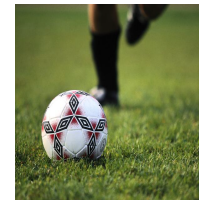


# CHINOOK MEADOWS



## AREA STRUCTURE PLAN TOWN OF OLDS

LIBERTY LAND CORPORATION

Approved August 22, 2011  
Bylaw No. 2011-16

Prepared by:  
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# 1.0 INTRODUCTION

The purpose of the Chinook Meadows Area Structure Plan (ASP) is to describe the land use framework and development objectives for the NW and NE ¼ Sections 30-32-01-W5 located in the southwest corner of the Town of Olds. These two contiguous quarter sections, shown on **Figure 1.0 – Location Plan**, form the Plan Area. The Plan Area encompasses approximately 129.5 ha (319.9 ac) and has been identified by the Town of Olds’s Land Use Bylaw as Urban Reserve land for future development.

The Town of Olds’s strategic location within the Calgary-Edmonton corridor, and its diverse economic base, have contributed to the region’s strong growth. To maintain responsible future growth within the Town of Olds, Chinook Meadows has been designed as a balanced and sustainable community consisting of residential, commercial, and recreational opportunities. The comprehensive community design of Chinook Meadows reflects new urbanism principles, focusing on pedestrian friendly environment, a variety of housing options and employment opportunities. Chinook Meadows’s design compliments the vision of Olds as an affordable community that offers a “small town” experience with urban amenities.

The Chinook Meadows ASP has been prepared by Stantec Consulting Ltd. on behalf of Liberty Land Corporation. This Plan delineates land uses, parks and open space, stormwater management, and neighbourhood staging.

## 1.1 PLAN AREA

The Chinook Meadows Plan Area is defined by the following boundaries:

- North The Highlands residential subdivision, Deer Ridge Estates residential subdivision.
- East 57<sup>th</sup> Avenue, Miller Meadows residential subdivision.
- West Rge Rd 20 (70<sup>th</sup> Avenue), undeveloped agricultural land.
- South Undeveloped agricultural land.

The Chinook Meadows ASP constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations.

## 1.2 LAND OWNERSHIP

The Plan Area consists of two quarter sections both of which have been divided amongst various individuals with interest on the shares of the titles.



### 1.3 AREA STRUCTURE PLAN

This ASP will describe the land use patterns and development objectives for the Plan Area by identifying the following:

- Size and location for various land uses
- Alignment of roadways
- Open space and trail linkages
- Proposed development density
- Concepts for deep utility servicing
- Development staging sequence

The land use designations referenced in this ASP adhere to the prescribed zoning regulations in the Town of Olds's Land Use Bylaw (LUB).

### 1.4 THE APPROVAL PROCESS

In designing Chinook Meadows, the Developer worked closely with the Town of Olds to create a Concept Plan that is consistent and supportive of the future vision of Olds regarding development, land use and the transportation network as outlined within the Town of Olds Municipal Development Plan (MDP). Once completed, the Concept Plan was submitted to the Municipality for review. After receiving comments from the Town of Olds, the Plan was revised where appropriate.

In conformance with the Town of Olds's application, review, and approval process, the ASP was submitted to the Town for formal review and circulation. Comments received from the review process and public consultation process, was reflected in the ASP prior to first reading. Following 1st Reading, the ASP was presented by Town staff at a Public Hearing followed by 2<sup>nd</sup> and 3<sup>rd</sup> readings. This ASP was adopted via bylaw by the Town of Olds Council.

See Appendix A for additional information regarding the public consultation process.

### 1.5 AUTHORITY

This Plan 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:

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

(2) An area structure plan

(a) must describe

(i) the sequence of development proposed for the area,

(ii) the land uses proposed for the area, either generally or with respect to specific parts of the area,

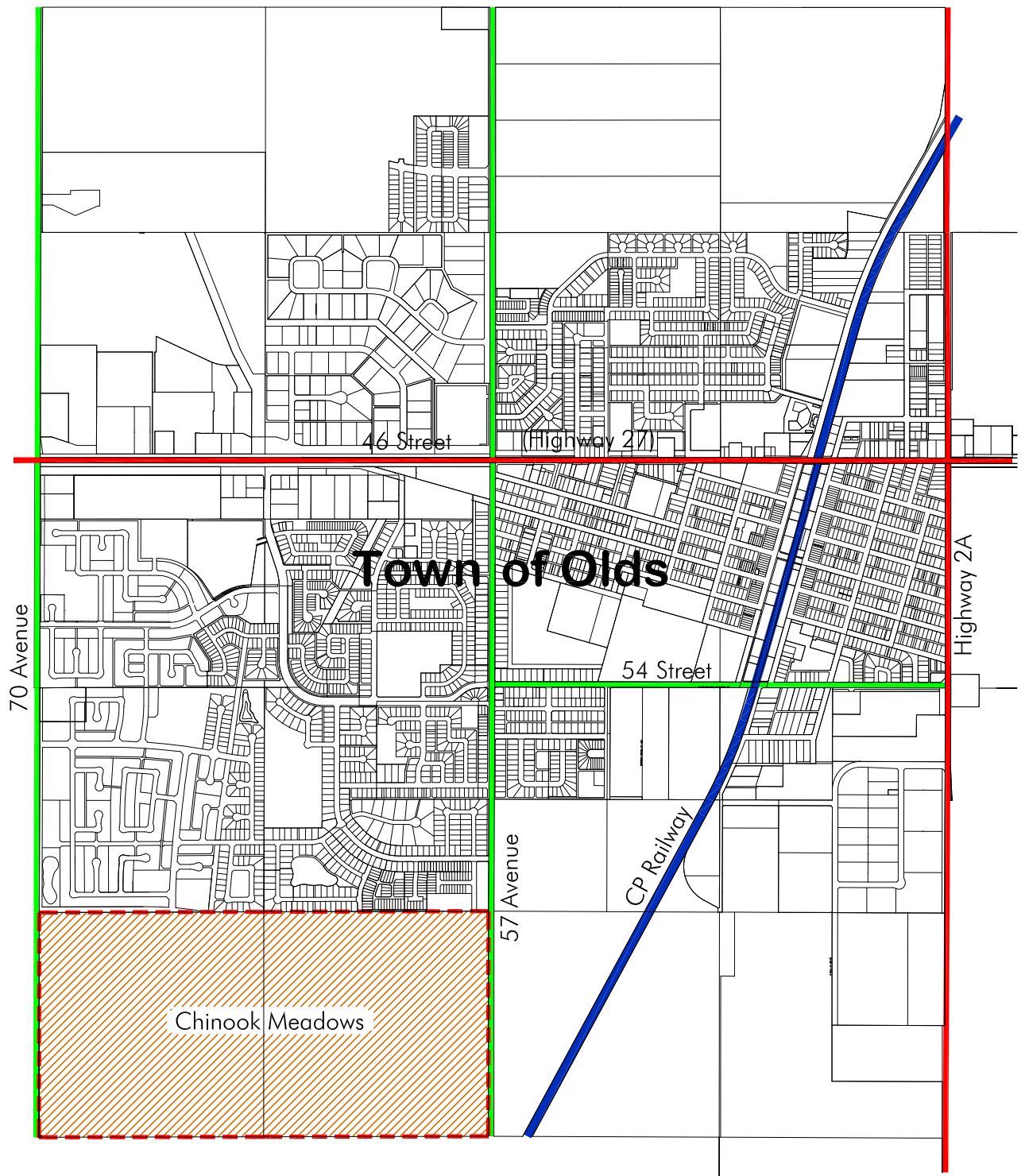
(iii) the density of population proposed for the area either generally or with respect to specific parts of the area, and

(iv) the general location of major transportation routes and public utilities, and

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

The Chinook Meadows ASP has been prepared as a Statutory Plan.





