

West Hills Community

Neighbourhood Structure Plan

April 2021

RESUBMISSION



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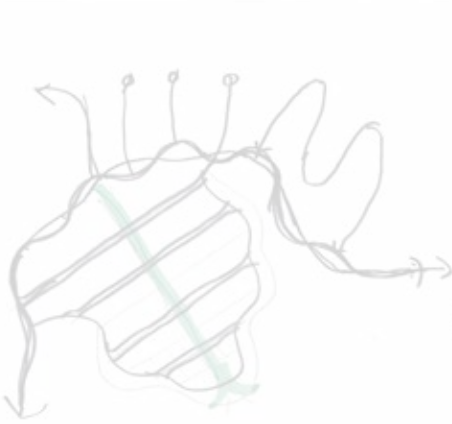


Image 1 | Plan Evolution v1



Image 2 | Plan Evolution v2



Image 3 | Plan Evolution v3



Image 4 | Plan Evolution v4



Image 5 | Plan Evolution v5



Image 6 | Plan Evolution v6



Image 7 | Plan Evolution v7



Image 8 | Plan Evolution v8



Image 9 | Plan Evolution v9

Executive Summary

The creation of the West Hills neighbourhood began several years ago when Minto Communities first stepped onto the land and recognized the opportunity to create a pioneering master-planned community. Three hundred and sixty-degree vistas have inspired a community experience guided by ‘views for days’. The land’s unique views of the Rocky Mountains and the entire City of Airdrie have inspired the creation of a better community; one that is healthier, smarter, and greener. The neighbourhood is located on the west side of Airdrie and is surrounded by open fields, agriculture, rural residential, and the rapidly growing City of Airdrie. Open space will be woven throughout the community to connect nature, food, and people while providing a complementary transition to the nearby neighbourhoods. The traditional agricultural use of the land will be celebrated in an urban way while creating a community that honours the dramatic landform.

The West Hills Plan has been informed through multiple site visits, visioning sessions, market research, community engagement, collaboration with the City of Airdrie and existing residents, and technical evaluations. The community design is focused on the existing landform and natural conditions of the site which provide a unique platform for a community experience rooted in a traditional farm lifestyle. Section 3.0, Community Experience, outlines how the Plan will help to make the healthy choice the easy choice for future residents. Neighbourly exchanges, healthy movement throughout the community, and access to fresh food will create a ‘back-to-the-roots’ lifestyle. Agricultural influences will include open spaces filled with flowers, fruit-bearing trees, shrubs, and forbs, farmhouse inspired built form, and inspiring views. These influences will be combined to create a home-grown community experience where people live better, together.

The community design has responded to the contrasting grades by weaving open space throughout the neighbourhood to create a perpetual park that provides a continuous open space network accessible to all residents and multiple modes of transportation. Additional pedestrian connections will be provided to complement the regional pathways and ensure a well-connected and people-oriented plan. All streets will be lined with separate sidewalks to provide visual and physical separation between people and cars. The addition of flowers and trees to boulevards will further enhance the agricultural and community feel of the neighbourhood. Section 4.0, Community Gestures, reveals the deliberate design work behind the Plan to enable healthy and sustainable urban behaviors.

The concept has been strongly influenced by the undulating nature of the existing natural landform. The retention of this landform supports a curvilinear vehicle network made up of closed residential streets spurring off the primary community boulevard. The closed streets (cul-de-sacs) help respond to natural drainage conditions and allow for the open space network to permeate residential areas. The street network design lends itself to multiple mid-block crossings throughout the neighbourhood, shifting the transportation priority from the vehicle to the person. The open space network and numerous pathway connections help further facilitate pedestrian movement within West Hills, adjacent communities, and the rural spaces surrounding it.

The goal of the West Hills community is to generate a high rate of social return on the initial investment in Community Capitals. Section 5.0, Community Vitality, further explains the concept of Community Capitals. Figure 12 shows the sustainability mapping score of West Hills Neighbourhood Structure Plan that will provide for a balance of the Community Capitals. Community Capitals will grow as the community becomes a thriving destination at the intersection of nature, food, and people. Each building block of the West Hills neighbourhood is intentionally rooted in the community design to encourage residents to live greener, live smarter, live healthier, live together, and live brighter.



Image 10 | West Hills Quarter Section

1 | Community Context

The foundation of the West Hills community is built on the physical constraints of the land, the guiding layers of policy, existing ownership, and the surrounding context. The preservation of natural slopes, through the dedication of Environmental Reserve (ER), has dictated the neighbourhood design. The existing boundary condition, 24th Street, provides an additional design check that impacts the layout and function of the future neighbourhood. The West Hills neighbourhood aims to become a cohesive piece of the community fabric that is Airdrie. The following pages outline the location, context, guiding community plan, and land ownership.

1.1 | Location

The West Hills Neighbourhood Structure Plan (WH NSP) is located within the northwest quadrant of the City of Airdrie and is framed by 24th Street to the east, NE 10-27-1-W5M to the north, SW 10-27-1-W5M to the west, and NE 3-27-1-W5M to the south. The lands are contained within the West Hills Community Area Structure Plan (WH CASP) approved December 16, 2019. See Figure 1 for Site Location.

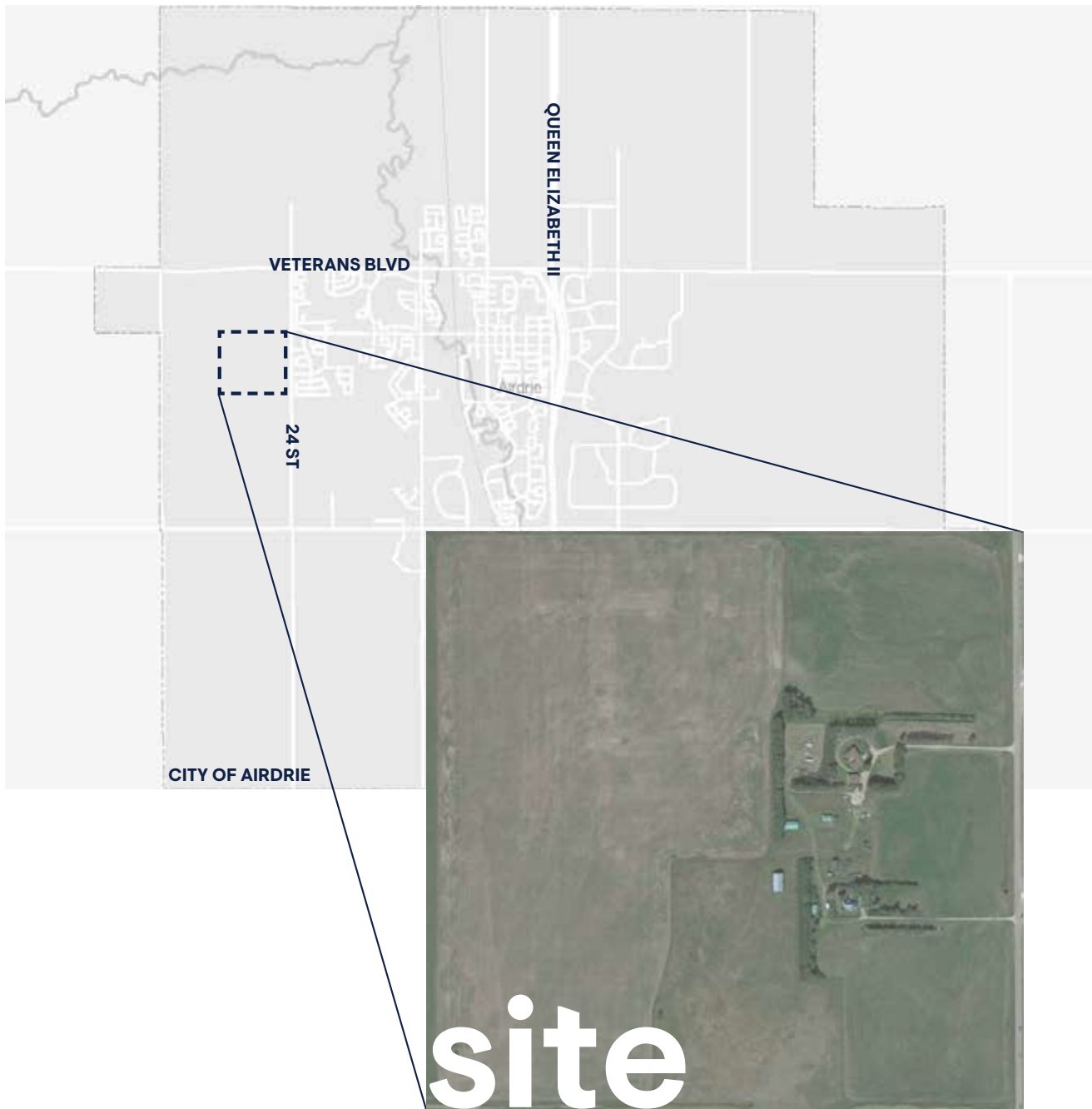


Figure 1 | Site Location



1.2 | Site Context

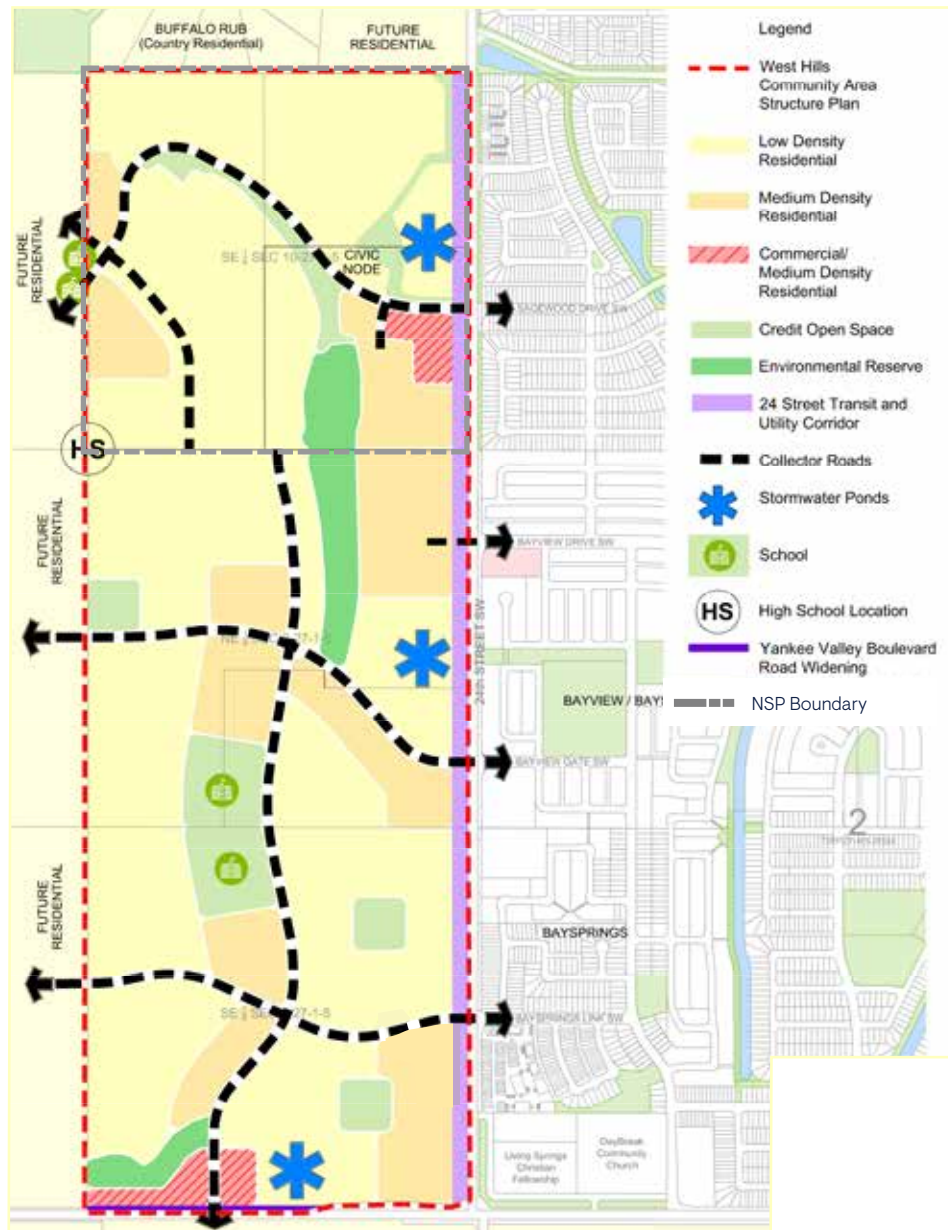
The lands surrounding the WH NSP are undeveloped to the west and south. Existing country residential is located along the western portion of the northern boundary of the site. The existing residential neighbourhoods of Sagewood, Bayview, Baysprings, and Fairways are all located east of the Plan area along 24th Street. See Figure 2 for Site Context.



1.3 | West Hills CASP Context

The WH NSP takes its lead from the West Hills Community Area Structure Plan (WH CASP) that was adopted by Airdrie City Council in 2019. The WH CASP formalizes the recommendations of the Municipal Development Plan (MDP) regarding the location of future residential, open space, and local commercial development. The WH NSP represents the further refinement and actualization of the improvements outlined in the WH CASP.

The public utilities, proposed uses, and community access points are in alignment with all higher-level statutory plans and City policy. The physical location of these items has been informed by a more detailed evaluation of the existing landform, marketplace desire, engineering standards, and the City’s Land Use Bylaw. See Figure 3 below for the WH CASP.



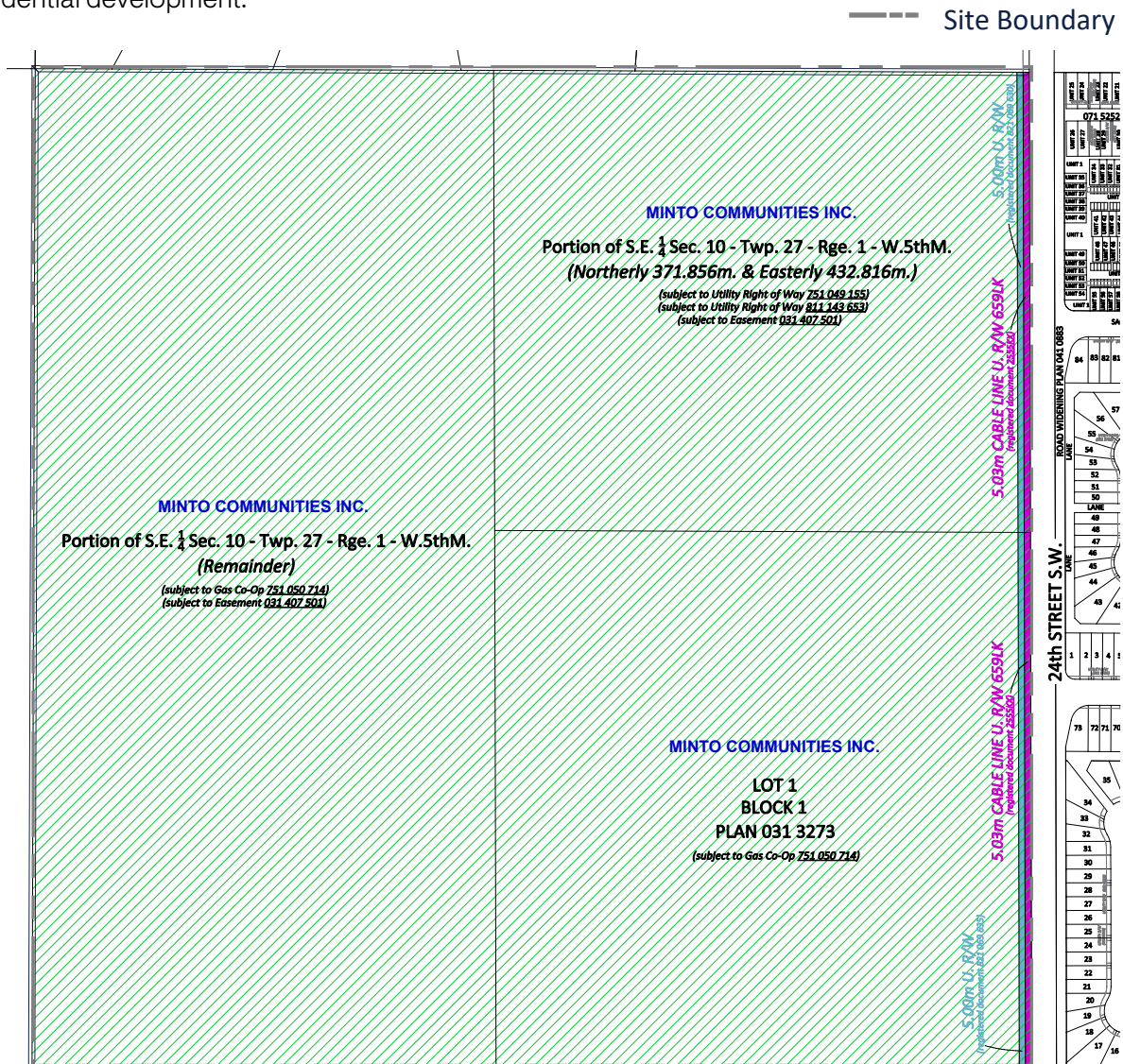
1.4 | Legal Instruments and Land Uses

Existing Uses:

Existing Land Uses on the Plan area include General Agricultural District (AG) and Rural Agricultural Business District (RB-A). The site is bounded to the north by Rural Residential Four-Acre District (RR-4) and General Agriculture District (AG) parcels, to the east by the existing residential community of Sagewood, and General Agriculture District (AG) to the south and west. The subject lands and all adjacent Agriculture General (AG) lands are identified in the Airdrie City Plan for future residential development.

Ownership:

Minto Communities Inc. is the sole owner of all lands within the WH NSP. All existing utility rights of way are indicated on Figure 4.



Scale NTS



Figure 4 | Ownership, Rights of Way

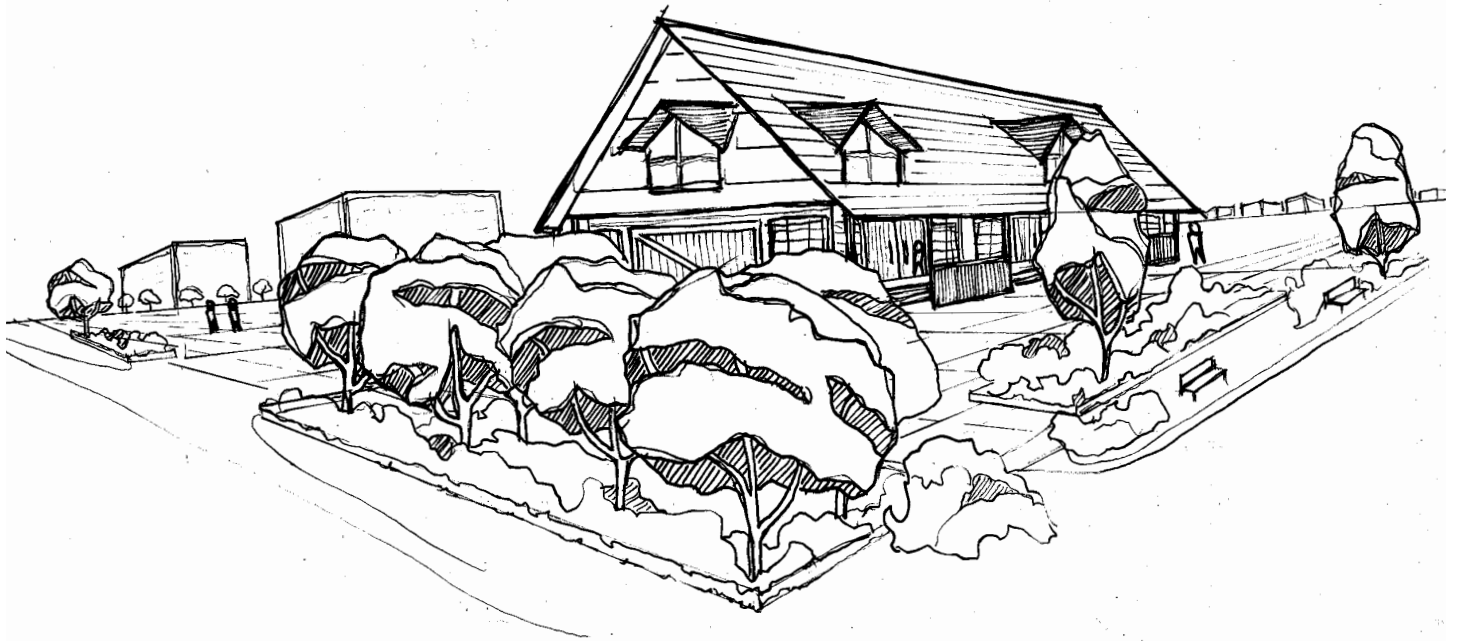


Image 11 | Conceptual Building Sketch

2 | Community Plan

Welcome to the West Hills Neighbourhood Structure Plan (WH NSP). This Plan has been prepared by Minto Communities for the City of Airdrie as an innovative guide for the creation of a down to earth neighbourhood. The notion of a made-in-Airdrie and made-for-Airdrie approach to community development has driven the creation of this document. The WH NSP details a plan and conceptual layout born out of the iconic land form while being mindful of slopes, nature, and agriculture, and has been developed through an incremental and collaborative process with Airdrie residents, Airdrie and area husbandry enthusiasts, and the City of Airdrie. The Plan looks to the future of Airdrie as ‘Canada’s healthiest community’, bringing new and existing residents what they are looking for in a functional and simplistic community experience.

This document was created to establish the founding principles of the community that will allow the neighbourhood to flourish and come to life.

Plan Goal:

To lay the groundwork for an original community experience focused on the confluence of people, places, and food.

Plan Objective:

To encourage thoughtful and meaningful experiences between neighbours, the built environment, and nature.

2.1 | Guiding Principles

1. Prioritizing Community Health

- a. Community design that prioritizes healthy living
- b. Community design that embraces nature, food, and unique spaces and places
- c. Community design that focuses on community sustainability



Image 12 | Community Health Diagram

2. Fostering Community Confidence

- a. Community design that connects nature, food, and people
- b. Community design that facilitates success
- c. Community design that generates a sense of pride and stewardship

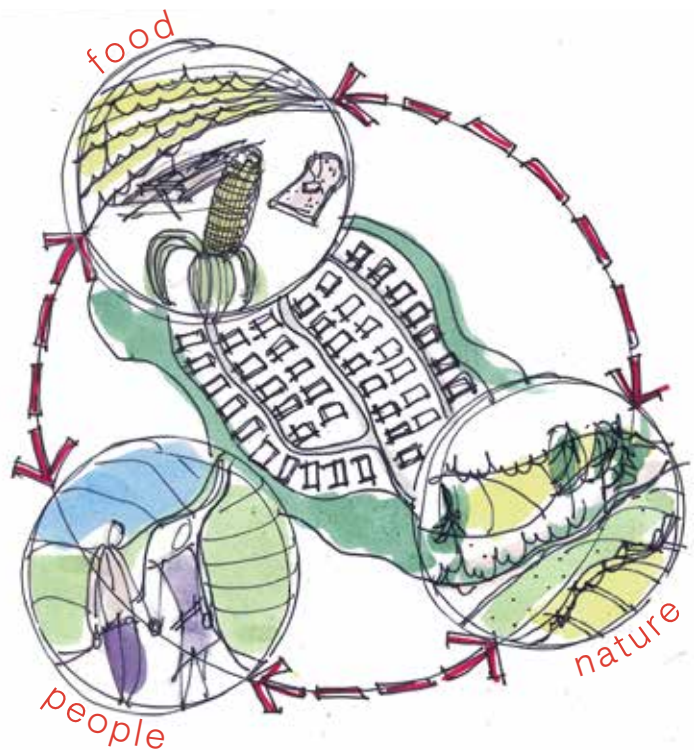


Image 13 | Fostering Confidence Diagram

3. Creating Community Capitals

- a. Community design that contributes to the six (6) community capitals:
 - i. Natural
 - ii. Cultural
 - iii. Human
 - iv. Social
 - v. Physical
 - vi. Economic
- b. Community design that is mindful of social infrastructure that benefits the mind, body, and soul
- c. Community design to create opportunities for local food supply and food security

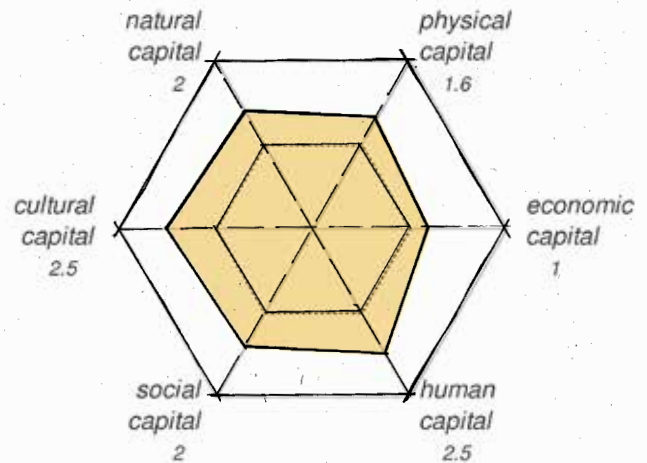


Image 14 | Community Capitals Diagram
 CCscan | Mapping Sustainability
www.ccscan-ca.cscd.sfu.ca

4. Down-to-Earth Community

- a. Community design to re-establish connections between nature, food, and people
- b. Community design to encourage land and agricultural stewardship
- c. Community design that enables residents to live greener, live healthier, live smarter, live together, and live brighter

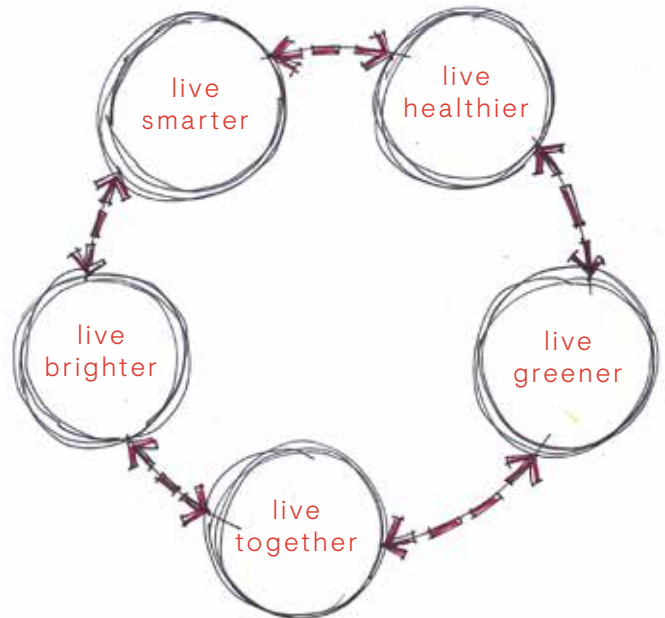


Image 15 | Community Design Diagram

2.2 | Opportunities and Interfaces

Located at the western edge of Airdrie, the site's dramatic topography and resulting viewsheds offer 'views for days' for both residents and visitors to the community. The site's location between urban and rural areas also provides an opportunity for development that embodies the best of both worlds, offering both urban amenities and an idyllic rural feeling.

The opportunity of the topography is embraced through a landform conservation approach. Landform conservation refers to the effort to retain the natural slope and form by minimizing large alterations to the landscape.

This opportunity works well when considering current edge conditions around the site. Although it requires care when designing municipal infrastructure to meet standards. Storm pond facilities are a need that will require large flat areas; this increases sloping on other areas of the site to account for the flattening of these areas.

