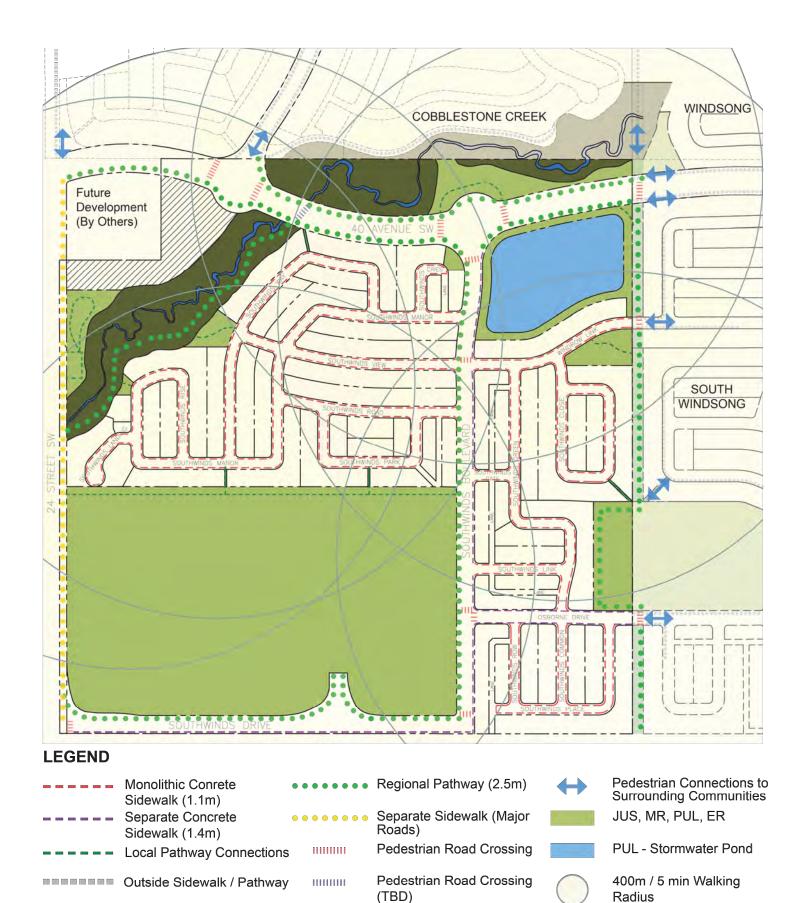
be constructed by the

Developer to the satisfaction of

the City of Airdrie

Table 3 - Open Space Area Summary

Municipal Reserve Dedication	Hectares	Acres	%
Net Developable Area	35.74	88.30	
Municipal Reserve Owing	3.57	8.83	10.0%
Credit MR	3.59	8.88	10.1%
Neighbourhood Park #1	0.83	2.05	2.3%
Neighbourhood Park #2	0.51	1.26	1.4%
Neighbourhood Park #3	0.04	0.10	0.1%
Neighbourhood Park #4	0.21	0.51	0.6%
Neighbourhood Park #5	0.37	0.91	1.0%
Neighbourhood Park #6	0.07	0.16	0.2%
Pond Open Space	0.74	1.84	2.1%
JUS School Site	0.83	2.05	2.3%
Non-Credit MR	0.04	0.09	
Pathway to JUS	0.01	0.03	
Two Pathways North of RC / HS	0.02	0.04	
Pathway Connection to 40th Ave	0.01	0.02	
<b>Total Municipal Reserve Provided</b>	3.63	8.97	









- 1) MR 1
  - Pathway
  - Trellis Seating Area
  - Dual Community Entry Signs
  - Bike Skills Pump Track
- 2 MR 2
  - Parking Lot
  - · Fenced Offleash Dog Park
  - Pathway
  - Dog Agility Course
- (3) MR 3
  - Pathway
  - · Trellis Seating Area
- 4) MR 4
  - Pathway
  - Observation Tower with Slide
  - Shaded Seating Area

- 5) MR 5
  - · Half Basketball Court
  - Playground
  - Seating Area
  - Picnic Seating Area
- (6) MR 6
  - Entry Feature Sign
  - Seating Area
- (7) ER
  - · 2.5m Regional Pathway
  - Seating Nodes
- (8) SWMF
  - Pathway
  - Trellis Seating Area
  - Naturalized Stone Seating

- 9 JUS (By Others)
  - Rec Centre
  - Pathway
  - High School
  - Indoor and outdoor sports fields and play amenities (TBD by others)
- 100 JUS
  - Soccer Fields
  - 2.5m Regional Pathway



# Community Entrance

- Entry Feature Sign
- Landscape Treatment





Figure 10



## Neighborhood Park (MR 1)

Bounded by the natural environmental reserve to the north and 40th Avenue to the South, this neighbourhood park is intended to supplement the utility of the creek pedestrian network by providing a programmed destination. This park falls under the Type E park typology in the Airdrie Great Places Plan (GPP).

The paved bicycle skills pump track is intended to offer an active destination along the pathway network, while retaining a natural soft scaping theme for the majority of the open space. Seating and decorative planting will be located closer to 40th Ave to enhance the natural vista available from this vantage point down into the creek bed area, and to the west. Fencing will be constructed around the park to the satisfaction of the development authority to mitigate safety concerns. A rendering of the MR concept can be seen in Figure .



### Neighborhood Park (MR 2)

Bounded on the west by 24th Street and the south and east by the environmental reserve, this open space area is intended to provide programmed recreation for pets and pet owners. The area is also well connected to the natural pathway network along Dry Creek, allowing this park to serve as another destination point in the regional network. This park falls under the Type C typology in the Airdrie GPP.

MR 2 will include a fenced off leash dog park with an agility course to allow for structured pet play. A parking area has also been proposed for users outside the immediate neighborhood. The proposed concept can be seen in Figure 1210.



### Neighborhood Park (MR 3)

The main intent of this smaller parkette is to encourage connectivity by allowing for pedestrian access from the residential node in the south west of the community into the natural creek area. This park falls under the Type E typology in the Airdrie GPP.

The parkette is opened wider than a pathway to provide an inviting access point to all residents, and the space is maximized with seating and shade structure for users, encouraging them to linger and take in the creek and mountain views to the west. The proposed pocket park is shown in Figure 11.



### Neighborhood Park (MR 4)

Located at the west terminus of Southwinds View SW, a road which continues east through the community of South Windsong to 8th Street SW, is located with the intent to take advantage of the expansive view over the creek towards the mountains. This park falls under the Type C typology in the Airdrie GPP.

Located near the topographical high point of the project site, this park is proposed to include an elevated viewing platform, a play structure, decorative plantings, as well as seating. The proposed concept for MR 4 is shown in Figure 12.

### Neighborhood Park (MR 5)

Bounded by the regional pathway on the east, and Windrow Link SW to the north, this park will provide a playground amenity and open space area. This park is located along the north – south regional pathway, allowing for it to serve as a destination for a multitude of pedestrian users. This park falls under the Type C park typology in the GPP.

The park will be programmed with a playground structure suitable for a younger demographic, and a sport and open play area that will be appropriate for all ages. A concept of the park is shown in Figure 13.



#### Neighborhood Park (MR 6)

Located at the southwest corner of the 40th Avenue and Southwinds Boulevard roundabout, this small park will serve as an inviting window into the community and will include enhanced landscaping, seating, and community entry signage to enhance the community identity and sense of place. Additionally, the park will include pathways to provide a connection from the residential neighborhood to 40th Avenue and the bicycle pump track at MR 1. A rendering of the MR concept can be seen in Figure .