- Roadway
- Highway
- Railroad
- ASP Boundary
- ASP Area



Figure 1.0 - Location Plan  
**Chinook Meadows**  
 Olds, Alberta

Prepared for:  
 LIBERTY LAND CORPORATION  
 Calgary, Alberta

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 SCALE: NTS  
 PROJECT #: 112848088

April 26, 2011

## 1.6 RELEVANT PLANNING DOCUMENTS

The following relevant documents have been reviewed and referenced in preparation of this Area Structure Plan:

- Town of Olds Municipal Development Plan—2007
- Town of Olds Land Use Bylaw (LUB) — 2009
- Town of Olds Minimum Design Standards for Development — 2005
- Town of Olds and Mountain View County Transportation & Utilities Master Plan — 2010
- The Highlands Area Structure Plan — 2009
- Miller Meadows Area Structure Plan — 2008

## 1.7 INTERPRETATIONS

Plan, Maps, and Figures: Unless specifically identified within this Plan, 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.

## 2.0 SITE CONTEXT AND DEVELOPMENT CONSIDERATIONS

### 2.1 TOPOGRAPHY, SOILS, & VEGETATION

As shown on **Figure 2.0 – Existing Conditions**, the site topography of the Plan Area is sloping gently downward from east to west. The ground surface elevation ranges from 1040.0m to 1014.0m for a total difference of 26.0m.

The southwest portion of the Plan Area is a low-lying area where ponding periodically occurs. A large stand of trees and other vegetation is also located within this area.

### 2.2 HISTORICAL LAND USE

There are no historical resources identified within the Plan Area as listed in the March 2011 publication of “Listing of Historical Resources” from the Alberta Historical Resources Foundation.

### 2.3 EXISTING LAND USE

Currently, the Plan Area is being used as agricultural land with uncultivated areas in the southwest corner due to natural surface drainage patterns.

Existing structures within the Plan Area include two residences and various farm structures. These structures are located in the northeast and west central portions of the Plan Area.

An operational gas pipeline, registered by The Alberta Gas Trunk Line Co. Ltd., runs north to south through the NW¼ Sec. 30-32-01-W5. This pipeline is protected by an 18.0m wide Right-of-Way (ROW) with development permitted to the edge of the 18.0m ROW.

A transmission power line ROW runs north to south through the NW¼ Sec. 30-32-01-W5. This power line has been decommissioned and does not require any setbacks as development is permitted within the ROW.

### 2.4 ADJACENT LANDS AND SURROUNDING DEVELOPMENT

Residential subdivisions border the north and east side of the Plan Area. Located along the north boundary is the subdivision of Deer Ridge Estates, and of The Highlands, the latter of which is currently under construction. The subdivision of Miller Meadows borders the Plan Area to the east; this subdivision has been approved but construction has not yet commenced.

Lands west and south of the Plan Area are located within Mountain View County and are not currently developed nor identified within the Town of Olds MDP for future development.

### 2.5 ACCESS

The Plan Area is currently accessible from the west via 70th Avenue, from the east via 57th Avenue, and from the north via 62nd Avenue.



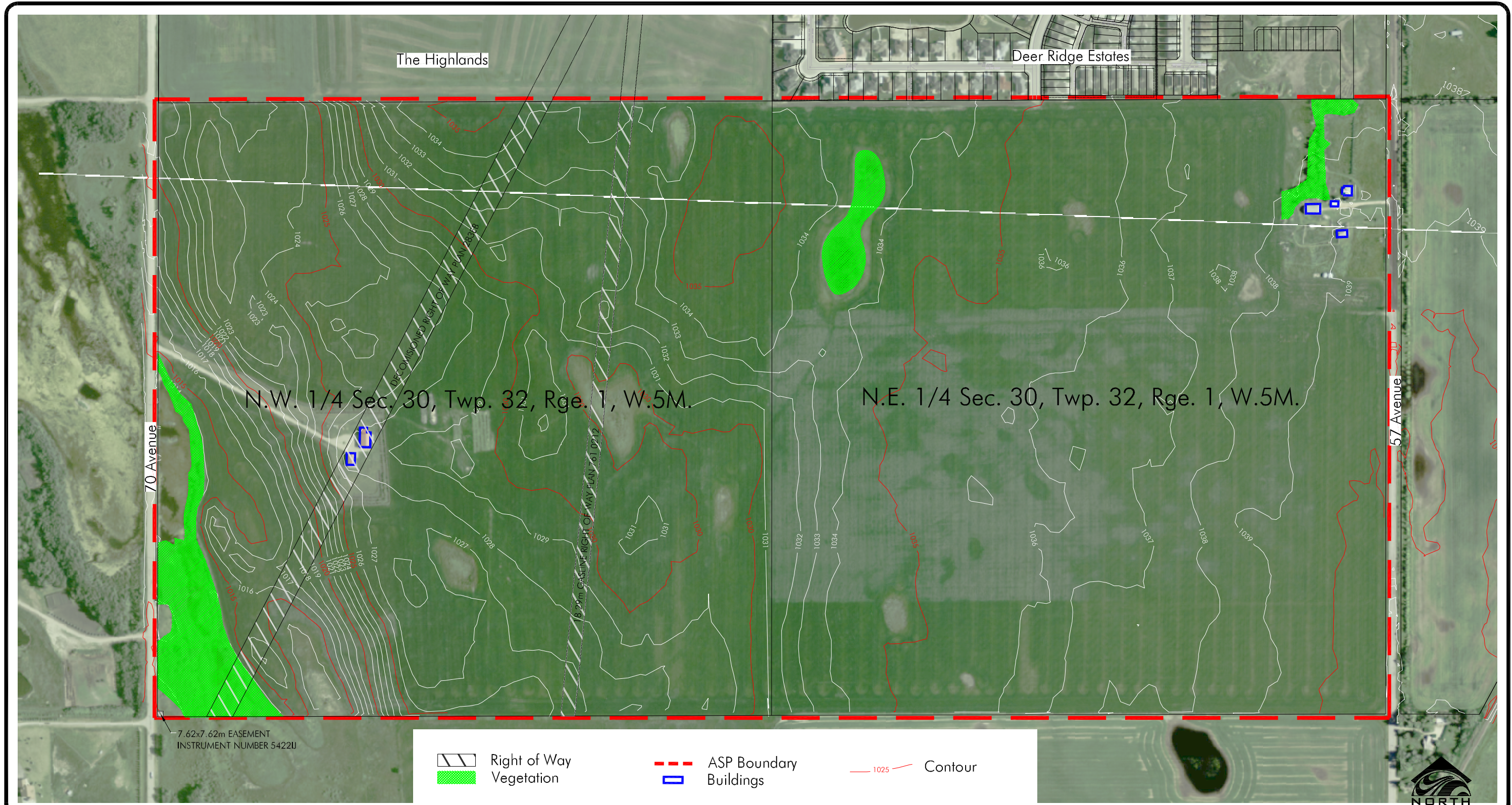


Figure 2.0 - Existing Conditions  
**CHINOOK MEADOWS**  
 Olds, Alberta

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**LIBERTY LAND CORPORATION**  
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April 26, 2011



## 3.0 DEVELOPMENT PRINCIPLES

### 3.1 CREATE A RANGE OF HOUSING OPPORTUNITIES AND CHOICES.

Chinook Meadows will provide residents with a variety of housing options for all stages of life as individuals wants, needs, and income varies over time. Providing a range of housing types also ensures that Chinook Meadows is able to provide affordable housing solutions.

