

**TOWN OF OLDS  
BYLAW NO. 2016-06  
A BYLAW TO ADOPT THE "THE HIGHLANDS AREA STRUCTURE PLAN"**

**NOW, THEREFORE, THE MUNICIPAL COUNCIL OF THE TOWN OF OLDS, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, ENACTS AS FOLLOWS:**

**WHEREAS** Section 633(1) of the *Municipal Government Act*, as amended, allows the Council of a Municipality to adopt an area structure plan; and

**AND WHEREAS** the *The Highlands Area Structure Plan*, has been prepared in accordance with the requirements of Part 17 of the *Municipal Government Act*, as amended; and

**AND WHEREAS** Council deems it desirable to adopt the *The Highlands Area Structure Plan* to guide the future growth and development of lands within the SW 31-032-01-5;

**NOW THEREFORE, THE MUNICIPAL CORPORATION OF THE TOWN OF OLDS IN COUNCIL DULY ASSEMBLED ENACTS AS FOLLOWS:**

1. The adoption of Bylaw 2016-06, to be known as The Highlands Area Structure Plan, being the document attached hereto as Schedule A.
2. Citation: This bylaw may be cited as "The Highlands Area Structure Plan Bylaw 2016-06".
3. This Bylaw comes into force on the date it is passed.

Read for a first time on the 14<sup>th</sup> day of March, 2016  
Public Hearing held on the 25<sup>th</sup> day of April, 2016  
Read a second time on the 24<sup>th</sup> day of May, 2016  
Read a third and final time on the 24<sup>th</sup> day of May, 2016

  
\_\_\_\_\_  
Judy Dahl, Mayor

  
\_\_\_\_\_  
Norman McInnis, Chief Administrative Officer

SIGNED by the Chief Elected Officer and the Chief Administrative Officer this 30 day of may 2016.

# The Highlands

## Area Structure Plan



Town of Olds  
SW 31-032-01-W5M

Adopted May 24, 2016  
Bylaw 2016-06



## THE HIGHLANDS AREA STRUCTURE PLAN

*The Highlands Area Structure Plan* has been prepared on behalf of Richardson Bros (Olds) Ltd.

The Developer's commitment through this ASP is to develop a balanced community of residential and recreational opportunities with complimentary land uses. In order to achieve this, the Developer intend to integrate the neighbourhood with interconnected parks and open spaces providing linkages to those already provided for by the Town of Olds.



TABLE OF CONTENTS

**1.0 INTRODUCTION ..... 1**

1.1 PURPOSE ..... 1

1.1.1 Vision ..... 1

1.2 DEFINITION OF PLAN AREA ..... 2

1.3 APPROVAL PROCESS ..... 6

1.3.1 Richardson Area Structure Plan, Bylaw 2009-08, with amendment  
Bylaw 2012-08 ..... 6

1.3.2 The Highlands Area Structure Plan, Bylaw 2016-06 ..... 6

1.4 AUTHORITY ..... 6

1.5 POLICIES AND RELEVANT PLANNING DOCUMENTS ..... 7

1.5.1 Town of Olds Municipal Development Plan, Bylaw 2007-22 ..... 7

1.5.2 Town of Olds/Mountain View County Intermunicipal Development  
Plan, Bylaw 2007-27 ..... 11

1.5.3 Town of Olds Land Use Bylaw, Bylaw 01-23 ..... 11

1.5.4 Town of Olds Minimum Design Standards for Development 1996  
(Revised 2005)..... 11

1.5.5 Chinook Meadows Area Structure Plan, Bylaw 2011-16 ..... 12

1.5.6 Kasawal Area Structure Plan..... 13

1.5.7 Deer Ridge Estates..... 13

1.6 REPORT LIST..... 14

1.7 INTERPRETATIONS..... 16

1.7.1 Maps, Plan, and Figures..... 16

1.7.2 Land Use Calculation Tables..... 16

**2.0 SITE CONTEXT & DEVELOPMENT CONSIDERATIONS ..... 17**

2.1 TOPOGRAPHY ..... 17

2.2 SOIL..... 17

2.3 VEGETATION..... 17

2.4 HISTORICAL RESOURCES ..... 19

2.5 EXISTING LAND USE ..... 19

2.5.1 Utility Rights-of-Way..... 19

2.6 SURROUNDING DEVELOPMENT ..... 20

2.6.1 North - Kasawal ..... 20

2.6.2 South - Chinook Meadows ..... 20

2.6.3 East - Deer Ridge Estates ..... 20

2.6.4 West - 70 Avenue and MVC..... 21

2.7 EXISTING CONSTRUCTION ..... 21

**3.0 DEVELOPMENT OBJECTIVES & PRINCIPLES ..... 23**

3.1 RESIDENTIAL ..... 23

3.2 MUNICIPAL RESERVES AND EDUCATIONAL/COMMUNITY FACILITIES ..... 24

3.3 TRANSPORTATION ..... 25

3.4 ECOLOGICAL STEWARDSHIP ..... 26

<b>4.0</b>	<b>DEVELOPMENT CONCEPT .....</b>	<b>28</b>
4.1	RESIDENTIAL USES.....	31
4.1.1	R1 Low Density Residential .....	31
4.1.2	R2 General Residential.....	31
4.1.3	R2N General Residential Narrow Lot District.....	32
4.1.4	R3 Medium Density Residential District.....	32
4.1.5	Density.....	33
4.1.6	Transition between Housing Types and Uses .....	33
4.2	COMMERCIAL USE .....	34
4.3	PARKS AND OPEN SPACES.....	34
4.3.1	Walkways and Multi-Use Trail .....	34
4.3.2	Linear Parks and Pedestrian Connections.....	35
4.3.3	Community Parks .....	35
4.3.4	Neighbourhood Parks .....	36
4.3.5	Additional Open Space Components.....	37
<b>5.0</b>	<b>TRANSPORTATION NETWORK .....</b>	<b>40</b>
5.1	ROADWAYS.....	40
5.1.1	Arterial Roads .....	40
5.1.2	Collector Roads.....	41
5.1.3	Local Roads .....	42
5.1.4	Laneways .....	42
5.2	PEDESTRIAN AND CYCLING MOVEMENT.....	42
5.3	TRAFFIC CALMING MEASURES.....	42
5.4	ROADWAY STAGING .....	43
5.5	OTHER CONSIDERATIONS.....	43
5.5.1	Garbage Collection .....	43
5.5.2	Mailbox Locations.....	44
<b>6.0</b>	<b>SERVICING SYSTEMS.....</b>	<b>49</b>
6.1	STORMWATER DRAINAGE .....	49
6.2	MAJOR STORM DRAINAGE PLAN .....	50
6.3	SANITARY SERVICING.....	53
6.4	WATER DISTRIBUTION.....	53
6.5	SHALLOW UTILITIES .....	54
<b>7.0</b>	<b>IMPLEMENTATION .....</b>	<b>57</b>
7.1	DEVELOPMENT STAGING .....	57
7.1.1	Major Development Stage Requirements of Note .....	57
7.2	REDISTRICTING AND SUBDIVISION.....	58
<b>8.0</b>	<b>CONCLUSION .....</b>	<b>60</b>

**LIST OF TABLES**

Table 2.1 - Pipeline Information..... 19  
 Table 2.2 - Existing Construction Statistics.....22  
 Table 4.1 - Land Use Statistics .....28  
 Table 4.2 - Dwelling Unit Estimations.....29

**LIST OF FIGURES**

Figure 1.1 - Location Plan ..... 4  
 Figure 1.2 - Surrounding Planning ..... 5  
 Figure 1.3 - Town of Olds, Municipal Development Plan (Bylaw 2007-22) Land Use  
 Concept Map (Portion) ..... 10  
 Figure 2.1 - Canada Land Inventory: Land Capability for Agriculture..... 18  
 Figure 4.1 - Development Concept ..... 30  
 Figure 4.2 - Parks and Trails System ..... 38  
 Figure 4.3 - Parks and Trails Details..... 39  
 Figure 5.1 - Roadway Network ..... 45  
 Figure 5.2 - Transportation Details..... 46  
 Figure 5.3 - Transportation Details ..... 47  
 Figure 5.4 - 33.0m Collector Details ..... 48  
 Figure 6.1 - Proposed Storm Drainage Plan ..... 51  
 Figure 6.2 - Overall Storm Drainage Plan..... 52  
 Figure 6.3 - Sanitary Sewer System..... 55  
 Figure 6.4 - Water System ..... 56  
 Figure 7.1 - Phasing Plan..... 59

## ABBREVIATIONS

ac	Acre
ASP	Area Structure Plan
Developer	Richardson Bros (Olds) Ltd.
Du	Dwelling Unit
EOS	Environmental Open Space (located in Deer Ridge Estates)
ha	Hectare
LUB	Land Use Bylaw
MVC	Mountain View County
MDP	Municipal Development Plan
MR	Municipal Reserve
NDA	Net Developable Area
PUL	Public Utility Lot
R/W	Right-of-Way
SWMF	Stormwater Management Facility
Town	Town of Olds

## FORWARD

The *Highlands Area Structure Plan Bylaw 2016-06* (The Highlands ASP) is located along the southerly portion of the west boundary of the Town of Olds (Town). The Highlands ASP covers an area of 64.64 ha (159.72 ac) comprising the full area of SW 30-032-01-W5M.

## RICHARDSON AREA STRUCTURE PLAN

The area forming The Highlands ASP had previously been developed under the *Richardson Area Structure Plan Bylaw 2009-08* (Richardson ASP) which was adopted by the Town on May 11, 2009. The Richardson ASP also covered the full lands of SW 31-032-01-W5M, which was comprised of two parcels at that time, the balance of the quarter section and a 2.02 ha (5.0 ac) undeveloped parcel in the northwest corner of the quarter belonging to a separate owner. Subsequent to the adoption of the Richardson ASP, five phases of subdivision have been approved. These subdivisions have created the following:

- 5.38 ha (13.30 ac) of School and Municipal Reserve lands, which include a developed school site;
- 2.36 ha (5.82 ac) of Public Utility lands, which include the existing stormwater management facility (SWMF) in the northeast corner;
- 154 residential lots zoned as Low Density Residential (R1); and
- 8 residential lots zoned as General Residential (R2).

## THE HIGHLANDS AREA STRUCTURE PLAN

In the years following the adoption of the Richardson ASP in 2009, the economic landscape and housing market trends in Central Alberta have changed. As a result of these changes, the Developer brought forth proposed amendments to the Richardson ASP. Based on the nature of the changes proposed, the Town of Olds determined a new ASP would be required; this ASP is titled *The Highlands Area Structure Plan* and presented in this document.

The primary changes accommodated by The Highlands ASP include the following:

- The internal road network has been revised to accommodate the proposed design changes.
- The main north/south roadway has been widened to a 42.50m right-of-way. This roadway will include one-way road access for the residential parcels located on both the east and west sides of the road.
- Lane access is used to reduce multiple access points onto higher use collector roads.
- The arterial roadway along the south boundary has been removed.
- The institutional use area identified along the south boundary has been removed.





## THE HIGHLANDS AREA STRUCTURE PLAN

- A neighbourhood commercial area, which could also accommodate institutional uses, is now proposed on the south boundary of the west end of 57 Street.
- The proposed SWMF in the southwest corner has been expanded, along with the surrounding reserve lands.
- The northwest corner parcel has been purchased by the Developer and has now been fully integrated in to The Highlands ASP.



## THE HIGHLANDS AREA STRUCTURE PLAN

### 1.0 Introduction

## 1.0 INTRODUCTION

The *Highlands Area Structure Plan* (Highlands ASP) is located along the southerly portion of the west boundary of the Town of Olds (Town).

The Highlands neighbourhood has been designed as a high quality residential development that provides a variety of low density and multi-family housing options, and will be home to approximately 1,935 residents. Integrated recreational areas and trail linkages have also been provided to meet the needs of a range of potential residents and provide connectivity to community park spaces, the school site, and surrounding areas.

### 1.1 PURPOSE

As described in Alberta's *Municipal Government Act* (MGA), the purpose of an Area Structure Plan (ASP) is to describe the land use pattern and development objectives for the Plan Area by identifying the following:

- Size and location of various land uses.
- Alignment of roadways, multi-use trail system, and lanes.
- Open space and linear park system.
- Proposed development density.
- Servicing concepts for deep utility servicing.
- Development staging sequence.

#### 1.1.1 Vision

The Highlands has been designed to take advantage of a spacious landscape; it offers extensive open spaces while incorporating an off-street pedestrian network with sensible roadway connections. The Highlands provides areas where residents can live, work, and play by including a school, a proposed church site, and a neighbourhood commercial area within the primarily residential neighbourhood.

The Highlands aims to be a development that fosters connection to the community and the Town of Olds. This connection to community begins with the roads of the Highlands which will share the names of men lost to the community in WWII. Balancing the connection to the past is a connection to the future through the inclusion of a school site, where approximately 500 Kindergarten to Grade 6 students will engage daily.

Functionally, The Highlands looks to maximize community amenities by utilizing stormwater management facilities as anchor points in the open space network, and doubling functionality at the Neighbourhood Commercial site to include both commercial and institutional uses along



## THE HIGHLANDS AREA STRUCTURE PLAN

### 1.0 Introduction

with the potential inclusion of a church site. It is the intent that the place of worship will also function as a community gathering site for all types of uses including local voting poll or rentable hall.

While maintaining strong connections to the overall open space network, The Highlands incorporates a range of housing styles to meet the needs of a range of future residents. This variety of housing allows residents to age in place and ensures that the community retains vitality in its population over time. Housing styles proposed in The Highlands are further described in **Section 4.1 - Residential Uses**.

The Highlands offers the opportunity for environmental connection. While most of the greenspaces will be landscaped and designed to provide easy to navigate pathways and enhanced vegetative cover, the greenspaces also include an on-site tree reserve and a direct walkable connection to the large Environmental Open Space (EOS) located in Deer Ridge Estates, east of the Plan Area. The Highlands open space network is further described in **Section 4.3 - Parks and Open Spaces**.

Finally, by providing an environment where a sense of home is created because it is a location where ones needs are met, it becomes comfortable to physically engage in the communal spaces afforded in the Highlands, and thus build relationships with others in the community.

## 1.2 DEFINITION OF PLAN AREA

As shown on **Figure 1.1 – Location Plan**, The Highlands ASP lands are located within the Town of Olds municipal boundary, in the southwest portion of the Town.

The Highlands ASP Area consists of the full SW ¼ of Section 31-32-1-W5M which is an area of approximately 64.64 ha (159.72 ac). As shown in **Table 2.2 – Existing Construction Statistics**, approximately 22.37 ha (55.27 ac) of land located in the Plan Area has been partially developed under the approved Richardson ASP.

Existing parcels that form The Highlands are:

- Ptn. SW 31-32-01-W5M, 40.39ha (99.92ac). Urban Reserve District.
  - Contains an existing approved, but unregistered 2016 Subdivision for 9 R1 parcels.
- Ptn. SW 31-32-01-W5M, Plan 001 0031, 2.02ha (4.99 ac).
- Ptn. SW 31-32-01-W5M, Plan 091 5582, 4.13ha (10.21 ac), School.
- Ptn. SW 31-32-01-W5M, 101 4447, 10.27ha (25.28ac), 88 R1 parcels.
- Ptn. SW 31-32-01-W5M, Plan 131 3404, 4.13ha (10.21ac) 26 R1 parcels.
- Ptn. SW 31-32-01-W5M, Plan 141 3182, 3.76ha (9.29ac), 32 R1 parcels and 8 R2 parcels.