#### **Environmental Reserve**

The environmental reserve area will remain mostly undisturbed with the exception of a regional pathway that will follow the alignment of the creek. A concept of the ER area is shown in Figure , Figure , and Figure. This open space qualifies as a City level open space node (Type A) as per the Airdrie Great Places Plan.

A grade separated or other pedestrian crossing of 40th Avenue is being contemplated at 40th Avenue to ensure connectivity with uninterrupted access along the regional pathway from 24th Street SW northeast to Chinook Winds Regional Park. If a grade separated crossing is not feasible the pathway in the North ER (shown in Figure 17) will not be constructed, in which case the regional pathway along 40th Avenue may be used to by pedestrians to connect to the regional pathways.





- 1 Asphalt Pathway
- 2 Trellis Seating Area
- 3 Fencing
- (4) Bike Skills Pump Track (Paved)
- 5 Ornamental Planting
- 6 Community Entry Feature









- 1 Parking Lot
- 2 Agility Course for Small Dog
- 3 Controlled Access Gates
- 4 Asphalt Pathway

- 5 Fenced Offlseash Open Space
- 6 Agility Course for large Dog
- 7 Chainlink Fence





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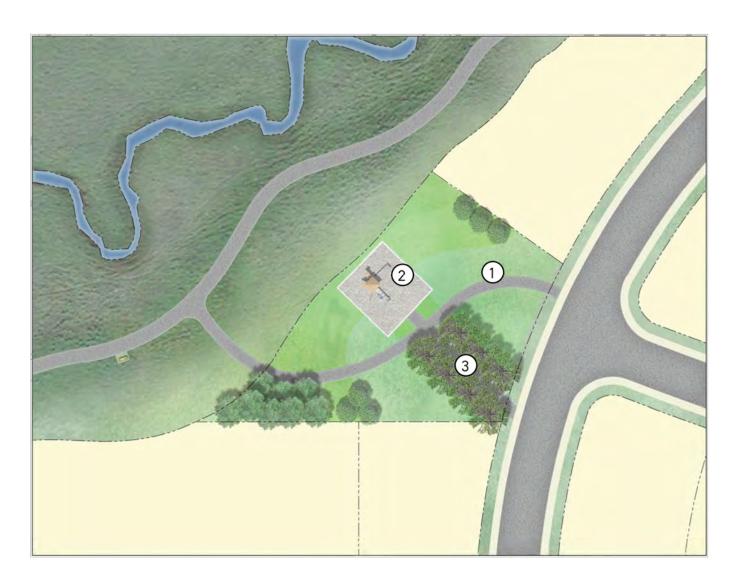


- 1 Asphalt Pathway
- (2) Trellis Seating Area









- 1 Asphalt Pathway
- 2 Observation Tower with Slide
- 3 Shaded Seat

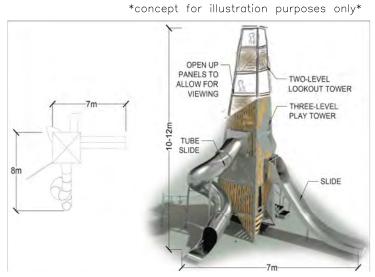






Figure 14





- 1 Asphalt Pathway
- (2) Half Basketball Court
- 3 Playground
- 4 Seating Area
- 5 Picnic Seating Area









- 1 2.5m Regional Pathway
- 2 Proposed Pedestrian Road Crossing (TBD)
- (3) Naturalized and restored ER





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- 1 2.5m Regional Pathway
- 2 Proposed Pedestrian Road Crossing (TBD)
- (3) Naturalized and restored ER









- 1 2.5m Regional Pathway
- 2 Naturalized and restored ER







### **Stormwater Pond Open Space**

A regional pathway bounds the storm pond on the east side, and 40th Avenue SW bounds the site to the north. The municipal reserve area surrounding the Storm Pond facility will provide for passive and active recreation around the naturalized amenity through use of pathways and seating areas. The storm pond will also serve as an inviting window into the community. A concept of the pond area is included in Figure .



#### Joint Use - K - 8 School

Southwinds shares a Joint Use Site (JUS) with the South Windsong community located to the east. This site encompasses a total of 2.64 hectares (6.52 acres). The site's 2.64 hectares is divided between the two communities with 0.82 hectares (2.04 acres) located within the Southwinds community.

The playfield portion of the JUS site will be irrigated as it is important for the volume control parameters set out by the NCWWMP.

As part of the South Windsong development, the JUS is bordered by two (2) collector roads; Windsong Boulevard and Osborne Drive. Both roads will allow for future bus drop-off and pick up zones. The JUS will be bordered by monolithic sidewalks to facilitate drop off and pick up and intersection of Osborne Drive and Windsong Boulevard will include bump outs to act as traffic calming. The site qualifies as neighborhood level open space node (type D) as per the Airdrie Great Places Plan. A concept of

the joint use site is included in Figure 14.

### Joint Use - Recreation and High School

The joint recreation and High School site will serve as a district level open space node (type E) as per the Airdrie Great Places Plan. At the time of NSP submission the design of the joint use recreation and high school site concept is in preliminary stages and therefore a concept has not been included. The planning and design of this site will be completed by the City of Airdrie and Rocky View Schools, the owners of the site. The scope for planning, design, and public engagement for this site is separate from the Southwinds NSP.

Policy L: Each amenity area shall have its own

unique character and feel while integrating into the surrounding land

use pattern

Policy M: Views to open spaces shall be

maximized wherever possible

Policy N: Pathway and urban connections shall

be provided to link the regional pathway network, joint use school site, major open spaces and amenity

areas

Policy O: Dry creek shall provide a naturalized

neighbourhood amenity

Policy P: Educational and interpretive

components shall be incorporated into the programming of the park and

linear creek

Policy Q: Park features shall be integrated that

inspire residents to congregate and utilize the amenity area during all

four (4) seasons





- 1 Asphalt Pathway
- (2) Trellis Seating Area
- (3) Naturalized Stone Seating
- 4 Adjacent PUL Pathway









- 1 2.5m Regional Pathway
- 2 Minor/Major Soccer Fields
- 3 Southwinds Phase 9 JUS







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# 5.0 NEIGHBORHOOD DESIGN

The community of Southwinds is a continuation of Mattamy's previous successful master planned communities of Windsong and South Windsong (to the north east and east of the project site respectively). Mattamy Homes is proud of the community feel developed within Windsong and South Windsong. A sense of "close knit small town" is accomplished through a pedestrian oriented design and a streetscape that deemphasizes the garage by pulling the porches towards the public realm. Mattamy Homes believes that "complete streets" goes beyond the public cross section and should be applied to the entire streetscape. This concept will be taken to the next level in Southwinds by reorienting single family lots to increase the relative street frontage per lot. Among the many advantages of this housing type are the increased entranceway facades, additional windows at the front for "eyes on the street", as well as additional on street parking availability.

Southwinds has been designed to achieve the goals as set out in various City planning documents including AirdrieONE, Great Places Plan, and the City Plan. Throughout these documents is an emphasis on healthy communities designed to achieve multi-modal connectivity, inviting streetscapes, access to open spaces and services, and a diversity of housing stock.