Engineering design standards for roads and underground infrastructure will be adhered to, requiring slope accommodations in other private and public spaces.

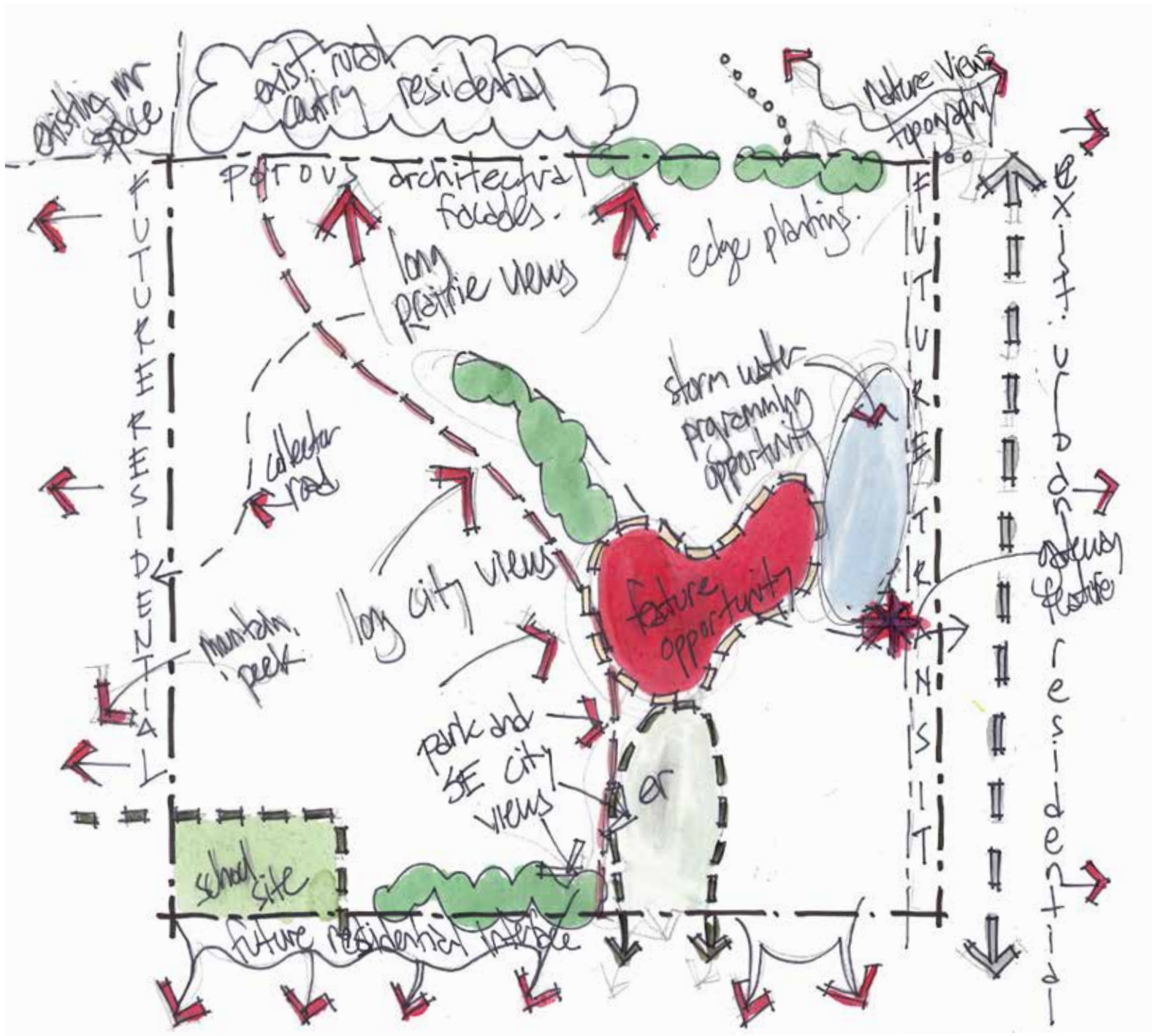
The community has the potential to connect to the future multi-modal transportation network located along 24th Street. The prominence of the site within the Airdrie landscape provides the opportunity for a meaningful node to be established in close proximity to the eastern edge of the community. This provides a natural draw for both residents and visitors alike.

The Village Core will be a prominent feature located along the main corridor throughout the community. This corridor is created through the location of targeted density and a neighbourhood activity node. The Village Core is intended to facilitate transit-supportive development. Please see Section 4.2 for further details.

A large natural area is located in the south-central portion of the site, providing a remarkable opportunity for passive recreation. Along the central portion of the site, expansive views to the north, east, and south can be celebrated both from meaningful vista points along pathways and from within natural areas.

With respect to interfaces, development to the north of the site consists of acreage properties that are anticipated to remain into the long term. The size and configuration of these properties are complementary to the overall design intent of the community to provide more linkages between urban and rural lifestyles. Future development to the south and west of the site is anticipated to be complementary as well, with a more urban transition to these future areas envisioned for the community.

Image 16 demonstrates a summary of the opportunities and current interface conditions for West Hills.



Scale NTS



Image 16 | Opportunities and Interfaces

2.3 | Topography and Slope Analysis

The WH NSP contains several areas of moderate elevation change for a total elevation change of 63 metres over the entire quarter section. The highest elevation of 1157.0m is in the south west corner of the site, with the lowest on the east side with an elevation of 1094.0m. The site's topography provides a vertical visual presence that is a great amenity for Airdrie residents.

The land slopes constantly at various rates as shown in Figure 5 and Figure 6. The lowest elevations are found in the northeast corner rising from an intermittent watercourse just north of the WH NSP area. The land rises quickly to the south and southwest.

The future road widening of 24th Street will further challenge the entry and site design of the community as the elevation and grades of the eastern boundary

will match the existing lanes of 24th Street. Appropriate grading of the land will be required to make the site developable in order to provide the infrastructure needed to support a new community.

Land form preservation in development means the attempt to retain the physical presence or function of the natural condition. This is balanced by the necessity for safe and functional design for hard infrastructure of the municipality. In preserving the land form the necessary constraints of engineering standards will require accommodation of slope elsewhere. This preservation of the current landform will be highlighted through the creation of unique public spaces and topographically responsive private developments.

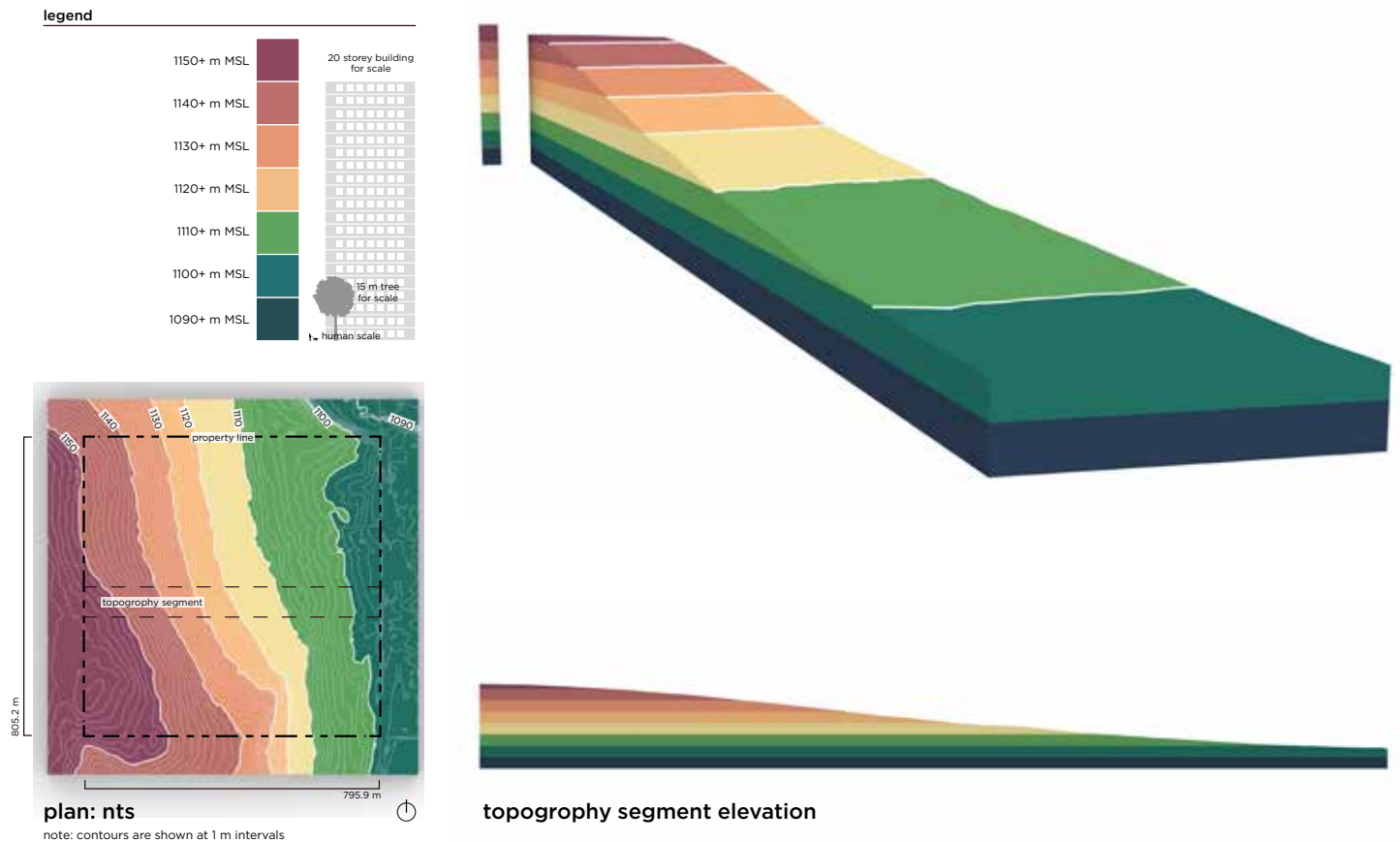
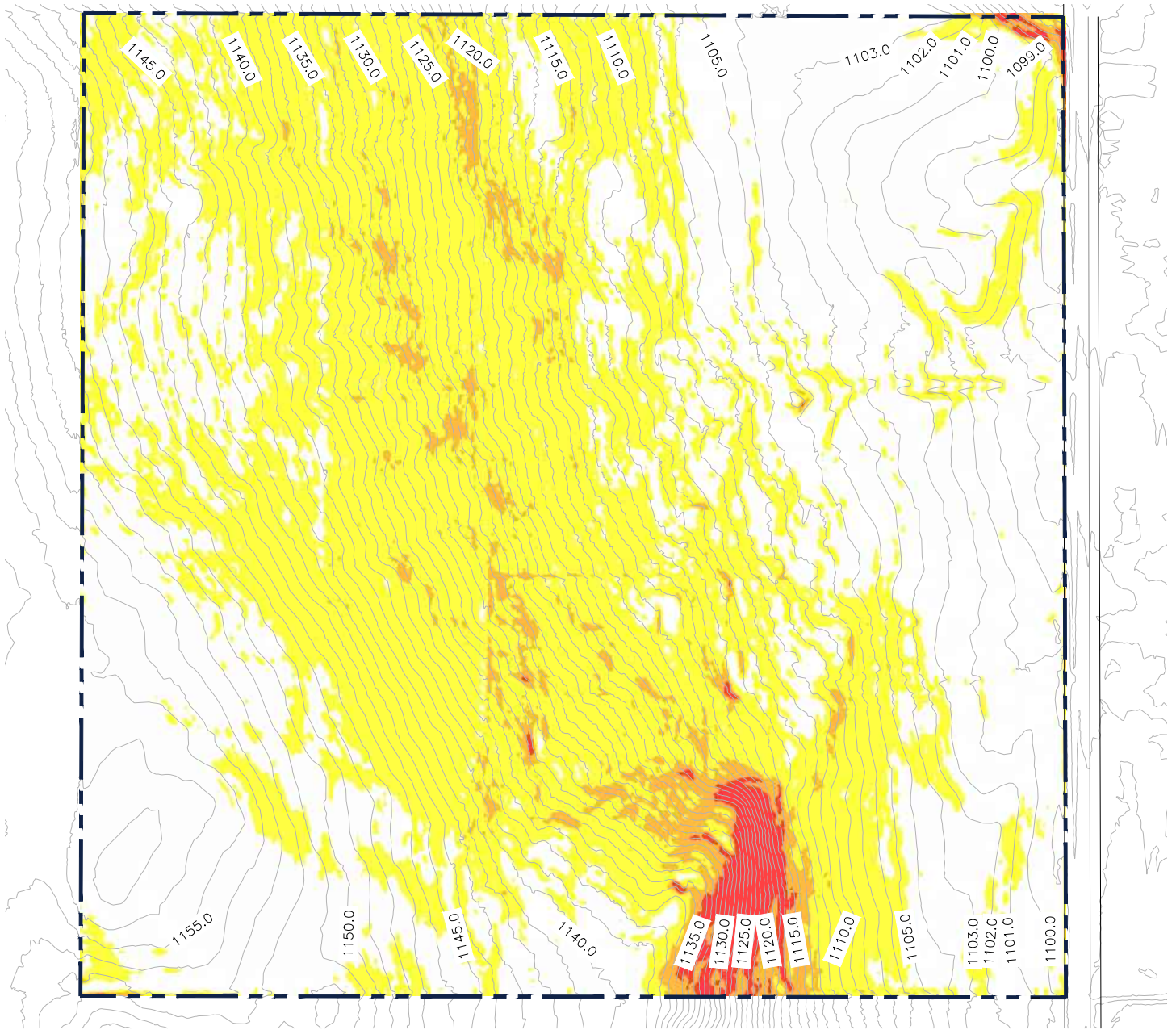







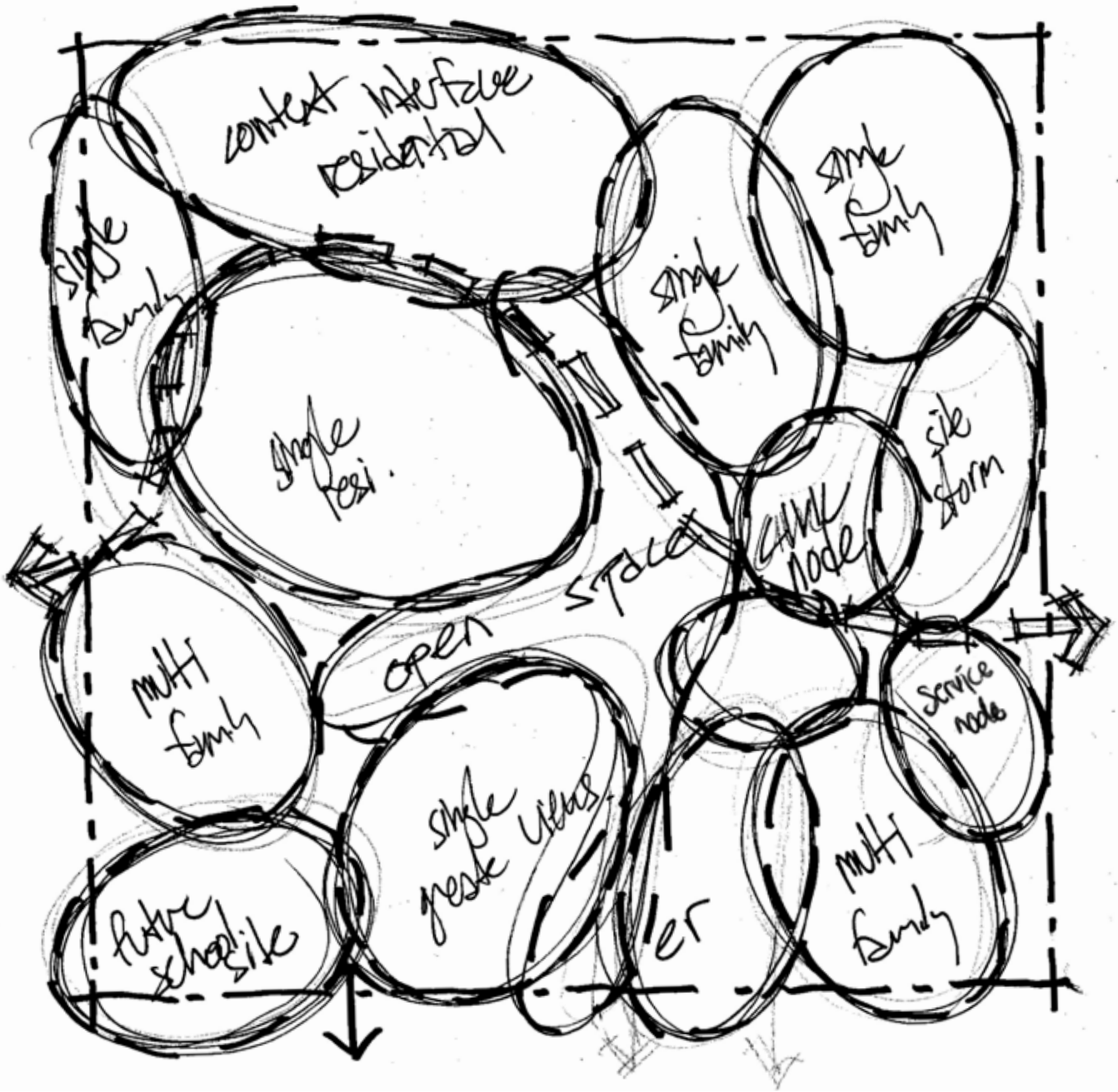
Figure 5 | Topography Segment



-  NSP Boundary
-  0 - 7% Slope
-  7 - 15% Slope
-  15 - 22% Slope
-  22%+ Slopes

Scale 1:5000 

Figure 6 | Slope Analysis



3 | Community Experience

The following Sections 3 through 9 provide the neighbourhood design elements, land use policies, and infrastructure components that form the statutory portion of the WH NSP.

The Plan creates interesting and natural platforms for people to live healthier, and to live in communion with nature, food, and one another. A key benefit of the sloped reality of the public places and spaces created in the Plan is the multi-dimensional experiences it allows.

The West Hills community establishes its identity in living healthier. Healthy living is an individual's personal investment in a vibrant future through their choice of sustainable behaviours. People are linked to nature and food by way of pathways lined with fruit-bearing plants and trees, a fresh food market, and flowered landscapes that are alive with birds and bees.

Urban agriculture comes to life here in an urban community where fresh food is readily accessible both actively and passively. Active agriculture involves planned activities for annual gardening and harvesting, whereas passive agriculture provides the opportunity for foraging from the community's perennial food plants.

The West Hills Plan responds to the societal reality that we live together collectively. By paying attention to the landform, people's desires, people's needs, and the municipality's desire for compact urban form, this community sets the stage for living better together. The neighbourhood design demonstrates the give and take required to balance the design considerations and municipal infrastructure with landform conservation, as overviewed in Image 17.

A defining experience of farm living is the feeling of privacy and the ability to get away from the business of life. This neighbourhood's response to the sloped land form creates shorter blocks and dead-end streets. This provides connection to nature and agriculture while emulating the privacy of an idyllic rural farm condition. The farm and agriculture intent will inspire community elements such as fencing and community buildings, as well as play and pause structures (structures used for active play or areas to rest) establish a sense of security where people live. Events and programming will re-connect people to a local environment where their needs are met within their neighbourhood. The presence of food, as well as cultivation and harvesting activities, will nurture a community of inclusiveness and kindness.

The community experience will be realized through the developer's financial investment in the Plan and the implementation of community level governance (HOA). The specific facilities and services within the HOA's responsibility will be determined at a later stage of the project.

Policies:

3.0.1 A Home Owner Association (HOA) should be formulated and implemented by the developer.

3.0.2 Flowered public spaces, food producing landscaping elements, and urban agriculture is encouraged within private and public spaces through coordination with the City of Airdrie.

3.1 | Theming

Consistent theming throughout the West Hills neighbourhood is key to creating a unique community experience. Extensive research through conversation and exploration has been undertaken over the past two (2) years to better understand why people choose Airdrie as a place to move, stay, and grow. Residents surveyed made the following characterizations or used relatable language they felt describes Airdrie's identity:

- back to roots
- where heritage is valued
- strong social-connectivity
- family-focused living
- active outdoor experiences
- simplistic living
- down-to-earth community
- authentic living
- humble lifestyle

These ideas tie directly to the farm inspired theme that has driven the community design for West Hills. The commitment to an authentic back to roots community has been intentional to connect people with the local and practical knowledge from Airdrie and the surrounding area. The neighbourhood aims to honour the long history of agriculture in Airdrie by closing the gap between food production and food consumption in an urban way.

The community experience will be further enhanced through the use of architectural elements, wayfinding components, and food producing plants and perennials commonly found on Alberta farms.

The current slopes and landform have greatly influenced the community design. The arrangement of civic infrastructure (pipes, roads, ponds) and urban spaces (living and gathering buildings) around nature and the topography further enhances the sincere and authentic community feel.

The overall neighbourhood design is based on perpetual open spaces which encourages residents to come together at the intersection of people, food, education, and celebration.



Image 18 | Fence + Barn Structure Example



Image 19 | Fence + Barn Structure Example

City specifications for safe travel, effective provision of infrastructure, and appropriate built form placement have had a significant influence on the community design as well. The rise in elevation across the site from the northeast to southwest has also greatly impacted road connectivity and stormwater management. The use of dead-end streets allows for the mitigation of these slopes and storm water management items outside of the public realm. Prioritizing the slopes and open spaces has resulted in groups of homes being nested together with green ribbons of park and opportunities for food spaces woven throughout the Plan area. These green ribbons prioritize natural corridors and provide safe connections for active transportation modes throughout the community.

Policies:

- 3.1.1 The built form should draw inspiration from the design of farmhouses and farm structures. The theme will be implemented through Community Architectural Controls.
- 3.1.2 A variety of housing forms and elements shall be incorporated throughout the community to appeal to residents at all life stages.
- 3.1.3 Public space furniture should reflect natural materials and farm themed elements.



Image 20 | Fence + Barn Structure Example

3.2 | Healthy Places and Spaces

Building healthy places and spaces is a key component to creating wholesome lifestyle options for residents. This type of community proposed in this plan involves many features not commonly found in today's neighbourhood design. Residents will have daily options to live greener, live healthier, live smarter, live together, and live brighter. Small actions of individual residents will have a cumulative impact on the entire community.

Individual green-ing behaviours such as getting back to nature, planting a garden, or unstructured play are key to a more sustainable lifestyle. The innovative community plan is in response to providing a healthy experience for its residents. Healthy living is about the healthy choice being the easy choice. Access to seasonal fresh food as well as space to move, places to meet, and places to play all result in a better community experience.

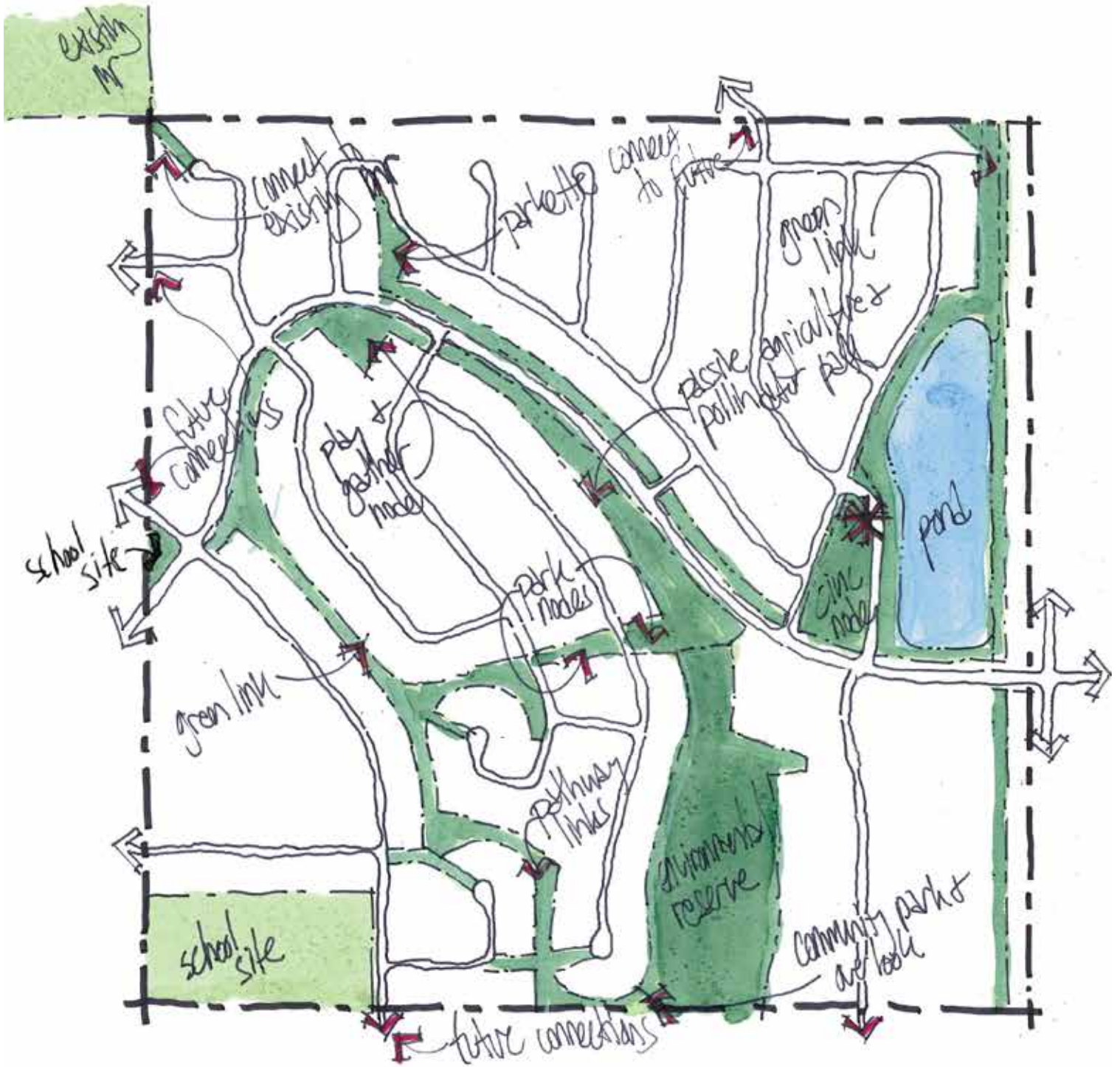
Open space IS the Plan. Healthy places and spaces are created through continuous open space where human powered transportation modes are prioritized, not cars. These spaces become movement corridors linking people to their homes, their neighbours, their food, their learning, their play, and their needs. These continuous open spaces or green corridors are illustrated in Image 21.

The community theme draws inspiration from living healthier and more tightly integrated with nature and food. This functional way of life is reminiscent of a more traditional farm type lifestyle. Open spaces will be activated through urban agriculture; where people and food bearing plants come together. Public space furniture will be constructed of natural material or materials that reflect natural material qualities.

The intentional design of well-connected gathering places will create opportunities for neighbourly exchanges and facilitate access to locally produced goods and services. This access is a simple sign of a healthy and accessible community. Establishing indoor and outdoor spaces for community connection in the early phases of the development will help to establish a back-to-roots Airdrie experience.

Policies:

- 3.2.1 The creation of public and private spaces that include opportunities for growing and/or harvesting food are encouraged.
- 3.2.2 The pedestrian environment shall be enhanced through the incorporation of boulevard trees, regional pathways, and viewshed conservation.
- 3.2.3 Design guidelines will be created to govern building facade designs within the community.
- 3.2.4 The use of sound walls and other man-made barriers shall be limited through the use of effective design measures and land use placements instead.