## THE HIGHLANDS AREA STRUCTURE PLAN

### 1.0 Introduction

As shown on **Figure 1.2 - Surrounding Planning**, The Highlands Plan Area (Plan Area) is defined by the following boundaries. These areas and their connectivity with the proposed development are described in **Section 2.6 - Surrounding Development**:

- **North Boundary** – Partially developed residential subdivision of Kasawal
- **West Boundary** – 70 Avenue, undeveloped agricultural land
- **East Boundary** – Residential subdivision of Deer Ridge Estates, treed reserve zoned as EOS
- **South Boundary** – Chinook, Meadows ASP area, currently undeveloped agricultural land

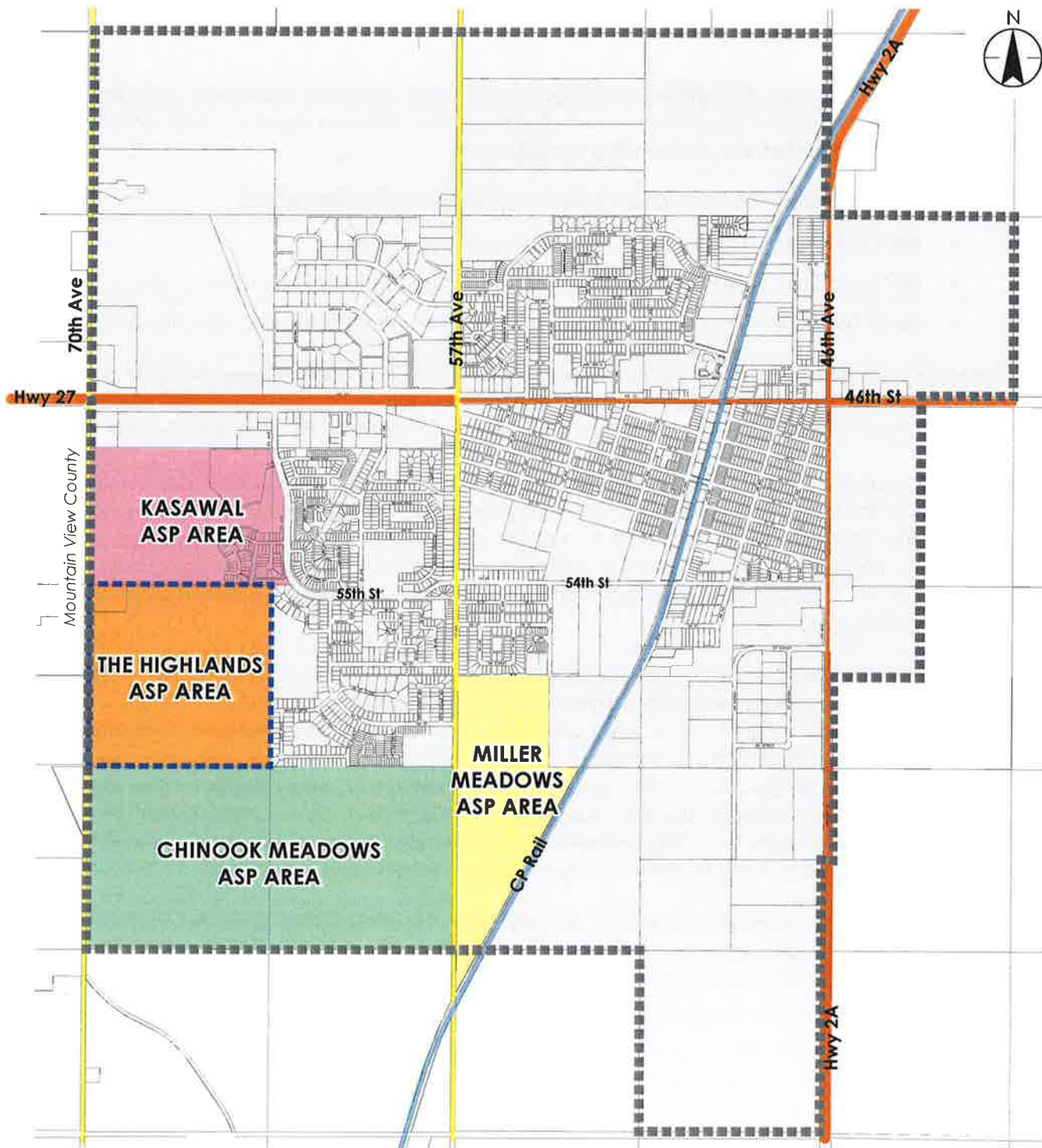
The Highlands ASP constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations. The Highlands ASP supports existing development in the Town of Olds by phasing its development outward from the existing road network and utility services.

The northeast stormwater management facility (SWMF) expands the Town's open space node, created by the EOS parcel located east of the Plan Boundary, by preserving an existing stand of mature trees and developing the SWMF as a public space with pathway connections. The Highlands' proposed roadway network is designed to integrate with the Town's existing road network and has taken care to connect to the future planned developments surrounding The Highlands Plan Area.

The Highlands respects existing Town policies including the MDP's minimum density and housing mix regulations; however, the proposed development not only meets the minimum density required but also manages to do so while providing an excess of Municipal Reserve dedication. Furthermore, The Highlands ASP not only meets the housing mix regulations but also proposes to expand the potential locations for R2N General Residential Narrow Lots by introducing a new product style which utilizes the same lot standards but includes a front attached garage thereby no longer requiring a rear lane. This new housing style benefits the Town as a whole as the R2N General Residential Narrow Lot district is one of the Town's most compact districts.

The Highlands is also supportive of existing development in southwest Olds by providing similar land uses along neighbourhood's boundary to act as a transition between existing and proposed development as well as providing continuations of existing pedestrian pathways and sidewalk connections.

FIGURE 1.1



**LEGEND**

-  THE HIGHLANDS ASP BOUNDARY
-  TOWN OF OLDS BOUNDARY
-  MAJOR ROADWAYS
-  CP RAILWAY
-  HIGHWAY

**LOCATION PLAN  
THE HIGHLANDS ASP**



FIGURE 1.2



**LEGEND**

- ASP BOUNDARY
- REVIEW BOUNDARY
- EXISTING DEVELOPMENT
- APPROVED FUTURE DEVELOPMENT
- ★ FUTURE COMMERCIAL AREAS

## 1.3 APPROVAL PROCESS

### 1.3.1 Richardson Area Structure Plan, Bylaw 2009-08, with amendment Bylaw 2012-08

The process to develop the *Richardson Area Structure Plan, Bylaw 2009-08*, with amendment, (Richardson ASP) began around 2007 while the lands were still under the jurisdiction of Mountain View County (MVC). Two public open houses were held to share the proposed concept for the development with the public. The first public information session was held in July of 2008 and the second after the lands had been annexed into the Town.

In 2009, following the public open houses, the formal ASP was submitted to the Town for review and comment. The Richardson ASP received 1<sup>st</sup> Reading to Bylaw 2009-08 on April 14, 2009 and the public hearing was held on May 11, 2009, at which time 2<sup>nd</sup> and 3<sup>rd</sup> Reading to the Bylaw was also granted.

An update to the ASP was brought before Council in 2012 under Bylaw 2012-08, which proposed a new park in the center of Harrison Green and associated population/density changes. Bylaw 2012-08 was given 1<sup>st</sup> Reading on July 9, 2012; thereafter, its public hearing, 2<sup>nd</sup>, and 3<sup>rd</sup> Reading were on August 27, 2012.

### 1.3.2 The Highlands Area Structure Plan, Bylaw 2016-06

The Highlands ASP was submitted to the Town in 2015 as a revision and update of the existing *Richardson ASP*; however, following administrative review, the Town determined the proposed changes would require the replacement of the *Richardson ASP* rather than an amendment.

Over the following months, the Developer prepared The Highlands ASP which was then reviewed extensively with the Town. The Highlands ASP received 1<sup>st</sup> Reading on March 14, 2016 and a Public Hearing was held on April 25, 2016. *The Highlands Area Structure Plan Bylaw 2016-06* received 2<sup>nd</sup> and 3<sup>rd</sup> on May 24, 2016.

## 1.4 AUTHORITY

The Highlands ASP is prepared pursuant to provincial legislation outlined in s.633 of the *Municipal Government Act (MGA) (Revised Statutes of Alberta, 2000, Chapter M-26)* which authorizes a council to adopt an area structure plan as follows:

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

## 1.0 Introduction

- (i) the sequence of development proposed for the area,
  - (ii) the land uses proposed for the area, either generally or with respect to specific parts of the area,
  - (iii) the density of population proposed for the area either generally or with respect to specific parts of the area, and
  - (iv) the general location of major transportation routes and public utilities, and
- (b) may contain any other matters the council considers necessary.

## 1.5 POLICIES AND RELEVANT PLANNING DOCUMENTS

The following relevant documents were reviewed in preparation of this ASP to create a plan that is generally consistent with their content:

### 1.5.1 Town of Olds Municipal Development Plan, Bylaw 2007-22

The Town of Olds Municipal Development Plan (MDP) is used to guide future growth and development, and addresses future land use within the municipality. As described below, during the creation of the Richardson ASP and The Highlands ASP, both the policies identified in the MDP and the generalize concept plan were considered.

#### Applicable Policies

The following policies, identified in the MDP, have shaped the development of The Highlands.

- 6.4 *Promote Urban Design That Encourages Walkability*  
*The Town should promote urban design that encourages walkability by providing functional and attractive pedestrian linkages between adjacent neighbourhoods and the existing trails system, designing for universal accessibility, encouraging the development of active residential and commercial streetscapes, ensuring pedestrian crossings are clearly marked and by avoiding adverse microclimatic effects when designing streets, park spaces and pedestrian linkages.*
  - » As described in **Section 5.2 – Pedestrian and Cycling Movement**, pedestrian connections have been provided throughout The Highlands with on and off-street options.
- 10.2 *Residential Density for New Neighbourhoods*  
*The residential density for new neighbourhoods shall be at least 12.35 dwelling units per gross developable hectare.*
  - » As identified in **Table 4.2 – Dwelling Unit Estimations**, the residential density for The Highlands is anticipated to be 12.48 du/ha.



## 1.0 Introduction

- 10.3 *Housing Mix*  
*The Town shall require a mix of housing types and forms in all residential neighbourhood and avoid excessive concentration of any single type of housing. Duplex and multi-family residential units shall make up at least 30% of the total housing units in a residential neighbourhood unless otherwise approved in an area structure plan.*
  - » As identified in **Table 4.2 – Dwelling Unit Estimations**, multi-family dwelling units make up 33.0% of The Highland's total housing stock.
  
- 10.4 *Housing Types and Forms*  
*The Town shall encourage the creation of a wide variety of housing types and forms including dwelling units in combination with compatible non-residential uses, live-work units and secondary suites.*
  - » As identified in **Table 4.1 – Land Use Statistics**, The Highlands has included four different residential land uses to accommodate a wide range of housing types. In addition, the Developer has taken the initiative to require a variety of building styles within each residential land use district through the use of architectural controls.
  
- 10.5 *Higher Density Residential Development*  
*The Town may consider the development of higher density residential uses (4 or more units) in accordance with the following guidelines:*
  - *The development is adjacent to or in close proximity to collector and/or arterial roads.*
  - *The use is located at the periphery of low density residential neighbourhoods.*
  - *The use is compatible with surrounding land uses.*
  - *If located in an existing neighbourhood, the site is suitable for the proposed form of infill development.*
  - *The development is in a location where all necessary services and amenities can readily be provided.*
  
  - » As shown on **Figure 4.1 - Concept Plan**, The Highlands neighbourhood includes medium density housing options in accordance to the Town's MDP by locating these uses along the north collector roadway within close walking distance to the adjacent park and commercial areas.
  
- 10.9 *Inclusion of Nonresidential Land Uses*  
*The design of new neighbourhoods shall be encouraged to include compatible non-residential uses, such as local commercial services and public uses that serve the needs of area residents, to help create neighbourhood identity and bring basic services closer to residents.*

## 1.0 Introduction

- » As discussed in **Section 4.2 - Commercial Use**, a commercial site has been located along the west boundary of the neighbourhood to bring neighbourhood services closer to residents in accordance with the Town's MPD.

### Conceptual Plan

Prior to both the Richardson ASP and The Highlands ASP, the Town identified a conceptual land use design for the Plan Area as shown within the MDP. **Figure 1.3 - Town of Olds, Municipal Development Plan (Bylaw 2007 -22) Land Use Concept Map (Portion)** is a portion of the *Town of Olds Municipal Development Plan (Bylaw 2007-22)*'s "Land Use Concept Map". It shows a conceptual rendition of the future development of *The Highlands ASP* and surrounding lands. The conceptual map anticipated:

- Residential land use for the majority of the site;
- a centrally located open space along the east boundary, to accommodate a school; and
- arterial roadway connections to the west and south.

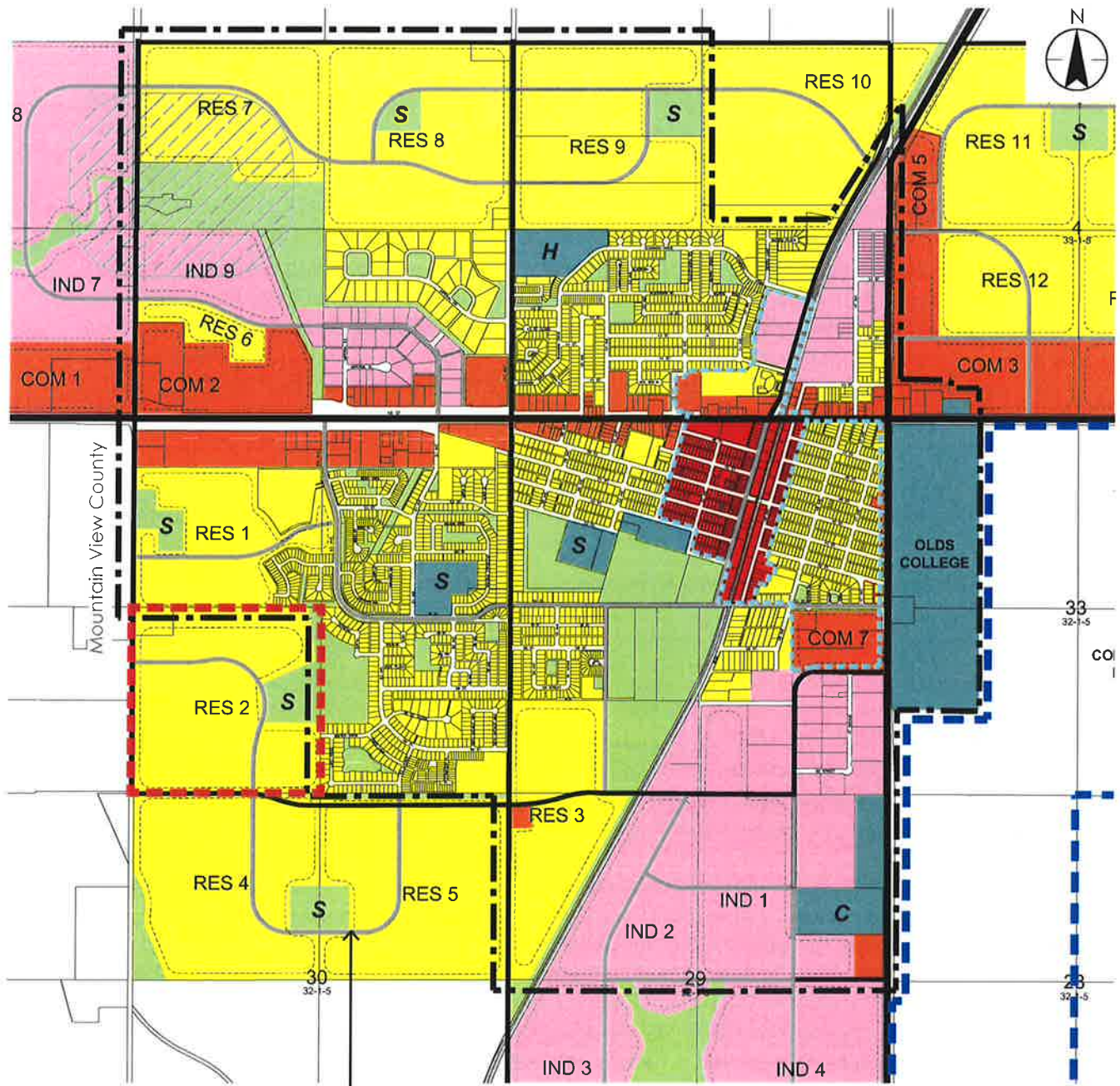
The Highlands ASP incorporates each of these three conceptual elements.

### Variations

It should be noted that the MDP concept plan has not been amended to reflect the approved community of Chinook Meadows, south of The Highlands. The approved Chinook Meadows concept is shown on **Figure 1.2 – Surrounding Planning** to provide a contextual view of the proposed Highlands concept in relation to other approved plans.












Two variations exist between the proposed concept shown in the MDP and that approved for Chinook Meadows: roadway layout and commercial areas. As shown, on **Figure 1.2 – Surrounding Planning**, the approved Chinook Meadows arterial roadway layout runs from west to east from 70 Avenue to 57 Avenue, unlike the roadway shown in the MDP, which is shown along the south boundary of The Highlands and Deer Ridge Estates. In addition, two commercial areas have been approved in Chinook Meadows, one in the northwest corner of the Plan Area, and one in the west central portion; whereas, the MDP does not show any commercial development for either The Highlands or Chinook Meadows. These variations have been taken into consideration for the development of The Highlands.