### 3.2 CREATE A NEIGHBOURHOOD THAT IS COMMUNITY FOCUSED.

Chinook Meadows has been designed based on new urbanism principles that values walkability; providing locations to live, work, and play; and encouraging neighbours to interact with one another.

#### 3.2.1 Walkability: Encourage walking and cycling as alternative modes of travel.

The residential areas of Chinook Meadows have been located within close proximity to pedestrian network connections, schools, and recreational amenities to ensure residents are able to choose from a variety of transportation options rather than relying solely on vehicles. A linear park network of various pathways connects community nodes and open spaces throughout the neighbourhood.

#### 3.2.2 Live, Work, Play: Provide opportunities in order to create sustainable community.

Chinook Meadows has been designed to provide a mixture of land uses to encourage a range of services and a variety of amenities. The neighbourhood will integrate commercial, civic, and residential uses into areas where residents can live within walking distance of work, therefore reducing the reliance on motor vehicles.

In addition to residential and commercial uses, the Chinook Meadows neighbourhood has been designed to include a large school site and a vast network of open spaces to accommodate the recreation needs of residents.

#### 3.2.3 Social Interaction: Provide nodes and gathering spaces to serve the social and recreational needs of residents.

A town center has been located within Chinook Meadows to act as a community centre which is envisioned to be comprised of niche commercial retailers and other locally owned businesses. The Chinook Meadows town center has been designed to act as a gathering spot where residents can come together and interact with one another, fostering the sense of community within the neighbourhood.



**3.3 PROVIDE A TRANSPORTATION NETWORK THAT IS SAFE AND EFFICIENT.**

An arterial roadway has been located within Chinook Meadows which will run west to east through the neighbourhood. This roadway will be designed to the standards set forth by the Town of Olds and will include a buffer on either side to minimize visual impact on adjacent areas. The arterial, along with the collector and local roadways proposed for Chinook Meadows, has been designed to facilitate efficient access to all areas of the neighbourhood. Special attention has been given to providing access to the commercial and social areas of Chinook Meadows such as the town center and school site.

**3.4 ENCOURAGE ECOLOGICAL STEWARDSHIP.**

Existing vegetation and topography has been preserved and utilized in the creation of Chinook Meadows’s stormwater management system to minimize the environmental impact of the development on surrounding areas.



## 4.0 CONCEPT PLAN

### 4.1 OVERALL CONCEPT

Goals: Create a viable and cohesive community that offers a range of land uses and amenities.

Chinook Meadows has been designed to be a sustainable community, offering a range of housing options, commercial opportunities, and recreation amenities. This neighbourhood will provide a range of housing and transportation options while offering a variety of opportunities for social interaction.

The land use concept for Chinook Meadows is shown on **Figure 3.0 – Concept Plan**.

### 4.2 RESIDENTIAL

Goals: Accommodate a diverse range of housing types to meet the needs of various lifestyles.

The land use statistics and number of residential units found in Chinook Meadows are represented in **Table 1.0—Land Use Statistics** and **Table 2.0—Residential Units and Population**.

#### 4.2.1 Low Density Residential (R1)

The Low Density Residential areas of Chinook Meadows will offer a range of lot sizes to provide land for typical single family lots and also for larger lot estate style housing.

The low density housing areas within Chinook Meadows have been located along local roadways within close proximity to amenities offered by the stormwater management facilities, walkways, the school site, and open spaces.

#### 4.2.2 General Residential (R2)

To accommodate the demand for multi-family and more affordable housing, the R2 General Residential land use has been located throughout the Chinook Meadows Plan Area. This district is envisioned to be comprised of duplex housing.

The R2 District has been located primarily along collector roadways and within the northeast portion of Chinook Meadows.

#### 4.2.3 General Residential Narrow Lot (R2N)

The General Residential Narrow Lot District is intended to provide areas for single family detached dwellings located on narrow lots. R2N lots are envisioned to be a minimum of 10.0-12.0m wide which is wider than the minimum standard currently found within the Town of Olds LUB. General Residential Narrow Lot do not permit front garages, allowing the front façade of a house to have more direct interaction with the streetscape. In order to ensure the pedestrian-oriented vision is achieved, the R2N areas will incorporate a higher level of Architectural Controls.

The R2N District has been located along collector roadways.

### TYPICAL NARROW LOT PRODUCT



#### 4.2.4 Medium Density Residential (R3)

The R3 Medium Density Residential District has been located within Chinook Meadows to provide affordable housing options for the neighbourhood. This District is envisioned to consist primarily of multi-family residential development which may include row houses, multiplexes, or townhouses. These types of Medium Density Residential housing have been located along the arterial and collector roadways in an effort to ensure appropriate access.

Two specific areas within Chinook Meadows have been designated to accommodate higher density R3 housing options. These areas have been located at the intersection of the arterial and collector roadways to provide efficient

vehicle and pedestrian access to proposed amenities within the community. The larger R3 areas within Chinook Meadows are envisioned to take the form of walk-up apartment buildings.

Several R3 sites south of the arterial roadway identify shadow plans in order to show an alternative layout should there be a need to develop these sites with a public roadway.