Scale NTS



Image 21 | Green Corridors

3.3 | Movement and Moments

The existing natural features and vistas have greatly impacted the community design of West Hills.

The objective intent is met by creating a perpetual park that incorporates green spaces continuously throughout the community. The resulting movement corridors will link moment spaces where play, food, and relaxation can take place. Four types of platforms for living healthier are described below and illustrated in Image 22:

Movement

People powered movement is prioritized within the community through the strategic placement of pathways and separate sidewalks. These green corridors will be lined with character fencing to encourage movement through passive way finding (refer to previous Images 18, 19 and 20 for examples). Pathways lined with fruit-bearing trees, shrubs, and forbs will form green ribbons throughout the neighbourhood. The addition of flowering plants to these green ribbons will encourage the creation of 'pollinator superhighways' with hives of bird and bee activity. Pollinator superhighways will provide a seasonal supply of fresh food to foster the symbiotic relationship between people and nature.

Moments

Moments of pause are incorporated into the perpetual park network to create a deeper sensory experience. These 'moment locations' will inspire people to stop and literally smell the flowers or pick the berries. Moments are strategically located throughout the neighbourhood where residents can seek refuge or take an unplanned pause to take in a prairie vista, a reflecting moment along the still water, drink in the vibrant colours of food or flowers, or meditate on the buzz of the ecosystem.

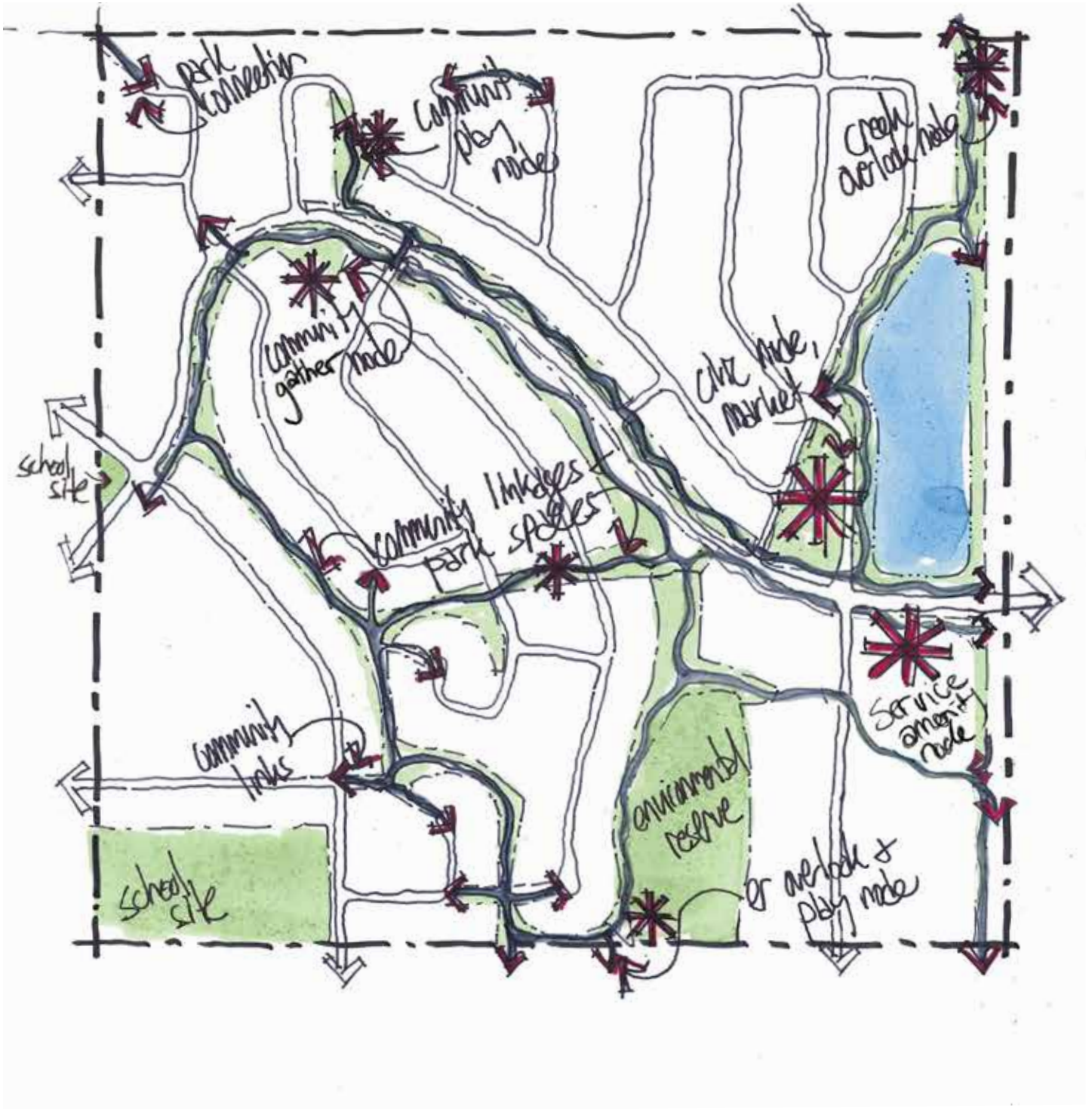
Mingling

Moment spaces woven throughout the community also create opportunity for unprogrammed interactions and recreation.

Play will be inspired by humble 'agri' (agriculture) and nature themed equipment. Production and picking will result from maintaining and harvesting the fruits of the community. Conversation and community building will be nurtured by spontaneous and coordinated exchanges between residents. The spontaneous exchanges that occur are a fundamental outcome of the planned community experience.

Memory

The outcome of the behaviours created by this community plan will not only create knowledge but preserve culture as well. Community living together will be a daily celebration of many small moments and healthy movements that happen organically, in a very natural place. Shared spaces will help to facilitate multi-generational and multi-cultural relationships. This sharing of interests, knowledge, and skills will pass along practices and cultures for decades and generations to come.



Scale NTS



Image 22 | Movement and Moments

3.4 | Land Use Concept and Statistics

The land use concept has been designed along the nodes and corridors created by the existing landform and external interfaces surrounding the site (refer to Image 22 on previous page). Nodes are formed at the intersection of corridors in areas leading up to the toe of slopes. The Civic Open Space Node and Village Core are located at the first node as you enter the neighbourhood from 24th Street. This node will be developed in the early phases to help establish the community identity and provide neighbourhood amenities near transportation corridors. The Environmental Reserve will be the most distinguished landform conservation feature in the Plan. The Village Core bordering the Environmental Reserve will set the tone for the community experience. Pathway connections will complement the location of these key amenities within the Plan.

The Village Core will be a combination of convenience and service commercial uses and multifamily residential. This activity hub will transition to a variety of lower

density and single family residential options. Green space will be woven throughout the corridors of the Plan to connect the various residential forms and densities strategically located throughout the Plan.

The West Hills land use concept will be implemented through application of the most adaptive land use districts available within the City’s Land Use Bylaw. Adaptability and flexibility are critical to the long-term success of a master-planned community, providing the ability to accommodate fluctuations in the marketplace year to year and phase to phase.

Policies:

3.4.1 The WH NSP should comply with MDP policies for small and narrow lot single-family detached development. The need to vary from those policies will be at the discretion of the Development Authority.

Table 1 | Land Use and Housing Statistics

LAND USE STATISTICS	Area		
	hectares	acres	%
Gross Total Area	64.79	160.09	
Non-Developable Areas	6.23	15.40	
Environmental Reserve	2.36	5.83	
24 Street Widening	1.73	4.28	
School Site	2.14	5.29	
Gross Residential Area	58.56	143.05	100%
Civic Open Space Node	0.67	1.66	1.1%
Single Family	26.19	64.71	44.7%
Multifamily / Mixed Use	9.98	24.66	17.1%
PUL - Storm Ponds	2.71	6.70	4.6%
PUL	0.92	2.27	1.6%
Municipal Reserve - Credit	5.49	13.57	9.4%
Municipal Reserve - Non-Credit	0.42	1.03	0.7%
Roads	12.18	30.10	20.8%

Note: All numbers are approximate ± 10%

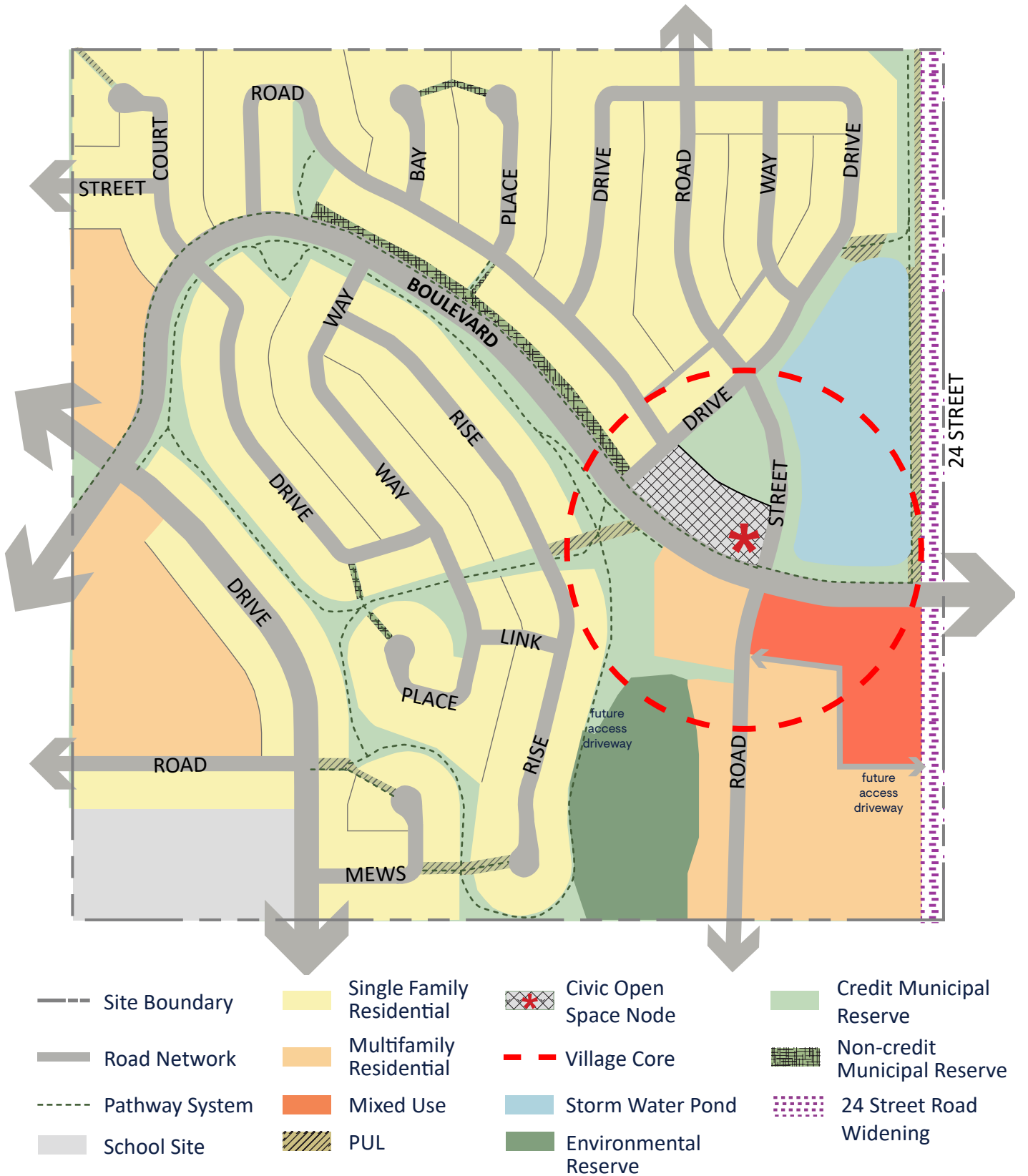
HOUSING UNITS	Appx. Number	%
Single Family (SF)	600 - 700	58 - 60%
Multifamily (MF)	400 - 500	40 - 42%
Total	1000 - 1200	100%

HOUSING TYPE	# of Units	%
SF Detached Residential	660	59%
Narrow Lot SF Detached	325	29%
Normal Lot SF Detached	335	30%
MF Attached Residential	450	41%
Anticipated Residential Units	1110	100%

DENSITY	upha	upa
Anticipated Density	17.29 - 20.74	6.99 - 8.40

POPULATION	total
Anticipated Population*	2,700 - 3,240

*Based on 2019 City of Airdrie census average of 2.7 residents per dwelling



Scale 1:5000 

Figure 7 | Land Use Concept

3.5 | Municipal Reserve Breakdown

The High School site shown in Figure 7 on the previous page is not included as Municipal Reserve (MR): The Civic Open Space Node planned for West Hills, is not included as MR, but is instead included as a regional public amenity. The location of the future Elementary School site is conceptually shown in Figure 8 on the opposite page. In keeping with the West Hills CASP Policy 4.3.1.1 and 4.3.1.4, elementary school sites are provided within Municipal Reserve and can be subdivided and serviced as required. Service provision of the elementary school site location can occur with the construction timing of the High West Reservoir which is outlined in Section 8.1 of the WH NSP as well as 3.1.1 of the WH NSP Staged Servicing Report. This location and future design is better understood with review of Appendix E.

The majority of the perpetual park network of West Hills is included as credit MR, and is broken into three primary park areas as illustrated in Figure 8 and described below. The statistics for the credit MR spaces are shown in Table 2, and do not include any PUL or Storm Pond areas as indicated in Figure 8.

North Park

The North Park, located north of the collector road and west of the Civic Open Space Node, incorporates the regional pathway and offers a naturalized setting to connect people traveling from the Civic Open Space Node to more distant parts of West Hills.

South Park

The South Park includes the entirety of the perpetual park south of the collector road. This extensive green corridor is the primary park space for the community. The extensive pathway network winds through the South Park, offering an abundance of fruit-bearing trees and shrubs, bringing nature into the heart of the community and to the residents of West Hills.

Table 3 | Municipal Reserve Statistics

MR BREAKDOWN	Area		
	hectares	acres	%
10% Municipal Reserve Allotment	5.86	14.47	10.0%
Credit MR Spaces	5.49	13.57	9.4%
North Park	2.35	5.81	4.0%
South Park	1.68	4.15	2.9%
Pond Park	1.46	3.61	2.5%
Non-Credit MR	0.45	1.11	0.8%

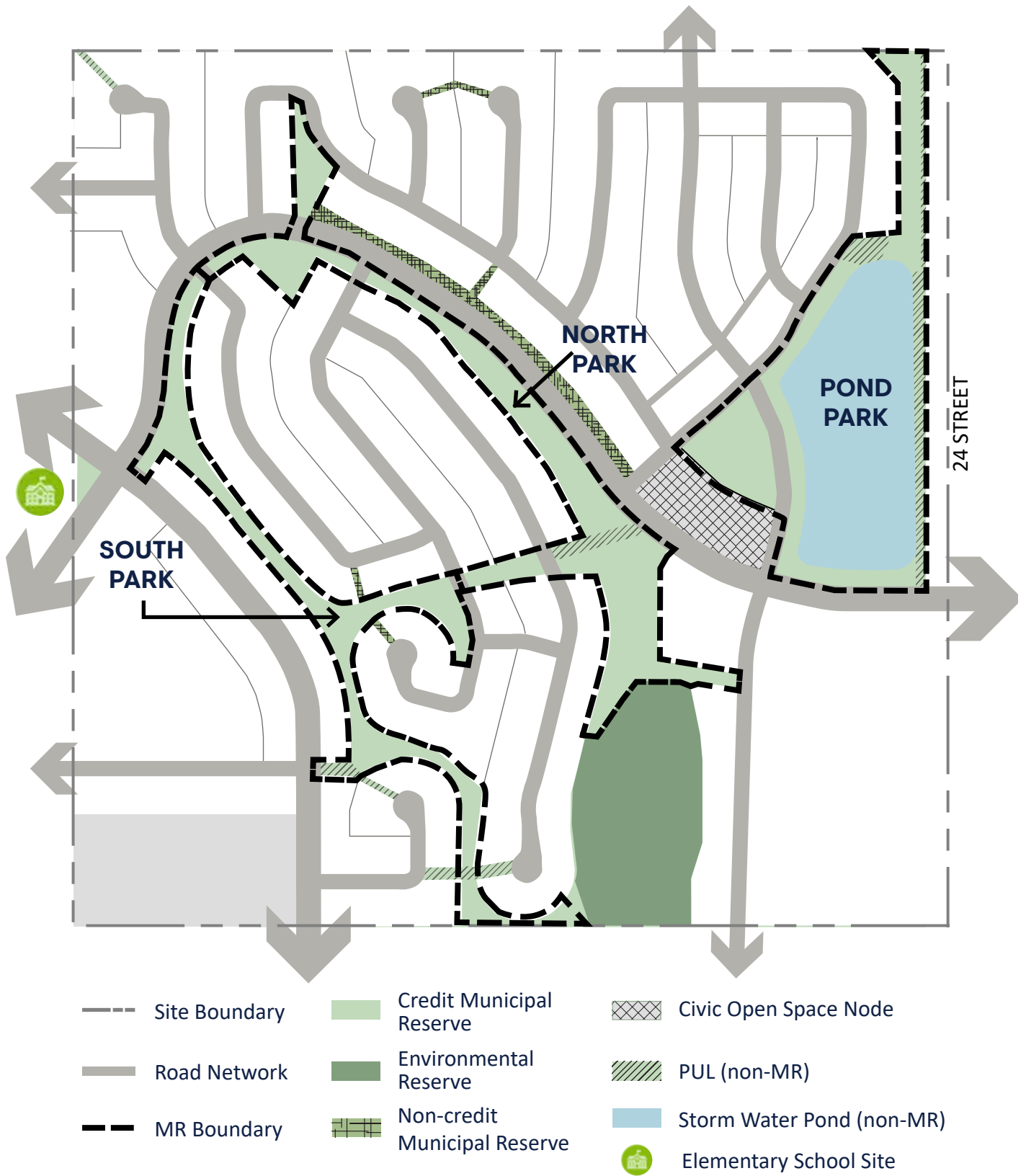
Note: All numbers are approximate and do not include PUL areas identified in Figure 7.

Pond Park

The Pond Park surrounds the storm pond and encompasses the park space adjacent to the Civic Open Space Node, acting as an extension of the existing natural spaces north of West Hills. This park is home to the community’s featured recreation amenities, including a children’s play space, orchards, and multi-use sports courts. The vegetation found in the orchard and other areas of the park accentuates the food theme of the Civic Open Space Node, providing a pleasant setting to participate in local events and enjoy the views of Airdrie.

Policies:

3.5.1 At the final stage of subdivision application of the WH NSP, should the required Municipal Reserve allocation be less than 10% of the developable land for SE 10-27-1-W5M; a deferred reserve caveat for the remaining balance shall be registered upon SW 10-27-1-W5M to the benefit of the elementary school site requirement shown on Figure 8.



Scale 1:5000 

Figure 8 | Open Space Concept



Scale NTS



Figure 9 | Rendered Site Plan

4 | Community Gestures

The community experiences created within the Plan put health first by setting out an ecosystem for healthy living within accessible spaces. Everyday activities become sustainable routines as a result of the presence of fresh food along the pathways and the inclusion of a fresh food market place. Through daily interaction with and exposure to these food oriented spaces, people see how respect for the land will provide for them.

This effort to give a solid foundation of political and social identity is shown in the WH NSP by investment in the Civic Open Space Node community building, the most prominent feature of the Village Core. This facility will come with a community governance structure and financial plan. This space for connection embodies the Canadian mosaic typical of sharing culture through the exchange of knowledge, recipes, handy work, and individual skills with one another.

The Village Core will serve as the main activity centre of the community. This Core provides a combination of convenience and service commercial amenities, increased residential density, and open space nodes while integrating the Civic Open Space Node into the community. The Civic Open Space Node and the Village Core are described further in Section 4.2.

Natural activities including urban agriculture, community gardens, and wildflower maintenance encourage birds, butterflies, and bees to inhabit the open spaces. Natural drainage systems along 24th Street are preserved and enhanced by maintaining open space networks that contribute to existing ecological processes.

The community plan creates an inclusive environment by way of continuous open space. Agriculturally themed play equipment, seating, and covered spaces will enhance the community experience throughout the perpetual park.

The resulting physical environment will benefit residents' mind, body, and soul. This increased individual health will lead to personal and community confidence and long-term success.

4.1 | Pollinator Superhighways

The concept of urban agriculture has been one of the driving forces behind the community design of the West Hills NSP. Opportunities for locally grown food has become a key lifestyle consideration for residents when picking a new neighbourhood. Private and collaborative gardening opportunities will further enhance the overall community experience. Opportunities for events to celebrate planting, nurturing, and harvesting will build a strong sense of pride in the community.

The creation and maintenance of pollinator superhighways (areas where birds, bees, and other pollinators frequent) and fruit-bearing plants and trees has also influenced the perpetual green space that is intentionally woven throughout the neighbourhood to support healthy pollinator populations. The inclusion of native grasses and flowering plants in the pollinator superhighways is key to creating an ecologically diverse open space where birds, bees, butterflies and other pollinators can flourish. These green spaces also offer opportunities for people to observe and learn about local ecosystems while contributing to the overall environmental sustainability of the community. Figure 10 shows the green spaces included as part of the pollinator superhighway.

Airdrie has officially been recognized as a Bee City for the work they are doing to support healthy pollinator populations by preserving and promoting pollinator habitats. Pollinators play a key role in crop production around the world and 90% of wild flowering plants depend on animal pollination. Specific attention will be paid to the species of trees, shrubs, and forbs that are planted to encourage pollinator corridors.

Public fruit trees will also provide food for the community and surrounding areas. The addition of large groupings of fruit bearing plants in the West Hills community will add to the existing inventory of community orchards currently in the City. Additional opportunities for growing and harvesting food will be located in green spaces throughout the neighbourhood, including fruit-bearing plants along prominent pathways and streetscapes.

Some of the fruit and food bearing-plants, edible vegetation and cover crops that may be incorporated into the open spaces and parks of West Hills include:

- berry bushes (e.g. juniper, saskatoon, raspberry, haskap, and strawberry)
- herbs (e.g. sage, thyme, rosemary)
- fruit-bearing trees (e.g. spruce, apple, crabapple, cherry)
- staple foods (e.g. garlic, oats, barley, wheat, rye, kale, daikon radish, turnips, buckwheat)
- edible flowers (e.g. sunflower, honeysuckle, rose, starflower)
- cover crops (e.g. winter pea, yarrow, lemon balm, blue flax, American vetch)

Policies:

- 4.1.1 Edible landscaping and cover crops should be incorporated into park spaces throughout the neighbourhood.



Scale NTS



Figure 10 | Pollinator Superhighways

4.2 | Civic Open Space Node

The major amenity area and activity centre within the WH NSP will be the Civic Open Space Node. This node will be located at the gateway to the neighbourhood as part of the Village Core, becoming a recognizable civic landmark. The agriculturally-inspired theme of the WH NSP will be carried throughout the programming of this node and community core. Key components of this space will be publicly accessible and enhance the overall community experience.

The Civic Open Space Node and surrounding development may include such things as a future community building and/or greenhouses. Activation of this gathering place can offer such things as a farmers market, coffee shop, makerspace, artisan studios, community engagement space, vertical farming, community gardens, childcare, areas for passive and active play, and flex space (flexible areas for multiple purposes).

Located in the Village Core, this node is surrounded by multifamily housing types and an entrepreneurial ecosystem in the form of live/work opportunities.

Convenience and service commercial amenities form an important part of the Village Core, providing vibrant and walkable convenience to residents, but also benefiting from and complimenting the influence of the Civic Open Space Node.

Foundational components of this place will include educational classrooms and programs, aligning existing Airdrie area formal education programs with urban agriculture. This will augment the community activities implemented by the HOA for all ages and experience levels. Live/work properties surrounding the site will contribute to the local offerings and Airdrie's entrepreneurial ecosystem.

The community's perpetual park will link this key focal point to other green spaces throughout the neighbourhood. Adjacent neighbourhoods are connected via the regional pathway network and Airdrie's transit system.

Conceptual sketches of the Civic Open Space Node are illustrated in images 23 and 24.



Image 23 | Civic Open Space Node Conceptual Sketch

Policies:

- 4.2.1 Meaningful wayfinding to the Civic Open Space Node will be established through multimodal interconnectivity within the host neighbourhood.
- 4.2.2 Linkages from the Civic Open Space Node will extend to unite with food spaces, viewpoints, gathering places, schools, and the broader regional pathway network.
- 4.2.3 Design guidelines for agriculturally-inspired place-based design will create a symbiotic tie between healthy lifestyle choices, sustainable movement and wholesome eating to further enhance the neighbourhood experience.
- 4.2.4 The novel community experience generated by the diversity of agriculturally-oriented activities in the Civic Open Space Node spaces will endeavour to foster Airdrie's entrepreneurial spirit.
- 4.2.5 Land uses within the vicinity of the Civic Open Space Node will permit live/work uses in concert with the non-residential high-activity areas.



Image 24 | Civic Open Space Node Conceptual Render

4.3 | Open Space Concepts

The WH CASP outlines the key open space elements to be detailed at the WH NSP level. Open spaces and key vantage points will be interconnected with intuitive way finding features in keeping with the agrarian theme of the neighbourhood. The landscape provides amazing opportunities for views of the Rocky Mountains, City of Airdrie, and the surrounding area.

Close attention will be paid to the preservation and enhancement of natural viewshed corridors to enhance the overall community experience. This experience will be further enriched through the inclusion of fruit-bearing plants, urban agriculture and the development of flexible spaces designed for a variety of uses.