The existence of "Dry Creek" as well as the proposed recreation center within the plan area provided inspiration during design of the plan, placing a focus on how to best capitalize on the unique attributes these amenities provide.

#### 5.1 Vision

Southwinds will be a well-connected, destination focused community that compliments natural amenities and open space features with an attractive built form.

Southwinds will be a healthy, complete community with recreation at its centre. Its thoughtful integration of diverse land uses will help shape the new standard for community building in Airdrie.

## 5.2 Principles

With a desire to continue and build on the successes of the South Windsong NSP area, principles used in the development of South Windsong have been carried forward with minor modifications. This ensures that the feel of the two areas remains consistent and they feel like one cohesive community.

Five (5) key principles have been used to guide the visioning and design process for Southwinds, leading to the development of the SW NSP. These principles help to establish the physical framework that facilitates and supports the community building process.

The five (5) key principles are:

- 1. Walkability & Connectivity
- 2. Environmental Sustainability
- 3. Complete & Attractive Community
- 4. Effective Built Form
- 5. Strong Sense of People & Place



## 5.3 Walkability and Connectivity

### Connectivity

Southwinds will be designed to facilitate movement on the pedestrian, cyclist and vehicular levels, with a priority placed on the non-vehicular modes.

The modified grid design will ensure that there are multiple routes to every destination within the community and to the surrounding neighbourhoods. This type of neighbourhood design will also support transit and child-friendly travel patterns particularly due to the short block lengths that are created. The emphasis on pedestrian permeability encourages the use of alternative modes of transportation and allows for intuitive routing without the pedestrian 'dead ends' created by traditional curvilinear and culde-sac communities. This design element allows for easily connected open spaces as well as an intuitive road layout.

Southwinds's focus on pedestrian movement is based on the premise that "community building" begins at the pedestrian scale. Walkable communities increase the frequency of neighbours 'bumping' into one another which in turn creates opportunities for conversations and relationship building.

Pedestrians and cyclists have numerous options for entering the Southwinds community. The regional pathway network will provide several access points to the internal pedestrian network along the north boundary of the neighborhood. Separated sidewalks along the collector roads also provide multi-nodal access points to Southwinds from Osborne Drive and Southwinds Boulevard.

#### Walkable Neighbourhood

It is simply not enough to build pathways within a community and expect residents to use them in a meaningful way. Neighbourhoods become walkable when attractive pathways lead to important destinations.

Regional amenities act as a vehicular destination for most users, however the Southwinds plan also caters to more local residents by providing great pathway connectivity, promoting active transportation modes like walking and biking. Local park areas offer neighbourhood scale amenity spaces and linear park corridors offer exclusive pathways for pedestrian movement to and from focal points within the community.

Emphasis is also placed on the pedestrian realm throughout the entire neighbourhood by having sidewalks on both sides of the street and tree lined sidewalks separated from the street along community collector roads. Traditional porches, reduced front yard setbacks and housing specifically designed to create pedestrian friendly streetscapes further enhances the pedestrian experience.

Southwinds has been designed around two primary destinations and five secondary destinations distributed throughout the plan area. The primary nodes are the recreation center as well as the naturalized creek corridor. These destinations are easily walkable from any part of the community via local pathways and from outside the immediate vicinity through the regional pathway system running along Dry Creek.

The secondary destinations include the three neighbourhood parks, the joint use site, and the naturalized storm pond. These destinations were all thoughtfully located along key pedestrian corridors such as the linear PUL pathway, and in some cases serve as secondary destinations along the regional destination of Dry Creek.



Policy A: Primary focal points and secondary

nodes shall be evenly distributed throughout the community to ensure

neighbourhood walkability

Policy B: Special pedestrian features, such as

signage, shall be incorporated into amenity areas to enhance the sense of arrival, place and wayfinding

Policy C: Each home shall be within a 400-

metre radius to an amenity area

Policy D: The streetscapes shall have a

pedestrian focus by bringing houses

closer to the street than the conventional streetscapes through the implementation of unique road

cross-sections

Policy E: Pathway links shall ensure

connectivity within Southwinds and to

surrounding developments and future development lands

# 5.4 Environmental Sustainability

The process of designing and planning the Southwinds community targeted a balance between thoughtful built form, density and environmental sustainability. This balance was considered at the community level to integrate with surrounding region and leverage the existing Dry Creek corridor.

In keeping with the goals of the Nose Creek Watershed Water Management Plan, steps have been taken in the Southwinds NSP area to ensure goals such as improved stormwater management, good water quality, retention of riparian areas and wetlands in urbanizing areas, and preservation of biodiversity in the watershed. The presence of Dry Creek in the plan area provided an obvious opportunity for environmental preservation and the area has been designated as environmental reserve. The area will remain in its natural state, ensuring that the health of the riparian area will remain strong to support water quality and the preservation of biodiversity.

Stormwater management has been a focus in the development of the Southwinds NSP. The Southwinds pond will be located on the low point of the site (excluding dry creek) and when complete is intended to simulate a naturalized area. This will include planting local and native species that are planted to provide a natural shoring along the pond banks.

Several innovative and sustainable stormwater management techniques were considered during the development of the plan, and after a process of consultation with professionals and City of Airdrie staff some will be implemented. This includes hydraulically connecting storm-ponds to use residual irrigation capacity of the existing pumphouse in the South Windsong pond to irrigate parks in the Southwinds NSP area.

Policy F:

The Plan area shall be developed in accordance with the conditions of the Water Act approvals granted by the Province of Alberta with special consideration granted to upstream and downstream hydrology needs



### 5.5 Complete & Attractive Community

### **Complete Community**

Part of the vision for Southwinds includes a desire to be a "...complete community with recreation at its centre. Its thoughtful integration of diverse land uses will help shape the new standard for community building in Airdrie."

A complete community is one that satisfies the various needs and desires of its residents. It is one that provides opportunities for living, working, and playing. Southwinds will successfully provide these opportunities to it's residents in the following ways:

<u>Living</u> – A range of housing forms are provided to appeal to a variety of age groups, incomes and lifestyle needs. These options allow residents to age in place and include single detached, front drive townhomes, laned townhomes, live -work townhomes and multi-family senior living. The range of housing also provides residents will a range of backyard options to suit their changing lifestyle needs

#### Working -

Employment opportunities will be available through the two future schools and the future recreation centre

<u>Playing</u> – The recreation centre will provide diverse options for programmed indoor and outdoor recreation. Additionally, a well-connected pathway system will connect programmed neighborhood parks, unprogrammed open spaces, and school play fields that host residents of all ages in a variety of activities

Not only will Southwinds be a place to live work and play, it has been thoughtfully designed to provide destinations where people will stop and stay rather than just move through. This is evident in the placement of the park, JUS, and storm pond along the linear PUL pathway. This is also accomplished through the location of the dog park, lookout park, and pump track bike skills park along the ER regional pathway system through Dry Creek.

### **Attractive Community**



Southwinds's architectural detailing and product mix will build upon the success of South Windsong's built form to continue the high quality and distinct character of the community that has been developed.

A range of housing forms are provided, each with multiple models, elevations and color palettes. The different housing types are often mixed within an area, at times transitioning mid-block. This contributes to a visually interesting streetscape that creates a pleasant experience for users.

Single family lots have been designed to be wider than average. This reduces the visual impact of "snout garages" that are typically found on narrower width lots allowing for a more pedestrian friendly streetscape by placing greater emphasis on the "house" portion of the residence.