FIGURE 1.3



Note: MDP concept as shown does not match approved planning documents.

**LEGEND**

- |  |  |
|--|--|
|  ASP BOUNDARY                         |  INDUSTRIAL                         |
|  TOWN OF OLDS BOUNDARY                |  HIGHWAY & LOCAL COMMERCIAL         |
|  RESIDENTIAL                          |  DOWNTOWN COMMERCIAL/MIXED USE      |
|  PUBLIC/INSTITUTIONAL                 |  EXISTING AND POTENTIAL SCHOOL SITE |
|  MAJOR OPEN SPACE & UNDEVELOPED AREAS |  CEMETERY                           |
|  |  HOSPITAL                           |

**PORTION OF TOWN OF OLDS MUNICIPAL DEVELOPMENT PLAN (BYLAW 2007-22)  
LAND USE CONCEPT MAP  
THE HIGHLANDS ASP**

### 1.5.2 Town of Olds/Mountain View County Intermunicipal Development Plan, Bylaw 2007-27

The *Town of Olds/Mountain View County Intermunicipal Development Plan (IDP)* is intended to ensure orderly development in the area surrounding the Town of Olds. Policies identified in the IDP include provisions to ensure the logical connectivity between future annexation areas and the Town.

The Highlands Plan Area is identified in the IDP for short-term annexation and future residential development. Shortly before the Richardson ASP was approved, the Plan Area was annexed into the Town's municipal boundary.

### 1.5.3 Town of Olds Land Use Bylaw, Bylaw 01-23

The *Town of Olds Land Use Bylaw (LUB)* identifies all possible land use districts to be utilized throughout the Town. In addition, regulations are identified for uses permitted in each district, parking requirements, minimum lot sizes, etc.

Land uses identified in The Highlands ASP directly correspond to those identified in the LUB and are intended to provide direction at the time of future land use redesignation. The exception to this is the proposed change to the R2N General Residential Narrow Lot District. The R2N amendment would enable the development of R2N lots without the inclusion of a lane instead allowing for front parking via garage or parking pads. This expands the development range of housing types within the Town of Olds by supporting not only an additional type of development but also facilitating that expansion using a smaller and thus more dense land use district.

Any land use redesignations required for The Highlands ASP will be undertaken as per the regulations identified in the LUB.

### 1.5.4 Town of Olds Minimum Design Standards for Development 1996 (Revised 2005)

The *Town of Olds Minimum Design Standards for Development* identifies requirements for inclusion in all development proposals and illustrates all roadway cross-sections and infrastructure design for use throughout the Town.

As described in **Section 5.1 - Roadways**, a custom roadway cross-section is being proposed for use in The Highlands development. The Developer worked with the Town to develop a cross-section that will act as gateway into the neighbourhood, provide protected parking and driving areas for residents along the roadway, and facilitate traffic flow over its length. All variations proposed for The Highlands which do not conform to the *Town of Olds Minimum Design Standards for Development*, will be subject to approval by the Town of Olds at the time of detailed design, prior to endorsement of the subdivision for registration. All other roadways will conform to the Town's design standards.

### 1.5.5 Chinook Meadows Area Structure Plan, Bylaw 2011-16

The *Chinook Meadows Area Structure Plan* (Chinook Meadows ASP) refers to the neighbourhood located immediately south of The Highlands as shown on **Figure 1.2 – Surrounding Planning**. The Chinook Meadows ASP was adopted in 2011, after the Richardson ASP in 2009, and was designed to respect the proposed Richardson development.

#### Applicable Policies

There are no policies identified in the Chinook Meadows ASP which specifically relate to *The Highlands ASP*.

#### Conceptual Plan

##### Arterial Roadway

Following the Richardson ASP approval, the Chinook Meadows ASP proposed a relocation of the east/west arterial roadway which was previously identified along the shared quarter section line between the two plan areas. This arterial was proposed in the Chinook Meadows ASP for alignment through the centre of the Chinook Meadows Plan Area. The Chinook Meadows ASP was approved with this conflict due to concerns voiced by existing residents in the area and to provide access to the proposed Chinook Meadows Town Centre and 57 Avenue.

To respect the Chinook Meadows development, The Highlands ASP has been amended to reflect the relocation of the arterial roadway into the Chinook Meadows Plan Area. Although The Highlands ASP Amendment reflects the roadway realignment, the Town's MDP has not yet been updated to reflect this change.

##### Other

In addition to providing consistency regarding the arterial roadway, the following items have been incorporated into The Highlands design to respect the Chinook Meadows development:

- Housing Transitioning

As shown on **Figure 1.2 – Surrounding Planning**, the north boundary of the Chinook Meadows neighbourhood includes commercial development with single family detached housing along the remainder of the north boundary. These land uses have been considered during the re-design of The Highlands to create a transition between the Chinook Meadows neighbourhood and The Highlands.

- Roadway Connectivity

A connection to the Chinook Meadows arterial roadway has been provided through the provision of The Highlands's custom collector roadway to provide vehicular and pedestrian connectivity to the Chinook Meadows Town Centre and the neighbourhood's open space network.

## 1.0 Introduction

- Pedestrian Connections

The Highlands has been designed to continue pedestrian connections proposed in Chinook Meadows including on and off-street linkages.

### 1.5.6 Kasawal Area Structure Plan

As shown on **Figure 1.2 – Surrounding Planning**, the *Kasawal Area Structure Plan (Kasawal ASP)* as shown on **Figure 1.2 – Surrounding Planning** refers to the neighbourhood located immediately north of The Highlands. The Kasawal ASP was adopted in 2004, before the Richardson ASP in 2009.

#### Applicable Policies

There are no policies identified in the Kasawal ASP which specifically relate to The Highlands ASP.

#### Conceptual Plan

The following items have been incorporated into The Highlands design to respect the Kasawal development:

- Housing Transitioning

The south boundary of the Kasawal neighbourhood includes single family detached housing; this land use inclusion has been considered during the design of The Highlands to provide a transition between uses.

- Roadway Connectivity

The north-south collector roadway in the Kasawal neighbourhood has been continued into The Highlands development to provide consistency and trail connectivity.

- Pedestrian Connections

The Highlands has been designed to continue pedestrian connections proposed in Kasawal development including on and off-street linkages, specifically the existing community trail located along the pipeline utility right-of-way.

### 1.5.7 Deer Ridge Estates

As shown on **Figure 1.2 – Surrounding Planning**, the Deer Ridge Estates development is located directly east of the proposed Plan Area.

The Developer was not able to obtain a copy of an approved planning document for Deer Ridge Estates; it is understood that this document is not available from the Town of Olds.



## THE HIGHLANDS AREA STRUCTURE PLAN

### 1.0 Introduction

#### Conceptual Plan

Although there is not a planning document available for this area, the following items have been incorporated into The Highlands design to respect the Deer Ridge Estates development:

- Housing Transitioning

Residential lots along the west boundary of Deer Ridge Estates, along The Highlands, are between  $\frac{1}{8}$  and  $\frac{1}{4}$  acre in size. These lots are zoned R1 Low Density Residential. To provide consistency, the R1 residential zoning has been used along the east boundary of The Highlands.

- Roadway Connectivity

One roadway connection in The Highlands, Winter Drive, has been provided to maintain roadway connectivity from Deer Ridge Estates.

- Pedestrian Connections

The Highlands has been designed to continue pedestrian connections existing in Deer Ridge Estates including on and off-street linkages. These connections specifically include sidewalks along the roadway and trail connections in the adjacent EOS. To further provide connectivity to this area, a small Municipal Reserve lot has been provided along Briegel Road to accommodate a trail connection.

### 1.6 REPORT LIST

The following supporting documents have been identified as supporting information for the continued development of The Highlands.

#### **Historical Resources Act Approval**

Date: February 3, 2016

- Approval submitted under separate cover
- No historical resources where noted

#### **The Richardson ASP Stormwater Management Plan**

Date: May 8, 2007

- Submitted under separate cover

#### **The Highlands ASP Stormwater Management Plan**

Completed concurrent with The Highlands ASP

- Memos dated March 1, 2016 and May 5, 2015



## THE HIGHLANDS AREA STRUCTURE PLAN

### 1.0 Introduction

- o Confirmation of the functionality of the existing northeast pond

Future requirement:

- Plan to be completed and accepted prior to redesignation of any phase that would drain into the proposed southwest pond, and/or CCC issuance for any phase draining into the existing north east pond where construction has not yet commenced

#### **The Highlands ASP Sanitary Servicing Plan**

Completed concurrent with The Highlands ASP

- Additional information not required with ASP

Future requirement:

- Plan to be completed and accepted prior to redesignation or CCC issuance for any phase where construction has not yet commenced

#### **Water Supply and Distribution Report**

Completed concurrent with The Highlands ASP

- Water Analysis, completed by Stantec Consulting Ltd, dated April 19, 2016
  - o Confirmation that the Town's existing water supply is sufficient for the proposed development

Future requirement:

- Report to be completed and accepted prior to redesignation or CCC issuance for any phase where construction has not yet commenced

#### **Traffic Report**

Completed concurrent with The Highlands ASP

- Additional information not required with ASP

Future requirement:

- Report to be completed and accepted prior to December 31, 2016.



## 1.7 INTERPRETATIONS

### 1.7.1 Maps, Plan, and Figures

Unless specifically identified within this Plan Area, all boundaries and location of any land use district boundaries, and/or symbols shown are approximate and shall be interpreted as such. Unless identified as absolute locations, the enclosed maps and figures are not intended to define exact locations.

### 1.7.2 Land Use Calculation Tables

Area calculations noted in this document are based on measurements recorded in m<sup>2</sup> rounded to two decimal points which have then been converted into hectares and acres rounded to the nearest two decimal points. Due to rounding, it is possible that some calculations may appear slightly off when listed in alternative measurement units (hectares or acres). All percentages are based on original measurements recorded in m<sup>2</sup>.

Calculations are based on minimum standards and final lot numbers and density may differ at time of buildout.

## 2.0 SITE CONTEXT & DEVELOPMENT CONSIDERATIONS

### 2.1 TOPOGRAPHY

The site topography of the Plan Area is characterized by a broad, irregular plateau through the north/south midline of the site. This plateau reached the highest elevations of 1036.00m near the centre and 1033.00m to the north and south. The topography sloped gently to an elevation of 1029.00m to the northeast and more steeply to the lowest elevation on site of 1022.00m to the west. The high to low elevations had a total difference of approximately 14.00m.

### 2.2 SOIL

As shown on **Figure 2.1 – Canada Land Inventory: Land Capability for Agriculture**, approximately 75% of the Plan Area is identified by the Canada Land Inventory as Class 3T soils which are soils presenting moderately severe limitations to agricultural production due to topographic limitations.

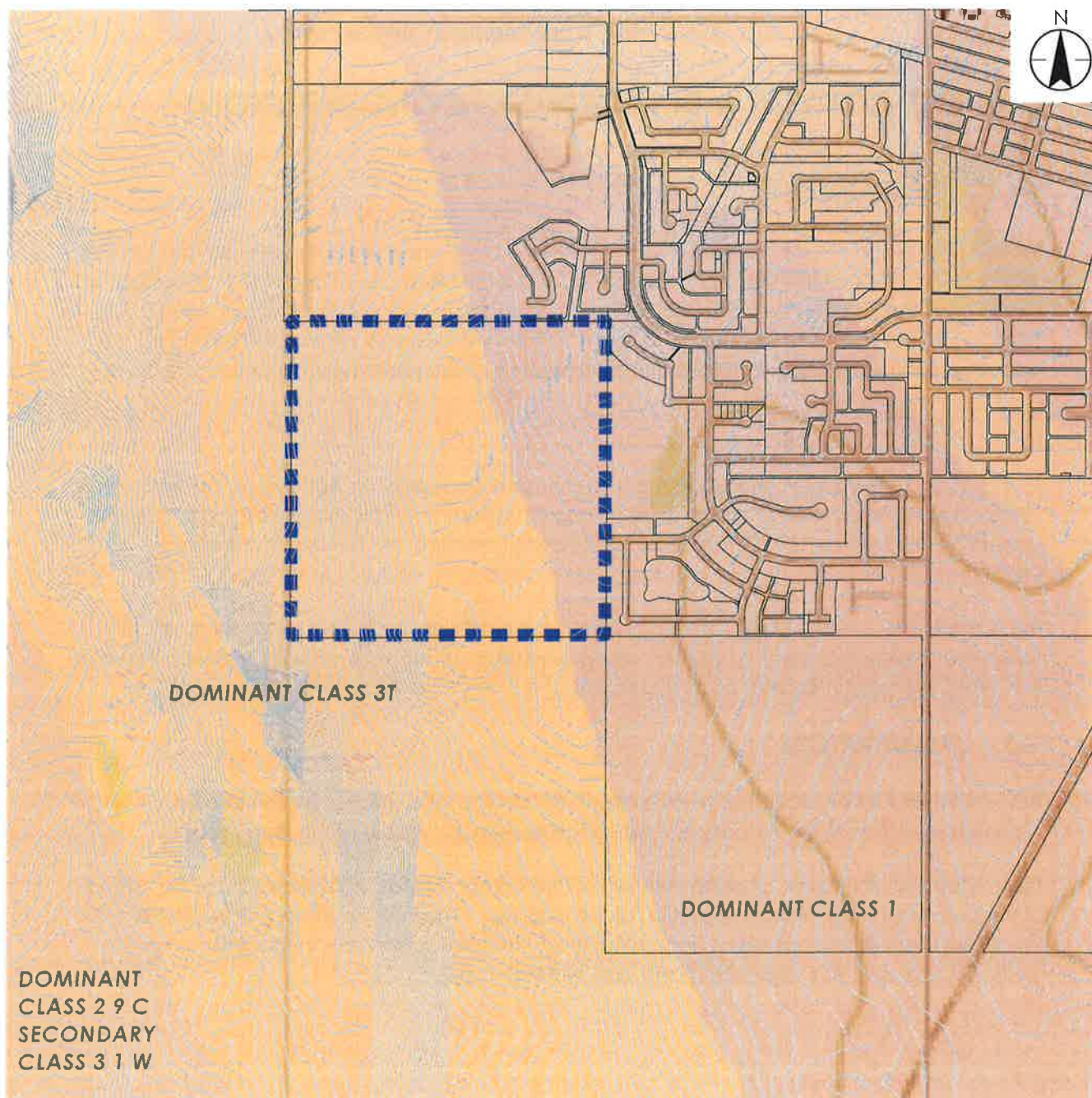
The easterly 25% is classified at Class 1: Soils have no significant limitations in use for crops. It is noted that these land are both already developed and adjacent to existing built out portions of the Town and were intended for development at the time of annexation in 2008.

### 2.3 VEGETATION

The Highlands ASP lands remain in use as agricultural crop land, except for the existing completed phases of the ASP located along the easterly boundary of the Plan Area.

There is limited vegetation of height existing on the balance lands, aside from an existing stand of trees located in the northeast portion of the Plan Area. These trees are located within a Municipal Reserve lot created as part of Phase 2 of the Richardson ASP, and surround the existing stormwater management pond, also within Phase 2.

FIGURE 2.1



**LEGEND**

- Class 1 - No Significant Limitations
- Class 2 - Moderate Limitations
- Class 3 - Moderately Severe Limitations
- C** Adverse Climate

- T** Topographic Limitations
- W** Excess Water
- Topographic Contours
- ASP Boundary

## 2.4 HISTORICAL RESOURCES

There were no historical resources for this land identified in the September 2015 publication of Alberta Historical Resources' *A Listing of Significant Historical Sites and Areas*.

A Historical Resources Act Approval, dated February 3 2016, has been obtained for the Plan Area and submitted to the Town under separate cover.

## 2.5 EXISTING LAND USE

At the time of the adoption of the Richardson ASP in 2009, the full lands of the SW 31-32-01-W5M were undeveloped, including Ptn. SW 31-32-01-W5M, Lot 1, Plan 001 0031, 2.02 ha (4.99 ac). The undeveloped 2.02 ha parcel, previously identified as the "Out Parcel" has now, under The Highlands ASP, been fully integrated into The Highlands ASP.