#### 4.3 COMMERCIAL

**Goals:** Provide a commercial area to provide employment opportunities and meet the needs of the local residents.

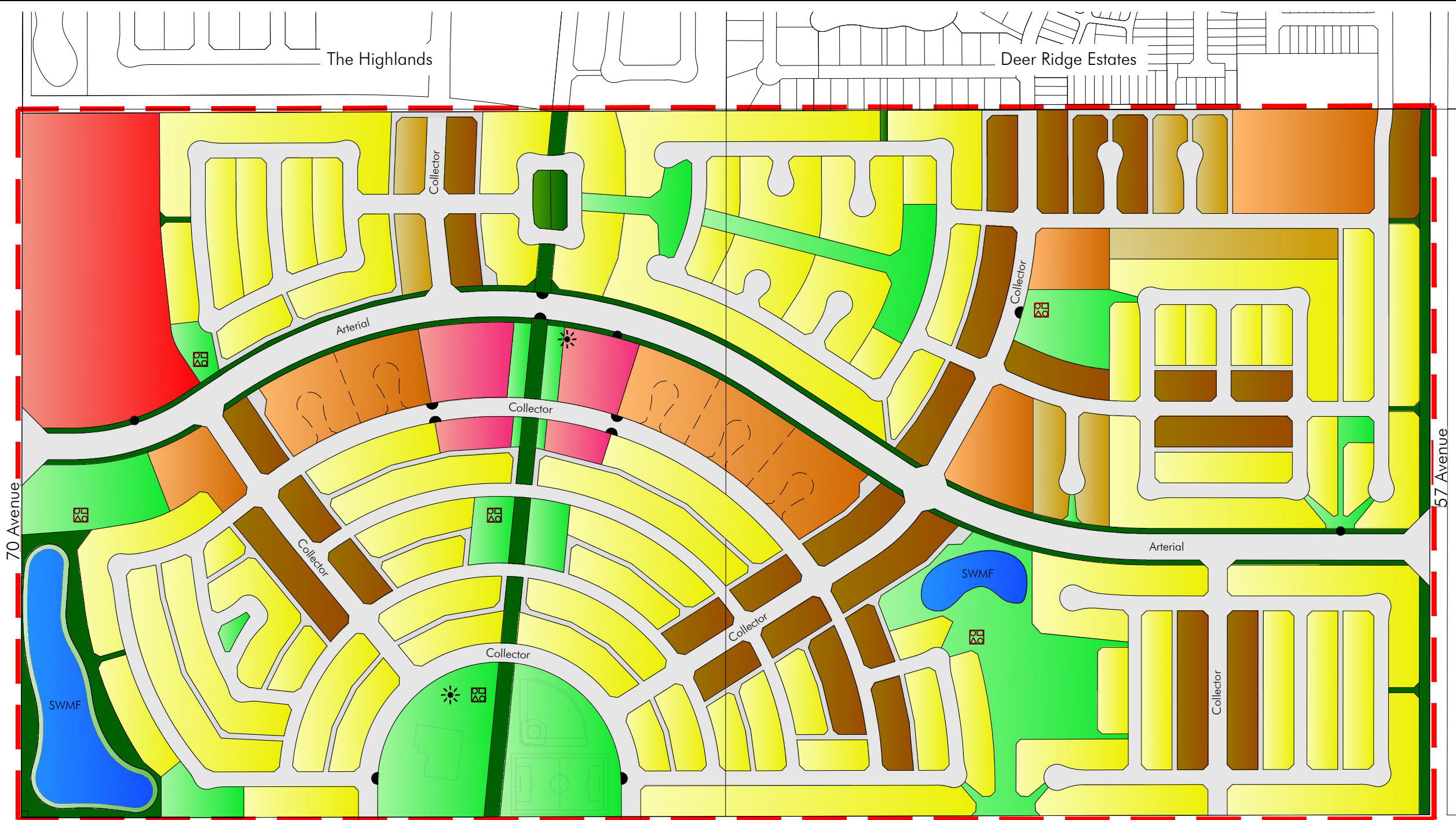
As shown on **Figure 3.0 - Concept Plan**, two areas within Chinook Meadows have been designated for commercial use in the northwest central portions of the Plan Area. Each

**Table 1.0—Land Use Statistics.**

	Hectares (Ha)	Acres (Ac)	% of NDA
Gross Area	129.45	319.88	
Arterial Roadway	5.3	13.10	
Environmental Reserve (ER)	0.47	1.16	
<b>Net Developable Area</b>	<b>123.68</b>	<b>305.62</b>	<b>100.0%</b>
Low Density Residential (R1)	45.06	111.35	36.4%
General Residential (R2)	4.58	11.32	3.7%
General Residential Narrow Lot (R2N)	10.77	26.61	8.7%
Medium Density Residential (R3)	7.76	19.18	6.3%
Town Centre (CN)	1.79	4.42	1.4%
Commercial (C1)	5.85	14.46	4.7%
Municipal Reserve (MR)	12.42	30.69	10.0%
Public Utility Lot (PUL)	7.57	18.71	6.1%
Roads and Lanes	27.88	68.89	22.5%

**Table 2.0—Residential Units and Population.**

Land Use	Area (Ha)	Density (units/ha)	Units	Density (persons/unit)	Population
Low Density Residential (R1)	45.06	21.16	953	2.5	2384
General Residential (R2)	4.58	29.4	135	2.5	337
General Residential Narrow Lot (R2N)	10.77	26.84	289	2	578
Medium Density Residential (R3)	7.76	40	310	2	621
<b>Potential Population</b>					<b>3919</b>
<b>Potential # of Units</b>			<b>1688</b>		
<b>Average Density</b>		<b>13.64 units/ha</b>			



- |    |     |                  |                    |                       |              |                 |                          |
|----|-----|------------------|--------------------|-----------------------|--------------|-----------------|--------------------------|
| R1 | R2N | Commercial (C1)  | Public Utility Lot | Environmental Reserve | ASP Boundary | Traffic Calming | Community Gathering Area |
| R2 | R3  | Town Centre (CN) | Municipal Reserve  | Road/Lane             | Shadow Plan  | Bus Bay         | Community Amenity        |



Figure 3.0 - Concept Plan  
**CHINOOK MEADOWS**  
 Olds, Alberta

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June 21, 2011

commercial area within Chinook Meadows are envisioned for different commercial uses focusing on the local neighbourhood and Town of Olds needs.

#### 4.3.1 Central Commercial (C1)

The northwest commercial area, located along the western boundary of the Plan Area, is envisioned to act as a district commercial center providing larger format commercial uses. This area is well situated to service the surrounding community due to its location along 70th Avenue, which is envisioned to be major roadway within the area in the future.

Chinook Meadow's district commercial area will be developed with entrances off of 70th Avenue and one coming off of the adjacent collector roadway to service both the Chinook Meadows community and also the larger community. Businesses envisioned for this area include an anchor such as a grocery store, complemented with gas bars, health service based businesses, restaurants, etc.

#### 4.3.2 Neighbourhood Commercial (CN)

The centrally located commercial area within Chinook Meadows is envisioned to be more local in nature by accommodating smaller format commercial uses that focus on servicing the Chinook Meadows neighbourhood. This area has been planned to function as Chinook

Meadows's town center which will provide niche and day-to-day type commercial and more locally owned development including offices, restaurants, smaller shops, etc. The town center will act as a community focal point, an area where residents can go to socialize and interact with one another.

### 4.4 PARKS AND OPEN SPACE

**Goals:** Satisfy the active and passive recreation needs of residents.

Open spaces within Chinook Meadows are envisioned to be used for passive and active recreation, stormwater management facilities (SWMF), and as a location for a multi-purpose trail system.

The dedicated Municipal Reserve (MR) areas for Chinook Meadows is shown in **Figure 4.0 – Open Space and Pedestrian Network**. MR has been allocated throughout the Plan Area to distribute open space, help create a linear park system, and provide connectivity to existing and future adjacent neighbourhoods. Though Municipal Reserve areas have been distributed throughout the neighbourhood, Chinook Meadows has been designed to ensure that these areas are usable spaces by increasing the size of each area to accommodate several recreational facilities.



#### 4.4.1 Pedestrian Network

**Goals:** Minimize walking distances by creating an interconnected street network providing walkways where roadway connections are not feasible using open spaces and public utility lot (PUL) connections.

The Chinook Meadows pedestrian network is shown in **Figure 4.0—Open Space and Pedestrian Network**.

An extensive linear park system has been created by linking together a combination of open spaces, ROW, and MR spaces within the Plan Area. This pedestrian network, utilizing the separate sidewalks associated with the arterial and collector roadways, will act as a shortcutting tool for non-vehicular modes of transportation. While developed to connect Chinook Meadows as a whole, the pedestrian network will focus on nodes such as the commercial district, school site, and pond area. The open space network also connects to surrounding neighbourhoods both existing and future.

In an effort to utilize the exiting ROW in the centre of the Plan area as a continuous pedestrian trail network, a mid-block crossing has been identified along the arterial roadway. A major traffic calming measure may be deployed in this area of the roadway in order to ensure the safety of vehicles, buses, pedestrians and cyclists.

Bollards will be installed adjacent to open spaces in order to prevent vehicle traffic from accessing these areas.

#### 4.4.2 Central Park and School Site

The Town of Olds Municipal Development Plan has indicated a need for a new school site in the Town of Olds. It is intended that the site will accommodate an elementary/middle school with a projected capacity of 500 students. In order to facilitate this future need, one potential school site has been identified within Chinook Meadows.