An emphasis is also placed on building attractive porches for all houses. Porches are brought closer to the property line and sidewalk, further highlighting their prominence and creating safe "eyes on the street" feel in the community. The addition of wrap around porches to many of the corner units will further enhance the charm and character of the community while providing residents a place to interact with their neighbours.

Enhanced corner lot treatments and block "endcapping" ensures that quality architectural details



are visible on all sides of the residential units facing a street. Units on corner lots have upgraded "front" facades on both sides facing the street while "end-capping" is used at the end of a block to ensure that the front of the houses face the street; preventing a wall of side yards that is typically found at the end of residential blocks. High visibility units that back onto MR or ER spaces will also have upgraded rear facades to ensure the community remains attractive though its public spaces. Figure shows the priority lot distribution throughout Southwinds.



The community will also be attractive throughout its open space network and natural areas. Open spaces were located to maximize pedestrian movement capacity as well as providing vistas into and out of the community.

The storm pond and natural ER corridor create a visual permeability into the community. One of the main entrances to the community will be located adjacent to the storm pond creating a strong sense of arrival into a very distinct and attractive community. Instead of the typical wall of backyards found on the periphery of most communities, residents of South Windsong and travelers by will be presented with views of the creek complex and the front facades of residential units.

Smaller windows to the ER are created at pathway access points which have been opened up to accommodate a wider vista into the naturalized area.

Policy G:

Distinct views into the community shall be maintained through the configuration of the road network, integration of open space and building placement

Policy H:

The design of residential units and their relationship to each other shall be considered on a streetscape level, ensuring that all models are visually compatible and integrative from an architectural and massing point of view

Policy I:

25% of all homes to be built should have a full porch. At least 25% of units along collector roads and facing open space features should also have a full porch

Policy J:

Units sited on corner lots shall be designed to respond to the public exposure through the use of additional glazing, articulated building faces, and detail matching the front elevation



## LEGEND:







Figure 2



#### 5.6 Sense of Place

Understanding how a sense of place develops and evolves is essential to understanding how residents interact with their surrounding environment and how this interaction may become more organic and sustainable. Southwinds provides residents with a variety of exceptional environments at diverse scales to encourage year-round interaction among residents in the private and public realms.

A strong sense of place has been built in the existing community of South Windsong through the exceptional architectural detail, open space network, and the naturalized wetland/pond area. It's also provided an exceptional community gathering space in the central Osborne Park, which is key to community building.



As Southwinds is the continuation of South Windsong, it will build upon these areas. A strong sense of place will be embodied in the following ways:

- The preserved environmental reserve in the northwest corner of the site provides Southwinds residents with a place to interact in a more natural setting. An interactive trail system adjacent to the Environmental Reserve area will allow people to learn about the natural ecosystem of the Airdrie area, which extends north and will be planned to extend further west in the future
- A strong intuitive network of linear parks, pathways and urban pedestrian connections encourage pedestrian mobility throughout the community and to the surrounding neighbourhoods. Greater pedestrian activity

increases social interaction, forming a sense of community

 Important and unique views will be preserved and emphasized. Southwinds View terminates at its west end at a neighborhood park (MR 4) which borders the Dry Creek ER. This is the topographic high point of the project site which will provide for a great viewpoint. Passive programming including seating areas and an elevated viewing platform will create a unique sense of place within the community by providing creek and mountain views to the west

Policy K: Pedestrian connections shall be

intuitive, formalizing natural desire lines, and provide logical and efficient access to primary focal points, secondary nodes and

adjacent communities

Policy L: Community features within open

spaces shall be incorporated into the neighbourhood to encourage year-

round interaction

Policy M: Buildings adjacent to or opposite one

another should be compatible in

massing and height.

Extreme variation in massing should

be avoided



### 5.7 Effective Built Form

Throughout the development of the Southwinds NSP the principles of well managed growth and effective built form were used in place of the concept of density. Well-organized built form seeks to use the design process to create well-planned communities that are sustainable, healthy, safe and inclusive.

This NSP adheres to the City of Airdrie's City Plan Policy 6.15 on housing mix, ensuring at least 30% of units are multifamily (Policy 6.15) and less than 35% of units which are small and narrow lots (Policy 6.16).

Southwinds is designed to be a well-organized community that includes a variety of housing forms located strategically throughout the neighbourhood. The community plan intermixes the various housing styles, focusing the denser land uses along the collectors and neighbourhood nodes, becoming less dense further from the major collectors and nodes. This layout allows for the majority of residents to egress from the community quickly and efficiently without adding increased traffic flow to other local roads. This layout also allows for efficient bus route planning helping to allow for the greatest number of residents to be within a short walk to a transit stop.

Effective built form is also facilitated by its modified grid road design, which is an extremely efficient, cost effective form of urban design. This allows the community to develop at higher densities than curvilinear and cul-de-sac style communities without feeling overwhelming and unfriendly. The modified grid layout also allows for multiple potential routes for public transit and emergency services to be successfully integrated into the community.

The adherence to these design principles will help to create a livable and healthy community focused on social and environmental sustainability.

Policy N: A variety of housing choices shall be

provided to include a number of different sizes, prices, tenure and

densities

Policy 0: Where practical, density shall be

transitioned from high to low through the use of medium density front drive

townhome product



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### 6.0 TRANSPORTATION

# 6.1 Transportation Network

The Southwinds transportation network has been designed to develop multi-modal forms of movement that facilitate the safe and efficient travel throughout the community and to surrounding neighbourhoods.

Because the plan area includes both a high school and recreation center, care was taken to ensure that both region patrons and local residents will be able to move freely to and from the sites as well as other destinations within the plan. Both on street and off-street pedestrian pathways allow connection to destinations on site from developed communities to the north and east. A modified grid road network allows for residents to move between destinations intuitively using a variety of routes, and minimizes dead ending conditions. A multi-modal summary of the transportation network is represented in Figure 15.

Policy A: A minimum street connectivity index

of 1.4 shall be targeted

Policy B: A minimum active mode connectivity

index of 1.6 shall be targeted

Policy C: A pedestrian oriented streetscape

shall be created to encourage alternative modes of transportation

# 6.2 Regional Network

The CW CASP identifies the high level transportation connections for the Southwinds neighbourhood and its surrounding areas. In keeping with these connections, the community will be accessible from 40<sup>th</sup> Avenue via Southwinds Boulevard to the north and from 24<sup>th</sup> Street via Southwinds Boulevard to the west.

Additional connections to 8<sup>th</sup> Street via the connection to Osborne Drive and Windrow Link through the South Windsong community to the east.