### 2.5.1 Utility Rights-of-Way

A gas pipeline right-of-way, registered by The Alberta Gas Trunkline Company Ltd in 1976, runs north to south through the eastern portion of the site. This pipeline is protected by a utility right-of-way with development permitted to the edge of this right-of-way. The utility right-of-way is currently registered to Nova Gas Transmission Ltd, a subsidiary of TransCanada Pipelines.

**Table 2.1 - Pipeline Information**

<b>Pipeline License/Line Number:</b>	80394-11
<b>Pipeline Plan Number:</b>	761 0212
<b>Right-of-Way Width:</b>	18.29m (60')
<b>Owner of Pipeline:</b>	Nova Gas Transmission Ltd.
<b>Transporting:</b>	Natural Gas (Zero H <sub>2</sub> S)
<b>Setback Restrictions:</b>	0.00m from right-of-way boundary

In accordance with the information identified in **Table 2.1 – Pipeline Information** and as shown on **Figure 4.1 – Development Concept**, residential development is permitted up to the right-of-way boundary and the utility right-of-way has been used as a portion of the neighbourhood's open space network. All design and work within the right-of-way shall be conducted in consultation with Nova Gas Transmission Ltd. and is subject to both the approval of the Town and right of way owner.

## 2.6 SURROUNDING DEVELOPMENT

**Figure 1.2 – Surrounding Planning** illustrates The Highlands ASP surrounded by both the existing and approved area developments. As shown, The Highlands neighbourhood concept has been designed to provide connectivity to surrounding areas; these connections are described in **Section 1.5 - Policies and Relevant Planning Documents** and identified below.

### 2.6.1 North - Kasawal

The Highlands provides a roadway connection to the Kasawal neighbourhood via a proposed collector roadway, 67 Street, along the west boundary of the existing school site. The Highlands also proposes a R3 Medium Density Residential district along 67 Street, south of a lane accessed by residents of Kasawal; this area is intended for an apartment style development. The location of the apartment site across a lane is intended to maximize separation distance while remaining in close proximity to amenities and The Highlands' primary road network.

A pedestrian connection in the east connects the Kasawal and Highlands neighbourhoods using the pipeline utility right-of-way community trail.

### 2.6.2 South - Chinook Meadows

The proposed Chinook Meadows neighbourhood is located south of The Highlands. This neighbourhood is identified as a future destination for The Highlands residents due to its inclusion of a large Town Centre and school site. Chinook Meadows' east/west arterial roadway will also act as a primary roadway for the Town as a whole.

To provide vehicular and pedestrian connectivity to Chinook Meadows, the main north/south collector road in The Highlands, Williams Avenue, has been designed to connect to Chinook Meadows' arterial roadway. Pedestrian connections have been extended to Chinook Meadows using the pipeline utility right-of-way community trail.

The proposed southwest SWMF in The Highlands has been located to offset the future intensity of Chinook Meadows' northwest commercial site, located just south of the SWMF.

### 2.6.3 East - Deer Ridge Estates

Deer Ridge Estates is located east of The Highlands. Existing development along The Highlands boundary includes an EOS and large residential lots zoned R1 Low Density Residential. As described in **Section 1.5 - Policies and Relevant Planning Documents**, The Highlands provides pedestrian connections to the EOS, and utilizes an extension of the existing Winter Drive to provide vehicular and pedestrian connectivity. Additionally, where R1 parcels in The Highlands back onto R1 parcels in Deer Ridge Estates, the parcels have been designed to line up along lot lines.

### 2.6.4 West - 70 Avenue and MVC

70 Avenue, which runs along the west boundary of the Plan Area, will require upgrades as development in the Town progresses. The Highlands ASP identifies an existing road dedication for the future widening of this roadway, as well as the inclusion of a future community trail along the east side of 70 Avenue.

The Highlands will access 70 Avenue by 57 Street which will become a primary access point into the area as it develops.

All lands west of 70 Avenue are under the jurisdiction of MVC; it is understood there are no current plans for development of these lands.

## 2.7 EXISTING CONSTRUCTION

Since the Richardson ASP's approval in 2009, a portion of the Plan Area has been constructed. This development is shown on **Figure 1.2 – Surrounding Planning**. A summary of the land use areas associated with this construction is described in **Table 2.2 – Existing Construction Statistics**.

The existing parcels that form The Highlands are:

- Ptn. SW 31-32-01-W5M, 40.39 ha (99.92 ac). Urban Reserve District (UR)
  - Contains an existing approved, but unregistered 2016 Subdivision for 9 R1 parcels
- Ptn. SW 31-32-01-W5M, Plan 001 0031, 2.02 ha (4.99 ac)
- Ptn. SW 31-32-01-W5M, Plan 091 5582, 4.13 ha (10.21 ac), School
- Ptn. SW 31-32-01-W5M, 101 4447, 10.27 ha (25.28 ac), 88 R1 parcels
- Ptn. SW 31-32-01-W5M, Plan 131 3404, 4.13 ha (10.21 ac) 26 R1 parcels
- Ptn. SW 31-32-01-W5M, Plan 141 3182, 3.76 ha (9.29 ac), 32 R1 parcels and 8 R2 parcels.

**Table 2.2 - Existing Construction Statistics**

	Area (ha)	Area (ac)	% Of Gross Plan Area	Units
<b>Gross Plan Area</b>	<b>64.64</b>	<b>159.72</b>	<b>100.0%</b>	
<b>Residential Uses</b>	<b>10.77</b>	<b>26.60</b>	<b>16.7%</b>	<b>154</b>
R1 Low Density Residential	10.36	25.61	16.0%	146
R2 General Residential	0.40	0.99	0.6%	8
R2N General Residential Narrow Lot	0.00	0.00	0.0%	0
R3 Medium Density Residential	0.00	0.00	0.0%	0
<i>Row Housing</i>	0.00	0.00	0.0%	0
<i>Apartment</i>	0.00	0.00	0.0%	0
<b>Commercial Uses</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>	
CN Neighbourhood Commercial	0.00	0.00	0.0%	
<b>Open Spaces</b>	<b>5.38</b>	<b>13.30</b>	<b>8.3%</b>	
Municipal Reserve	1.25	3.09	1.9%	
School Reserve	4.13	10.21	6.4%	
<b>Public Utility Lots</b>	<b>2.36</b>	<b>5.82</b>	<b>3.6%</b>	
Public Utility Lot	2.01	4.96	3.1%	
Stormwater Management Facility	0.35	0.86	0.5%	
<b>Roadway Network</b>	<b>3.87</b>	<b>9.55</b>	<b>6.0%</b>	
70 Avenue	0.00	0.00	0.0%	
Collector Roadways	0.47	1.15	0.7%	
Local Roadways	3.33	8.22	5.1%	
Lanes	0.07	0.18	0.1%	
<b>Total Constructed Areas</b>	<b>22.37</b>	<b>55.27</b>	<b>34.6%</b>	<b>154</b>

### 3.0 DEVELOPMENT OBJECTIVES & PRINCIPLES

The Highlands has been prepared as a comprehensively planned residential neighbourhood respecting both natural topography and local area attributes. The main objectives of The Highlands ASP are:

- Develop a plan that is consistent with the general intent and purpose of the Town of Olds MDP.
- Provide a framework to deliver high quality, comprehensively planned residential areas.
- Define the general pattern and composition of land uses, linkages, servicing designs and development staging.
- Provide sequencing for phasing to support an orderly progress through development.

Development of the various land uses within The Highlands ASP is defined through the following general principles.

#### 3.1 RESIDENTIAL

- Encourage a variety of housing types, including single detached housing, row housing, and multi-storey apartment buildings.
- The Highlands ASP identifies a range of residential land use districts throughout the Plan Area.
- All housing forms and options will recognize consumer preferences and be in conformance with municipal standards and policies set forth by the Town of Olds.
- Locate residential lots to respect existing topography and take advantage of potential mountain views to the west.
  - The parcel alignment for the majority of the parcel to the west of the public utility lot are oriented east/west, meaning these lots will take direct advantage of a westerly view from either their front or rear yards.
- Emphasize pedestrian friendly streetscapes and building siting.
  - Roadway cross-sections with monolithic sidewalks on both sides of the roadway are required throughout the Plan Area.
- Provide direct and safe pedestrian linkages through sidewalk and trail connections to community nodes such as the open space areas, existing tree reserve, and the future school site.



### 3.0 Development Objectives & Principles

- **Figure 4.2 – Parks and Trails Concept** illustrates the pedestrian network throughout The Highlands.
- Locate residential development to integrate with and take advantage of features such as greenways, stormwater management facilities, parks/open spaces and a future school site.
  - Both SWMFs incorporate a public use component and include multiple access points both within the Plan Area and to adjacent lands.
- Locate multi-family sites adjacent to the collector and / or major collector road system to enhance access.
  - **Section 4.0 - Development Concept** described the multiple methods used to realize the above principle; for example, the location of the apartment complex on a collector roadway, within walking distance from the commercial district, and location next to a conceptual future transit stop.

## 3.2 MUNICIPAL RESERVES AND EDUCATIONAL/COMMUNITY FACILITIES

- Create an area for a school site through the dedication of school and municipal reserves.
  - The school site is located along the north boundary of The Highlands Plan Area and includes a school, playground, and publicly accessible sport fields and open spaces.
- Allow for the provision of dispersed park space within the neighbourhood to provide open space and opportunities for recreation for residents through the dedication of Municipal Reserves.
  - The Highlands neighbourhood has been designed with two community parks, three neighbourhood parks, multiple linear connections, and an interconnected network of connecting pathways as detailed in **Section 4.3 - Parks and Open Spaces**.
- Provide integrated trail linkages and greenways between various community amenities.
  - Residential parcels in The Highlands, except those located north of 57 Street and west of the school, are located so that residents can access a park space without having to cross either of the two collector roads. Most residential areas are also located in areas that enable residents to utilize the trail network.
  - The residential parcels located north of 57 Street and west of the school will have access to a 2.50 m community trail located along 57 Street.

### 3.3 TRANSPORTATION

- Provide a logical, safe and efficient transportation system within the Plan Area to address pedestrian, bicycle and other multi-use modes, and the transit/vehicular transportation needs of residents moving to, from and within The Highland Plan Area as well as the adjacent areas.
  - Most roadways in The Highlands have been designed to loop so that each street has an alternate access capacity. Additional details regarding The Highlands' roadway network are described in **Section 5.0** -

### 3.0 Development Objectives & Principles

- **Transportation** Network.
- Provide collector access to 70 Avenue via a single collector roadway connection and provide suitable right-of-way for future upgrades and utility alignments for 70 Avenue.
  - 70 Avenue is accessible from The Highlands via the 57 Street collector. In addition, road widening to accommodate the future upgrading of 70 Avenue to an arterial has been provided.
- Provide non-vehicular circulation options throughout the plan area with special attention to linkages to the future school and park sites.
  - Community trails identified throughout the Plan Area are all intended to be a constructed to a minimum width of 2.50m; these trails will accommodate multiple uses including pedestrian and bicycle traffic.
  - Roadway design within the Plan Area will be such that none of the traffic calming measures would impede or cause risk to bicycle or motorcycle traffic.
- Minimize walking distances by creating an interconnected street network and providing walkways where roadway connections are not feasible.
  - **Figure 4.2 - Parks and Trails Concept** illustrates pedestrian connections throughout the Plan Area as created by the proposed sidewalk network and community trails.
- Design a road network to limit traffic volumes and types on Winter Drive to the satisfaction of the Town of Olds.
  - The Highlands' transportation network is described in **Section 5.1 - Roadways**.
  - Connections to the west and future south arterial will minimize short cutting by providing a more direct route alternate to Winter Drive.

### 3.4 ECOLOGICAL STEWARDSHIP

- Develop land in an efficient manner and encourage intensive urban development.
  - The Highlands has been designed to extend existing servicing, minimizing infrastructure redundancies, and meeting the Town's residential density standard.
- Employ parallel land uses where possible by incorporating open spaces with the stormwater management facilities and the utility corridors to optimize the use of these areas.
  - Each stormwater management facility incorporates both a functional utility and a public community use.

**3.0 Development Objectives & Principles**

- The Neighbourhood Commercial site combines both a commercial component and a potential space for a public/quasi-public facility.
- The undevelopable space associated with the pipeline right-of-way has been designed to function as a pedestrian corridor that runs through The Highlands as well as developments to the north and south.
- Encourage naturalized landscaping on public and private lands to the extent acceptable to and the Town of Olds to minimize environmental and economic costs associated with their maintenance.
  - Landscaping materials will be determined during the time of detailed design in consultation with the Town of Olds.
- Provide for the development of open spaces and walkway linkages for pedestrian, bicycle and other multi-use travel, and connect them to the surrounding areas.
  - The Highlands' open space network is further described in **Section 4.3 - Parks and Open Spaces**.

## 4.0 DEVELOPMENT CONCEPT

The development concept for The Highlands ASP has been prepared in response to current and anticipated residential market trends within the Town of Olds and the Central Alberta region, as well as existing policies in the Town. An analysis of these trends and an assessment of their implications assist in shaping the plan with respect to the type, size and location of various land uses.

The existing boundaries, as described in **Section 1.2 - Definition of Plan Area**, create a logical planning unit and the basis for the design as shown on **Figure 4.1 – Development Concept**. The land use statistics and densities are represented in **Table 4.1 – Land Use Statistics** and **Table 4.2 – Dwelling Unit Estimations**.

**Table 4.1 - Land Use Statistics**

	Area (ha)	Area (ac)	% Of Net Developable Area
<b>Gross Plan Area</b>	<b>64.64</b>	<b>159.72</b>	
Environmental Reserve	0.00	0.00	
<b>Net Developable Area (NDA)</b>	<b>64.64</b>	<b>159.72</b>	<b>100.0%</b>
<b>Residential Uses</b>	<b>34.82</b>	<b>86.03</b>	<b>53.9%</b>
R1 Low Density Residential	17.97	44.40	27.8%
R2 General Residential	11.97	29.57	18.5%
R2N General Residential Narrow Lot	2.03	5.02	3.1%
R3 Medium Density Residential	2.85	7.05	4.4%
<i>Street-fronting Row Housing</i>	<i>1.37</i>	<i>3.39</i>	<i>2.1%</i>
<i>Multi-Family Site</i>	<i>1.48</i>	<i>3.66</i>	<i>2.3%</i>
<b>Commercial Uses</b>	<b>1.94</b>	<b>4.80</b>	<b>3.0%</b>
CN Neighbourhood Commercial	1.94	4.80	3.0%
<b>Open Spaces</b>	<b>9.89</b>	<b>24.43</b>	<b>15.3%</b>
Municipal Reserve	5.76	14.22	8.9%
School Reserve	4.13	10.21	6.4%
<b>Public Utility Lots</b>	<b>4.33</b>	<b>10.69</b>	<b>6.7%</b>
Public Utility Lot	2.67	6.60	4.1%
Stormwater Management Facility	1.65	4.09	2.6%

**4.0 Development Concept**

	Area (ha)	Area (ac)	% Of Net Developable Area
<b>Roadway Network</b>	<b>13.66</b>	<b>33.76</b>	<b>21.1%</b>
70 Avenue	0.80	1.99	1.2%
Collector Roadways	3.76	9.28	5.8%
Local Roadways	8.84	21.84	13.7%
Lanes	0.26	0.65	0.4%
<b>Total Constructed Areas</b>	<b>64.64</b>	<b>159.72</b>	<b>100.0%</b>