The school site is located in the south-central portion of the Plan Area to be easily accessible from all areas of Chinook Meadows and from future development to the south. Three collector roadways will provide vehicular linkages for the students that may be bused or dropped off at the school. The site is also centrally located to allow for the provision of effective pedestrian linkages.

This proposed school site is approximately 3.77ha (9.36ac) in size and will be designated as Municipal Reserve, as shown in **Figure 4.0 - Open Spaces and Pedestrian Network**. The Chinook Meadows school site has been designed to accommodate a school building with amenities, a soccer field, and other recreational uses such as: community amenities, hockey rink, or multi-use pads. The finalized recreational uses and configurations for the site will be determined based on the need of the school board.

#### 4.4.3 Community Gathering Space

The main function of a community gathering space is to allow for areas of social interaction. These locations are centrally located on and near school sites, park space, and within the town center area. Gathering spaces have been placed to have a strong pedestrian orientation and convenience to ensure usage for neighbourhood activity.

#### 4.4.4 Entry Features

Entry features will be placed at the entrances to the Chinook Meadows community. They will be designed to signify the boundary of the neighbourhood and reflect Chinook Meadow's unique sense of place.

#### 4.4.5 Snow Storage

The Plan has recognized the need for two snow storage locations within the Plan Area, approximately 0.2-0.4ha (0.5-1.0ac) in size. These spaces will only be used for snow storage from within this community.

Due to the potential concerns associated with this use, the location and maintenance schedule/process will be reviewed with the Town of Olds during the detailed design stage. Currently, snow storage areas are envisioned to be located within the large Municipal Reserve spaces. After this snow has melted, these MR areas will require additional maintenance to ensure they are clean and safe for all users to enjoy.

#### 4.4.5 Stormwater Management Facilities

The existing wetlands found within the Plan Area will be retained within the Chinook Meadows neighbourhood and utilized as a stormwater management facility (SWMF). The second SWMF site is located east of the school site along the southern boundary of the Plan Area.

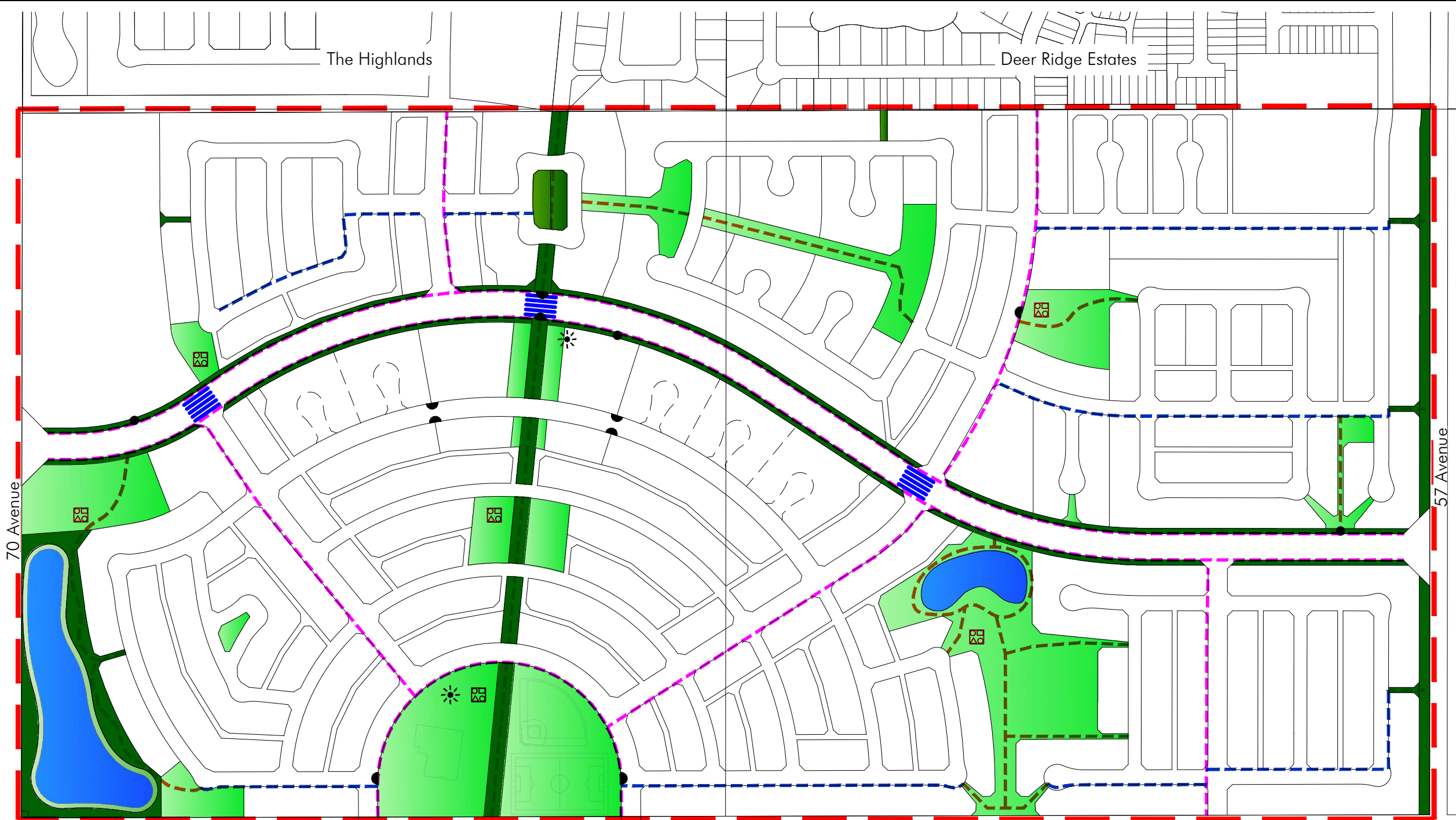
While acting as a functional stormwater management tool, the Chinook Meadows SWMFs will also add aesthetic value to the neighbourhood by providing naturalized views and passive recreation opportunities for residents by way of bird watching, naturalized trails, etc. They will also be incorporated with open spaces that include active recreational elements to ensure a linkage between passive and active recreation areas.

Both facilities will take the form of wet ponds and will be designed to accommodate 1:100 year storm water events.

#### 4.5 DENSITY

The Chinook Meadows Concept Plan has been designed with a higher density in order to support sustainability for the Town of Olds. A target density for the community will be a minimum of 14.0 units per gross developable hectare (5.7 units per gross developable acre).





- Public Utility Lot
- Municipal Reserve
- Environmental Reserve
- Multi-Purpose Trail
- ASP Boundary
- Connecting Sidewalk
- Separated Sidewalk
- Traffic Calming
- Community Gathering Area
- Bus Bay
- Potential Pedestrian Crossing Area
- Community Amenity



Figure 4.0 - Open Spaces and Pedestrian Network  
**CHINOOK MEADOWS**  
 Olds, Alberta

Prepared for:  
**LIBERTY LAND CORPORATION**  
 CALGARY, ALBERTA



DRAWN BY: SAS  
 CHECKED BY: GL  
 SCALE: 1:2500  
 PROJECT #: 112848088

June 21, 2011

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# 5.0 TRANSPORTATION

## 5.1 TRANSPORTATION OVERVIEW

**Goal:** Create a convenient and efficient road network that balances the needs of motorists, pedestrians, and cyclists.

A distinctive feature of the Chinook Meadows neighbourhood is the overall road network. The presence of an arterial roadway, and the radial layout of the streets within close proximity to the school site, is unique to this development. Chinook Meadows has been designed in this way to provide efficient access to the community nodes with special attention given to the school site.