#### **Boundary Roads**

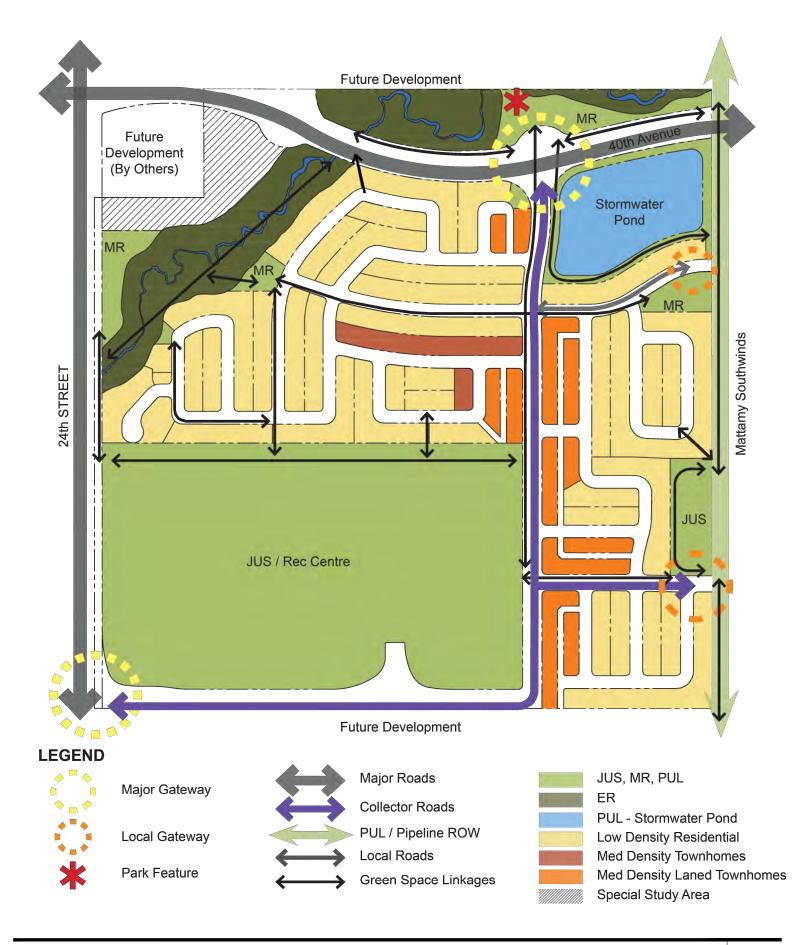
The Southwinds plan area is bounded by 40th Avenue SW to the north and 24th Street SW to the west and further access to the site is provided through two connections to existing South Windsong to the east. Future access to the development to the south will be provided from Southwinds Boulevard SW.

#### 40th Avenue SW

40th Avenue SW is a 40m ROW Major Arterial running east-west across the north part of the plan area. The design alignment and access locations will follow the Airdrie Transportation Master Plan. This will provide an integral east-west connection from 24th Street SW to 8th Street SW and further west.

### 24th Street SW

24th Street SW will be a 40m ROW Major Arterial running north-south along the west boundary of the site. Currently, functional plans are underway for the design which will provide guidance regarding road design and future potential transit accommodations.









### 6.3 Internal Road Network

Access to the Southwinds community will be provided from four distinct locations. The primary access points (major gateways) are:

- directly off of 40<sup>th</sup> Ave SW at the intersection of Southwinds Boulevard SW
- at the intersection of Southwinds Boulevard SW and 24th Street SW

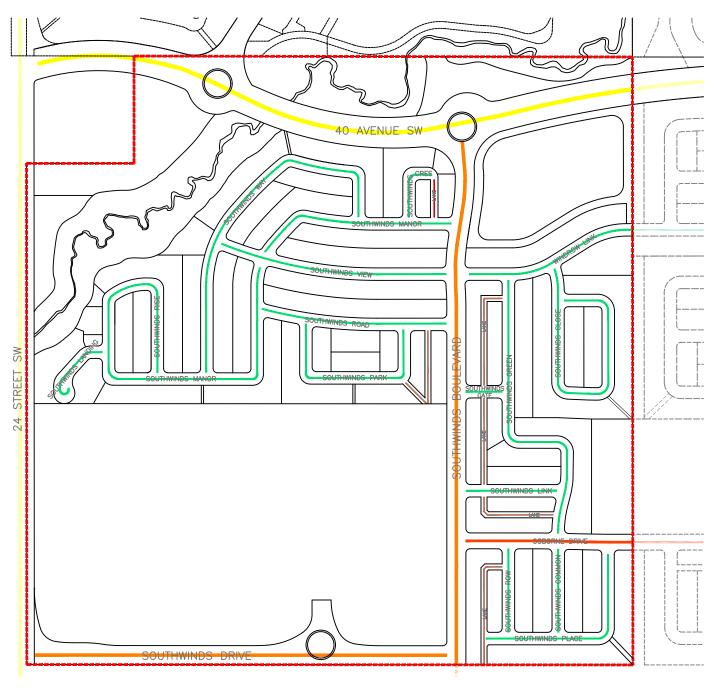
Two additional access points (minor gateways) are provided to the east into South Windsong via Osborne Drive and Windrow Link. Future access to the south will be off of the east-west portion of Southwinds Boulevard SW.

Southwinds Boulevard and Southwind Drive SW function as the main feeder through the community connecting 40<sup>th</sup> Ave SW and 24<sup>th</sup> Street SW passing through the middle of the community. Priority through all intersections will be given to these main collectors to accommodate the large traffic flow from the recreation center in the south of the site.

The remaining road network will support movement from the residential nodes to the main collector and out of the community. Through the results of the Traffic Impact Assessment (TIA) the below road cross sections have been identified to accommodate the anticipated transportation needs:

- 25.2m Modified Collector R/W
- 21m Collector R/W
- 16.5m Local Residential R/W
- 8m Laneway R/W

A summary of the internal road network is shown in Figure 163.



# LEGEND:



NSP Boundary



Major Road



Modified Collector (25.2m)



Collector (21m)



Residential (16.5m)



Residential Lane (10m)



Residential Lane (8m)





Figure 23



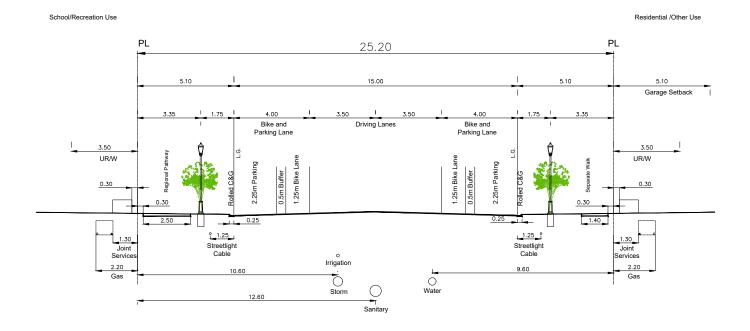
### 6.4 Road Classifications

The chosen cross sections were developed in accordance with the City of Airdrie AirdrieONE Sustainability Plan as well as the Airdrie City Plan to ensure that they function as complete streets. This includes sidewalks on both sides of the street, treed boulevards between the sidewalk and traffic lanes, and accommodation of multimodal forms of transportation.

#### 25.2m Modified Collector Road Right of Way

This cross section was inspired from two City of Calgary ROW's that when combined allow for conveying the appropriate volume of expected vehicular traffic as well as bicycle traffic, and pedestrians. The design has been modified to conform with City of Airdrie standards for driving and parking lane widths, line assignments, and utility right of ways. Figure shows the proposed cross section of the ROW.

The asphalt surface is based upon the City of Calgary 25.2m ROW (Figure 24 of the Design Guidelines For Subdivision Servicing - 2014) to include parking and a bike lane on both sides of the street in addition to a single driving lane in each direction. The boulevard area is based upon the separate sidewalk section of the City of Calgary 22.5m ROW (Figure 23, Design Guidelines For Subdivision Servicing - 2014). It includes a 2.5m regional pathway, a 1.4m separate walk, with a treed boulevard between the walk and traffic lanes. Boulevards such as these provide space for winter maintenance ensuring the traffic lanes are unencumbered.