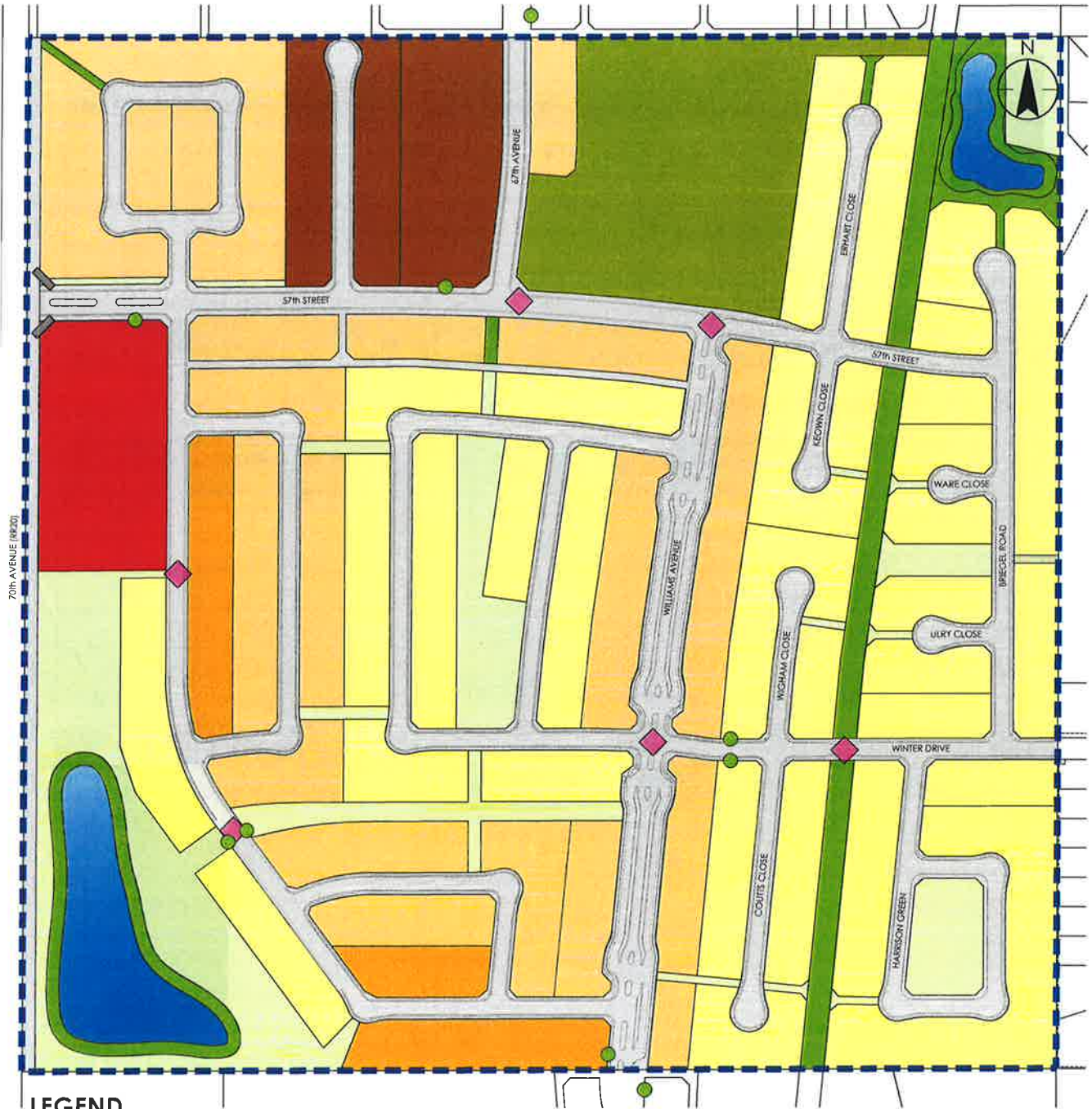
**Table 4.2 - Dwelling Unit Estimations**

Residential Use	Area (ha)	Area (ac)	Dwelling Units	% of Housing Stock	Population <sup>1</sup>
R1 Low Density Residential	17.97	44.40	280	34.7%	672
R2 General Residential	11.97	29.57	301	37.3%	722
R2N General Residential Narrow Lot	2.03	5.02	67	8.3%	160
R3 Medium Density Residential	2.85	7.05	159	19.7%	381
Row Housing	1.37	3.39	59	7.3%	141
Apartment	1.48	3.66	100	12.4%	240
<b>Total</b>	<b>34.82</b>	<b>86.03</b>	<b>807</b>	<b>100.0%</b>	<b>1,935</b>
Overall Density <sup>2</sup>			12.48 du/ha (5.05 du/ac)		

<sup>1</sup> Population estimation calculated using an average household size of 2.4 persons/dwelling unit which was recorded by Statistics Canada for the Town of Olds in the 2011 Census.

<sup>2</sup> Overall Density = (Total Dwelling Units)/(Net Developable Area)

FIGURE 4.1



**LEGEND**

- |   |                                      |   |                                |
|---|--------------------------------------|---|--------------------------------|
|  | ASP BOUNDARY                         |  | SCHOOL RESERVE                 |
|  | R1 - LOW DENSITY RESIDENTIAL         |  | PUBLIC UTILITY LOT             |
|  | R2 - GENERAL RESIDENTIAL             |  | STORMWATER MANAGEMENT FACILITY |
|  | R2N - GENERAL RESIDENTIAL NARROW LOT |  | ENTRY FEATURE                  |
|  | R3 - MEDIUM DENSITY RESIDENTIAL      |  | POTENTIAL TRAFFIC CALMING      |
|  | CN - NEIGHBOURHOOD COMMERCIAL        |  | POTENTIAL BUS STOP LOCATION    |
|  | MUNICIPAL RESERVE                    |   |                                |

**DEVELOPMENT CONCEPT  
THE HIGHLANDS ASP**



## 4.1 RESIDENTIAL USES

The Highlands has been designed to reflect the Developer's vision of a community that provides residents with a variety of high quality single and multi-family options on large lots that have convenient physical or visual access to public open spaces.

The majority of land within The Highlands is intended for residential development, provided using three LUB districts intended for single-family housing and one LUB district intended for multi-family housing. In addition to incorporating four different residential land use districts, each district will include a variety of different housing types such as bungalows, bi-levels, modified bi-levels, two storeys, houses with front garages and those without, houses with walkout basements and those without. The combination of single family and multi-family options provides housing at a range of sizes and price points to suit the diverse needs and preferences of residents.

In areas backing onto open spaces, lots do not incorporate rear lane access to enhance the overall open space area by limiting visual, noise, and dust disturbances.

### 4.1.1 R1 Low Density Residential

The general intent of the R1 Low Density Residential district is to provide an area for larger lot single family detached dwellings with a minimum parcel size of 445.00m<sup>2</sup> for interior parcels, and 500.00m<sup>2</sup> for corner parcels. It is anticipated that the majority of lots located in the R1 district will be sized at approximately 35.00m depth and 18.30m width for an approximately total size of 640.50m<sup>2</sup>.

As shown on **Figure 4.1 – Development Concept**, R1 parcels in The Highlands have been located primarily along interior local roadways that allow convenient access to open spaces or pathway connections. Although some R1 parcels have been located adjacent to rear lanes, all R1 lots are intended to utilize front drive access.

R1 lots in the southeast corner of the Plan Area, those backing onto existing R1 lots in Deer Ridge Estates, have been designed with matching rear lot widths to create a seamless transition from one development to the other. Similarly, R1 Low Density housing has been selected to back onto the existing open space in Deer Ridge Estates to limit population density at this location.

### 4.1.2 R2 General Residential

The majority of the land designated for R2 General Residential land use districts will be used in The Highlands to accommodate medium lot single family housing with a minimum lot size of 375.00m<sup>2</sup> for interior parcels, and 420.00m<sup>2</sup> for corner parcels. The majority of the single family lots located in the R2 district will be sized at approximately 35.00m depth.

R2 General Residential parcels have been located throughout the Plan Area, primarily in areas without rear lane access. Lane access to the R2 parcels on the south side of 57 Street has been



#### 4.0 Development Concept

provided to minimize multiple accesses onto the collector road, and maintain R2 parcel proximity to the primary road network.

In addition to the single family housing areas, the R2 P-Loop in the northwest corner of the Plan Area is intended to accommodate duplex housing. The proposed R2 duplex development in the northwest corner of The Highlands has been located to provide convenient vehicular access from 57 Street and 70 Avenue as well as pedestrian access to the proposed CN - Neighbourhood Commercial development and existing school site.

##### 4.1.3 R2N General Residential Narrow Lot District

The R2N General Residential Narrow Lot land use district has been used in The Highlands to accommodate smaller lot single family housing with a minimum lot size of 285.00m<sup>2</sup> for interior parcels, and 320.00m<sup>2</sup> for corner parcels. The majority of lots located in the R2N district will be sized at approximately 35.00m depth and be subject to the minimum frontage requirement of 8.50m for detached dwellings.

Three R2N areas have been proposed within The Highland ASP, all without lane access. To accommodate the inclusion of R2N lots without rear lane access, an amendment to the LUB's current R2N General Residential Narrow Lot District is proposed to be completed within one year of the approval of this ASP.

##### 4.1.4 R3 Medium Density Residential District

As shown on **Figure 4.1 – Development Concept**, there are two areas designated for multi-family residential development. These areas are primarily intended for the development of row houses, or multi-story apartment buildings. The multi-family residential areas have been situated to provide convenient vehicle and pedestrian access to proposed amenities, direct access to collector roadways, and close proximity to the linear park system.

The R3 Medium Density Residential land use district has been used to accommodate a range of multi-family housing including those identified below.

##### **Apartment**

As defined within the Town of Old's LUB, apartment buildings consist of at least three dwelling units and have shared interior entries and hallways; they also may include amenities such as a fitness centre or hot tub.

The area identified in The Highlands for the development of apartment style multi-family dwellings is located along the north boundary of the Plan Area on the west side of the school site. This area will provide convenient vehicular access to the site from 67 Avenue and facilitates the use of the adjacent open space by apartment residents.

#### 4.0 Development Concept

##### Row Housing

As defined within the Town of Old's LUB, row housing consists of three or more dwelling units, each separated by a common wall and having a separate front and rear access to the outside grade. As per the Town of Old's LUB, row housing parcels will be design with a minimum parcel area of 185.00m<sup>2</sup> for interior parcels and 275.00m<sup>2</sup> for corner parcels.

The area identified in The Highlands for the development of street-fronting row housing is located along the north boundary of the Plan Area adjacent to the R3 multi-family site and is intended to act as a transitional residential use between the higher density apartment area and duplex housing in the northwest corner of the neighbourhood. As with the proposed apartment site, the proximity of the open green space at the school site facilitates the use of outdoor amenities by R3 residents.

##### 4.1.5 Density

The residential density proposed in the *Richardson ASP* was 13.5 du/ha with a total of 871 units in the Plan Area; however, the proposed density of The Highlands ASP is 12.48 du/ha for a total of 807 units.

The reason for this density decrease can be primarily attributed to three particular changes:

- The redesign of Williams Avenue to provide additional landscaping elements and accommodate on-street parking while increasing the setback between residences and the street has produced a wider roadway right-of-way. This wider right-of-way has increased the total area required to accommodate Williams Avenue.
- The southwest stormwater management facility has increased in size to accommodate the required stormwater flows for the development. In association with this large pond, the surrounding open space has also been enlarged. Additionally, some of the other open spaces throughout the development have also been enlarged.
- In The Highlands ASP, proposed density has been calculated using specific LUB districts; whereas, the Richardson ASP proposed densities using general assumptions for Low, Low/Medium, and Medium descriptions. In this way, The Highlands ASP has proposed more accurate density and unit calculations.

##### 4.1.6 Transition between Housing Types and Uses

Transitioning between housing types has been considered throughout the design of The Highlands. Housing types generally remain consistent along singular street fronts. Transitions from one land use district to another occur across lanes or open spaces, on opposing street fronts, and across the flanking streets of corners parcels where one lot may face the side yard of another. These considerations create a visual consistency along singular street lines.

## 4.2 COMMERCIAL USE

Part of creating a complete neighbourhood includes providing a commercial component and the opportunity for public or quasi-public uses. One 1.94 ha (4.8 ac) CN - Neighbourhood Commercial district site has been identified along the west boundary of the Plan Area. It is proposed that the CN parcel may be used for the development of a church site in addition to containing a commercial component. Place of worship sites are defined as public or quasi-public uses in the *Town of Olds Land Use Bylaw* and listed as permitted uses within the CN District.

The CN site will be designed in consultation with the Town of Olds. Access will be from the adjacent easterly local road. Access from 70 Avenue will be restricted as it is intended to become an arterial road at full build out.

## 4.3 PARKS AND OPEN SPACES

Parks, open spaces, and trail network development in the Town of Olds is guided by the *Open Space and Trails Master Plan (OSMP)*. The location of existing and future open spaces in The Highlands are shown on **Figure 4.2 – Parks and Trails Concept** and **Figure 4.3 – Parks and Trails Details**; existing sites are included and future sites are represented conceptually. All future open spaces will be subject to detailed design at the time of resignation which will include detailing: landscaping, drainage and stormwater management, lighting, Crime Prevention through Environmental Design (CPTED), and amenity inclusion and design.

The Highlands aims to be a community that provides connected outdoor spaces with both structured and unstructured recreational opportunities, where aesthetically appealing spaces are both accessible and welcoming.

### 4.3.1 Walkways and Multi-Use Trail

The Highlands ASP concept plan is designed with an extensive neighbourhood pathway system to convey pedestrian and bike traffic throughout the neighbourhood and link to adjacent major collector roadways, adjacent developments, and the school/park site.

As shown on **Figure 4.2 – Parks and Trails Concept**, the proposed pedestrian circulation path network will be accommodated by means of new community trails designed to a typical 2.50m to 3.00m wide paved asphalt standard and sidewalk connections.

As per the *Town of Olds Design Guideline Standards*, sidewalks are intended to be located along both sides of all streets. To further contribute to The Highlands pedestrian network, the 22.00m wide collector roadway has been designed with 2.50m separated sidewalks to enhance the overall pedestrian realm surrounding the community's primary destinations. 2.50m wide sidewalks have been specifically located along the west side of 67 Avenue and north side of 57 Street.

#### 4.0 Development Concept

In addition to The Highlands' pedestrian network, walkways and trails will connect to adjacent developments at the periphery of the neighbourhood.

##### 4.3.2 Linear Parks and Pedestrian Connections

As shown on **Figure 4.2 – Parks and Trails Concept** and **Figure 4.3 – Parks and Trails Details**, an extensive linear park system provides off-street connectivity throughout The Highlands for residents. These connections offer alternatives to pedestrian travel adjacent to roadways, and more direct routes to certain green spaces and community amenities.

The primary linear park location takes advantage of undevelopable space associated with the gas pipeline right-of-way to create a north/south park connection and thus provides a major pedestrian link that connects multiple open spaces within The Highlands and connects to the Kasawal development in the north and Chinook Meadows in the south.

A secondary pedestrian connection has been located along the length of 70 Avenue. This pathway is intended to connect residents south to the Chinook Meadows commercial area and north to connect to Highway 27. At minimum, the pathway will meet the 2.50m width standard; however, its design will be subject to additional review to ensure safety and compatible with the future arterial classification of 70 Avenue. The development of this roadway will be undertaken by the Town.

##### 4.3.3 Community Parks

###### North Park and School Site

At the time of the Richardson ASP approval, the Red Deer Catholic School Board indicated an immediate need for a new school site in the Town of Olds. The north park site was thereby designed to accommodate an elementary/middle school with a capacity of 500 students. The Holy Trinity Catholic School has since been built and now accommodates students from pre-kindergarten to grade 8. The 4.13ha (10.2ac) School Reserve site encompasses the school, associated parking, and a large open space for the school's playground and two soccer fields.

As identified as Park A on **Figure 4.2 – Parks and Trails Concept**, the School Reserve extends east along the north boundary behind houses located along Earhart Close where it connects first with the pedestrian trail that travels the length of the north/south Public Utility Lot, and then with the northeast stormwater management facility open space and pedestrian trail in this area. This connection also extends east into the EOS located in Deer Ridge Estates.

Sidewalk connections around the north park site consists of a 1.50m monolithic sidewalk along the southeast boundary which transitions into a 2.50m wide sidewalk west of Williams Avenue. A 1.50m wide sidewalk also runs along the west boundary of the school site, 67 Avenue.

#### 4.0 Development Concept

##### **Southwest Stormwater Management Facility Park Site**

As identified as Park B on **Figure 4.3 – Parks and Trails Details**, the park site surrounding the southwest stormwater management facility is intended to act as The Highlands' second community park.

The programming of this park will follow guidelines identified in the Town of Olds OSMP which provides recommendations regarding social gathering amenities as well as cultural and outdoor experiences within its Community Parks section. Regardless of programming, Park B will include a community trail that extends the length of the park. While this community trail is shown conceptually on **Figure 4.2 – Parks and Trails Concept**, the detailed design of this area may include a walkway surrounding the perimeter of the pond and a connection to the future community trail along 70 Avenue.

#### 4.3.4 Neighbourhood Parks

##### **Briegel Road Park**

As identified as Park C on **Figure 4.3 – Parks and Trails Details**, a small neighbourhood park has been constructed along Briegel Road. This park contains a small playground and provides connectivity to the linear park and trail developed within the gas pipeline right-of way; it is also located across the street from an entrance into the EOS lands located east of The Highlands.