Key Plan

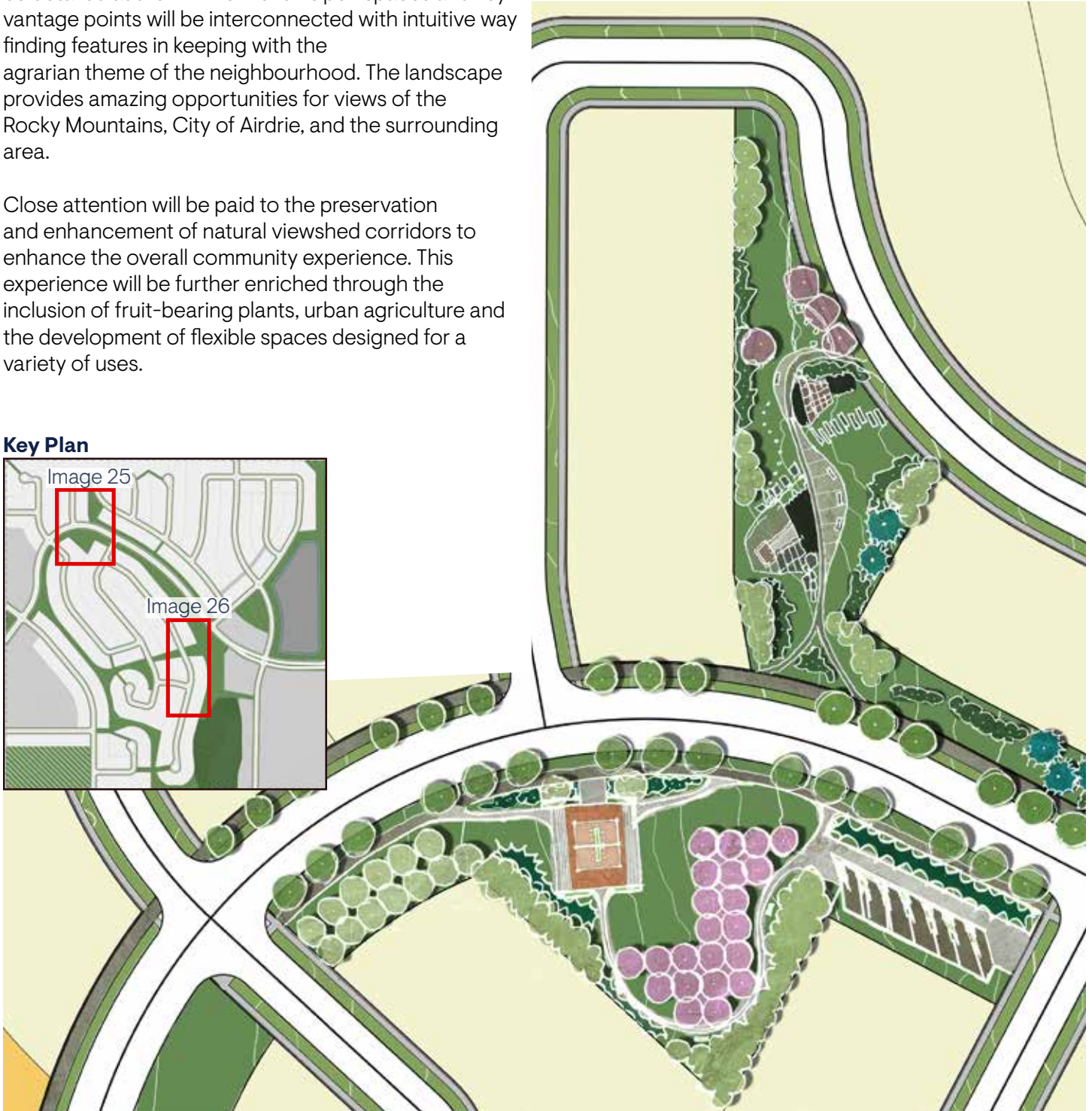
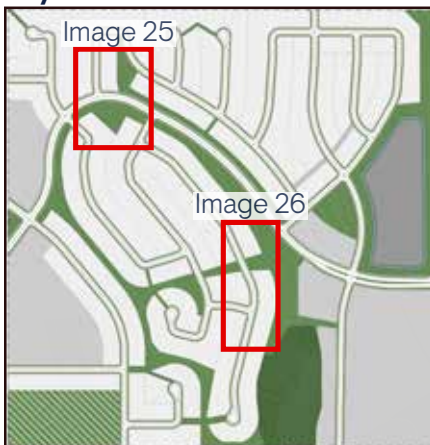


Image 25 | Open Space Concept | FOR DISCUSSION PURPOSES ONLY

Policies:

- 4.3.1 Activity nodes and corridors shall form the basis of the open system serving to inspire movement, encourage active lifestyle choices, and maximize views.
- 4.3.2 Open spaces shall be woven throughout the neighbourhood to provide movement links between strategically located community gathering places.
- 4.3.3 Edible and native plant species shall be utilized to the extent possible along movement pathways, creating captivating and intuitive linkages between nodes and the Village Core.
- 4.3.4 Spaces designed for a variety of uses should be encouraged to be located within major activity areas to cultivate agrarian arts and cultural events.
- 4.3.5 Open Space content and programming elements will be undertaken at the detailed design stage in collaboration with the City of Airdrie.



Image 26 | Open Space Concept | FOR DISCUSSION PURPOSES ONLY

4.4 | Environmental Reserve

The WH CASP generally illustrates the areas of environmental value to be preserved. These areas are further detailed at the WH NSP level. The slopes found within the southeast corner of the Plan area will be dedicated as environmental reserve. The overall community experience will be enhanced through the preservation and enhancement of natural viewshed corridors. Any disturbance to this area will be for the provision of formalized public access and essential servicing.

The interface requirements between the Environmental Reserve area and the nearby single family homes will be in alignment with the existing City of Airdrie policy. The interface with the multifamily site will be determined at the Development Permit stage. Figure 11 shows the general uses surrounding the Environmental Reserve area.

Policies:

- 4.4.1 Meaningful wayfinding shall be woven throughout the environmental reserve to enhance the community experience.
- 4.4.2 Intentional pathway connections should be created throughout the environmental reserve to allow public access to the humbling views.
- 4.4.3 Access to the environmental reserve should be provided through key access points via the Village Core and adjacent development.



Scale NTS



Figure 11 | ER Interface

4.5 | Stormwater Relationships

The WH CASP generally illustrates the areas along the 24th Street corridor that are to be utilized for stormwater management. These areas are further detailed at the WH NSP level. The 24th Street corridor will play a vital role in establishing and continuing the food and agrarian theme throughout the community.

The stormwater management corridor is intended to inspire movement, encourage active lifestyle choices, and maximize viewshed opportunities. The overall community experience will be further enhanced via naturalized connections throughout the 24th Street corridor, accessible to multiple modes of transportation.

The stormwater management areas above the 1:100 year return period will be predominantly landscaped in food producing plants and trees, thereby incorporating these areas into the community. Areas below the 1:100 year return period will be constructed in accordance with the City of Airdrie standards.

The stormwater facilities will be located within the area generally shown in the City's Master Drainage Plan (MDP) and will be in accordance with the Nose Creek Watershed Water Management Plan (NCWWMP) release rate. For further detail on stormwater management please refer to Section 8.7.

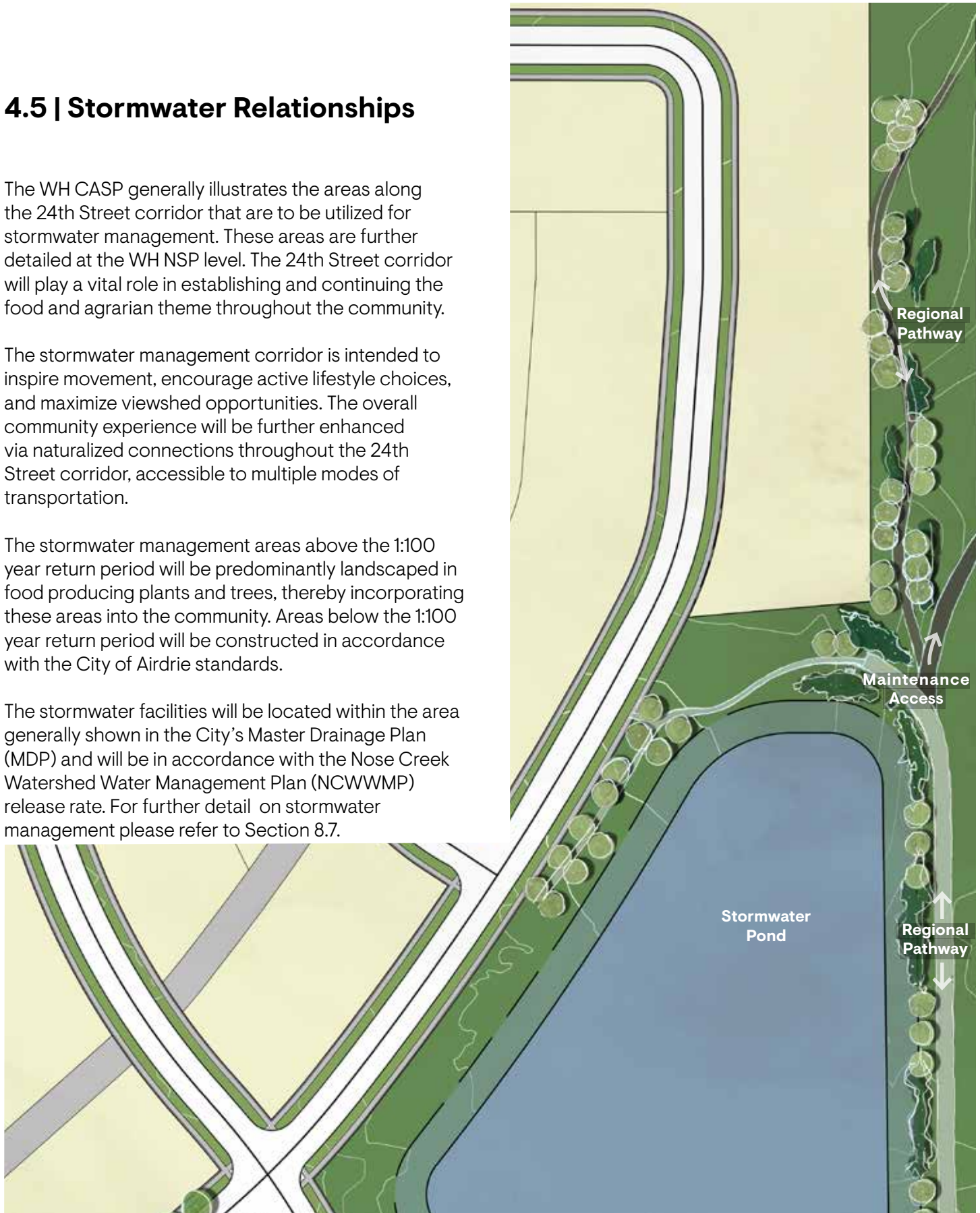


Image 27 | Stormwater Relationships Enlargement

Policies:

- 4.5.1 A regional stormwater management facility shall be constructed along the 24th Street corridor.
- 4.5.2 The stormwater outfall will be directed toward the Sagewood stormwater system.
- 4.5.3 The emergency stormwater overflow will be provided via a piped connection to the Sagewood stormwater system.

Key Plan

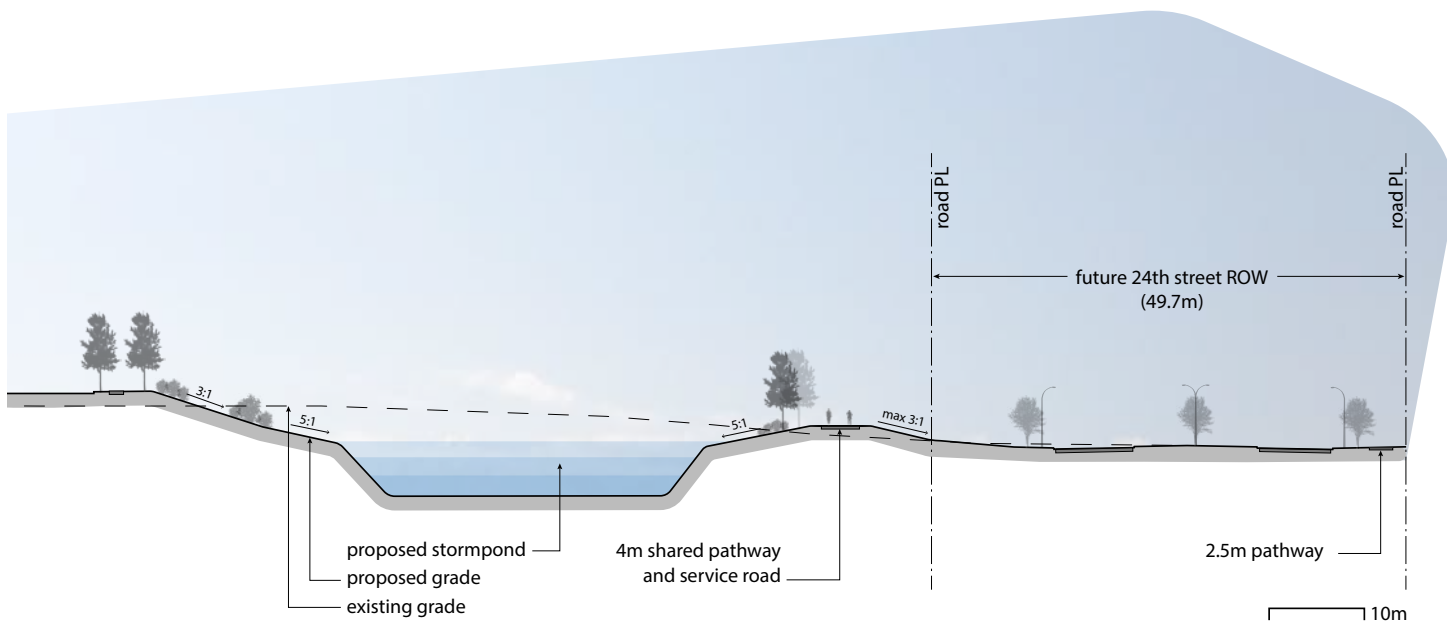
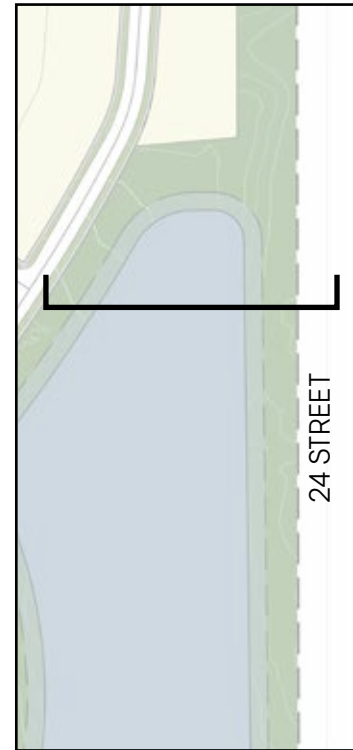


Image 28 | Stormwater Relationships Section

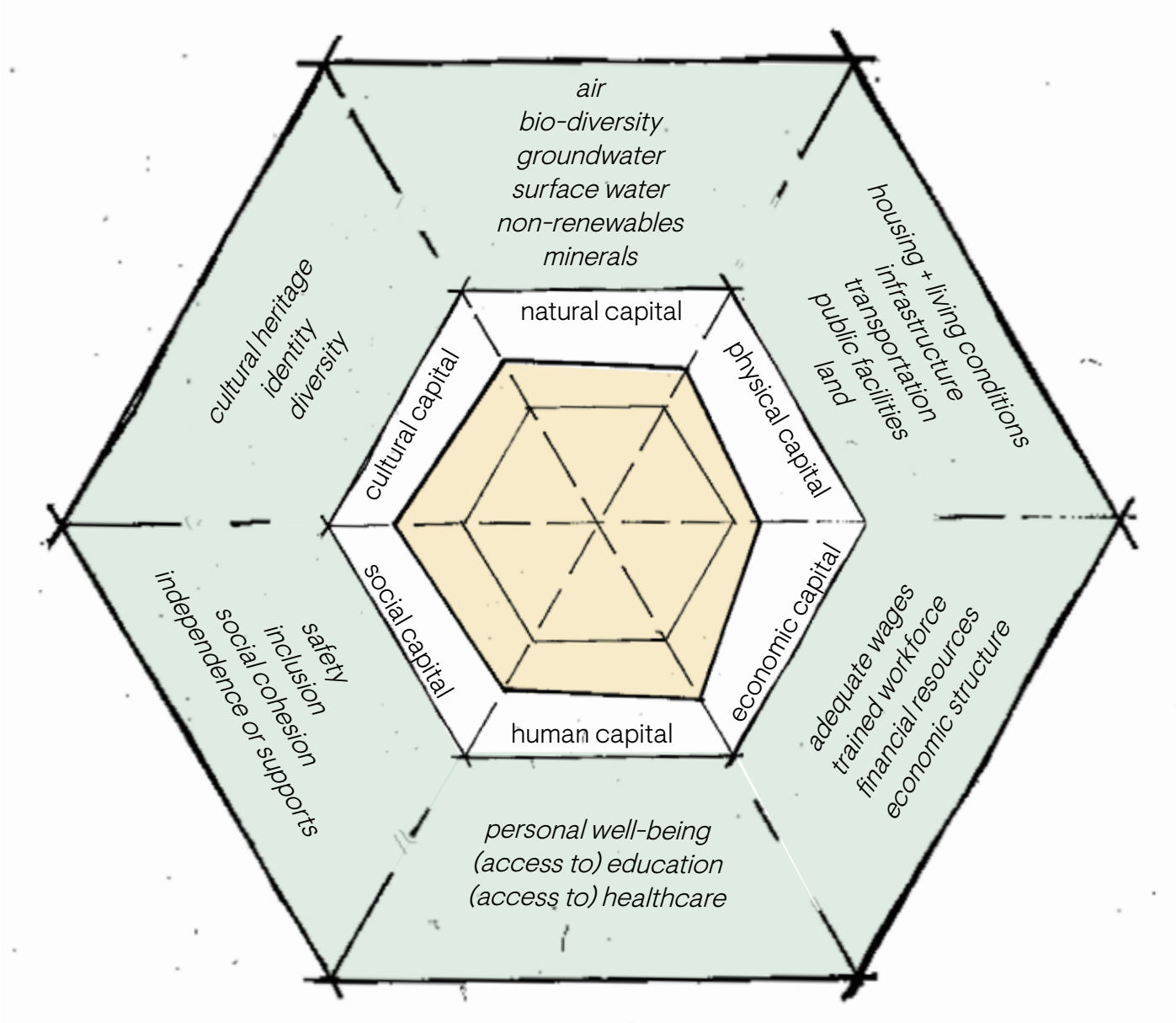


Figure 12 | Community Capital Outcomes

5 | Community Vitality

Airdrie has committed to becoming the healthiest community in Canada. This City-wide initiative has been at the forefront of the neighborhood design for West Hills to create the opportunity for a healthy and vibrant lifestyle. A sustainable city can be characterized by what are called Community Capitals; these include Natural, Cultural, Human, Social, Physical, and Economic capitals. Capitals, their stocks, and some plan responses are noted on Figure 12.

Although the WH NSP focuses on individual needs and experiences, the Plan seeks to provide an environment where people live healthier and happier together. Community infrastructure is designed for healthy, natural, local, safe and socially connected living. Individual quality of life is key to being a sustainable community. The metric used to describe this aspect of Community Capitals is 'Community Confidence'.

Community Confidence refers to the feeling of safety, relevance, job security, empowerment and happiness in its residents. This Confidence is further bolstered by citizens' trust in elected leaders, municipal programs and services, and the local economy overall. The design of the West Hills community - with an urban agriculture marketplace, affordable living, and available amenities - creates a foundation for these neighbourhood scale Capitals.

The WH NSP provides Physical Capital through the expansion of municipal infrastructure and shelter provision that ties directly to Human and Social Capital. The presence of a civic community building, live/work homes, and convenience and service commercial options create additional tax base for residential and non-residential areas, establishing new Physical and Economic Capital.

Economic and Cultural Capital are grown by an HOA intentionally providing community programming, fostering cohesion, and increasing overall benefit to the community through up keep of open spaces.

The neighborhood's modern agriculture, food access, creation spaces, healthy movement, landform conservation, and environmental preservation establish Natural, Physical, and Economic Capital, while also enhancing Human, Social, and Cultural Capital.

The community of West Hills scores highly in all Community Capitals. The agriculturally inspired goals and plan for the neighbourhood, as well as the inclusion of a Civic Open Space Node and abundant gathering spaces, lend themselves to a relatively higher score on Cultural and Human Capitals overall.



Image 29 | Civic Node Event Render

6 | Success

Thank you for following us through the West Hills neighbourhood experience. We appreciate the time it has taken to get to this point in our story. What does success look like when creating a functional and simplistic community experience?

Success looks like creating interesting yet functional community spaces and places for neighbours to explore and enjoy. Success looks like creating intuitive opportunities for interactions with nature and local food through the thoughtful and logical location of neighbourhood amenities. Simple but intentional events including sustainment of perennial food parks, and annual community planting and harvesting will further help to build Community Capital.

We believe the confluence of people, places, and food will establish strong community roots that will contribute to the long-term success of the community and the health and happiness of its residents. Success of a unique made-in-Airdrie experience will instill a strong sense of community pride and boost Community Confidence.

West Hills is a place where the collective actions of individuals positively impact the community as a whole. The Civic Open Space Node is a place for all generations, where people thrive together. The neighbourhood is a place where basic needs are met locally in a fun, modern, safe and down to earth community.

Live greener, live healthier, live smarter, live together, and live brighter are the building blocks to creating a strong and cohesive cultural fabric. The culmination of these elements within this environment will enable people to live better, creating a strong and resilient community for Airdrie.

7 | Site Evaluation

This section outlines the various studies and assessments undertaken as part of the West Hills application process. Processes outlined within the studies should be followed where identified criteria arise during site development; at the direction of an accredited professional in the field of study. The findings and recommendations of each study will be used as best practices during and after community construction.

7.1 | Historical

A Historical Resources Overview (HRO) was completed at the WH CASP stage in September of 2017. The overview confirmed there are no archaeological sites or historic structures located within the WH NSP. Two (2) areas were identified as having moderate archaeological potential; a subsequent Historical Resource Impact Assessment (HRIA) was completed in June of 2018. The HRIA concluded that no further work is warranted within the WH NSP. Historical Resource Act approval was granted in August of 2018.

7.2 | Environmental

An Environmental Site Assessment (ESA) was completed in 2017 to examine the potential for environmental deterioration from previous agricultural uses. A Phase II (ESA) was completed in September of 2018. Based on the soil and groundwater samples collected no further investigation was recommended.

7.3 | Geotechnical

A Geotechnical Evaluation and groundwater monitoring program was completed in August of 2016. Groundwater monitoring prior to and during construction is recommended. Frost protection measures during and after construction should be implemented due to the presence of frost-susceptible soil and shallow groundwater conditions.

7.4 | Hydrogeological

A Groundwater Vulnerability Assessment was completed to review groundwater usage, nature of strata, potential sources of contaminations, and aquifer dewatering risks associated with the development of the WH NSP. The domestic groundwater users are located upgradient or cross gradient of the WH NSP as groundwater flow directions are generally from west to east to Nose Creek. The assessment concluded that due to the isolated nature of the aquifers there will be no impact on the existing domestic wells from on-site excavation. The isolated nature of the aquifers is also favourable in preventing contaminant migration from surface or near surface sources to migrating to the aquifers. The assessment concluded no significant risks of contamination to the aquifers. In summary the assessment advised that residential development does not have a significant effect on aquifer dewatering and issues associated with residential development on well supply should not occur.

7.5 | Biophysical

An Environmental Impact Assessment (EIA) was completed in 2020 after consultation and discussion with the City as it relates to their Biophysical Inventory and Biophysical Impact Assessment Framework. Both a desktop study and field survey were completed in 2017. The following additional surveys were completed in 2019:

- Sharp-tailed Grouse Lek Survey
- Raptor Nest Survey
- Breeding Bird Survey
- Nocturnal Amphibian Survey
- Rare Plant Survey

Survey findings, including incidental wildlife observations not prohibitive to the proposed development, were properly documented. Findings were used to inform the site design and identify potential impacts during development.

During the site construction, best practices will be taken to adhere to all mitigation measures, reporting requirements, and construction process recommendations by the Environmental Consultant.

A desktop wetland review and flood hazard mapping were also undertaken. There were no waterbodies or wetlands identified on the site within the EIA; there is an unmapped and unnamed tributary of Nose Creek identified directly northeast of the Site within NE 10-27-01 W5M. No channelization or overland flow between the WH NSP and the tributary was observed during any of the field surveys. The future 24th Street road widening will require design considerations relative to sloping from the unnamed tributary. Open space is proposed adjacent to the 24th Street road to provide additional opportunities for safe public interaction.

8 | Actualization

8.0 Engineering

The actualization of the WH NSP requires the installation of civic infrastructure throughout the Plan area. Sanitary sewers, a potable water network, an irrigation network, a stormwater management facility, and shallow utilities will be provided for the entire Plan area. This infrastructure has been designed in alignment with City of Airdrie standards and specifications.

Please refer to Appendix D (Servicing Implementation) for additional details.

8.1 Water

The WH NSP has water service available within the City's west pressure zone. The WH NSP area is situated in both the west and high west pressure zones as indicated in the City of Airdrie Utility Master Plan (UMP). Ultimately these lands will be serviced by the future High West Reservoir, which will be located the quarter section to the west (SW 10-27-1-W5M). Servicing timing is outlined in Section 3.1.1 of Appendix D.

The City of Airdrie has initiated a functional study for providing water servicing to the 12,000 acres of annexed land. This report will provide further direction on the sequence of infrastructure including reservoir construction and the future feedermain from Calgary.

The on-site water system will consist of extending a 300mm regional watermain throughout the Plan area, connecting to both the west and south boundaries. The 400mm feedermain to service the future High West Reservoir will also be extended along the collector roadway to supply the future reservoir. Refer to Figure 24 in Appendix D.

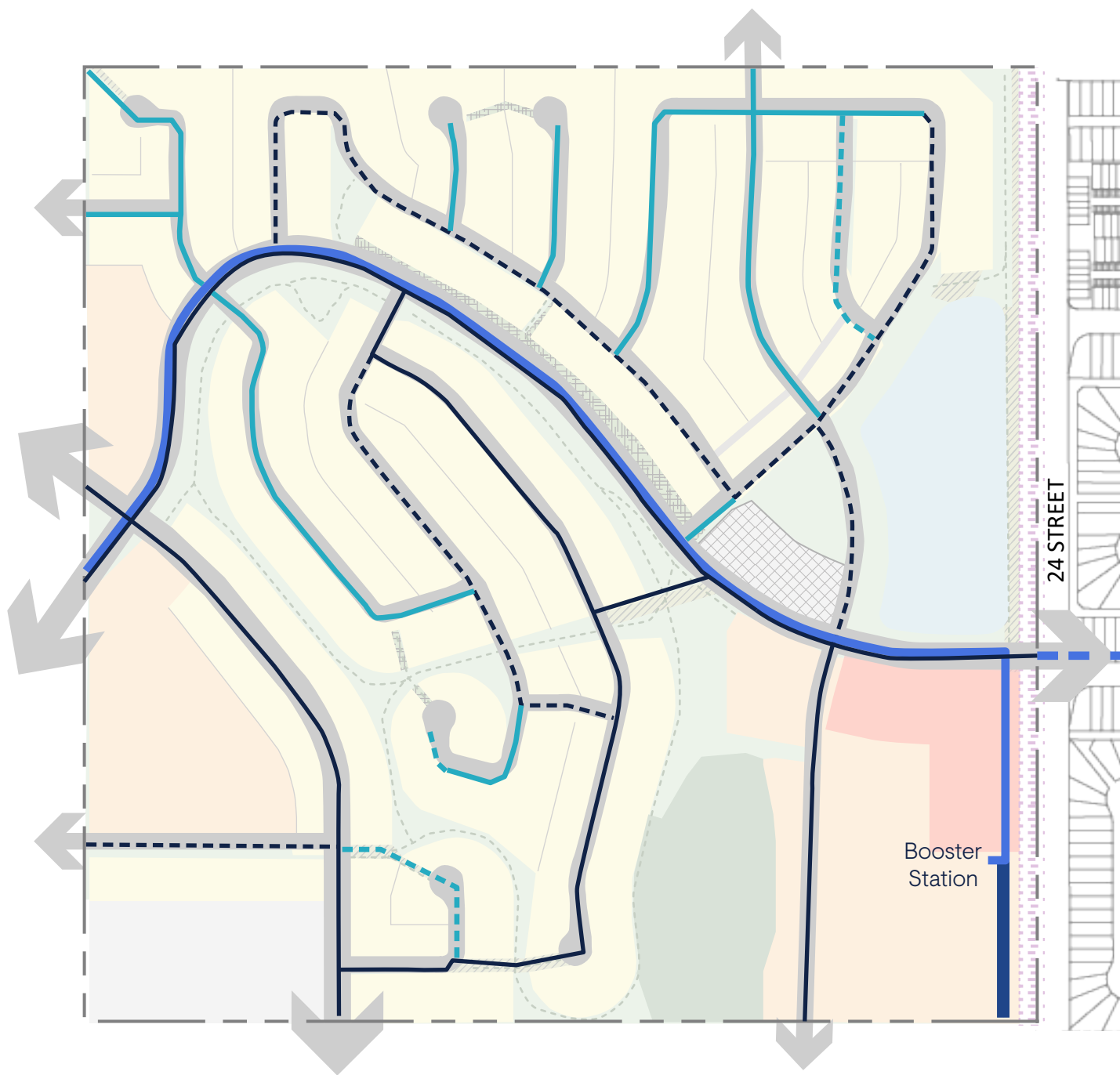
Policies:

8.0.1 The WH NSP shall be serviced through logical extensions of municipal infrastructure in accordance with the West Hills Staged Servicing Report, the West Hills Community Staged Master Drainage Plan, and the West Hills Community NSP Transportation Impact Assessment to the satisfaction of the City of Airdrie.