# Undivided Primary Collector with Bike Lanes and Parking

25.20m R/W, 15m Road

Scale = 1:200





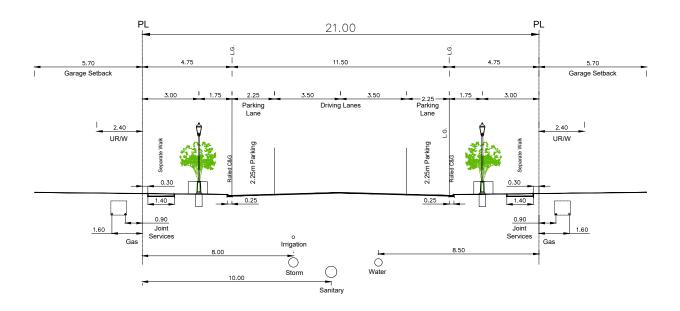


### 21.0m Collector Road Right of Way

This road cross section connects this plan area to the community of South Windsong to the east. The 1.4m separate sidewalk within the boulevard provides safe and effective means for pedestrian movements, while maintaining sufficient area for treed landscaping in the boulevard between the sidewalk and traffic lanes.

Along this collector most product is proposed to be rear lane which limits any vehicular crossings of the separate sidewalks. On street parking is provided on both sides of the street. A cross section of the proposed ROW is shown in Figure 2517.

This is a currently approved road standard that is used in the existing South Windsong development.



# Undivided Collector with Parking on Both Sides

21.00m R/W, 11.5m Road

Scale = 1:200





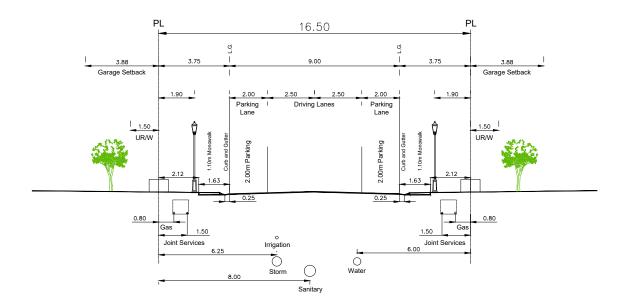


## 16.5m Residential Road Right of Way

Most local residential roads in this NSP are proposed as 16.5m ROW's. The right of way includes two driving lanes, parking on each side, and a 1.10m mono sidewalk on both sides of the street.

This right of way ensures all residents have safe and easy access to sidewalks, and plenty of on street parking spaces. The proposed ROW is shown in Figure 186.

This is a currently approved road standard that is used in the existing South Windsong development.



# Undivided Local Road with Parking on Both Sides

16.50m R/W, 9m Road

Scale = 1:200







### 6.5 Transportation Impact Assessment

A detailed Transportation Impact Assessment (TIA) was conducted by Scheffer Andrew in early 2020 to confirm whether the proposed road network within the project site will be able to accommodate the forecasted daily traffic volumes. The TIA accounted for the additional trips generated into the community as a result of the recreation facility being proposed as well as the future high school site, above the typical development traffic volume from a residential development. The general conclusion from the TIA indicates that the proposed road network is capable of accommodating the assumed traffic volumes. The TIA has been submitted under separate cover.

6.6 Public Transit

Southwinds Boulevard SW is a logical route to accommodate future public transit routes as it connects both 24th Street SW and 40th Ave SW while bisecting the community and traversing adjacent to the recreation center and the high school site. Additionally, Osborne Drive SW which connects into South Windsong would be a secondary route for transit which connects to 8th Street to the east and is consistent with the transit plan for the South Windsong community. The Airdrie TMP identifies 24th Street SW as a high order transit corridor, and therefore pedestrian connectivity from the community directly to 24th Street is a priority of the plan.

901 III PARTICIPANT OF THE PARTI

Future transit stops have been identified at key pedestrian corridors and destinations (see Figure 28). The local commercial site, recreation centre and high school are all served by transit stops along Southwinds Boulevard SW as well as a pedestrian node at the intersection of Windrow Link SW and Southwinds Boulevard SW. All houses are within walking distance of a transit stop, which is generally accepted as 300m walking distance for effective transit service.

Policy C: Transit stops shall be located within a

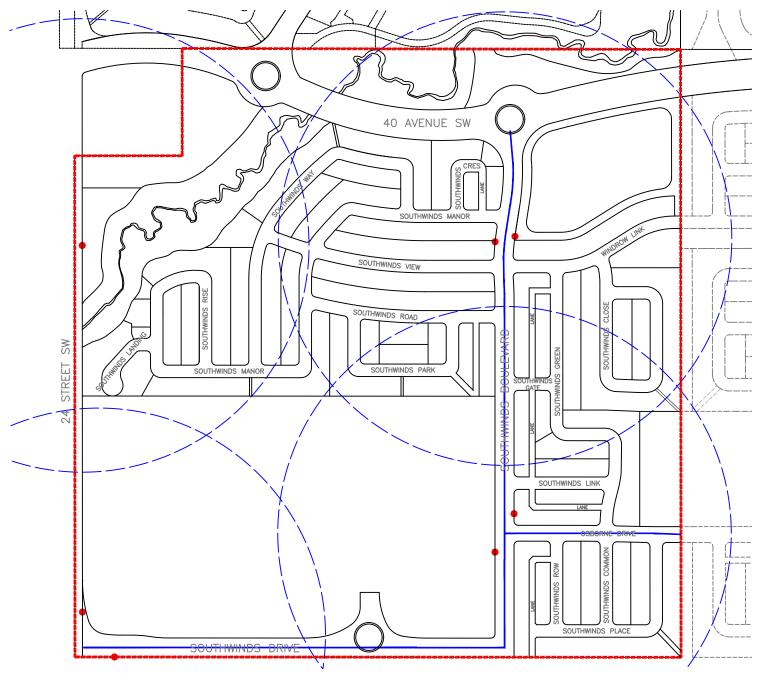
5 minute walking distance or a 300metre radius of each house (Figure

28)

Policy D: Pedestrian connections shall be incorporated into the neighbourhood

to ensure to provide efficient and intuitive routing to future transit

stops



Bus Stop

300m / 5min Walk Radius







## 6.7 Pedestrian Circulation and Active Transportation

An important consideration for the development of the community plan was the pedestrian circulation network and open space linkages. This was important not only internally to the plan but also to connect to adjacent pedestrian destinations outside the plan area. Pedestrian circulation for the NSP area is best shown on Figure 10.

There are several primary regional pathways that are integral to the plan. The existing regional pathway on the eastern boundary allows for local pathway connections to serve the Joint Use site. the eastern neighbourhood park, and the stormwater management pond. The second regional pathway is a continuation of the pathway system from Chinook Winds Regional Park that follows the "Dry Creek" through this plan area and crosses 24th Street to the west. This pathway provides off road connectivity to the high school and recreation center site, potentially without the need for any at grade road crossings (options for crossing 40th avenue are being evaluated by the City of Airdrie). Regional pathways are also provided along 40th Avenue. Southwinds Boulevard, and Southwinds Drive ensuring efficient pedestrian movement along these main roads.