A Traffic Impact Assessment (TIA) will be completed prior to the approval of the Phase 1 Development Agreement. The TIA will provide a summary based on the projected impacts resulting from the Chinook Meadows development and recommend necessary improvements. Recommended improvements to the transportation network will be implemented through the course of build out as per the Phasing plan.

The transportation network proposed within the Plan Area provides its residents and the surrounding traveling public with safe and efficient access within Chinook Meadows and to the rest of Olds. The proposed system of roads is shown on **Figure 5.0 – Transportation Network**.



## 5.2 ARTERIAL ROADS

As shown within the draft version of the Town of Olds and Mountain View County Transportation and Utilities Master Plan, a south connector arterial roadway has been proposed to run through the center of the Chinook Meadows Plan Area from east to west. This arterial will connect Highway 2A, east of the Plan Area, to 70th Avenue which runs along the western boundary of the Plan Area. As shown on **Figure 6.0 –Transportation Details**, this roadway will be designed with a 30.0m wide ROW and 14.8m carriage width.

Though the arterial road within Chinook Meadows will function as an arterial roadway, it will be designed to appear more like a collector roadway. There has been an extra 5.0m reserved on either side of the roadway, more than what is typically required within the Town of Olds, to be used for the addition of more extensive landscaping and a meandering trail system. This trail will be used to form part of the pedestrian network within Chinook Meadows.

Although multi-family housing has been located along the roadway to provide a buffer between the arterial and single family housing, there will be no frontage permitted along the arterial roadway for any land use. Access onto the arterial will be limited to the collector roadway intersections shown in **Figure 5.0– Transportation Network**.

A three-legged intersection is envisioned for 70th Avenue and a controlled four-legged intersection is envisioned for development at 57th Avenue. These arterial intersections will be developed to meet the geometrics, speed, and ROW standards set by the Town of Olds and the Transportation Association of Canada.

## 5.3 COLLECTOR ROADS

A series of collector roadways have been located throughout Chinook Meadows to ensure efficient routes of travel for residents. These collector roads are designed to facilitate vehicular access to major community nodes such as the school site and the commercial district.

Collector roadways are envisioned to have a 20.0m wide ROW with a separated sidewalk on one side of the roadway. The sidewalk will be separated from the roadway by a treed boulevard and will form a portion of the pedestrian network of Chinook Meadows.

All collector roadways within Chinook Meadows will follow the standards set by the Town of Olds Minimum Design Standards for Development.

#### 5.4 LOCAL ROADS

The system of local roads proposed for Chinook Meadows has been planned to provide access to individual development cells while discouraging outside traffic from shortcutting through local roadways. All local roads proposed for Chinook Meadows will have monolithic curbs and gutters as shown on **Figure 6.1 – Transportation Details**.

Local roads that are located in areas which do not have laneways will have a carriage width of 10.5m and a 17.0m wide ROW. Local roads located in areas that do incorporate laneways will have a carriage width of 9.5m and a 15.0m wide ROW.

All local roads will be designed to conform with the Town of Olds Minimum Design Standards for Development.

#### 5.5 LANEWAYS

Laneways are located throughout the Plan Area in areas where residential lots do not allow for front garages, have frontage onto collector roadways, or do not back on to green space. Traffic and parking on Chinook Meadows streets will be lessened by the provision of rear lanes.

All laneways will have a 6.1m wide ROW and be designed to conform with the Town of Olds Minimum Design Standards for Development.

#### 5.6 TRAFFIC CALMING MEASURES

Several locations within Chinook Meadows will require traffic calming measures due to the length and location of the roadways. The Town Centre area, as shown on **Figure 3.0—Concept Plan** will be designed to incorporate a range of traffic calming measures to ensure this area is safe for pedestrians and maintains a connectivity to both sides of the collector.

A variety of traffic calming measures that may be utilized within the Town Centre, including raised crosswalks, chokers, and textured surfaces, have been identified on **Figure 7.0 – Traffic Calming Measures**. All traffic calming measures will be designed to standards as set forth by the Town of Olds Minimum Design Standards for Development.

#### 5.7 BUS BAYS

Several locations have been identified within Chinook Meadows for the creation of bus bays, as shown on **Figure 8.0—Bus Bay Details**. Bus bays are special areas on the side of roadways designed specifically for buses to stop and pick up or drop off passengers. The purpose of these areas is to avoid buses pulling over and blocking a lane of traffic. Bus bays also improve passenger safety during boarding and unloading.