A staged interim servicing strategy is proposed as the details and timing of the ultimate infrastructure is currently unknown. Connections will be made by extending existing watermains from Sagewood that are currently located within 24th Street and boosting the pressure to service the lands at higher elevations. This strategy is detailed in the West Hills NSP Staged Servicing Report and shown on Appendix D. A water model will be provided with each phase of subdivision to the satisfaction of the City of Airdrie.

Water servicing will be staged based on supply and fire flow requirements. The following infrastructure is required on a phase by phase basis. Please refer to Figure 21 Phasing for the phase boundaries.

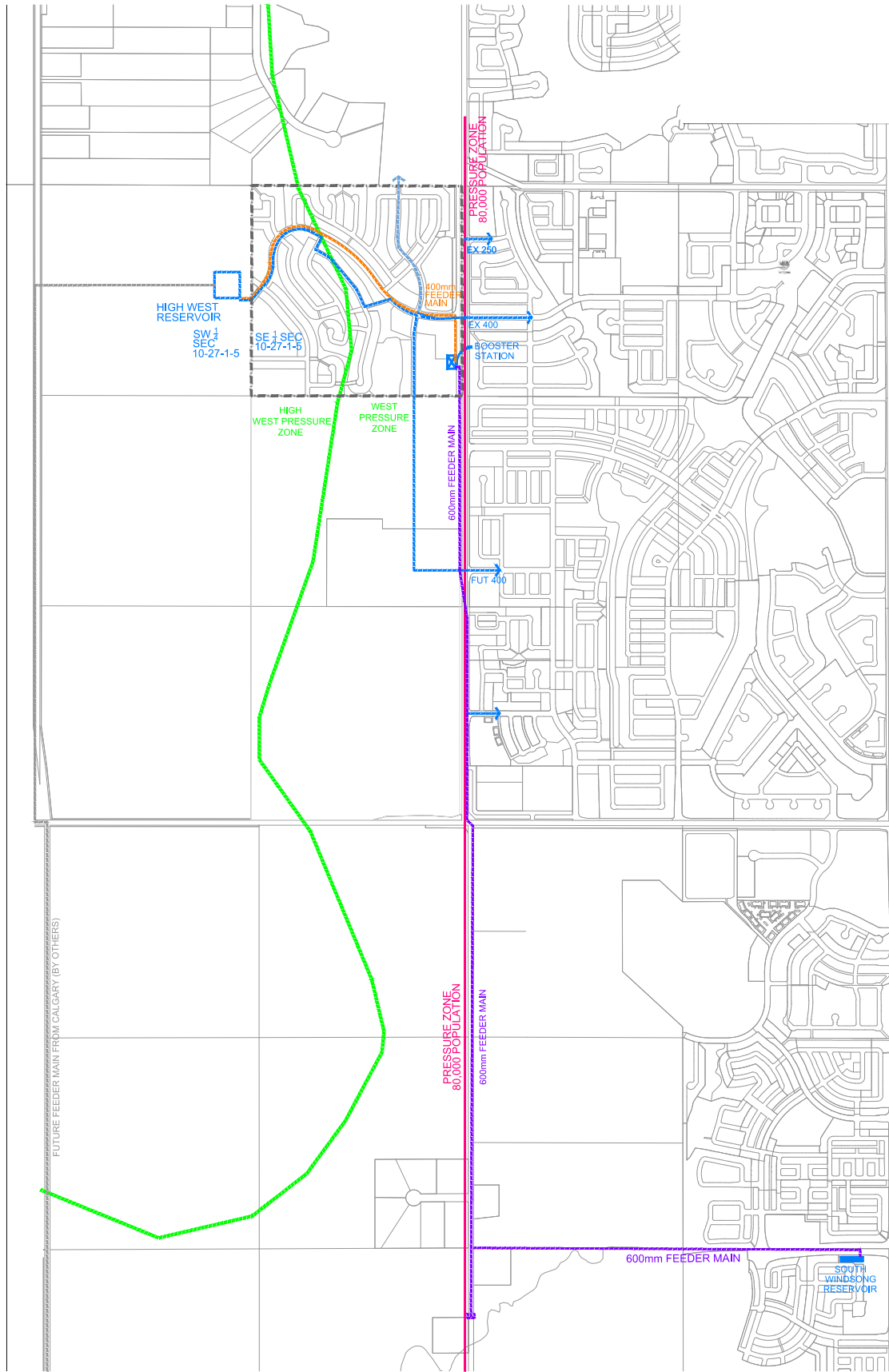
- Phase 1: no inline booster required
- Phase 2, 3, 4: second water connection and inline boosters are required
- Phase 5, 6: inline booster pump upgrades or a reservoir is required
- Phase 7, 8, 9: reservoir is required



- | | | |
|-----------------------|-----------------------|---------------------|
| --- Site Boundary | 400 Feedermain | - - - 250 Watermain |
| --- Road Network | - - - 400 Watermain | — 200 Watermain |
| 600 Feedermain | — 300 Watermain | - - - 150 Watermain |

Scale 1:5000 

Figure 13 | Water System



Scale NTS



Figure 14 | Offsite Water Servicing

8.2 Sanitary

The WH NSP area will ultimately be serviced by the future South Lift Station and a new sanitary trunk main to Calgary. As per the City of Airdrie, a new sanitary trunk main will be extended north along 24th Street to provide service to the annexed lands, including the WH NSP area.

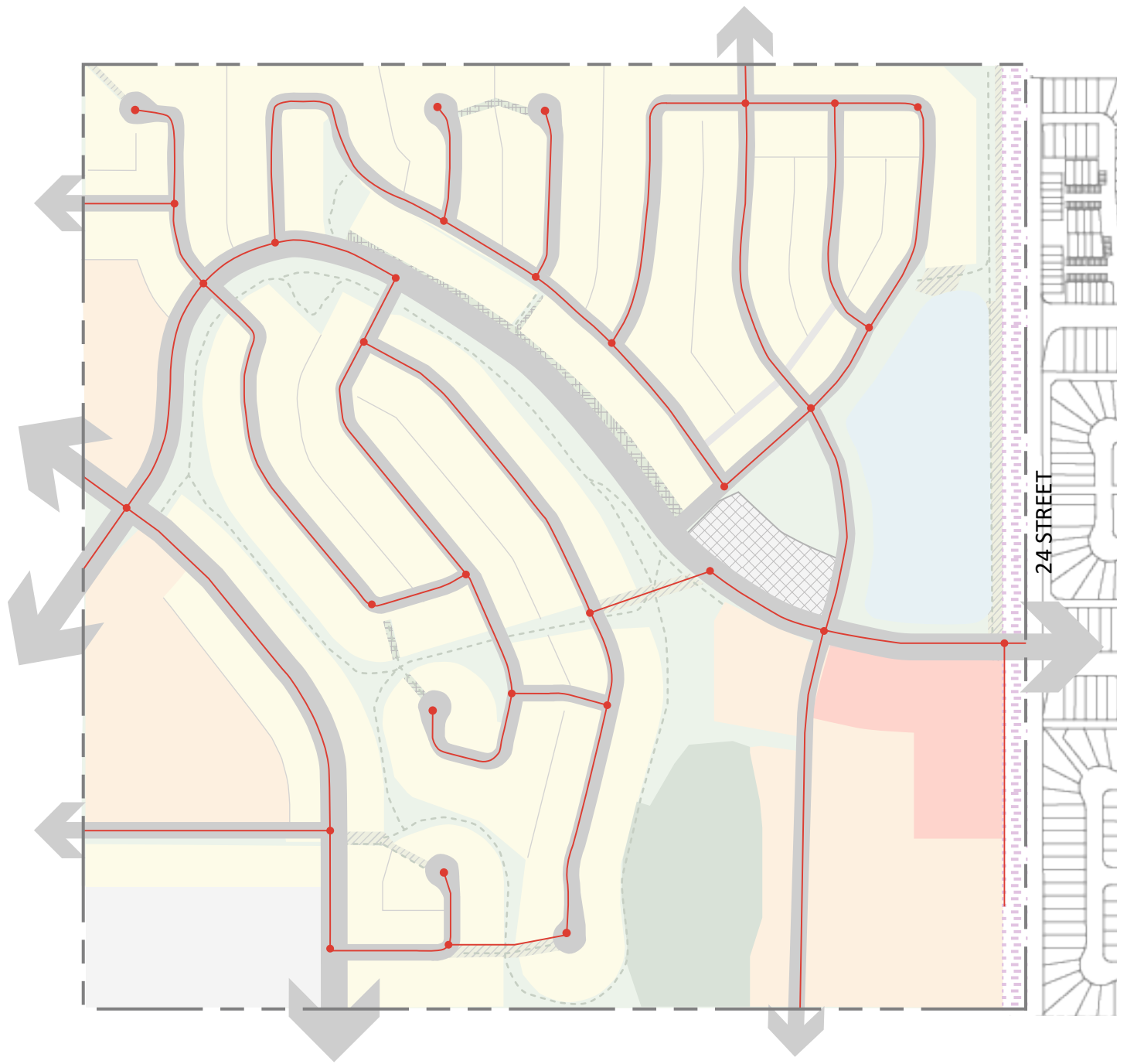
Some of the municipal sanitary infrastructure improvements are being coordinated with front-ending investment from developers to the benefit of the City of Airdrie capital infrastructure. The agreements necessary will be entered into by developers as outlined in Section 5.5 of the approved “West Hills CASP”. More detailed information related to these improvements is provided in the West Hills Staged Servicing Report, Section 2.1.2 Interim Servicing, Stage 2.

As per the Airdrie Utility Master Plan sanitary capacity exists to service this neighbourhood, however the current system is limited. An interim servicing strategy through Bayview is proposed as the timing of the ultimate infrastructure is currently unknown. This strategy is detailed in the West Hills NSP Staged Servicing Report in Appendix D. Flow monitoring will be implemented as a means of determining future infrastructure timing.

The site will be serviced with on-site gravity mains that drain east towards 24th Street, as per Appendix D. These mains will be sized to accommodate flows from the quarter section to the west (SW 10-27-1-W5M).

8.3 Shallow Utilities

The WH NSP area will be serviced with underground electrical, natural gas, telephone, and cable services on a phase by phase basis. Existing networks will be extended to service this area. Fortis and ATCO Gas are currently extending their networks adjacent to the site. 4-party trenching will be implemented within this subdivision.

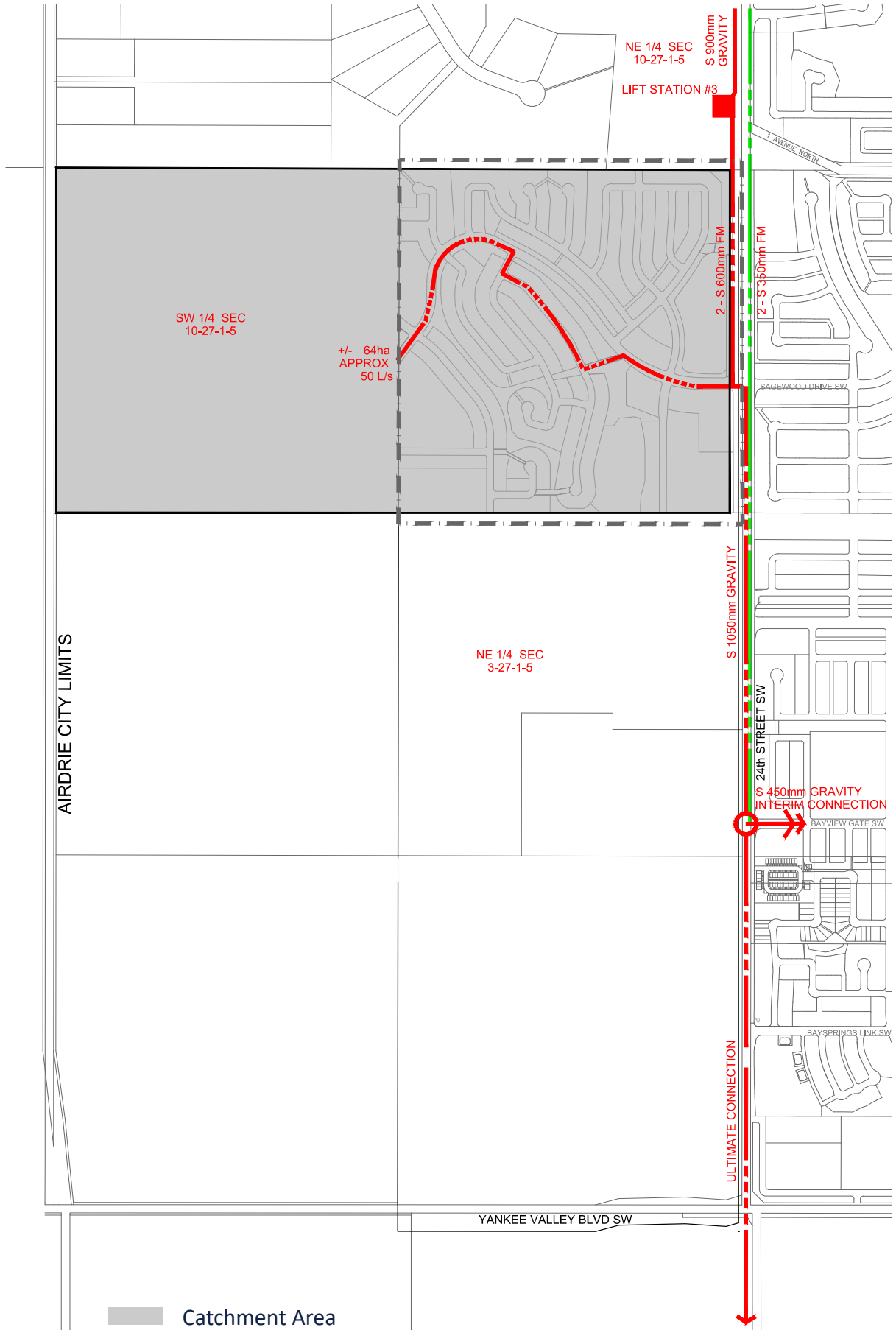


--- Site Boundary
 Road Network

Sanitary Servicing

Scale 1:5000

Figure 15 | Sanitary System



■ Catchment Area

Scale NTS 

Figure 16 | Offsite Sanitary Servicing

8.4 Transportation

Multiple modes of transportation will be accommodated throughout the WH NSP to encourage active lifestyles, healthy choices, and interaction with nature.

The street connectivity index (found on Figure 22 of Appendix C) is a comparison of the number of road links to the number of nodes on the road network to summarize the overall connectivity of a community. This index only considers street links and nodes while the active mode connectivity index considers the links and nodes of both streets and pathways. Connectivity is a key component of the WH NSP to connect people, places, and nature. Multiple modes of transportation will be accommodated to encourage active lifestyles, healthy choices, and interaction with nature.

The neighbourhood design achieves a street connectivity of 1.52 and an active mode connectivity of 1.92. Both index scores exceed the targets established by the City of Airdrie which are stated in the accompanying policy.

The Traffic Impact Assessment (TIA) identifies 2 thresholds, 2027 and 2032, representing 50% and 100% build out respectively of the WH NSP. In conjunction with the background traffic, improved operating conditions will exist in the surrounding network. These improvements are outlined in Sections 5.1.4 and 5.1.5.

Transportation improvements associated with this development are detailed in the TIA, Appendix C. Based on the TIA and build-out rate the developer will be required to install traffic signals at the intersections of Sagewood Drive and 24th Street, as well as Bayview Gate and 24th Street at the 2027 horizon. The TIA indicates traffic signal improvements at the intersection of Bayspring Link and 24th Street at the post-development 2042 horizon.

West Hills Developers are responsible for their proportionate contribution to the costs of traffic signals and associated improvements. The proportionate contributions will be determined by review of each community's traffic contributions. Figure 17 shows the intended road widths and hierarchy for the community. Please refer to Appendix C (TIA Implementation) for additional details and cross sections.

The City of Airdrie anticipates that 6% of all trips within the City will be by way of transit. The future transit network is shown along the collector roadway that connects West Hills to 24th Street, and to future development to the west and to the south. Transit stops will be located along the collector and ensure the preferred walking distances are met. The open space woven throughout the community will support active modes of transportation and connect residents with transit by way of nature.

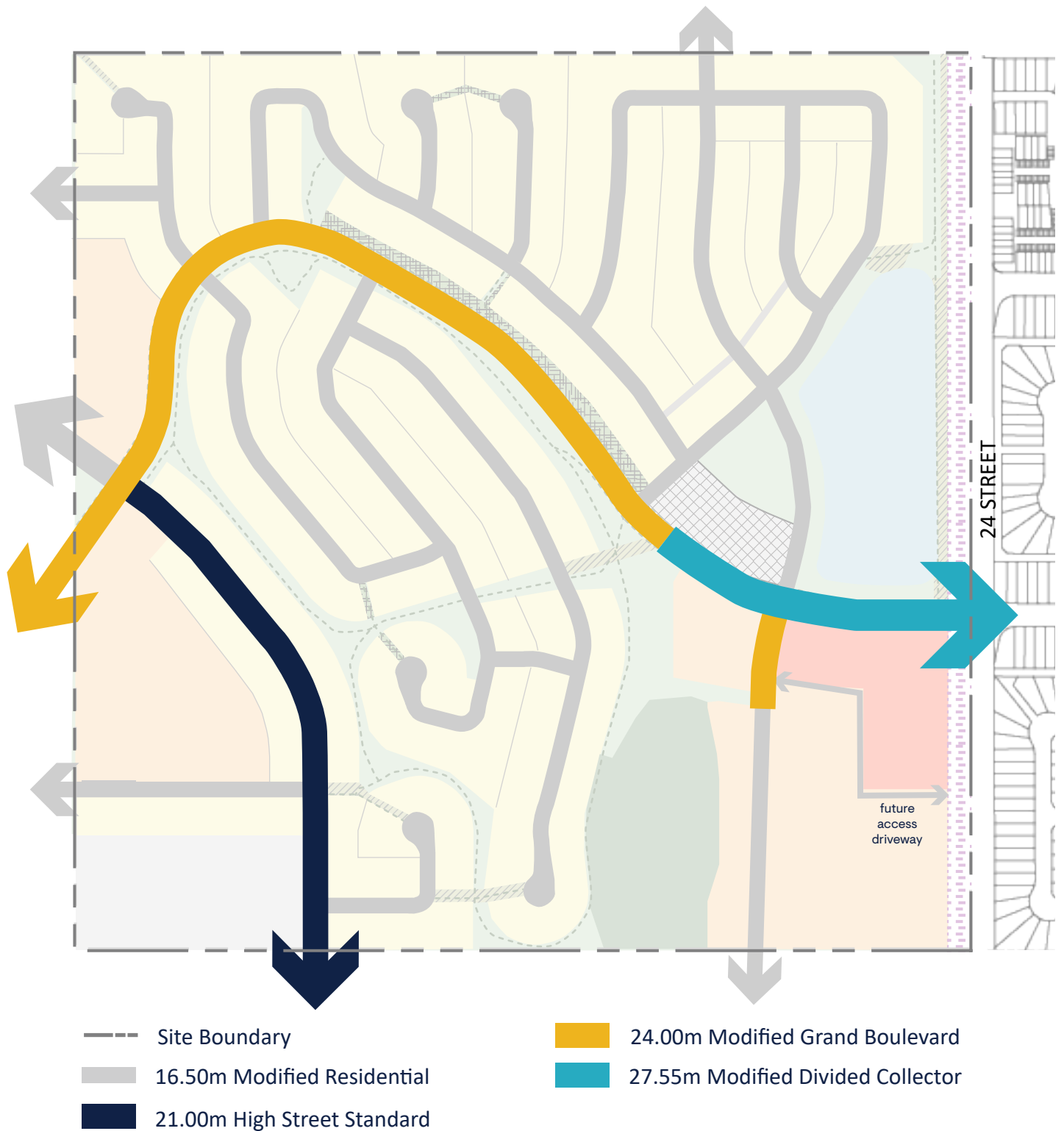
The West Hills transit network integrates with the High Order Transit (HOT) corridor planned for 24th Street, and aligns with the standards set out in the Transit Master Plan.

See Figure 18 for an overview of the conceptual Transit connections within West Hills based on City standards. Please refer to Appendix C (TIA Implementation) for additional details and cross sections.

POST DEVELOPMENT	
Horizon	Improvements
Opening Day or Phase 1	Stop Sign at BOULEVARD and 24th Street and an eastbound right turn lane and one eastbound left turn/through lane.
2027	Sagewood Drive and 24th Street <ul style="list-style-type: none"> • Upgrade with traffic signals Bayview Gate and 24th Street <ul style="list-style-type: none"> • Upgrade with traffic signals
2042	Bayspring and 24th Street <ul style="list-style-type: none"> • Upgrade with traffic signals

Policies:

- 8.4.1 The transportation network shall accommodate multiple modes of movement identified in the Minto West Hills Community Transportation Impact Assessment.
- 8.4.2 A street connectivity index of 1.4 will be targeted.
- 8.4.3 An active mode connectivity index of 1.6 will be targeted.
- 8.4.4 The developer shall ensure appropriate pedestrian and vehicular connections to the transit corridor as detailed plans become available for this corridor. An update to the TIA shall be provided at each phase of subdivision to ensure the recommendations are implemented.
- 8.4.5 Traffic signalization and associated intersection improvements at Boulevard and 24th Street are the responsibility of the developer of the West Hills NSP, triggered by the phase of subdivision reaching the post Development Horizon Year of 2027 or as modified by an update to the TIA as required by the City of Airdrie. The developer shall construct or provide funds to complete such traffic signals and intersection improvements at the time of subdivision endorsement for the phase triggering the need for those improvements.
- 8.4.6a The developer will update the Minto West Hills Community Transportation Impact Assessment at the time of subdivision to expand the scope and assess the County Roads to the satisfaction of the City of Airdrie.
- 8.4.6b If the County roads are assessed to the satisfaction of the City of Airdrie as part of an amendment to expand the CASP before subdivision in the NSP, Part A of this policy will not be required.
- 8.4.7 The collector cross section will be modified to incorporate a standard 2.0 meter wide mono-walk adjacent to the high school site at time of land assembly and subdivision.



Scale 1:5000 

Figure 17 | Road Hierarchy Connectivity

8.5 Transit

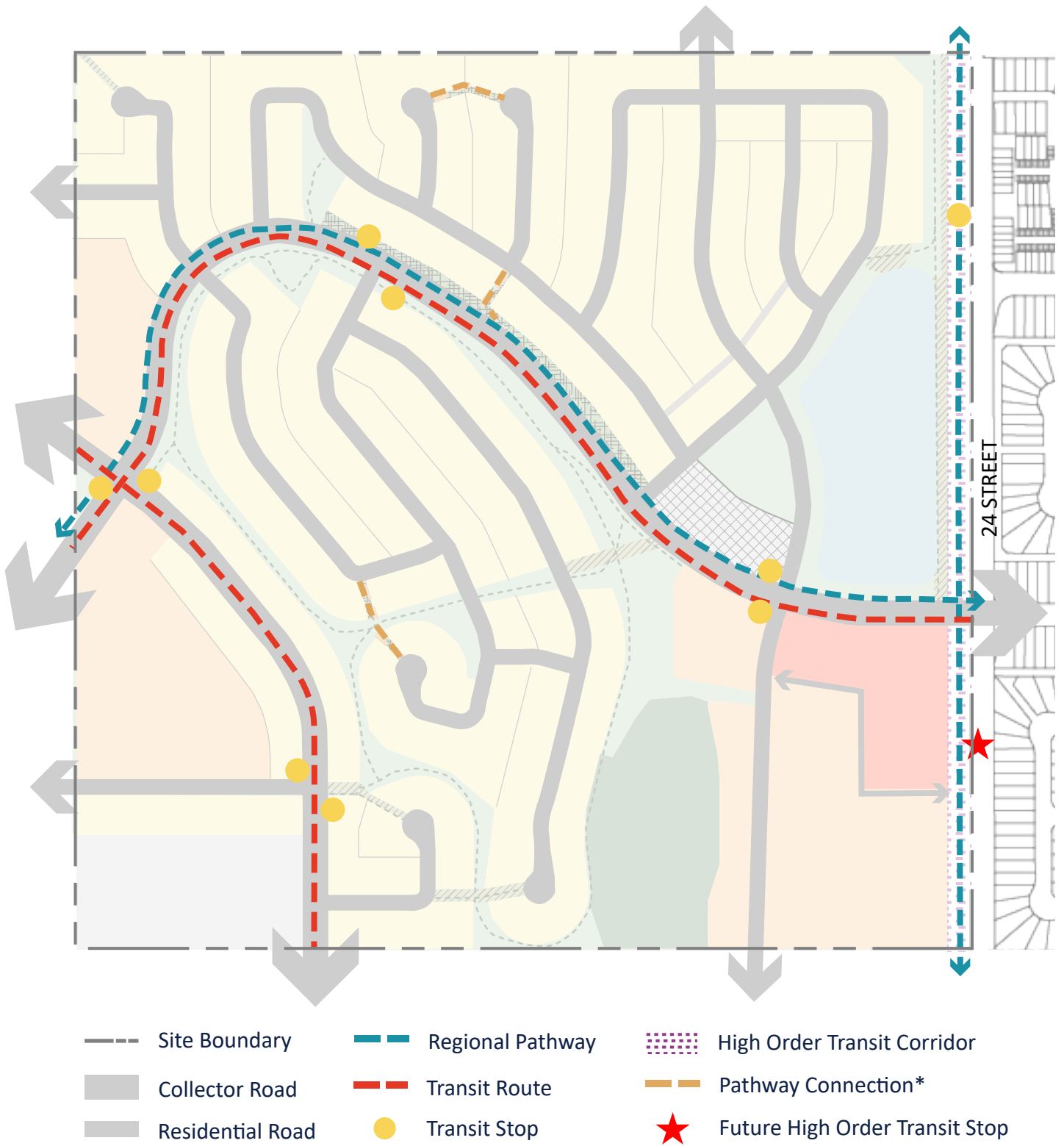
The City of Airdrie anticipates that 6% of all trips within the City will be by way of transit. The future transit network is shown along the collector roadway that connects West Hills to 24th Street, and to future development to the west and to the south. Transit stops will be located along the collector and ensure the preferred walking distances are met. The open space woven throughout the community will support active modes of transportation and connect residents with transit by way of nature.

The West Hills transit network integrates with the High Order Transit (HOT) corridor planned for 24th Street, and aligns with the standards set out in the Transit Master Plan.

See Figure 18 for an overview of the conceptual Transit connections within West Hills based on City standards. Please refer to Appendix C (TIA Implementation) for additional details and cross sections.

Policies:

- 8.5.1 Transit stops should be located within a five (5) minute walk of each residence.
- 8.5.2 Active modes of transportation shall be accommodated throughout the neighbourhood to provide efficient connections to transit stops.
- 8.5.3 The overall transit network will adhere to the standards and specifications outlined in the Transit Master Plan.