Street orientated pathway networks supplement the regional pathways. The main east to west pedestrian corridor extends from the Dry Creek and observation neighbourhood park in the west, across the plan to connect the eastern neighbourhood park, the eastern regional pathway, and further to connect to Osborne Park in South Windsong as well as the South Windsong Stormwater Management Pond and to the regional commercial center of Cooper's Landing.

The main vehicular collectors will allow for easy pedestrian and bicycle movement through onstreet bike lanes in both directions and either 2.5m regional path or 1.4m separate sidewalk. The orientation of mostly rear laned product along this collector ensures minimal interference of vehicular and pedestrian modes.

The remaining local roads will have sidewalks located on both sides of the streets and any longer blocks will have through block pathways to allow for pedestrian movements without the need to traverse around blocks or becoming dead ended. Additionally, blocks that back onto the recreation centre / high school site will have through block pathways to ensure easy access to and from these important destinations. (City Plan Policy 6.2 (G))







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## 7.0 SERVICING

The proposed development requires sanitary sewers, a potable water network, stormwater management facilities, an irrigation network and shallow utilities. The servicing infrastructure has been designed to accommodate development of the entire SW NSP area.

Policy A: The SW NSP lands shall be

developed through logical extensions of municipal infrastructure from adjacent

developments

Policy B: Development shall occur when

lands are contiguous or within 300 metres of existing municipal

servicing capacity

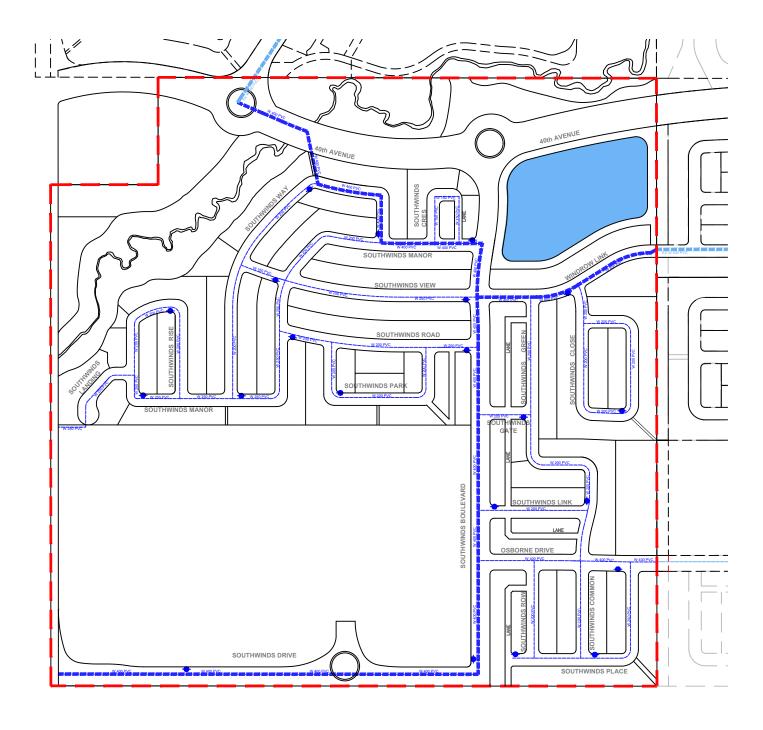
Policy C: The initial costs of local

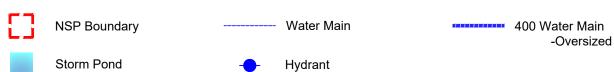
infrastructure to service the NSP lands shall be borne by the developer in accordance with

MDP Policy 4.6

#### 7.1 Water

Water servicing of the Southwinds lands is as per the Chinook Winds Community Area Structure Plan (CASP). Water servicing will occur through two extensions of water distribution mains from ties to the South Windsong development to the east. A third extension will also be available through a tie available at 40th Avenue SW from the Cobblestone Creek development. These ties ensure a looped system can be created for servicing of the Southwinds plan area. Figure 29 shows the proposed water servicing plan for Southwinds.







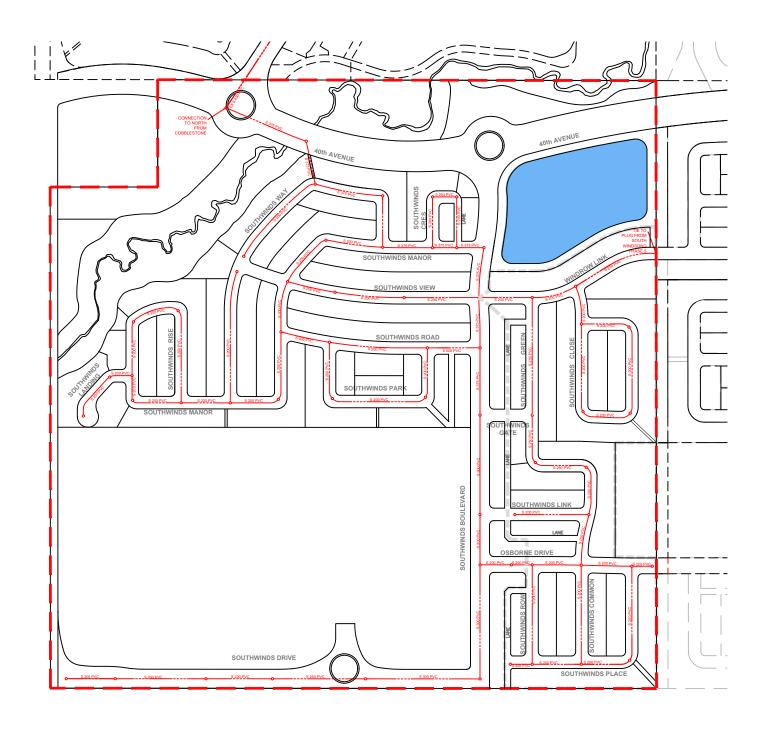




### 7.2 Sanitary

Sanitary servicing of the Southwinds Plan Area is to be as per the Chinook Winds CASP. Sanitary flows will be conveyed by gravity only in a south to north direction through sanitary sewer pipes to service the majority of the quarter section. The sanitary sewer system will tie into a stubbed sewer trunk at the north plan boundary at 40th Avenue SW. Sanitary flows are then conveyed through both the Cobblestone NSP area and the Chinook Gate NSP area. It is understood that the downstream sanitary sewer trunk has been designed to accommodate only this plan area's flows. Adjacent lands to the south and the west are to be serviced with a future sanitary trunk system flowing east and south terminating in a future Lift Station #8 as described in the Airdrie Master Utility Master Plan.

Figure 30 shows the proposed sanitary servicing plan for Southwinds. The area identified on the figure by the grey dashed line will utilize excess capacity in the sanitary sewer system to the east of the site. Flows from this area will be conveyed through a stubbed sewer at the west boundary of South Windsong Phase 5, then through Hillcrest to the Sierra Springs Lift Station.