##### **Central Park**

As identified as Park D on **Figure 4.3 – Parks and Trails Details**, this park is proposed as a passive open space area with limited programming. A trail connection extending from north to south will provide off-street connectivity for residents with landscaping surrounding. The Town of Olds has identified this park as potential location for a community grass bin which is intended for the disposal of grass clippings, leave, or other yard waste.

##### **Harrison Green Park**

As identified as Park E on **Figure 4.3 – Parks and Trails Details**, this park is surrounded on all sides by Harrison Green and is within close proximity to the trail network connection across the street. This trail connection leads directly to the north/south utility right-of way trail. As shown, this park is proposed as a passive park space with minimal landscaping features.

Though not part of The Highlands ASP, this park area may be suitable for enhancement in the future; any future changes will remain subject to additional design work.

**4.0 Development Concept****4.3.5 Additional Open Space Components****Northeast Stormwater Management Facility**

As identified as Park F on **Figure 4.3 – Parks and Trails Details**, the stormwater management facility located in the northeast corner of the Plan Area has been designed as a wet pond to accommodate stormwater flows in the Plan Area and address water quality. As of the 2016 ASP amendment, this facility has been constructed. As part of the facility, the surrounding park was designed to preserve the existing stand of trees within the area which have been dedicated to the Town of Olds as part of The Highlands' overall Municipal Reserve.

Park F contains a 2.50m wide community trail which surrounds the pond and connects to the utility right-of-way trail as well as Briegel Road in the south.

The aesthetic design of the pond includes architectural elements such as the large stones used in the retaining features to provide visual interest to users of the open space.

**Southwest Stormwater Management Facility**

As identified in Park B on **Figure 4.3 – Parks and Trails Details**, the stormwater management facility located in the southwest corner of the Plan Area has been designated as a wet pond to accommodate stormwater flows in the Plan Area and address water quality.

The detailed design of the southwest stormwater pond will be required prior to the development of any portion of The Highlands that are proposed to drain into the facility. It is expected that the detailed design will include a method of aeration which may also function as an aesthetic feature.

A community trail is also planned for the surrounding community park. This trail may be included around the perimeter of the pond and will connect into the future 70 Avenue community trail.

FIGURE 4.2



**LEGEND**












- |  |  |
|--|--|
|  ASP BOUNDARY                   |  2.50M SEPARATED SIDEWALK                 |
|  MUNICIPAL RESERVE              |  2.50M COMMUNITY TRAIL                    |
|  PUBLIC UTILITY LOT             |  PRIMARY CONNECTING SIDEWALK NETWORK      |
|  SCHOOL RESERVE                 |  FUTURE 2.50M COMMUNITY TRAIL (70 AVENUE) |
|  STORMWATER MANAGEMENT FACILITY |  PEDESTRIAN CROSSING                      |
|  NEIGHBOURHOOD GRASS BIN        |  |

FIGURE 4.3



Note: All illustrations are conceptual in nature.

**LEGEND**

- ASP BOUNDARY
- MUNICIPAL RESERVE
- PUBLIC UTILITY LOT
- SCHOOL RESERVE
- STORMWATER MANAGEMENT FACILITY
- 2.50M SEPARATED SIDEWALK
- 2.50M COMMUNITY TRAIL
- PRIMARY CONNECTING SIDEWALK NETWORK
- FUTURE 2.50M COMMUNITY TRAIL (70 AVENUE)
- PEDESTRIAN CROSSING
- PLAYGROUND STRUCTURE



## 5.0 TRANSPORTATION NETWORK

### 5.1 ROADWAYS

The system of roads proposed for The Highlands neighbourhood provides its residents and the traveling public with safe and efficient access internally and in connection to adjacent areas. The Highlands' road network is shown on **Figure 5.1 – Roadway Network**.

As described in **Section 1.6 - Report List**, a Traffic Report detailing The Highlands' internal traffic network must be submitted and accepted by the Town required prior to December 31, 2016. This report shall also include the following information:

- Traffic mitigation strategies for Winter Drive.
- Strategy for future road connections exterior to the Plan area.
- Compilation of existing traffic information and data.

The Town and the Developer will anticipate the detailed studies and agreements regarding future road scheduling, construction, and financial obligations. All roads relating to The Highlands ASP shall be subject to final approval by the Town at the time of detailed design, and may contain minor variations to details proposed in this ASP.

#### 5.1.1 Arterial Roads

An arterial roadway has been proposed in the Town of Olds MDP along the south boundary of the Plan Area to connect 70 Avenue to areas in the east of the Town.

As described in **Section 1.5.5 - Chinook Meadows Area Structure Plan, Bylaw 2011-16**, the approved Richardson ASP identified an arterial roadway along the shared quarter section line between The Highlands and Chinook Meadows; however, the Chinook Meadows ASP proposed an alternative alignment for this roadway which runs through the centre of the Chinook Meadows Plan Area. To respect the Chinook Meadows development, The Highlands has been amended to reflect the relocation of the arterial roadway into the Chinook Meadows Plan Area.

#### 70 Avenue

As described in **Section 2.6.4 - West - 70 Avenue and MVC**, 70 Avenue runs the length of the west boundary of the Plan Area. Although lands located west of the Plan Area are under the jurisdiction of MVC, where 70 Avenue is adjacent to the Town of Olds' west boundary, it is considered part of the Town of Olds. South of 57 Street, 70 Avenue is currently built to a rural standard with chip seal; whereas, 70 Avenue is paved north of 57 Street.

## 5.0 Transportation Network

The importance of 70 Avenue is augmented due to its existing direct connection to Chinook Meadows, Kasawal, and Highway 27/46 Street. The ultimate buildout of 70 Avenue will be construction to a four lane arterial standard.

Under the *Town of Olds / Mountain View County 2009-2035 Transportation and Utilities Master Plan (2010)*, prepared by Bunt & Associates, the general parameters forecast 70 Avenue to be:

- Paved at such time as traffic reaches a traffic volume of 500.
- Upgraded to a Major Collector standard where traffic volumes are between 500 and 5000.
- Upgraded to an Arterial where traffic volumes are between 5000 and 12,000.

As shown on **Figure 5.1 – Roadway Network**, The Highlands has provided an additional road dedication of 5.00 m along the east boundary of 70 Avenue for the future upgrading of this roadway which may include a community trail along its east side.

### 5.1.2 Collector Roads

#### 5.1.2.1 Williams Avenue

Williams Avenue is a proposed modified collector roadway that runs north-south from 57 Street to the main collector roadway in Chinook Meadows, south of The Highlands Plan Area.

As shown on **Figure 5.2 – Transportation Details** and **Figure 5.3 – Modified Collector Details**, this roadway has been designed with two one-way travel and parking lanes of a total 7.75m width running in either direction and two one-way 6.00m wide driving lanes separated by a 3.00m landscaped boulevard and 4.00m wide median. This roadway will also include a 1.50m wide monolithic sidewalk on either side.

In some areas the roadway will be designed with two one-way travel and parking lanes of a total 7.75m width running in either direction and one 8.00m wide two-way driving lane separated by a 3.00m landscaped boulevard. No parking zones will be posted to ensure adequate vehicle passage.

Preliminary details regarding this proposed roadway are described in a memo prepared by Stantec Consulting, submitted under separate cover. The final design of Williams Avenue will be completed in consultation with the Town of Olds Engineering department, and require approval by the Town prior to redesignation approval for any phase for which Williams Avenue forms part of the required transportation network.

#### 5.1.2.2 22.00m Collector Roadways

The western portion of 57 Street and 67 Avenue have been proposed as 22.00m width collector roadways to facilitate higher volumes of traffic and provide convenient connectivity to 70

## 5.0 Transportation Network

Avenue and the Kasawal neighbourhood. As shown on **Figure 7.2 – Transportation Details**, this collector roadway will include a carriage width of 12.00m to accommodate one 3.50m wide driving lane, a 2.50m wide parking lane, and a 1.10m monolithic sidewalk in either direction except where a community trail has been identified.

### 5.1.3 Local Roads

The system of local roads has been planned to provide access to individual development cells while at the same time discouraging outside traffic from short cutting through local roads. The local roadway network identified in The Highlands builds upon the framework described in the Richardson ASP by modifying some of the cul-de-sacs into looped roads to allow greater mobility throughout the neighbourhood.

All local roads proposed will have monolithic curbs and gutters as shown on **Figure 7.3 – Transportation Details**. The proposed local roads will have a carriage width of 10.50m and a right-of-way width of 17.00m. All Local roads will be designed to standards as set forth by the Town of Olds.

### 5.1.4 Laneways

Laneways are proposed where residential lots will have frontage on the collector roadways. The removal of laneways allows for an increased residential density, reduces non-permeable surfaces, and also serves to minimize potential negative impacts on adjacent open spaces and private lots such as noise, dust, and garbage collection. All laneways will be designed to standards as set forth by the Town of Olds, as shown on **Figure 7.3 – Transportation Details**.

## 5.2 PEDESTRIAN AND CYCLING MOVEMENT

Pedestrian movement throughout The Highlands has been accommodated through an interconnected network of sidewalks and pedestrian trails located in the community's open space system as described in **Section 4.3.1 - Walkways and Multi-Use Trail**. Sidewalks have been located along all roadways within The Highlands to facilitate continuous pedestrian movement throughout the neighbourhood.

Cycling is anticipated to be accommodated in The Highlands through the roadway network, using shared lanes. Should the Town of Olds identify any portion of The Highlands's roadway network as a primary bicycling route for the Town, shared lane markings may be recommended to highlight the route for cyclists and motorists and acting as a safety mechanism.

## 5.3 TRAFFIC CALMING MEASURES

Several locations will require traffic calming measures due to the length and location of the roadways as shown on **Figure 4.1 – Development Concept**. Traffic calming methods utilized throughout the neighbourhood may include: intersection bump-outs, on-street parking, and

## 5.0 Transportation Network

highlighted pedestrian crossings. Traffic calming measures will be included as part of the Traffic Report which is described in **Section 1.6 - Report List**. All traffic calming measures will be designed to standards as set forth by the Town of Olds and will be subject to approval with the submission of detailed design work.

### 5.4 ROADWAY STAGING

At the time of initial ASP approval, it was determined that the school site would require suitable roadway access in the initial phase of the development. Due to significant servicing and implementation constraints, it was not deemed viable to complete the permanent connection to 70 Avenue in the initial phases; therefore, the Developer constructed a suitable temporary roadway connection. This roadway will be replaced by permanent construction prior to reaching a total of 600 residential units as per the formulas used under the NFPA 1141 Regulations, or as determined through the Traffic Report which will be approved by the Town of Olds.

A third access into the neighbourhood will also be required prior to reaching 600 units. Of the three required accesses, one may be restricted to emergency use only. As shown on **Figure 5.1 – Roadway Network**, The Highlands ASP proposes a temporary emergency access from the north, connecting to the existing local road Willow Way in the Kasawal neighbourhood. Any future emergency accesses will require the approval of the Town. In addition, where the road connection may be off-site, the Developer shall enter into a written agreement with the adjacent landowner prior to approvals for any phase where the construction the 600 unit limit is reached. Additionally, the third access shall be constructed to the *Town of Olds Minimum Design Standards for Development* and the *Town of Olds Emergency Services Standards* prior to building permits being issued past the 600 unit restriction.

A Traffic Report will also be completed and approved by the Town prior to December 31, 2016.

### 5.5 OTHER CONSIDERATIONS

#### 5.5.1 Garbage Collection

Garbage collection in The Highlands will follow existing standards utilized throughout the Town for waste, compost, and recycling collection.

The Town of Olds has contracted Mountain View Regional Waste Management Commission for residential waste collection. CanPak Environmental Inc. provides household waste pick-up in the Town of Olds every three weeks, compost pick-up every three weeks, and provides recycling pick-up every three weeks. Roll out bins are supplied by the Town to residents who will be responsible for placing these bins for collection as dictated by the Towns requirements.

There are two recycling depots at Olds, open to both Town and County residents that are operated by the Commission and provide collection of recyclables. The Town is responsible for

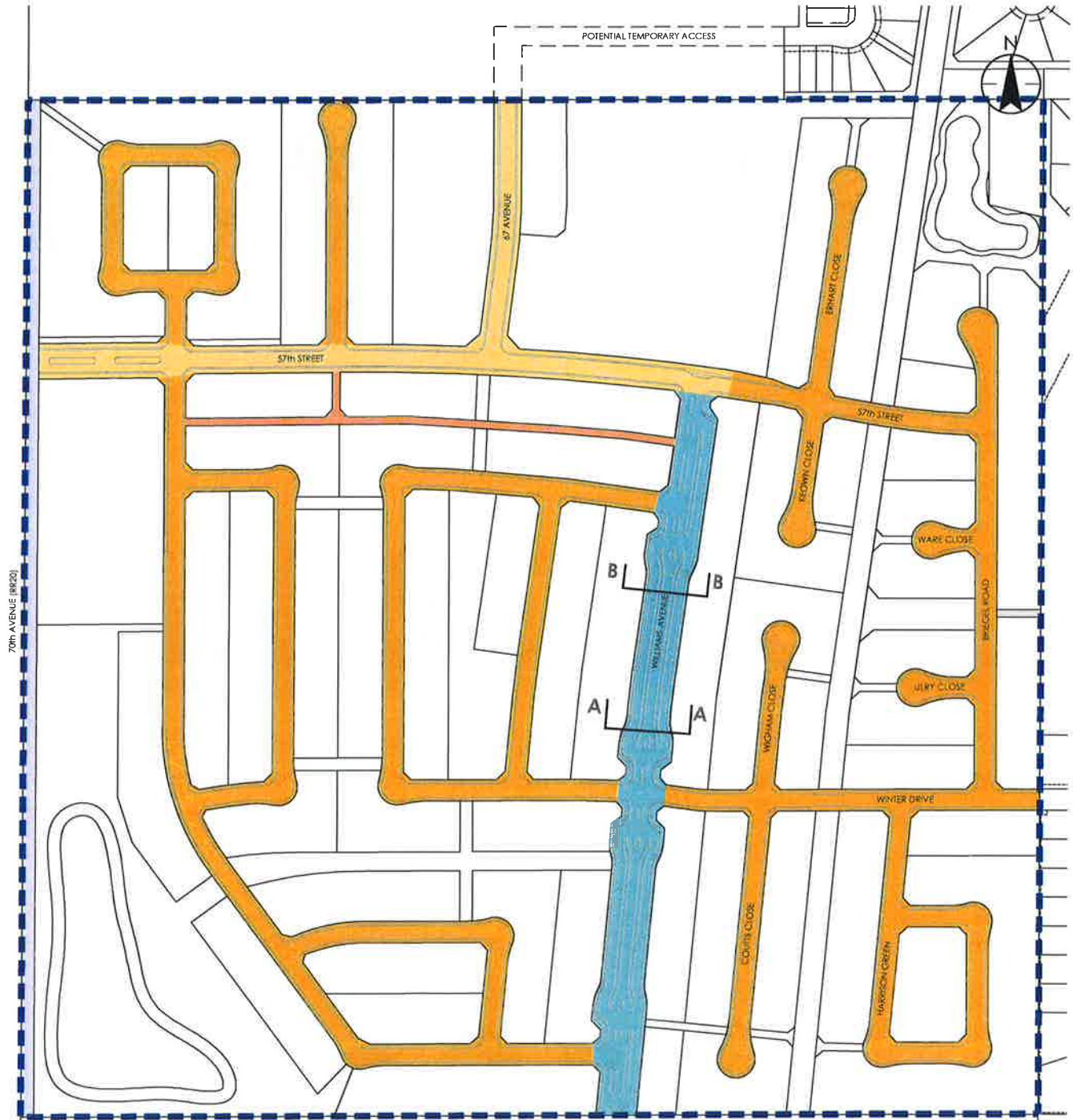
**5.0 Transportation Network**

the maintenance and upkeep of the recycling sites. An additional three neighbourhood grass bins are placed throughout the Town between April 1 and October 31 each year for the collection of organic yard waste. As identified in **Section 4.3.4 - Neighbourhood Parks**, one location has been identified in The Highlands open space network for the potential location of a neighbourhood grass bin.

**5.5.2 Mailbox Locations**

All community mailbox locations required to service The Highlands will be determined by Canada Post. The Developer will request this identification from Canada Post on a per-phase basis following completion of each phase's detailed design.