*Location of pathway connection is conceptual

Scale 1:5000

Figure 18 | Multimodal Connectivity

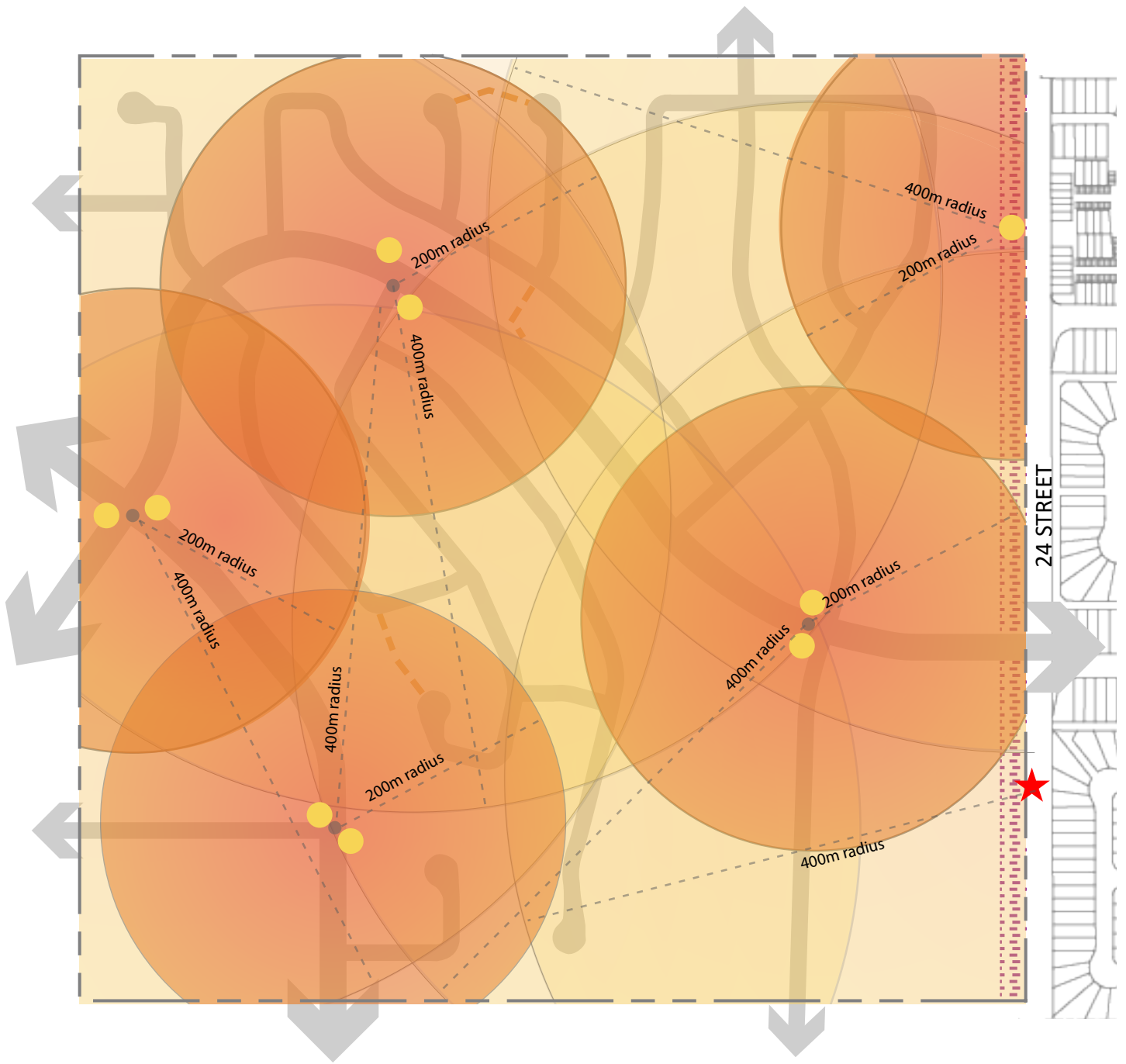
8.6 Walkability

The majority of homes are within a 200m walking radius of anticipated transit stop locations, and a majority of West Hills is within a 400m radius of the future HOT stop planned on 24th Street. The entirety of West Hills is within a 400m walking distance of at least one local transit stop.

Table 3 below provides an overview of the percentage of homes within certain walking distances of either local transit stops or the planned HOT stop on 24th Street.

Table 4 | Homes within Walking Distance of Stops

	within 200m	within 400m
Local Stops		
Single Family	68.0%	100.0%
Multifamily	64.5%	100.0%
HOT Stop		
Single Family	0.0%	7.6%
Multifamily	43.6%	59.6%



- | | | |
|--------------------|-------------------------|----------------------------------|
| --- Site Boundary | ● Transit Stop | ⋯ High Order Transit Corridor |
| █ Collector Road | --- Pathway Connection* | ★ Future High Order Transit Stop |
| █ Residential Road | ○ 200m Walking Radius | |
| | ○ 400m Walking Radius | |

*Location of pathway connection is conceptual

Scale 1:5000 

Figure 19 | Walkability

8.7 Stormwater Management

Stormwater drainage from the Plan area will be piped by gravity sewer to the pond. The catchment area for the pond incorporates the entire WH NSP area, including areas of 24th Street not previously accounted for in existing catchment areas, an upstream area of future development to the west, and a small portion of residential development to the north between the Plan area and the drainage course.

The pond will discharge to an outfall in the drainage course north of the development. This drainage course conveys flows through an existing culvert under 24th Street SW and into the Sagewood stormwater system. The allowable discharge rate from the pond is 1.257 l/s/ha.

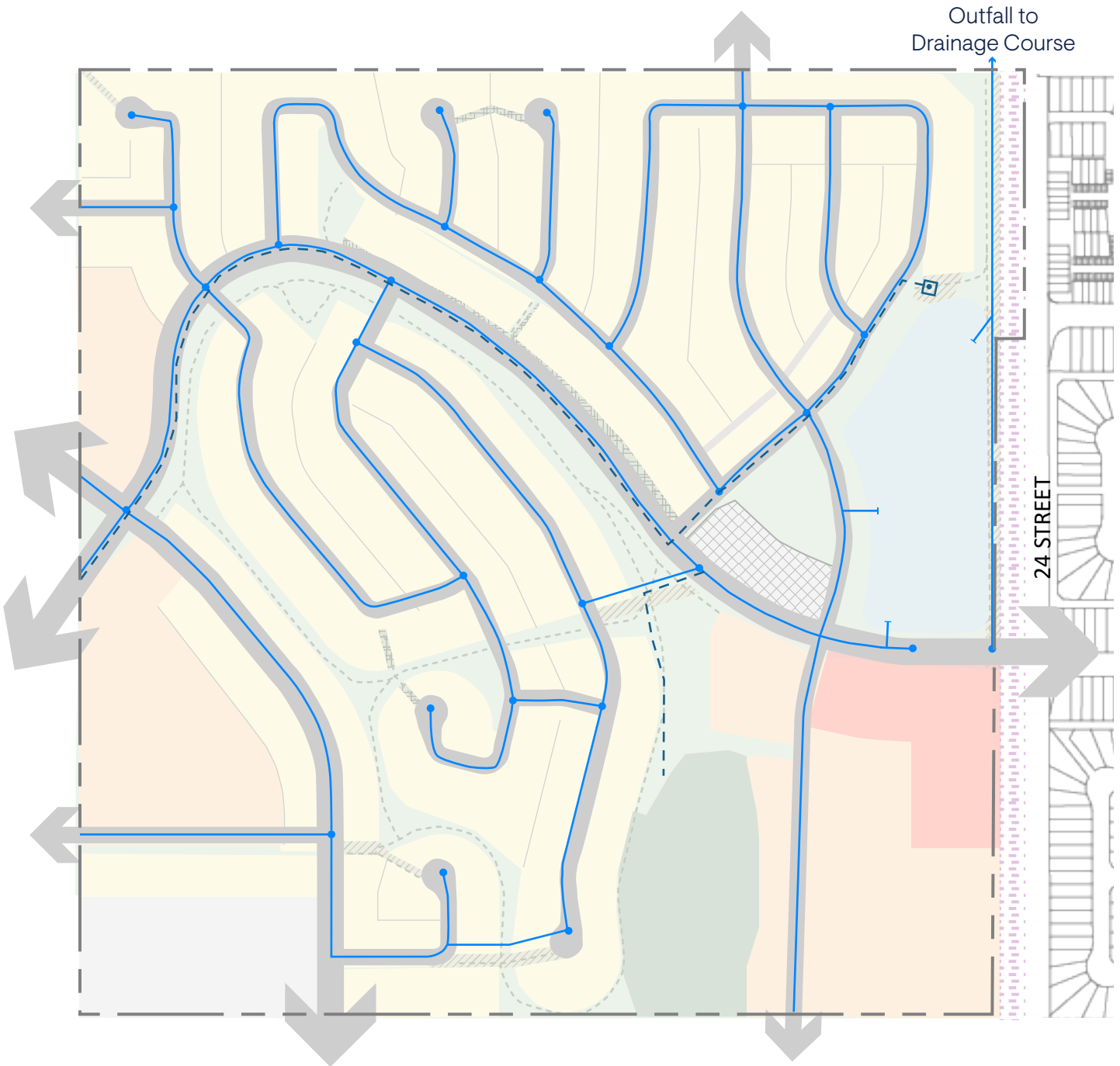
The City of Airdrie has adopted the Nose Creek Watershed Water Management Plan (NCWWMP). The Master Drainage Plan (MDP) for West Hills outlines the scenarios to achieve the volume control target of 16 mm and release rate of 1.257 L/s/ha for the 1:100 year return period. Volume control targets are intended to be met using irrigation of green spaces. Other volume control measures include increased topsoil depths, disconnected downspouts from homes, and impervious areas directed to pervious areas. These strategies allow water to infiltrate passively rather than being shed directly to stormwater ponds.

A Staged Master Drainage Plan (SMDP) has been prepared and submitted under separate cover.

On a phase by phase implementation basis detailed designs should adhere to governing policy of the NCWWMP and City of Airdrie; to the satisfaction of City engineering.

8.8 Irrigation

To create a more sustainable community and to meet the targets the City has committed to for stormwater runoff the green spaces within the WH NSP will be irrigated with stormwater. This water will be pumped from the stormwater management ponds and distributed through a purple pipe system. The main irrigation lines will be aligned with the City of Airdrie standards. The irrigation system will be designed to function within both pressure zones within the site.



- Catchment Boundary
- Stormwater Servicing
- Road Network
- Irrigation Servicing

Scale 1:5000

Figure 20 | Stormwater System

9 | Implementation

9.1 | Land Use Bylaw

The land within the WH NSP requires a land use redesignation to implement the Plan. The WH NSP area may include the following land use districts:

- Urban Standard Residential District (R1-U)
- Low Density Residential District (R2)
- Front-Attached Garage Townhouse District (R2-A)
- Townhouse Residential District (R2-T)
- Low-Rise Multifamily Residential District (R3)
- Mid-Rise Multifamily Residential District (R4)
- Community Mixed Use District (M2)
- Community Commercial District (C2)
- Public Open Space District (P-1)
- Public Facilities District (P-2)
- Urban Holdings District (UH)

9.2 | Plan Amendments

WH NSP amendments may be initiated by City Council, City of Airdrie Planning or Engineering departments, developers, landowners, or school boards. Amendments can be related to the WH NSP or its appendices that implement the WH NSP amenities, services, or municipal infrastructure.

Generally, amendments to the WH NSP may be required in the following circumstances:

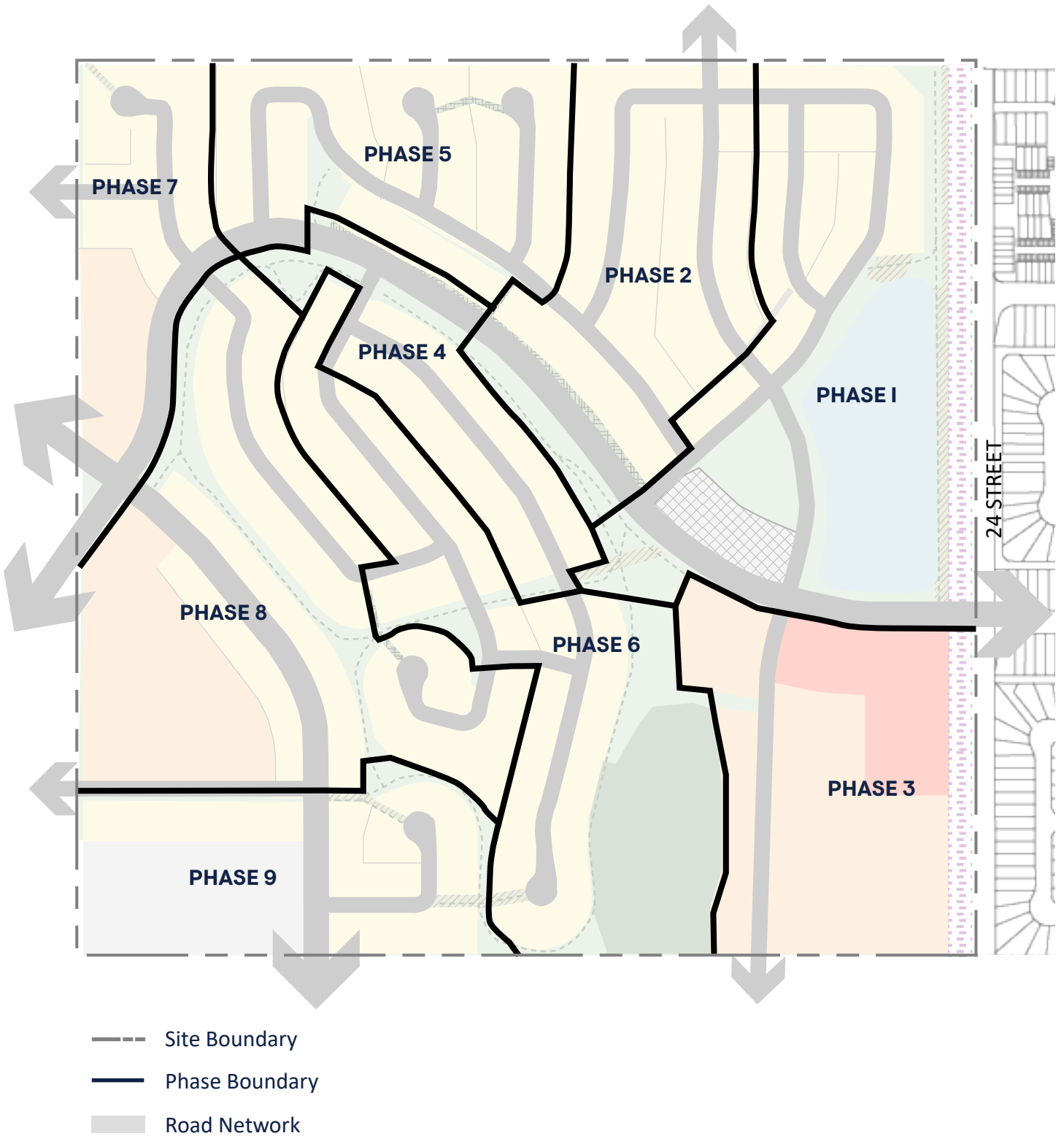
- Where significant shifts in the location of community facilities such as parks or schools are proposed; and/or
- Where significant shifts in the design or layout of infrastructures such as roads and sanitary and water services are proposed; and/or
- When shifts in land use categories, such as from residential to industrial are proposed; and/or
- At the discretion of the City of Airdrie, where the interests of the public necessitate that formal amendments occur.

9.3 | Phasing

The phasing plan breaks down the WH NSP into several planning cells. These cells show how the neighbourhood will be constructed through logical extensions of infrastructure. Refer to Figure 21 for an overview of the phasing plan.

Policies:

- 9.2.1 Development of the WH NSP will generally occur as shown on the Phasing Plan.



Scale 1:5000 

Figure 21 | Phasing

The Supporting Actors

Appendices

Appendix A

Policy Conformance

1.1 | South Saskatchewan Regional Plan

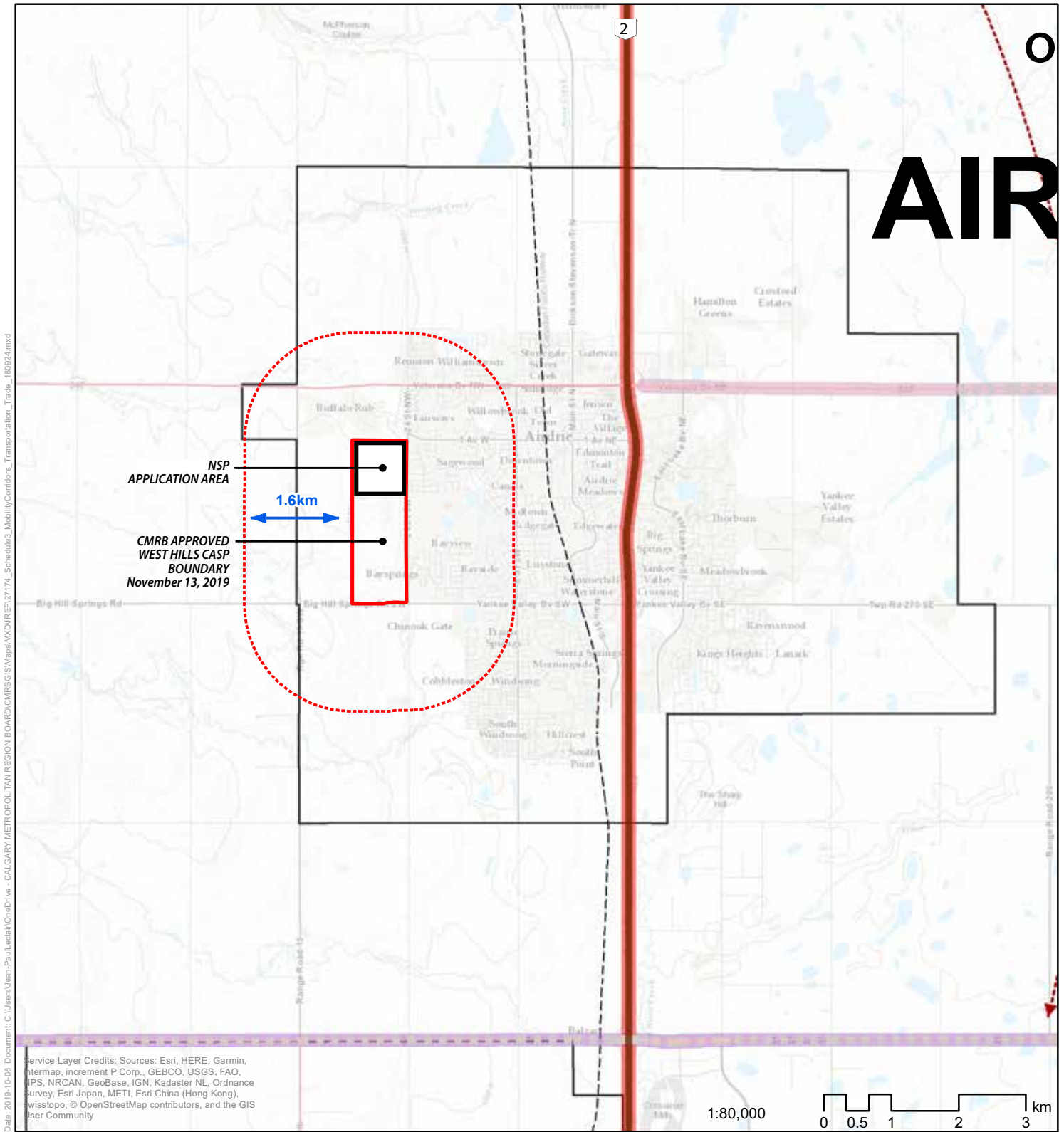
The City of Airdrie is required to demonstrate alignment with the provisions of the South Saskatchewan Regional Plan (SSRP) in all its planning documents. The WH NSP aligns with the economic, environmental, and social objectives in land use planning at the regional level.

1.2 | Calgary Metropolitan Regional Board - Interim Growth Plan

The WH NSP aligns with the Calgary Metropolitan Region Board (CMRB) Interim Growth Plan (IGP). The IGP contains several principles to promote efficient development across the region in a collaborative and coordinated fashion. The Interim Regional Evaluation Framework (IREF) was developed to aid in assessing proposed development throughout the region. A summary of the WH NSP evaluation using the IREF has been submitted under separate cover.

The following figures indicate the WH NSP location within the CMRB mobility corridors.

Schedule 3: Mobility Corridors – Transportation and Trade



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Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community

- | | | | |
|---|-----------------------|------------------------|----------------------------------|
| (| Intermodal Facility | Transportation | Trade |
| ⊙ | International Airport | --- Rail | CANAMEX |
| ○ | Springbank Airport | Level 1 Highway | Existing High Load † |
| | | Level 2 Highway | Proposed High Load † |
| | | Level 3 Highway | Proposed Oversize/Overweight ‡ * |
| | | Future Level 1 Highway | Goods Movement |
| | | Conceptual Bypass | |

Calgary Metropolitan Region Interim Growth Plan

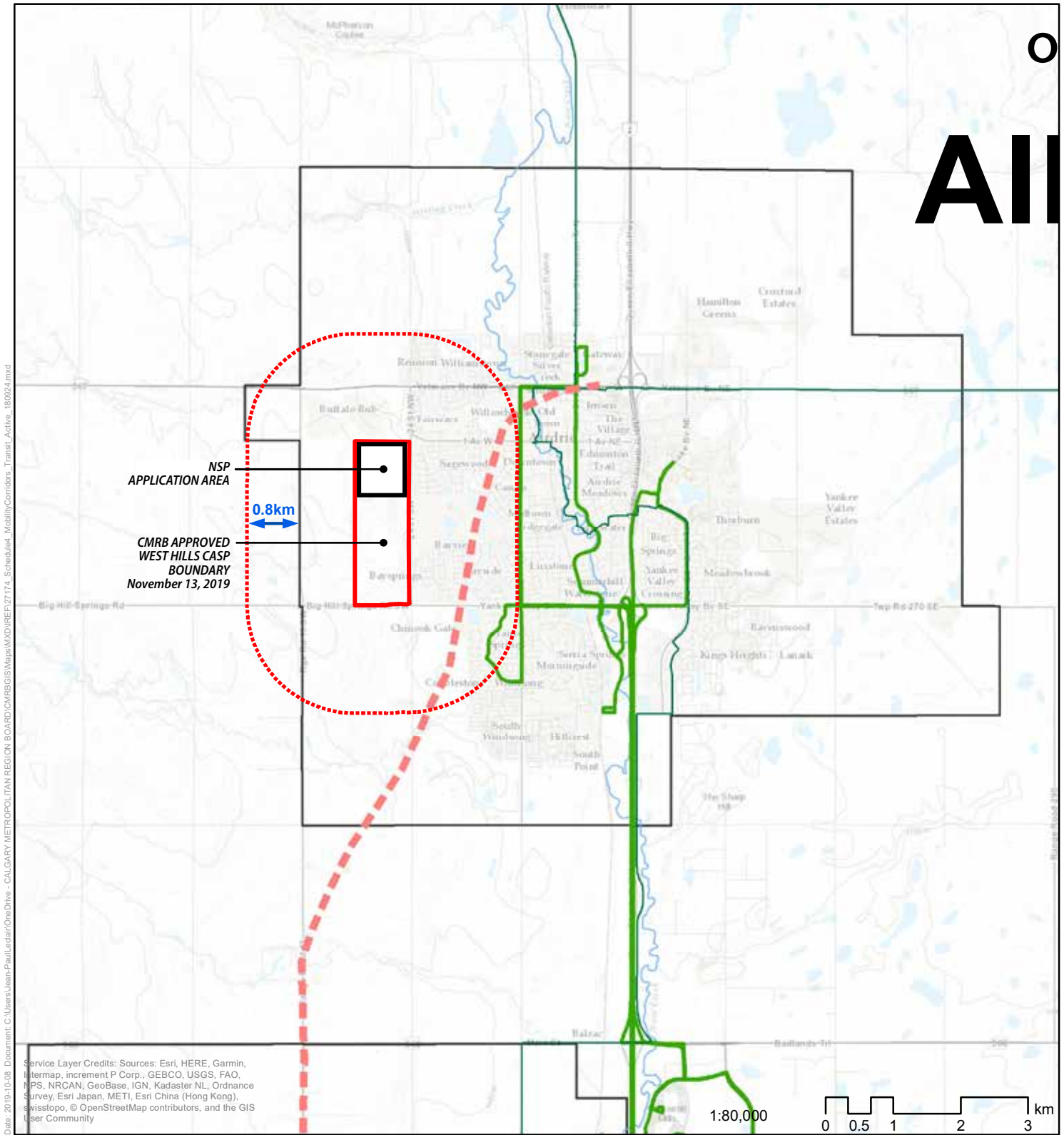


Current as of Sep-24/18

† Per AT's 2015 High Load Corridor on Provincial Highways map. ‡ Per AT's 2018 High Load Corridor and Proposed Oversize / Overweight Corridor on Provincial Highways map.
 * Foothills County indicates it has not yet accepted or agreed to AT's proposal to use its 274 and 306 Avenues, and Highway 552 east of Highway 2 as Oversize/Overweight Corridors.

Schedule 4: Mobility Corridors – Transit and Active Transportation

0 All



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Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, © OpenStreetMap contributors, and the GIS User Community

- (Park and Ride
- (Future Park and Ride
- (LRT Terminus Station/
Intermunicipal Connection
- Active Transportation Corridors**
- The Great Trail †
- Regional Pathway

- Higher Order Transit (HOT) Corridors**
- Existing HOT ‡
- Planned HOT ‡
- Potential Future HOT ‡
- Intermunicipal Transit Corridors**
- Public Intermunicipal Transit
- Private Intermunicipal Transit
- Future Intermunicipal Transit

Calgary Metropolitan Region Interim Growth Plan



Current as of Sep-24/18

† Formerly the Trans Canada Trail. ‡ Higher order transit (HOT) includes light rail transit (LRT) and bus rapid transit (BRT).

1.3 | Airdrie/Rocky View Intermunicipal Development Plan 2001

The Intermunicipal Development Plan (IDP) between the City of Airdrie and Rocky View County provides a framework for the development of lands in close proximity to the shared municipal boundaries. This framework provides policy direction for areas of common land use development, servicing infrastructure, and transportation. The WH NSP details the future servicing corridors and transportation networks and addresses servicing capacities along with stormwater catchment areas. The WH NSP is within the notification zone of the IDP and is subject to review and comment by Rocky View County.

1.4 | Integrated Community Sustainability Plan 2012 AirdrieONE Sustainability Plan

The AirdrieOne Sustainability Plan offers a high-level roadmap for the sustainable future of Airdrie. This Plan is a made-in and made-by-Airdrie document that outlines ten (10) common goals to guide the community's actions for the next five (5) to ten (10) years. The sustainability goals are:

1. Economic Prosperity
2. Built Environment
3. Socially Sustainable Communities
4. Arts, Culture and Recreation
5. Sustainable Natural Environment
6. Water
7. Waste Management
8. Energy
9. Sustainable Transportation
10. Governance

All City plans are to be designed to implement the vision of AirdrieOne. The WH NSP further details the policies and land use categories described within the West Hills Community Area Structure Plan (WH CASP) in alignment with the Airdrie One Sustainability Plan. The WH NSP endeavours to implement several mechanisms identified in this strategic-level Plan.