SP Boundary —— Sanitary Sewer







Southwinds Neighbourhood Structure Plan



# 7.3 Stormwater Management and Irrigation

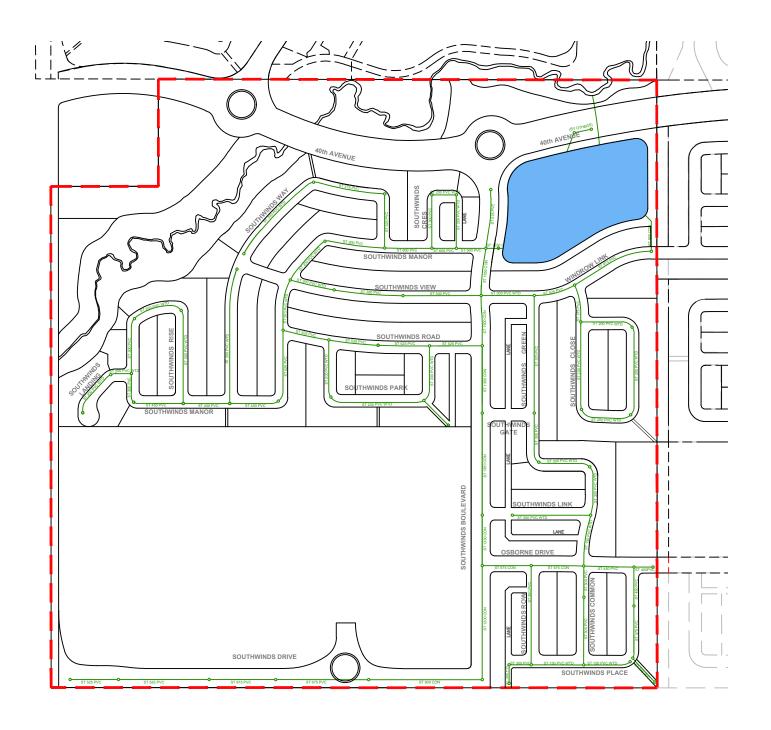
The drainage for the area south and west of Dry Creek is collected in a gravity storm system and conveyed to the north east stormwater management facility (pond). The pond will discharge through a control structure, north under 40th Avenue SW into Dry Creek, the Canals to the north of Yankee Valley, and eventually into Nose Creek. The land in the north west corner of the lands separated from the rest of the plan area by "Dry Creek" shall discharge into the creek via a hydrodynamic separator. The pond and hydrodynamic separator function to control the quality and volume of discharge prior to release into the creek system. The proposed storm water management system is represented in Figure 31.

The stormwater management facilities are designed to meet the volume release criteria of 16mm for the site as directed in the Nose Creek Watershed Water Management Plan (NCWWMP). To achieve the required discharge volume, Low Impact Development (LID) strategies as well as source control best management practices (BMP) will be required.

A Staged Master Drainage Plan has been prepared by Westhoff Engineering Resources, Inc. and submitted under separate cover. The SMDP has identified the following BMPs required to achieve the volume release target:

- All landscaped areas to have minimum uncompacted topsoil depth of 400mm
- Roof drainage to be directed to landscaped areas prior to draining to roads or lanes
- Stormwater reuse in the form of irrigation of public parks, as well as the recreation centre

Residual capacity was identified in the existing South Windsong stormwater pumphouse facility available to be used for the irrigation of open spaces throughout Southwinds (Figure 32). A small pump will be used to transfer the required volume of water for site irrigation into the South Windsong Phase 5 Storm Sewer system to replenish the volumes being dispersed within this plan area. The utilization of an existing pumphouse structure helps to minimize costly maintenance obligations of extensive filtration components. Further details are available in the Southwinds SMDP as well as through further detailed engineering of the stormwater management pond.





NSP Boundary

— Storm Sewer



Storm Pond

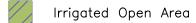








Irrgation Mainline



Non-Irrigated Open Area







### 7.4 Shallow Utilities

Southwinds will be serviced with underground electrical, natural gas, telecommunication, and fibre optic services through a phased approach concurrent with servicing activities. 4-party trenching will be used to service the plan area, and will extend from adjacent networks in established communities.

Within local road rights of ways, the 4 party trenches will be located in the boulevards with above grade infrastructure located in private lots protected by easements as needed. Along the 25.2m and 21m collector roads, the streetlights will be located in the boulevard and all other utilities to be located within a 3.5m and 2.4m easement respectively on private lots where required. Utility alignments are included in the previously referenced road standard cross sections (Figure 4 - Figure 186).



### 8.0 PLAN IMPLEMENTATION

### 8.1 Development Phasing

The lands within the SW NSP are contained within Stage 3 of the CW CASP. The lands within Stage 1 and 2 are either developed or under development at time of writing. The development of the SW NSP lands is also in keeping with the MDP's policies regarding contiguous development and the extension of municipal servicing. The phasing within Southwinds will occur based on logical extensions of existing municipal services.

Figure 22 outlines the development phases of Southwinds. The stormwater pond is required to accommodate the stormwater from all of the NSP boundary, as well as a portion of 40<sup>th</sup> Ave SW. Development will occur from the northeast corner of the site southward along Southwinds Boulevard until Osborne Drive to create a looping with South Windsong community. Subsequent development will take place towards the west starting from the north working south. Timing of the recreation and high school are uncertain and are currently within Phase 9, however they could be advanced if anticipated timing is sped up.

Actual phase size and locations will be dependent upon future market conditions and infrastructure requirements.

Policy A: Southwinds shall be

developed in general

conformance with the phases

outlined in Figure 33

Policy B: Phases may be combined,

divided or applied for

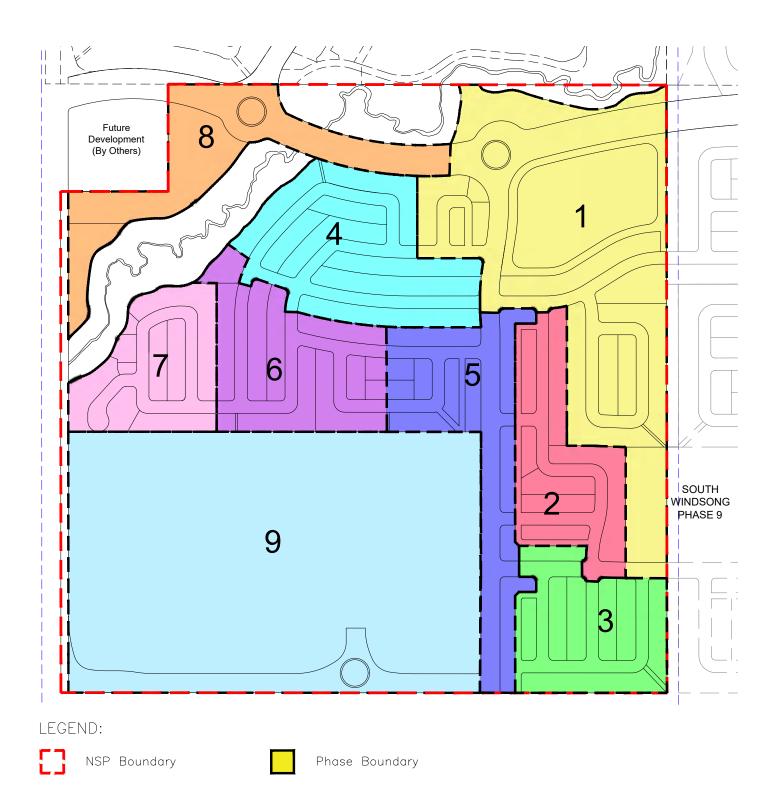
simultaneously at the time of

subdivision

Policy C: Noise attenuation analysis to

be provided at the applicable

tentative plan stage.
Incorporation of berms,
fencing, and/or landscaping
maybe required based on the
noise attenuation analysis









# NSP SCHEDULE 'A'