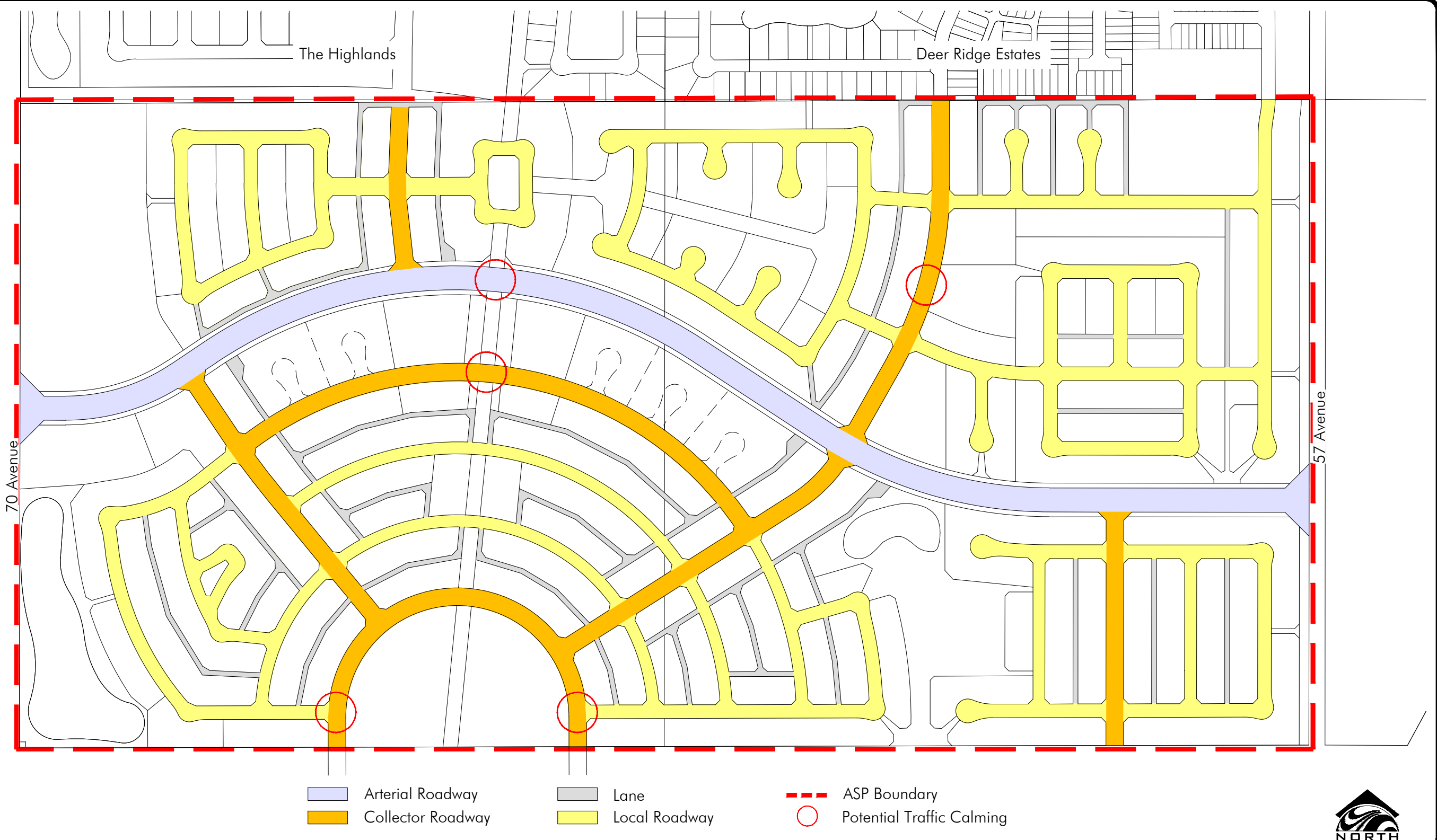


Figure 5.0 - Transportation Network  
**CHINOOK MEADOWS**  
 Olds, Alberta

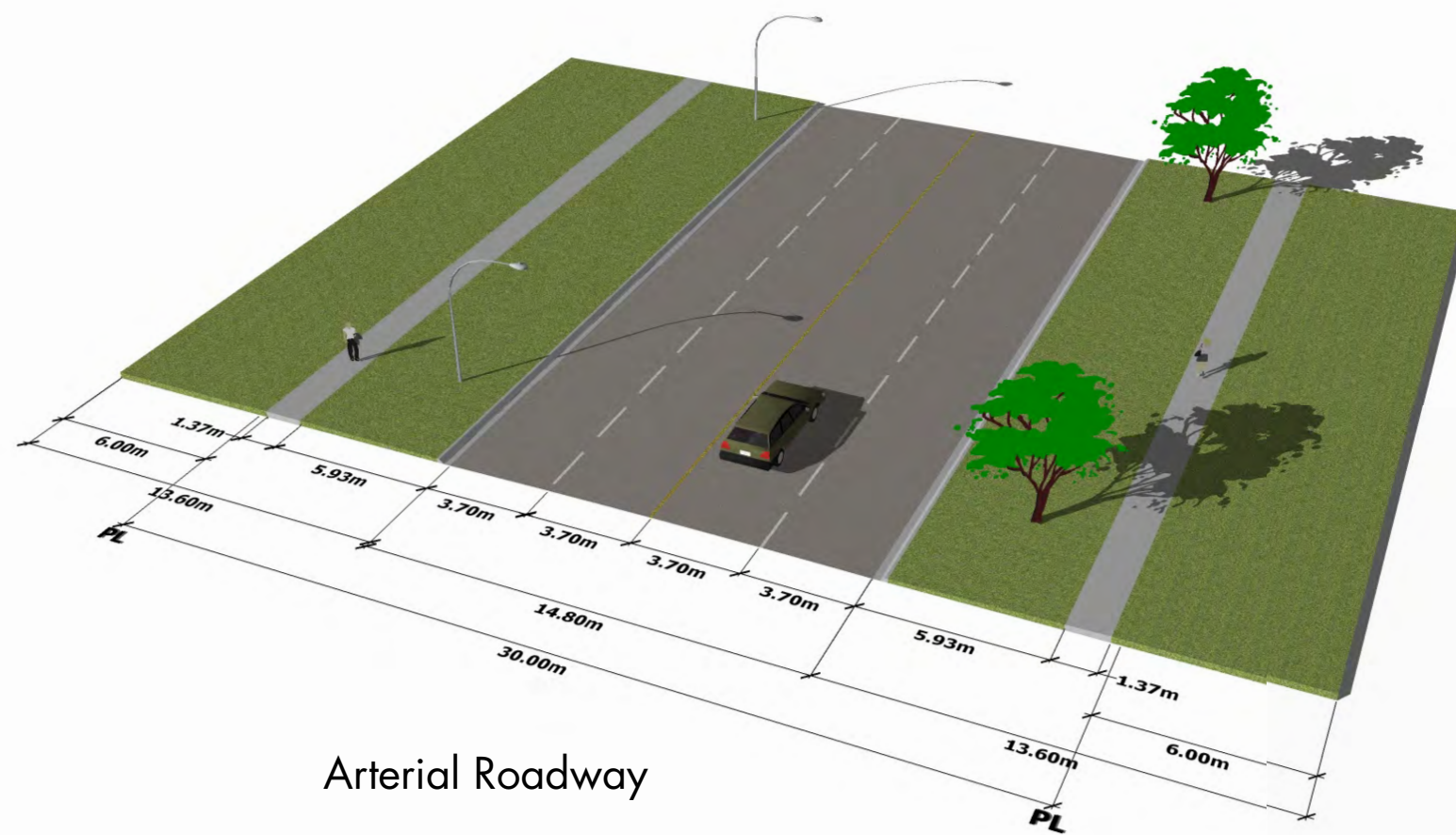
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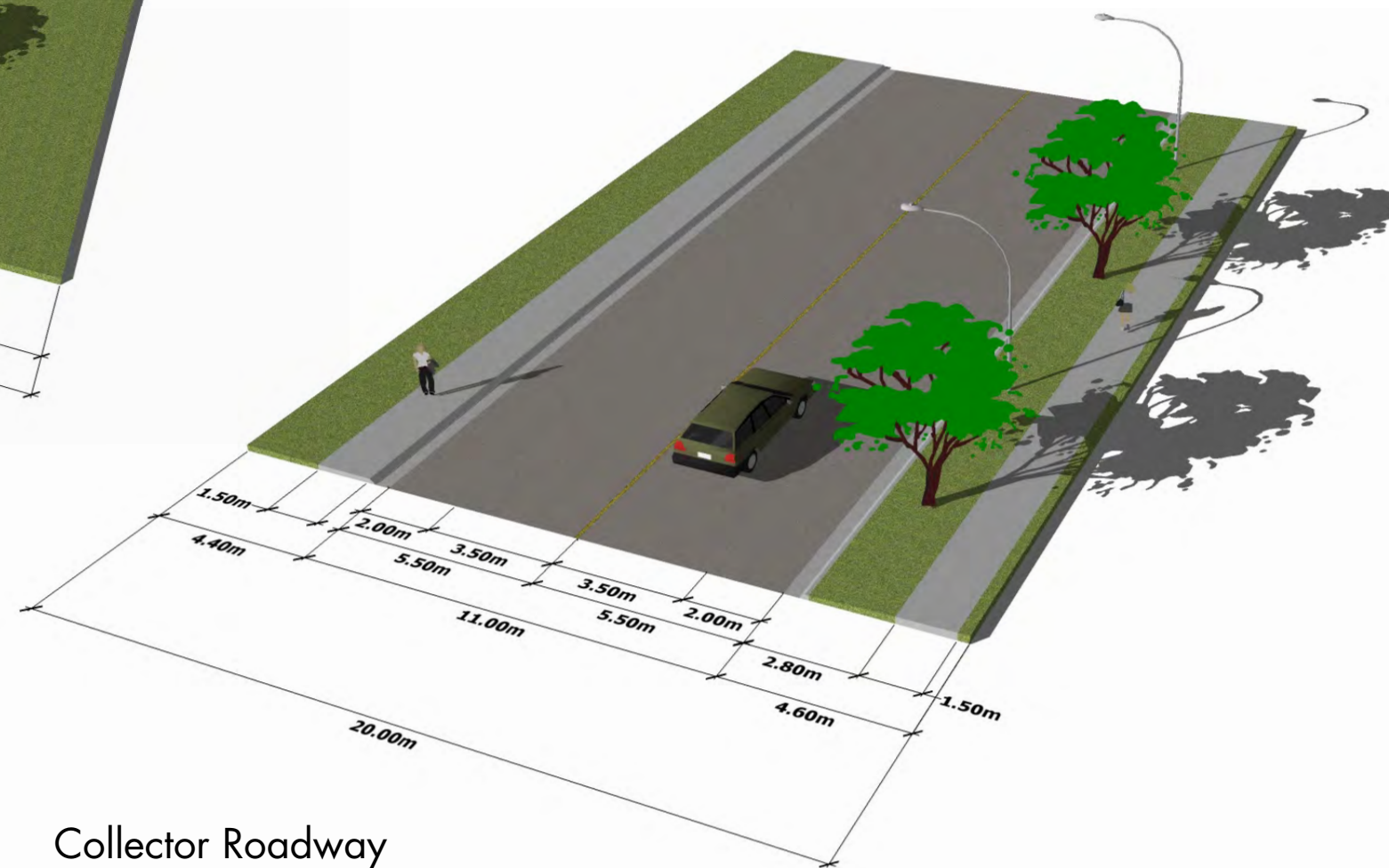
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June 21, 2011