1.5 | City of Airdrie Municipal Development Plan 2014

The WH NSP aligns with the City of Airdrie's Municipal Development Plan (MDP) otherwise known as the City Plan. The MDP is a provincially legislated statutory document that is intended to guide the development of a municipality. The most pertinent MDP policies were identified by City staff and have been submitted under separate cover to demonstrate policy conformance.

1.6 | West Hills Community Area Structure Plan 2019

The WH CASP was adopted by City Council in 2019. A subsequent application was submitted to amend the WH CASP boundary to align with that shown in the 12 Thousand Acres Plan. The WH NSP is in keeping with the WH CASP expansion amendment.

1.7 | Great Places Plan 2016

The WH NSP has been designed with the Civic Open Space Node at the heart of the community and in keeping with the Great Places Plan. A variety of open space typologies are interwoven throughout the Plan to provide passive and active recreation options for residents while preserving and highlighting the viewshed opportunities. Interconnectivity between various park elements helped to shape the development of the West Hills neighbourhood.

1.8 | Nose Creek Watershed Water Management Plan 2018

The Nose Creek Watershed Water Management Plan (NCWWMP) provides recommendations for the maximum allowable release rate, runoff volume control targets, internal drainage areas, and low impact development. The West Hills neighbourhood has been designed in keeping with these recommendations and will implement storm water reuse to achieve the NCWWMP targets.

Appendix B

Detailed Land Use Concept

(provided under separate cover)

Appendix C

TIA Implementation

(triggering events and cross-sections)

1.0 | Street Connectivity

Connectivity index is a comparison of the number of road links to the number of nodes on the road network to summarize the overall connectivity of a community. Links are considered road segments without a break, while nodes occur where links connect at a point. The street connectivity only considers street links and nodes, while active connectivity considers the links and nodes of both streets and pathways. The “Connecting Airdrie – Complete Streets Toolbox” identifies the following index targets for future greenfield residential communities:

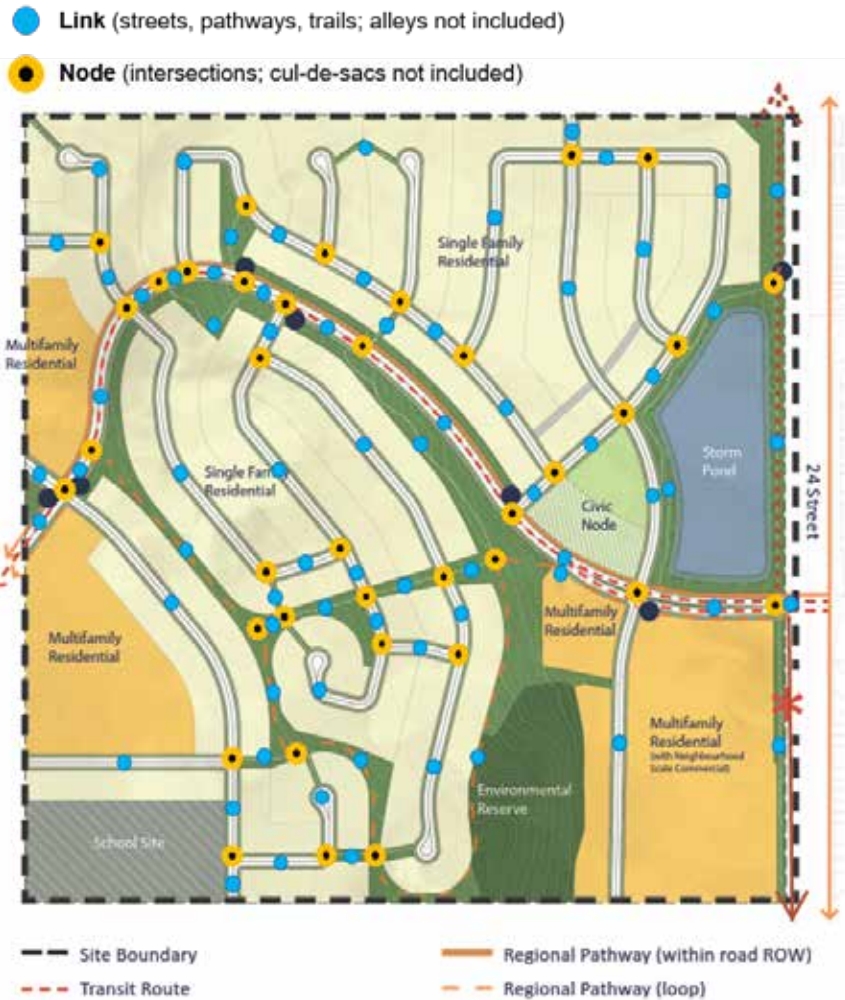
- Street connectivity index target: 1.4
- Active mode connectivity index target: 1.6

The street connectivity index for the proposed site is 1.52. The active mode connectivity index, which includes pathways as well as streets, is 1.92. These scores exceed the targets identified in the handbook, meaning the site will have sufficient connectivity. Figure 22 and 23 illustrate the links and nodes for street and active mode connectivity.



Figure 22 | Street Connectivity





Scale NTS 

Figure 23| Active Mode Connectivity

2.0 | Transit Network

The City of Airdrie expects 6% of all trips in the future will occur with transit. This target has been incorporated into the latest Transportation Master Plan (TMP) completed by Stantec in 2020. It can be expected that as part of the proposed site, the transit network would be accommodated along the proposed collector roadway and is expected to meet a minimum walking distance of 400m.

A fixed route transit network can be provided along the collector class roadways, however, with the future transit facility along 24th Street, a dynamic system should be considered as part of a first and last mile strategy providing coverage for the community without the significant overhead needed when compared with a fixed route. The City of Airdrie had previously piloted a-transit system connecting to transfer hubs. City of Calgary have also been testing a system for new communities to understand customer demand prior to investing and expanding into a fix route transit system.

The timing and design for the future transit system along 24th Street remains unknown at the time of writing. The 14OK Plan: 2020 TMP Update acknowledges a need for a transit facility; however, the final station design, cross sections, and frequency have not been finalized as part of the TMP update. It was recommended in the report that the City consider conducting a feasibility study to better understand the transit market and customer base for a transit facility along 24th Street.

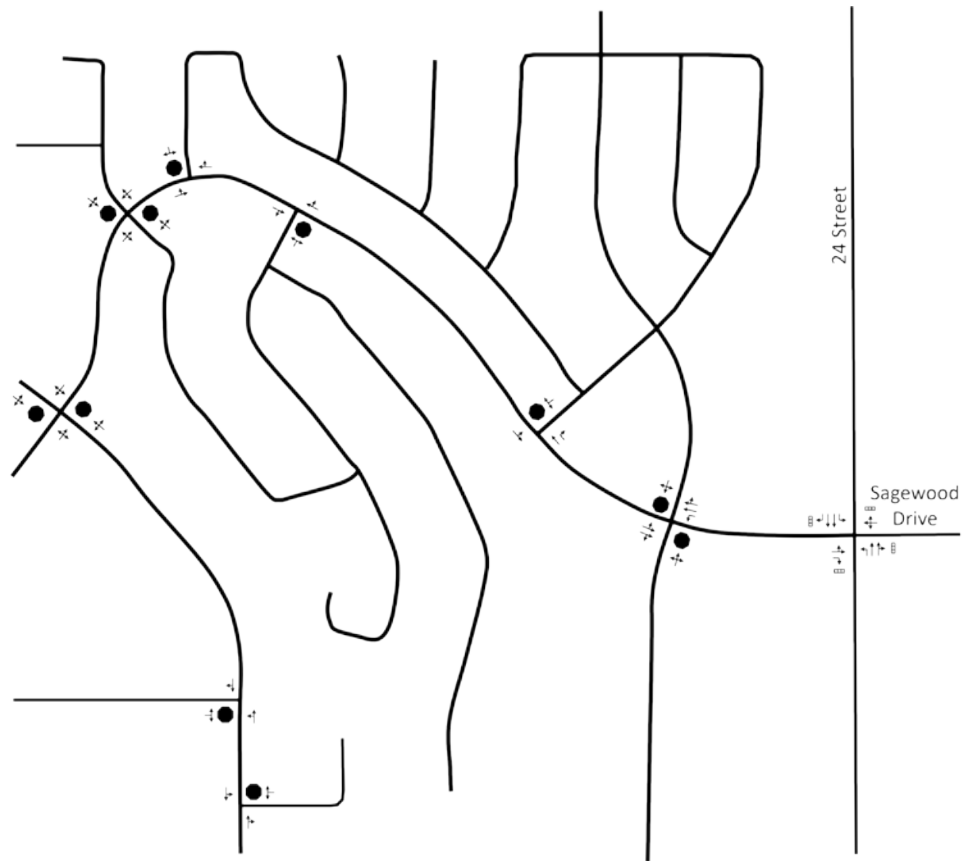
With the future transit alignment and local system, transit users within the proposed site are well within the 400m walking distance coverage.

3.0 | Traffic Impact Assessment

At the time of full build out for the proposed site, 24th Street will need to be a four-lane facility to accommodate the existing growth prior to activating the West Hill Lands. Additional improvements along Veterans Boulevard and Yankee Valley Boulevard have also been identified to support the planned growth as identified in the accepted Bayview/Bayside TIA. The previous TIA have noted that there will be constraints along Yankee Valley Boulevard and Veterans Boulevard corridor. It was expected that the TMP Update (2020) would address some of the previous concerns identified in the local studies. At the time of writing, the TMP Update maintains the widening recommendations as noted in the Bayview/Bayside TIA.

With the build out of the lands and background growth from surrounding communities, the corridor along 24th Street remains unchanged from the previous (Bayview/Bayside TIA) recommendation. The internal intersections operate at an acceptable LOS with two-way stop controls through to full build out, with daily volumes internally below 12,000 vpd for a significant portion of the network. A collector class road network can support the estimated development trips for the Minto Communities site.

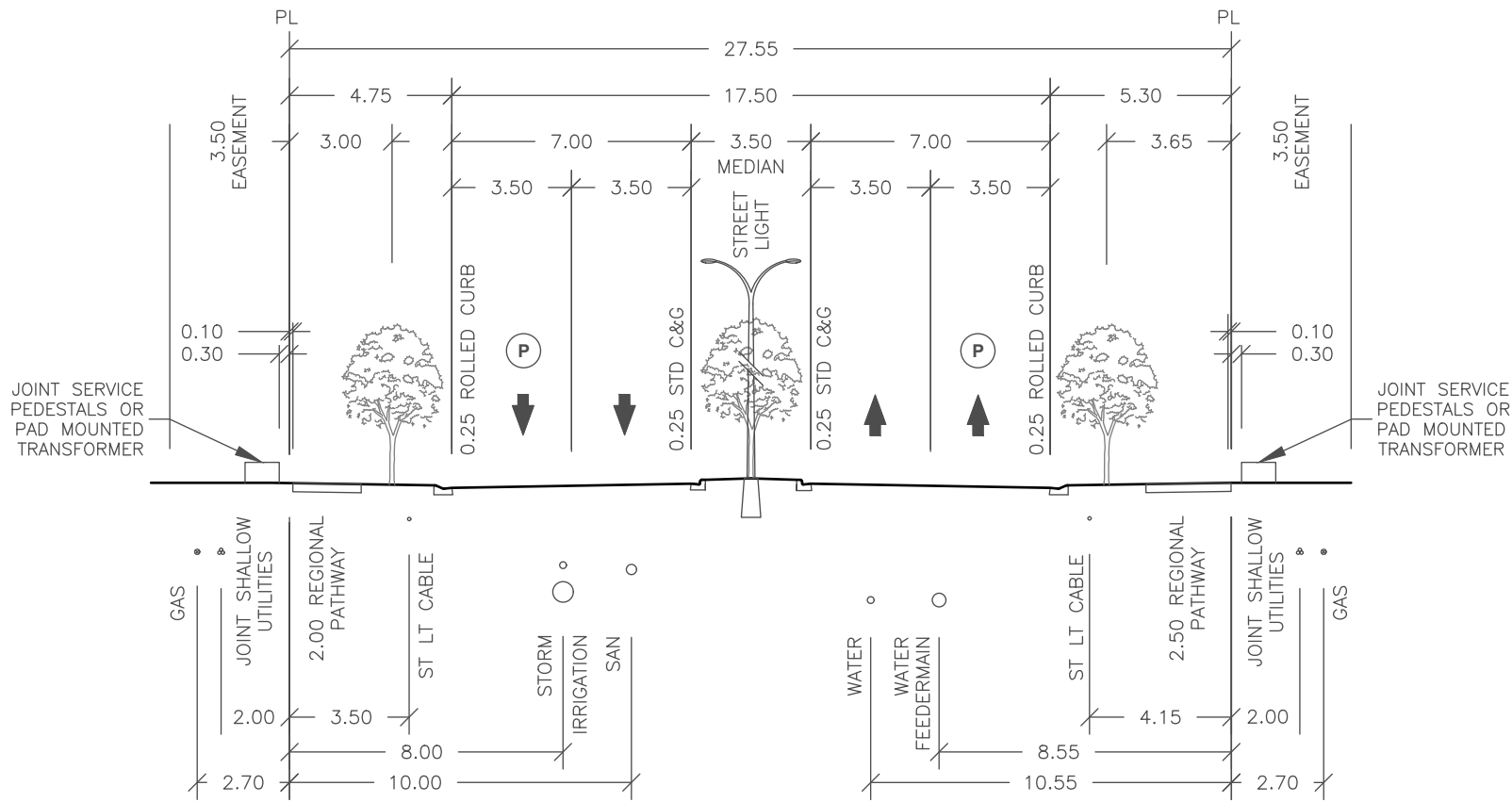
Figure 24 illustrates the proposed road network for West Hills.



Scale NTS



Figure 24 | Proposed Road Network



The divided primary collector 27m cross section has been modified to 27.55m to accommodate a 2.5m regional pathway along the north side of the right of way. The north boulevard has been widened to 5.3m.


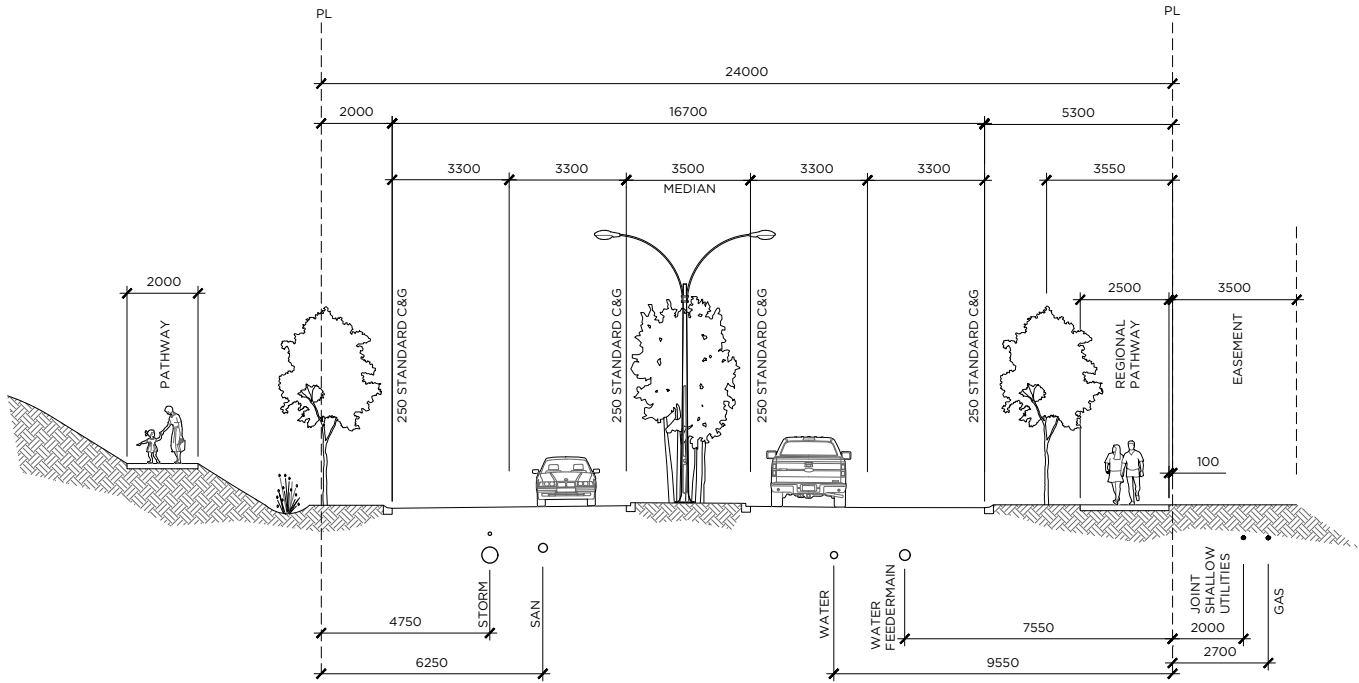
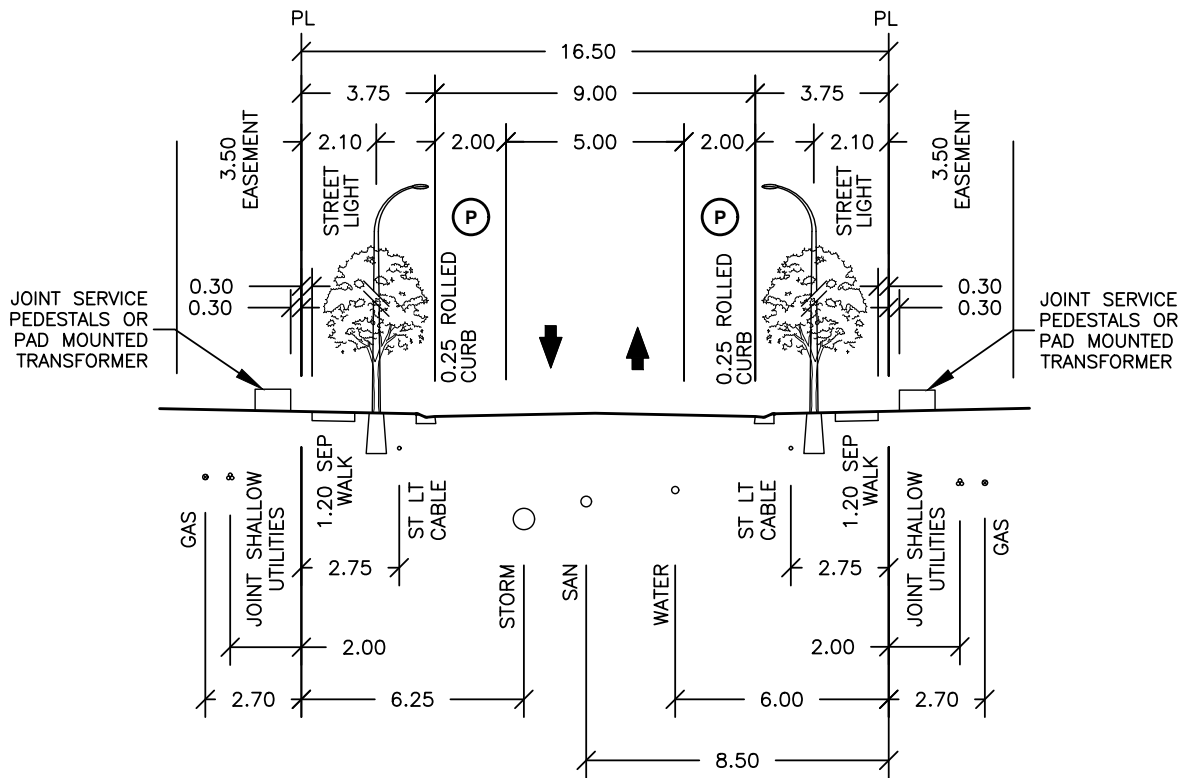
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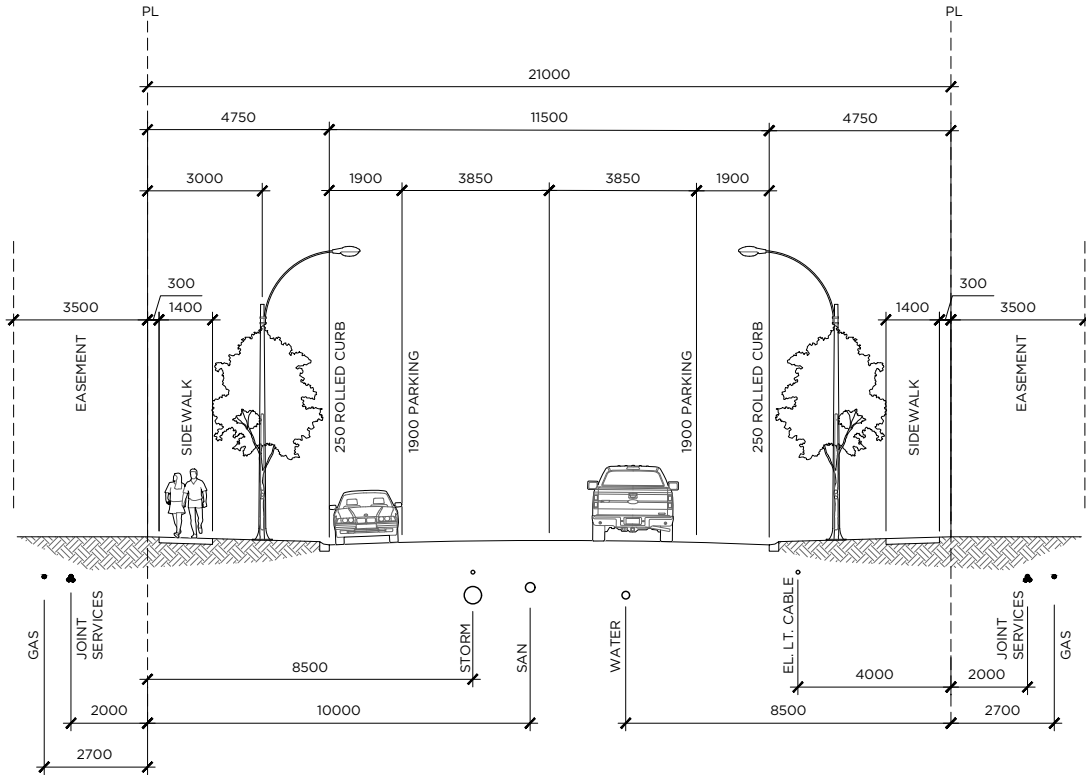
Figure 25 | 27.55m Modified Divided Primary Collector



Boulevard widths have been revised in the collector standard to accommodate a 2.5m regional pathway on the north side.



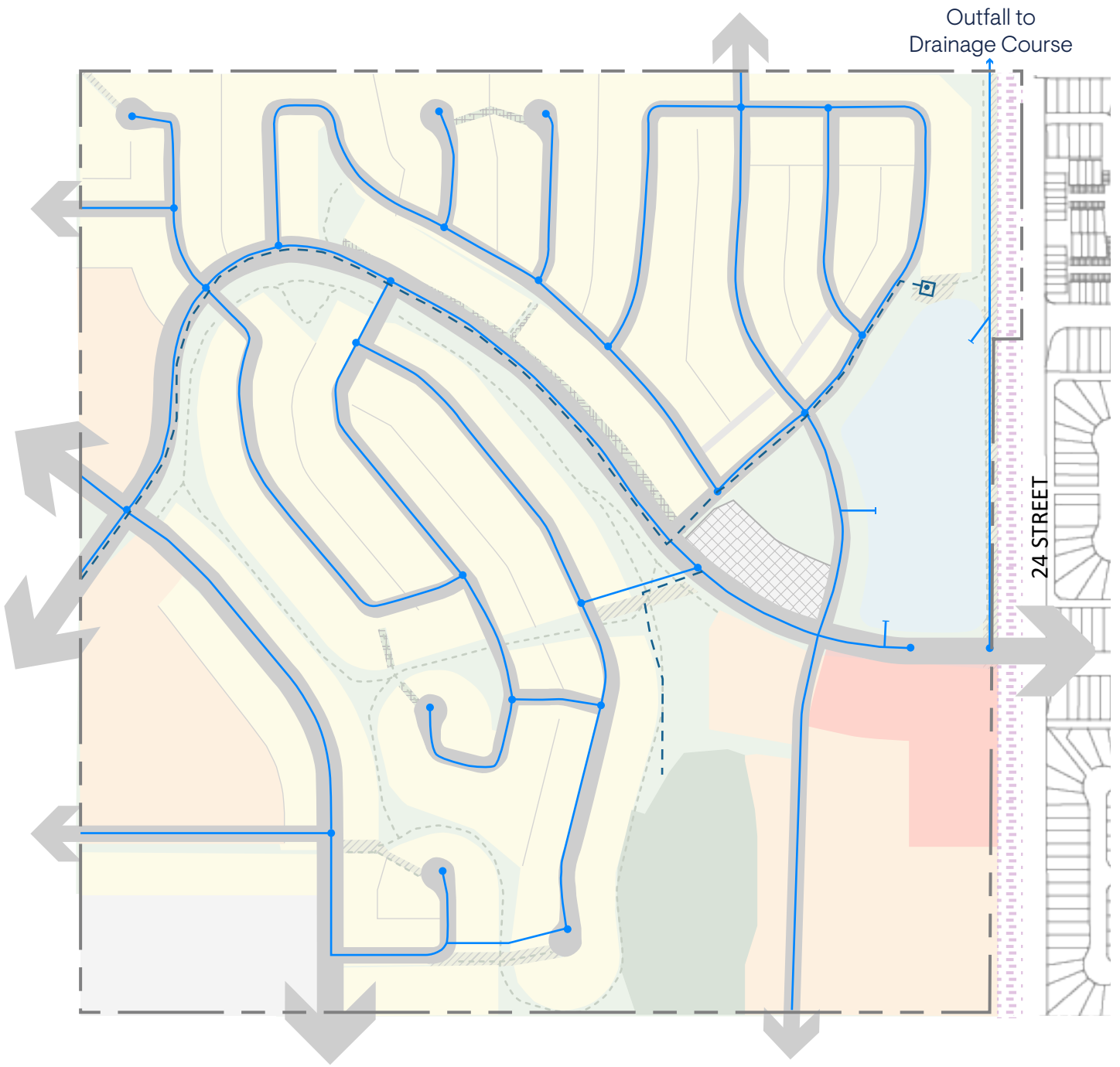
The 16.5m residential cross section is proposed for all residential streets to provide separate walk throughout the community. The existing City of Airdrie standard is a 15m row with mono walk for non-laned single family product. The modified cross section increases the width of the boulevard from 3.00m to 3.75m on both sides of the street.



Where a roadway abuts a school site frontage, cross sections are modified to provide a 2m monowalk.