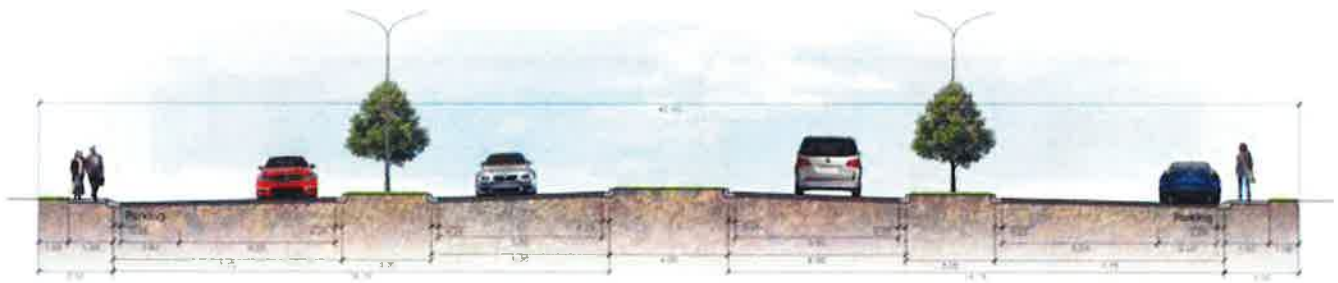
**FIGURE 5.1**



**LEGEND**

- |  |   |
|--|---|
|  ASP BOUNDARY                             |  17.0m LOCAL ROADWAY |
|  42.5m / 34.5m MODIFIED COLLECTOR ROADWAY |  6.1m LANE           |
|  22.0m COLLECTOR ROADWAY                  |  5.0m ROAD WIDENING  |

FIGURE 5.2



A-A: William Avenue - 42.5m / 34.5m Modified Collector Roadway  
42.5m Portion of Roadway

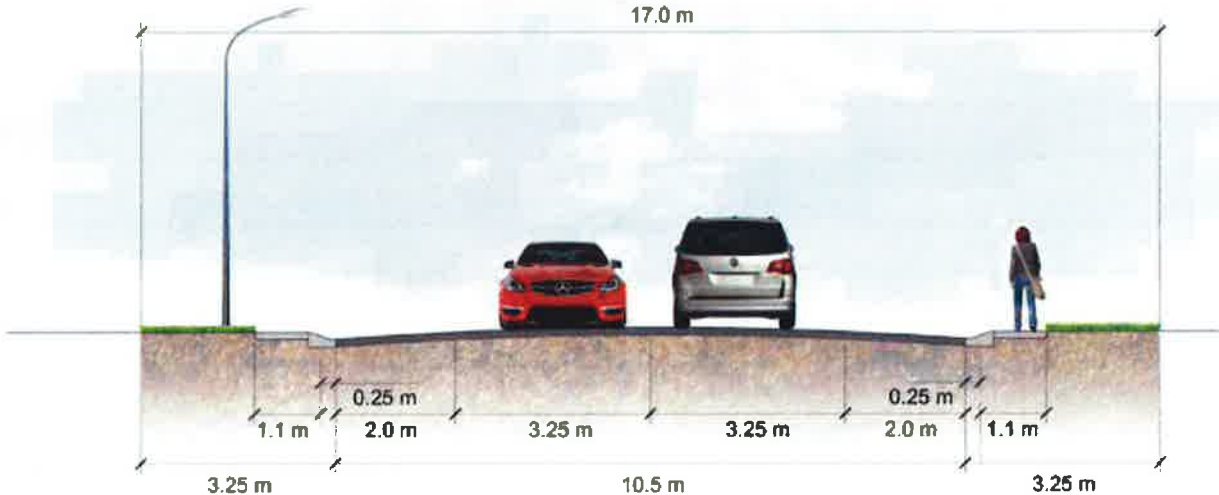


B-B: William Avenue - 42.5m / 34.5m Modified Collector Roadway  
34.5m Portion of Roadway



22.0m Collector Roadway

FIGURE 5.3



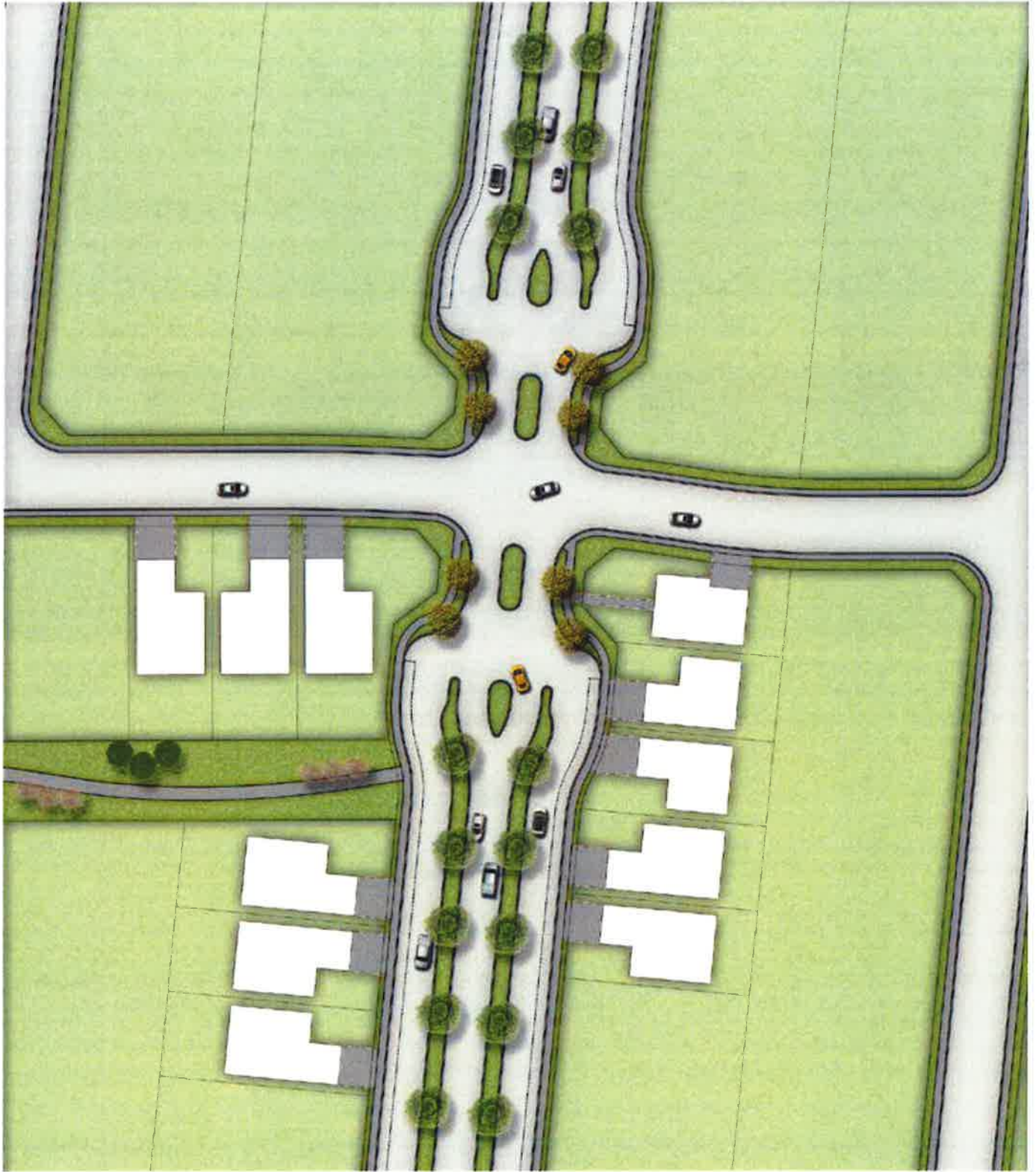
17.0m Local Roadway



6.1m Lane



FIGURE 5.4



**MODIFIED COLLECTOR DETAILS  
THE HIGHLANDS ASP**

## 6.0 SERVICING SYSTEMS

### 6.1 STORMWATER DRAINAGE

As identified in **Section 2.2 - Topography**, The Highlands Plan Area land contains a broad, irregular plateau through the midline of the site in a north/south manner. This land formation causes stormwater to drain both east and west. This creates the need for multiple stormwater management facilities (SWMF). One SWMF has been developed in the northeast corner of the Plan Area, while the second SWMF will be developed on the southwest side as shown on **Figure 6.1 – Proposed Storm Drainage Plan**.

All runoff from The Highlands will be drained into one of two detention storage facilities, via minor and major systems. The minor system will be sized to accommodate runoff from the 1:5 year event storm based on the rational design method. The major system will be designed to accommodate excess runoff not accommodated by the minor system, for up to at least the 1:100 year return period storm event.

The SWMF located in the northeast corner of the Plan Area will collect stormwater from the east half of the Plan Area and connect into the existing stormwater system located northeast of the Plan Area. The size of this SWMF has been calculated in detail and the downstream effects have been intensively modeled to verify capacities and storage volumes. This SWMF is envisioned to be a wet detention pond. The pond has also been designed to protect the existing trees in the northeast corner of the Plan Area but will operate independently from the existing stormwater drainage from the adjacent development and environmental reserve. Any overflow from this pond in a major storm event would be conveyed east from the north end of this pond more or less along the route of the existing pathway to 65 Avenue. This drainage route would be created with some minor grading in this area. The proposed discharge rate from this pond is 600 l/s.

The second SWMF will be a wet storm detention pond, which has been designed to improve water quality to an established level before discharging into the receiving water body. This SWMF will collect stormwater from the west half of the Plan Area and eventually convey storm water to Olds Creek at a controlled rate. Stormwater will be discharged into the ditch along 70 Avenue to drain south to the existing wetland area. Any overflow from this pond in a major storm event would also drain south along this route.

All storm sewers within the development will be sized to accommodate 1 in 5 year stormwater events with the stormwater being conveyed on the streets to the stormwater detention facilities during extreme stormwater events.

All SWMFs and storm sewers will be designed in accordance with the *Town of Olds Design Guidelines* and will be turned over to the Town of Olds after a two-year maintenance period. The storm system for the west drainage catchment area will also be designed to accommodate weeping tile connections to the homes via a shallow or deep storm connection.

**6.0 Servicing Systems**

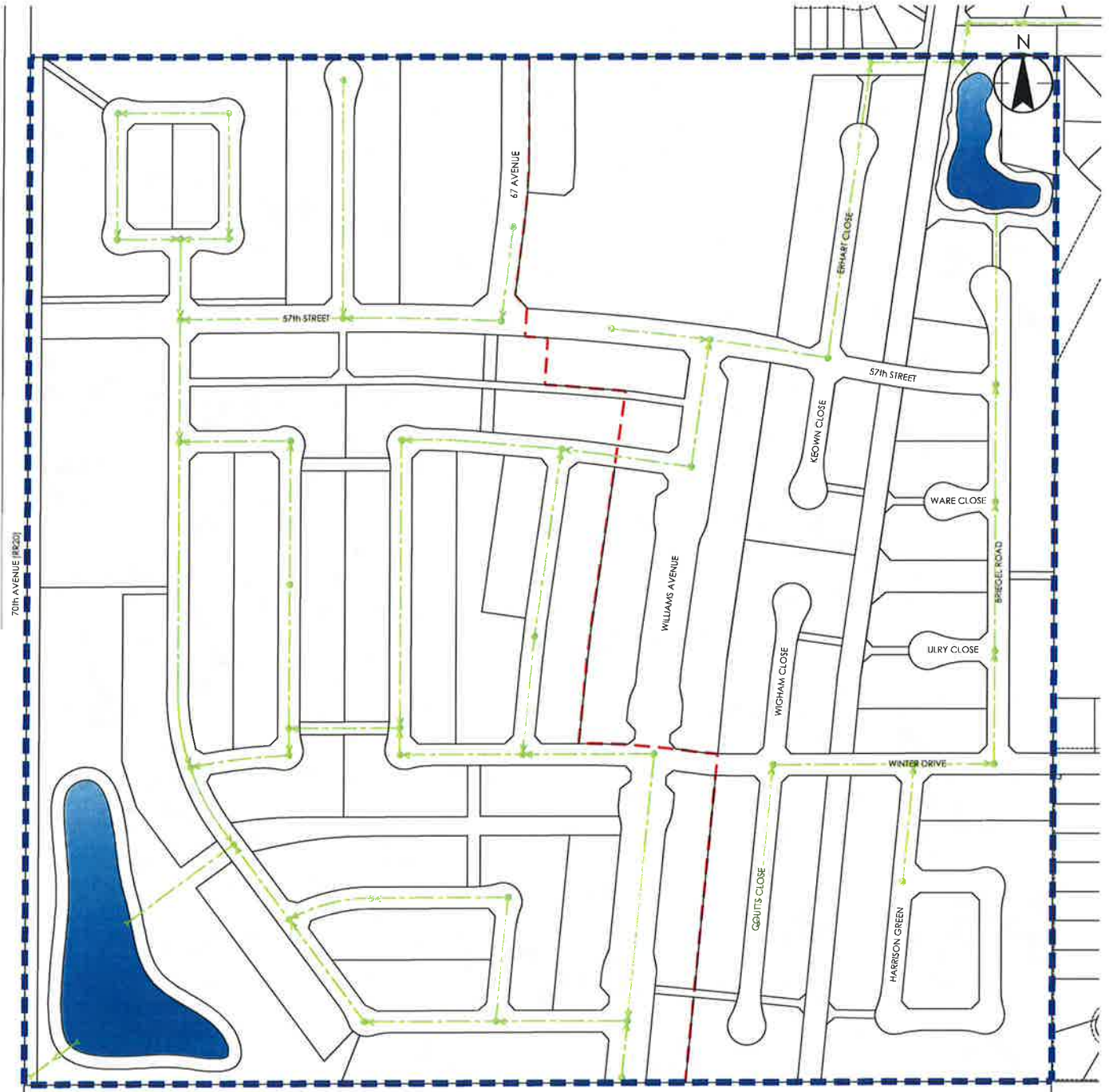
A Stormwater Master Drainage Plan will be completed prior to drainage into the southwest pond or issuance of a CCC for the next phase of construction.

**6.2 MAJOR STORM DRAINAGE PLAN**

As shown on **Figure 6.2 – Overall Storm Drainage Plan**, a significant stormwater catchment to the south of Olds historically drained to Olds Creek in a northwest direction. Over time, municipal development impacted these drainage routes with most of the drainage being accommodated with stormwater systems. However, some of this drainage has been rerouted by informal channelizing and ditching in an attempt to convey the water westward to the southeast corner of the Plan Area and prevent drainage through the existing developed area. As a result, drainage problems were transferred to the east portion of the Plan Area, which naturally drains to the northwest. This has led to drainage issues in the existing environmental reserve and developed area to the north. The Developer has made attempts to mitigate this by constructing temporary ditches to channel water west towards Olds Creek.

This issue has been considered in previous stormwater reports, with the recommendation to construct a proper stormwater channel through the lands south of the Plan Area westward towards Olds Creek.

FIGURE 6.1



**LEGEND**

- - - ASP BOUNDARY
  - STORM MANHOLE
  - FLOW DIRECTION
  - > STORM OUTLET/INLET
- - - STORM NETWORK
  - STORMWATER MANAGEMENT FACILITY
  - - - CATCHMENT BOUNDARY

FIGURE 6.2



**LEGEND**

--- ASP BOUNDARY  
— WATER SHED

→ EXISTING DRAINAGE  
→ FUTURE DRAINAGE

### 6.3 SANITARY SERVICING

As identified conceptually on **Figure 6.3 – Sanitary Sewer System**, the initial phases of the sanitary servicing will connect into the Town of Olds system at two points: a 200.00mm sanitary line within Winter Drive, east of the Plan Area; and a 250.00mm line, located within 65 Avenue, northeast of the Plan Area. As further development occurs, additional sanitary connections will be made including a connection northwest of the Plan Area.

Dual servicing is currently being shown along Williams Avenue; however, this will be reviewed at the time of detailed design, along with the Town's standards, servicing connection length, and pipe depths. If it is deemed viable, single servicing may be used in this area.

Also shown, a connection is proposed to extend south of the Plan Area to allow future development from the south to connect into the Town of Olds sanitary system. The connection to the south shall be a 375mm line which will run through the development to the northern 375mm line. This trunk line will ensure capacity for future development.

The overall sanitary sewers system will be designed in accordance with the *Town of Olds Design Guidelines* and will be turned over to the Town of Olds after a two-year maintenance period.

A sanitary report will be completed prior to issuance of a CCC for the next phase of construction.