Appendix D

Servicing Implementation



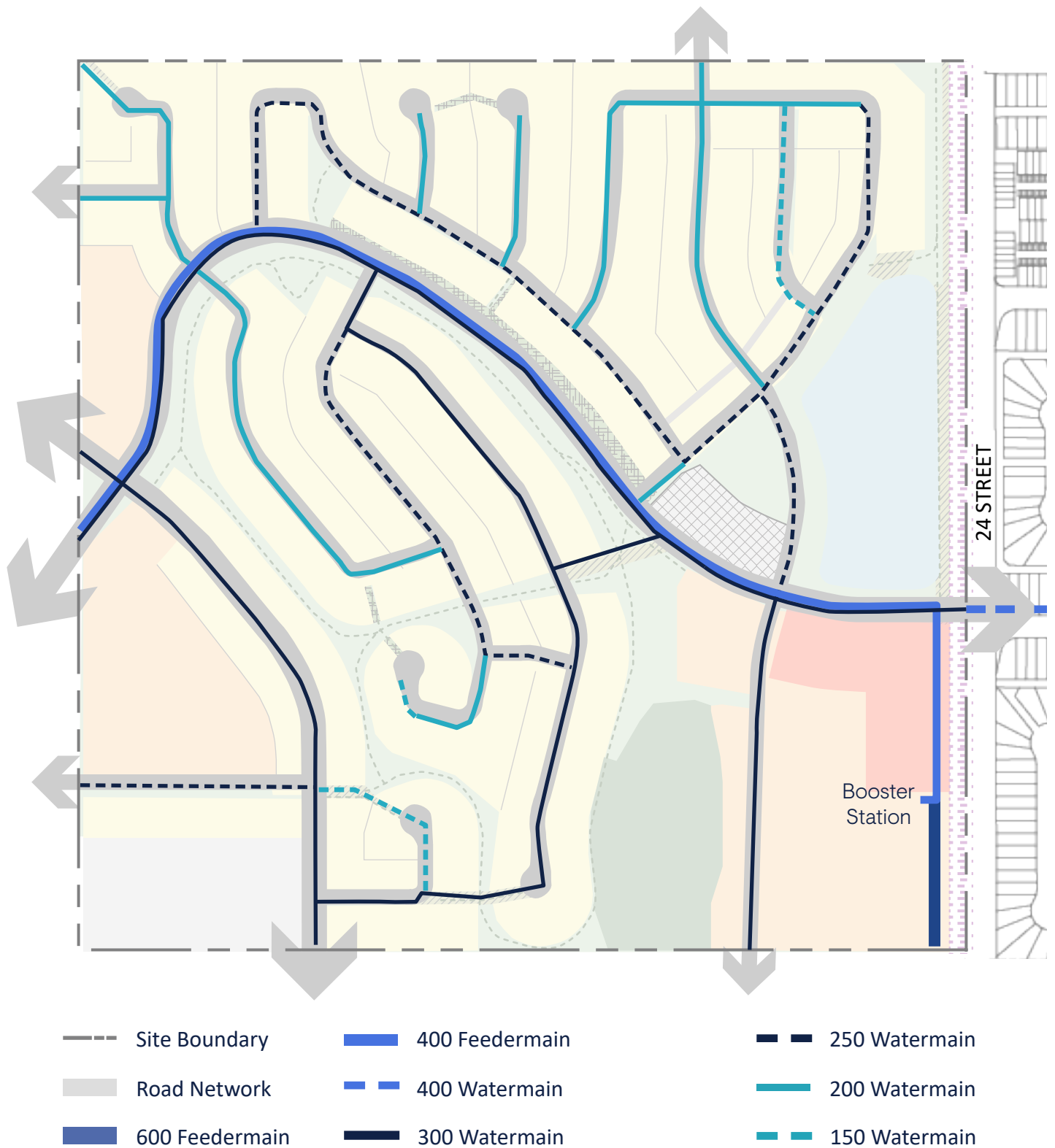
- Catchment Boundary

— Road Network
- Stormwater Servicing

--- Irrigation Servicing

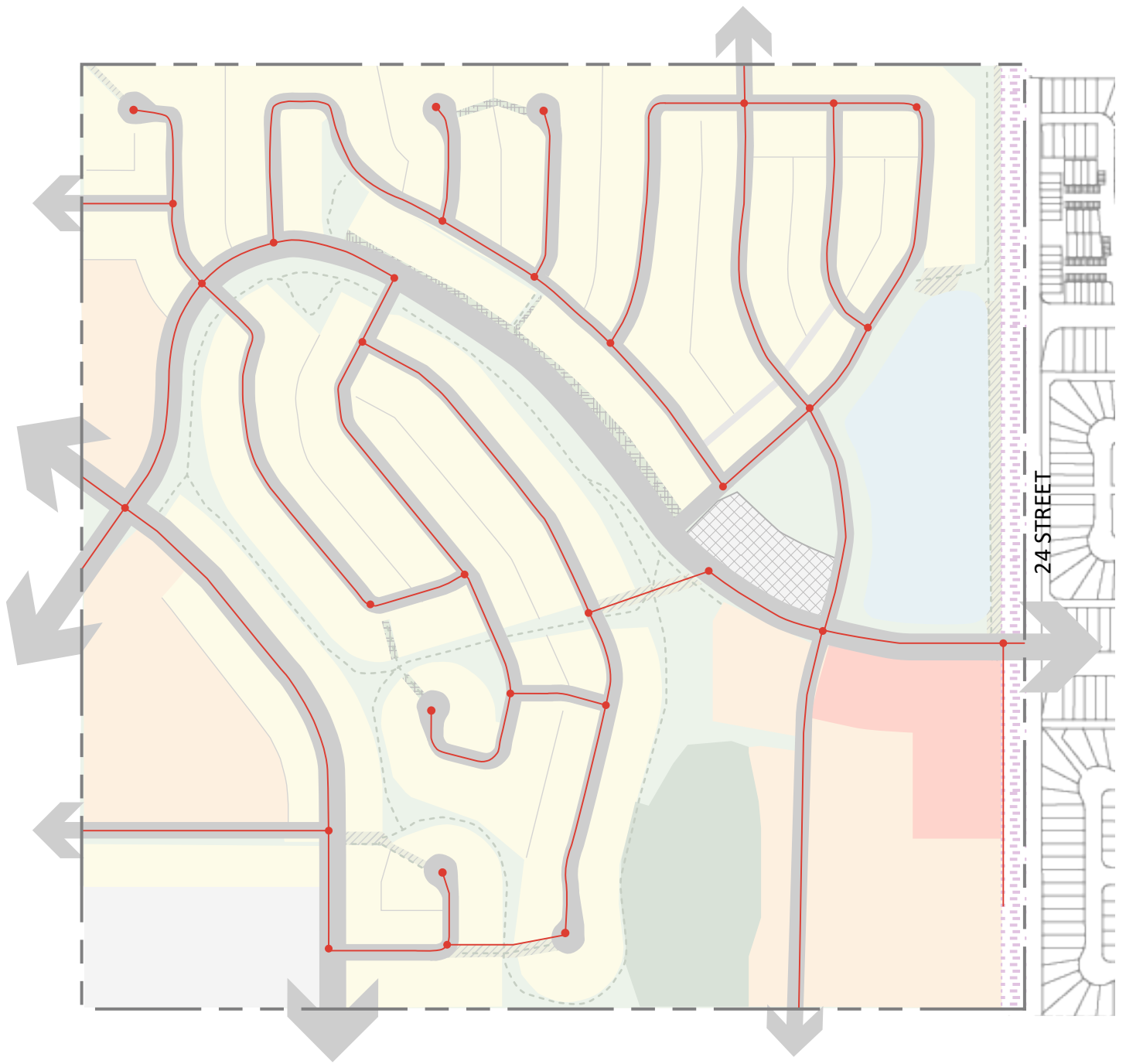
Scale 1:5000

Figure 20 | Stormwater System



Scale 1:5000 

Figure 13 | Water System

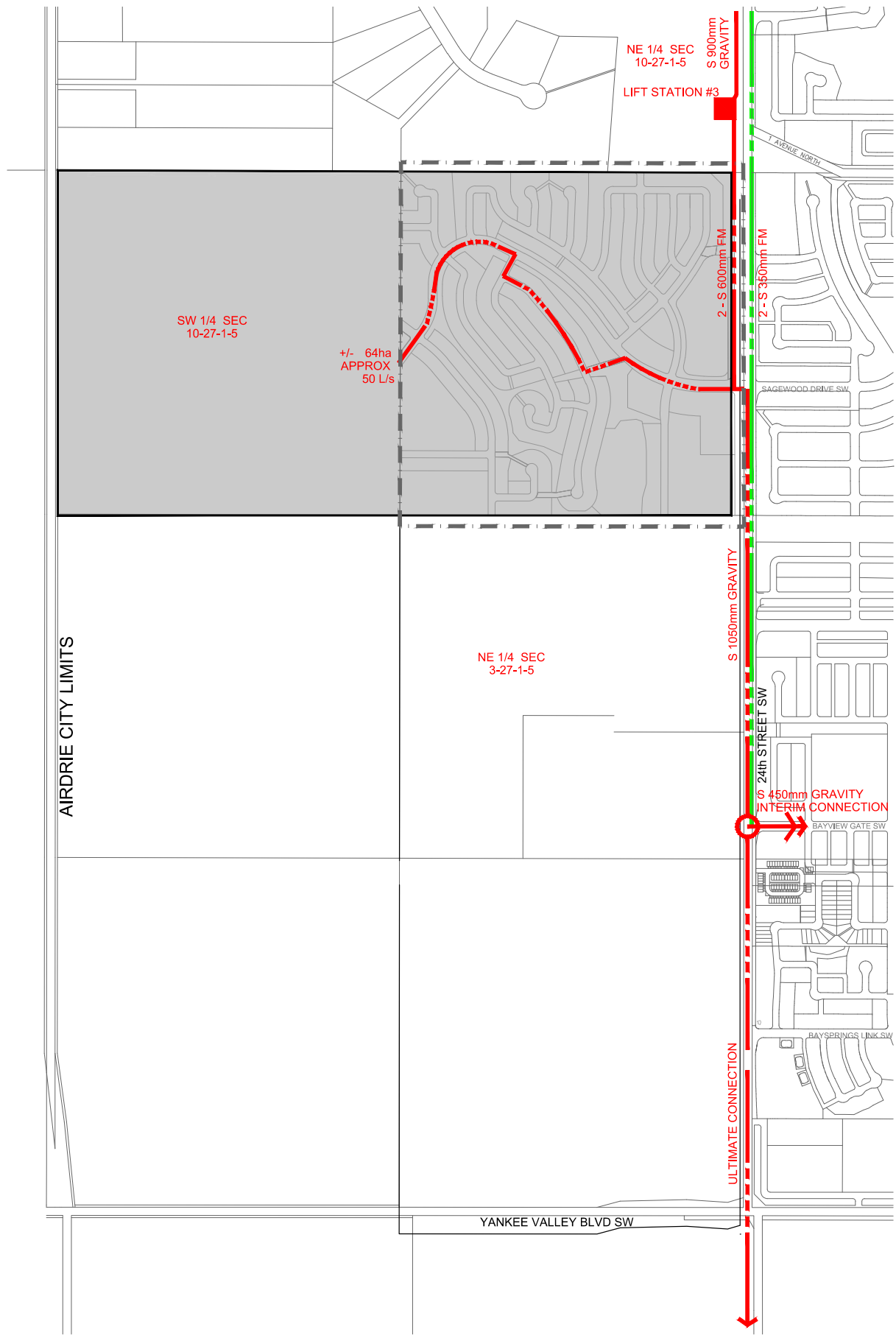


- - - Site Boundary
 Road Network

Sanitary Servicing

Scale 1:5000 

Figure 15 | Sanitary System

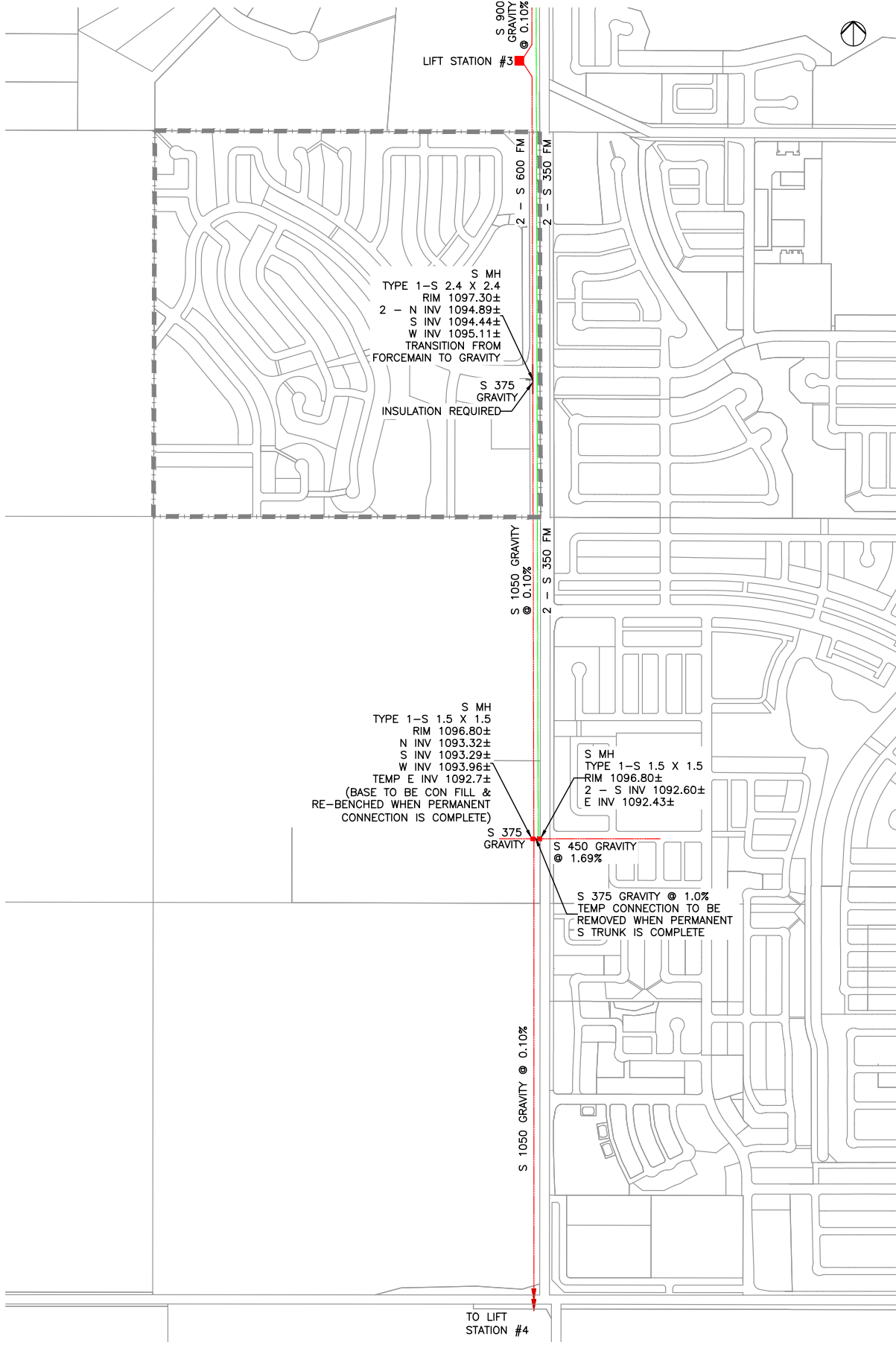


Scale: NTS 

 CATCHMENT AREA

OFFSITE SANITARY SERVICING



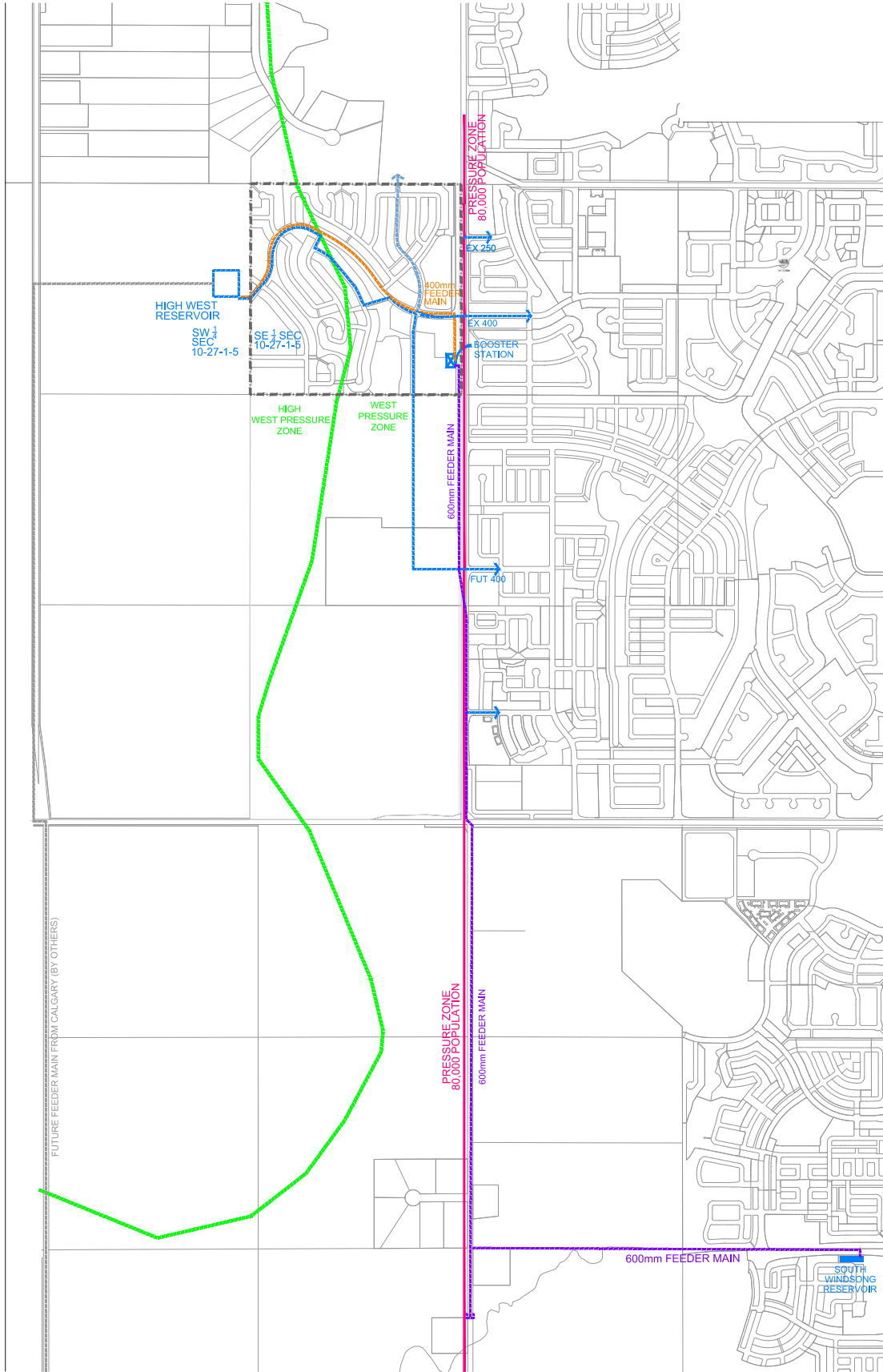


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PROPOSED OFFSITE SANITARY DESIGN



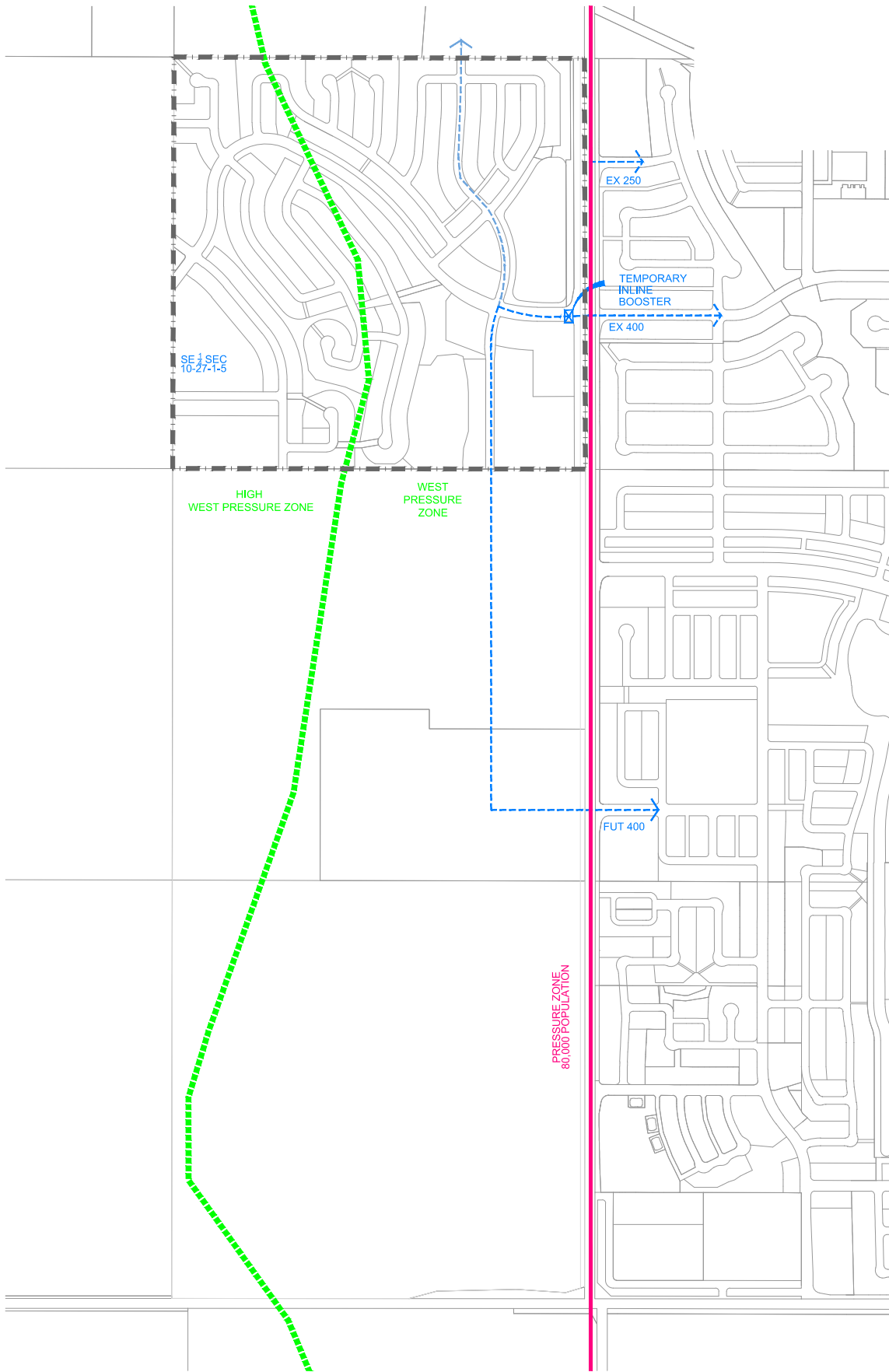


Scale: NTS



OFFSITE WATER SERVICING





Scale: 1:7500



OFFSITE WATER SERVICING



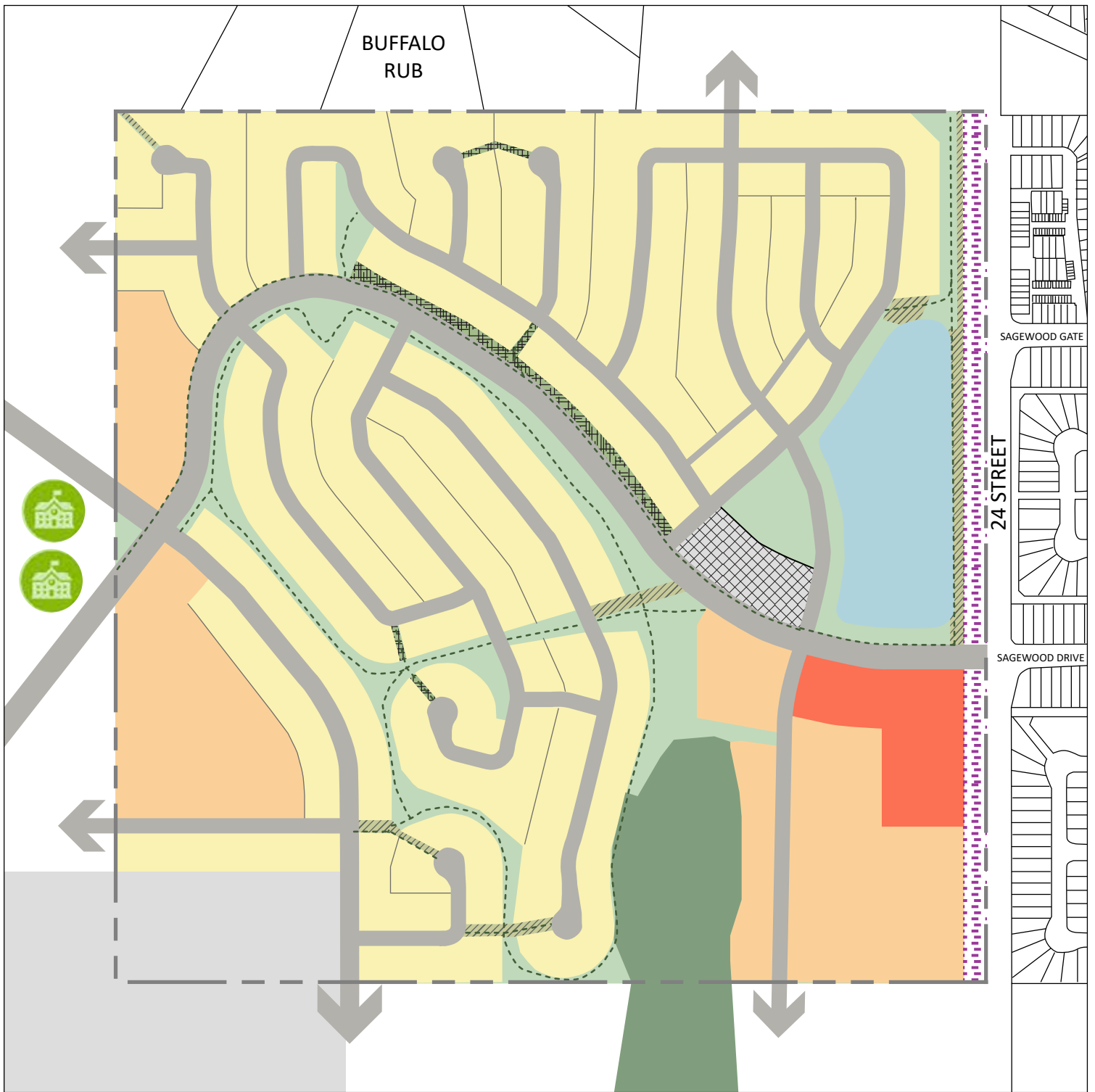
Appendix E

Context Shadow Plan

Context Shadow Plan

Figure 26 illustrates the land uses for the adjacent developed areas and key future uses for undeveloped areas. The WH CASP identifies an elementary school site requirement for each 160-acre planning area (Section 1.3 – page 12); the WH NSP conceptually shows a future school site on the west boundary of the Plan area to fulfill this requirement. The location was chosen based on the topographical constraints that prohibit the creation of the large level play areas typically required for any school site. This will result in design and servicing of a Joint Joint Use Site with the anticipated elementary school site for the lands west of the NSP in the future development of SW10-10-27-1-W5M.

This site will be dedicated within the Municipal Reserve dedication required by the Municipal Government Act and the City's Municipal Development Plan. The timing of this site will be coordinated with a future land use redesignation application to occur with the affected plan (s) of subdivision.



- | | | | |
|--------------------|--------------------------------|-------------------------------------|---------------------------------------|
| --- Site Boundary | Single Family Residential | ▨ Civic Open Space Node | Light Green Credit Municipal Reserve |
| — Road Network | Orange Multifamily Residential | Light Blue Storm Water Pond | ▨ Non-credit Municipal Reserve |
| --- Pathway System | Red Mixed Use | Dark Green Environmental Reserve | Purple Dotted 24 Street Road Widening |
| Grey School Site | Diagonal Hatched PUL | Green Circle Elementary School Site | |

Scale 1:5000 

Figure 29 | Context Shadow Plan