### 6.4 WATER DISTRIBUTION

An existing water line located in Winter Drive and an existing water line in 65 Avenue will be utilized as the main water feeds for the initial phases of development. As development of Phase 5 occurs an additional water line will be required. This water line will be connected into the subdivision to the north. An exact route for this line will need to be negotiated with the landowners to the north.

The overall water distribution system needed to service the Plan Area is shown conceptually on **Figure 6.4 – Water System**. Dual servicing is currently being shown along Williams Avenue; however, this will be reviewed at the time of detailed design, along with the Town's standards, servicing connection length, and pipe depths. If it is deemed viable, single servicing may be used in this area.

All water lines will be designed in accordance with the *Town of Olds Design Guidelines* and will be turned over to the Town of Olds after a two-year maintenance period.

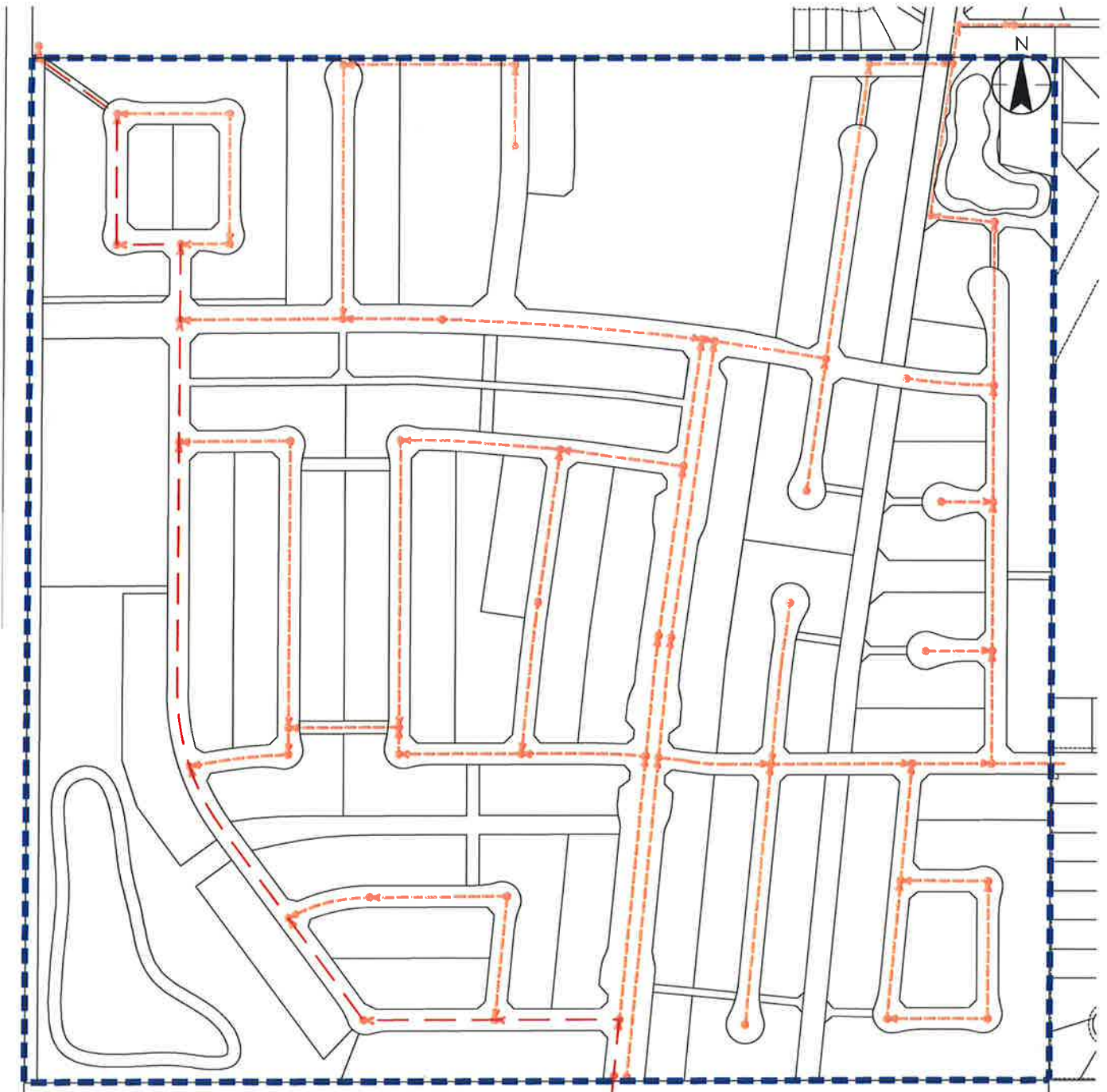
A water modelling report will be completed prior to issuance of a CCC for the next phase of construction.

## 6.5 SHALLOW UTILITIES



There are no major servicing concerns regarding shallow utilities (gas, power, telephone, fiber optics and cable). All shallow utilities will be extended from those already in place in adjacent developments to the north and east.

Shallow utility servicing in the form of electricity, gas, cable, conduit for fiber optic cable as part of the Olds Fiber to the Home Network and telephone will follow typical Town of Olds standards including shallow bury within easements paralleling the road rights-of-way.

FIGURE 6.3



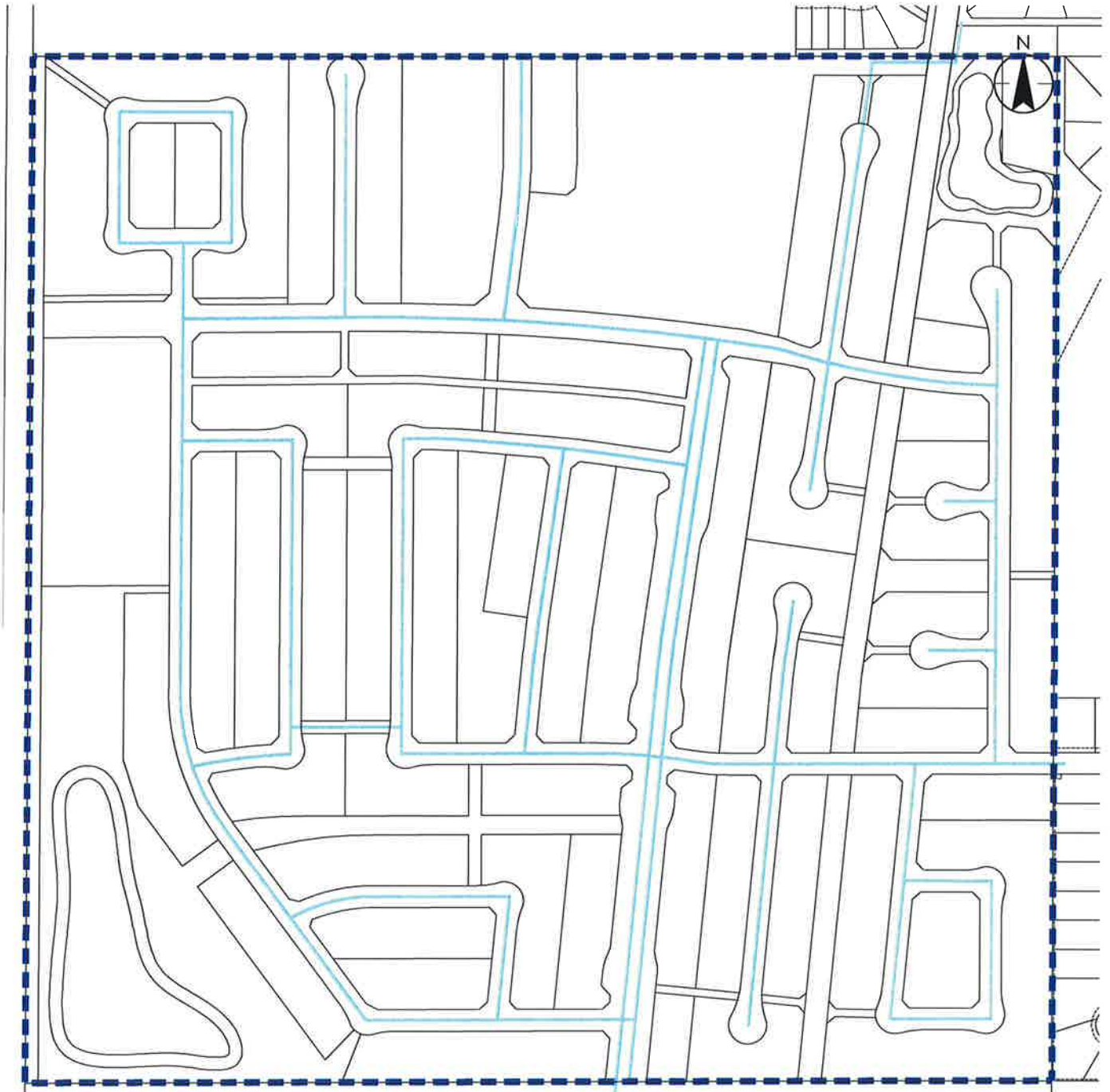
**LEGEND**

-  ASP BOUNDARY
-  SANITARY MANHOLES
-  FLOW DIRECTION

-  SANITARY SYSTEM
-  SANITARY TRUNK



FIGURE 6.4



**LEGEND**

--- ASP BOUNDARY

— WATER SYSTEM

## 7.0 IMPLEMENTATION

In accordance with Section 633 (2)(a)(i) of the MGA, an area structure plan must describe the sequence of development proposed for the area.

### 7.1 DEVELOPMENT STAGING

The build out of *The Highlands ASP* will generally move from the north east towards the south and west. The progression of development will be determined by three factors: connection to utilities and servicing, construction capacity, and market capacity. As noted in **Section 6.0 - Conceptual Servicing**, The Highland connects to existing Town servicing for water, sanitary services, and storm water; as well as the existing Town road network.

#### 7.1.1 Major Development Stage Requirements of Note

As identified in **Section 1.6 - Report List**, the following items will be required to support the continued development of The Highlands.

- The Highlands Stormwater Management Plan must be completed and accepted prior to redesignation of any phase that would drain into the proposed southwest pond, and/or CCC issuance for any phase draining into the existing north east pond where construction has not yet commenced.
- Phases 7-11 drain to the south west pond and therefore the second SWMF must be built before these phases are developed as discussed in **Section 6.1 – Stormwater Drainage**.
- Water Supply and Distribution Report must be completed and accepted prior to CCC issuance for any phase where construction has not yet commenced.
- The Highlands ASP Sanitary Servicing Plan must be completed and accepted prior to CCC issuance for any phase where construction has not yet commenced.
- The Traffic Report must be completed and accepted by December 31, 2016.
  - The staged buildout of 70 Avenue will be determined in concert with the Traffic Report.
- Prior to the development reaching 600 dwelling units, a third access will be required to supplement the Winter Drive and 57 Street access as discussed in **Section 5.4 – Roadway Staging**. An agreement for the access must to be in place prior to redesignation of any phase that will surpass the 600<sup>th</sup> dwelling unit. Construction of the additional access must be completed prior to building permit issuance.
- An amendment of the R2N – General Residential Narrow Lot district to incorporate front accessed development, shall be completed within one year of the adoption of The Highlands ASP.

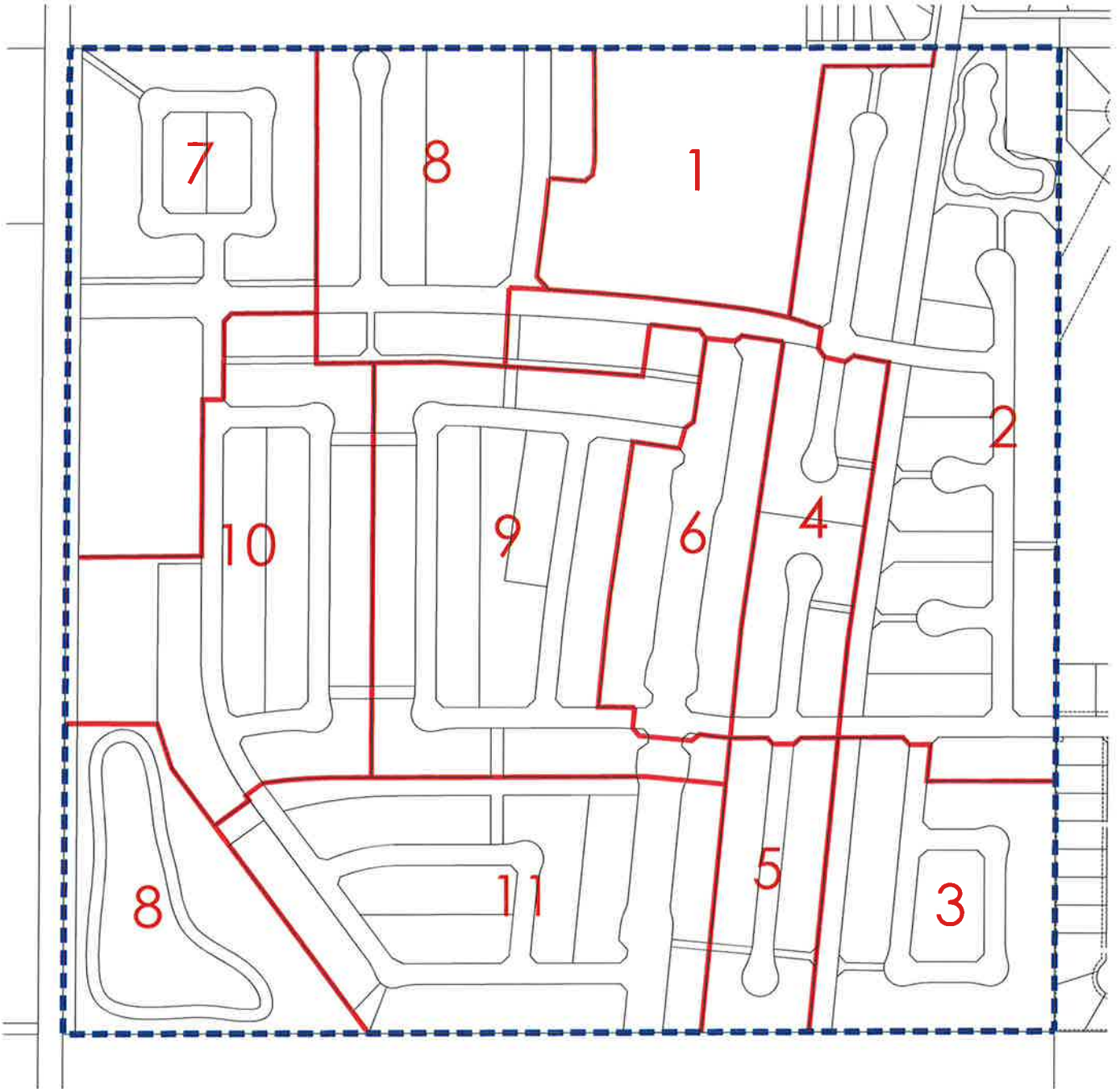
**7.0 Implementation**

The phasing boundaries, as shown on **Figure 7.1 – Phasing Plan**, are conceptual, and may vary at the time of re-districting and subdivision.

**7.2 REDISTRICTING AND SUBDIVISION**

Redistricting and subdivision applications to conform to the land use designations described in the ASP will be undertaken as necessary. Guided by the Town of Olds MDP, redistricting and subdivisions will be required to adhere to the Town of Olds LUB and the informational requirements necessary for each application.

FIGURE 7.1



**LEGEND**

-  ASP BOUNDARY
-  PHASE BOUNDARY

**2** PHASING SEQUENCE



## THE HIGHLANDS AREA STRUCTURE PLAN

### 8.0 Conclusion

## 8.0 CONCLUSION

As described throughout this ASP, The Highlands has been comprehensively planned to reflect existing and proposed surrounding developments. The Highlands is intended to be complementary of existing neighbourhoods and provide an integrated road network with continuous on and off-street pedestrian connections. The inclusion of several residential land use districts provides an opportunity for development of a multiple housing types at a range of price points to appeal to residents of different ages, family sizes, lifestyle preferences, and income levels. The commercial use identified along the west boundary of The Highlands provides opportunities for residents to work within the same community in which they live and access daily needs using alternative modes of transportation other than personal vehicles. Pedestrian and trail connections have been provided throughout the entire neighbourhood to provide residents with off-street mobility routes and encourage healthy lifestyles.

*The Highlands Area Structure Plan, Bylaw 2016-06, adopted May 24, 2016, replaces the Richardson Area Structure Plan, Bylaw 2009-08, adopted May 11, 2009.*