Arterial Roadway



Collector Roadway

Figure 6.0 - Transportation Details  
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April 2011

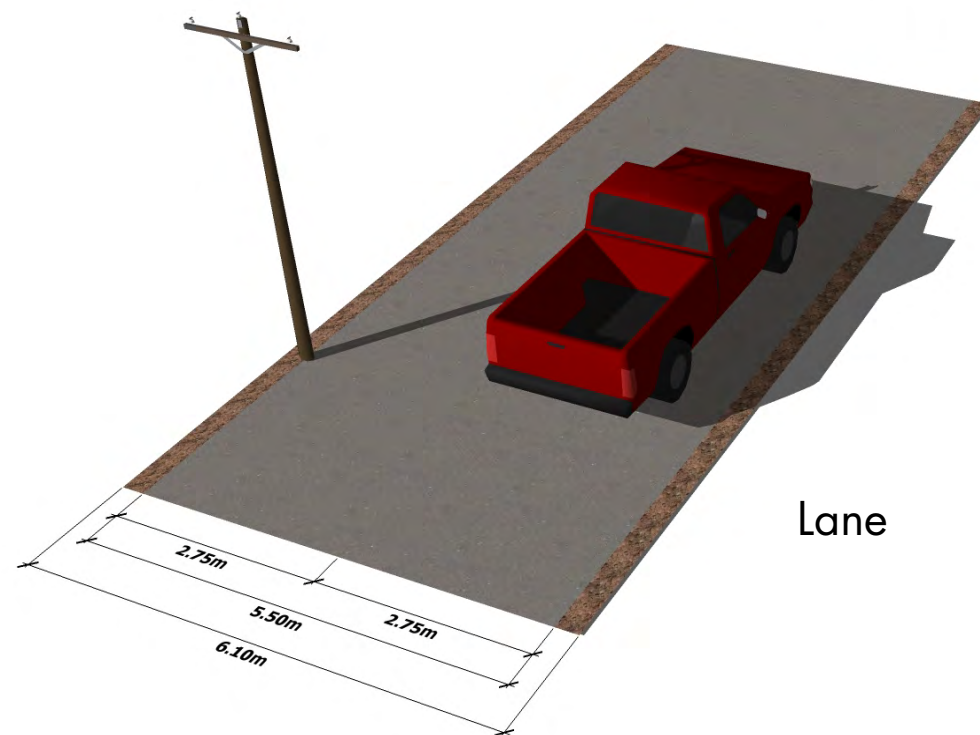
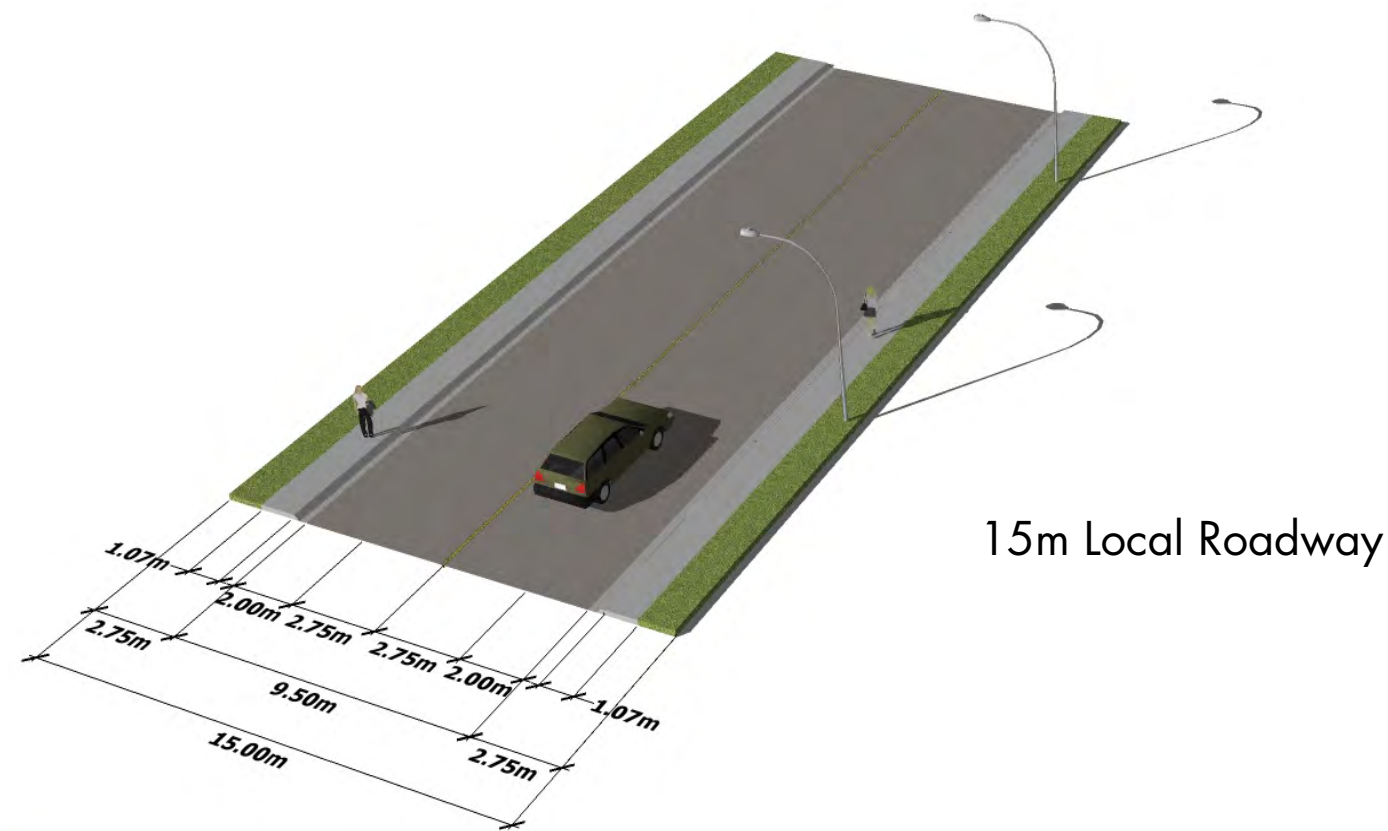
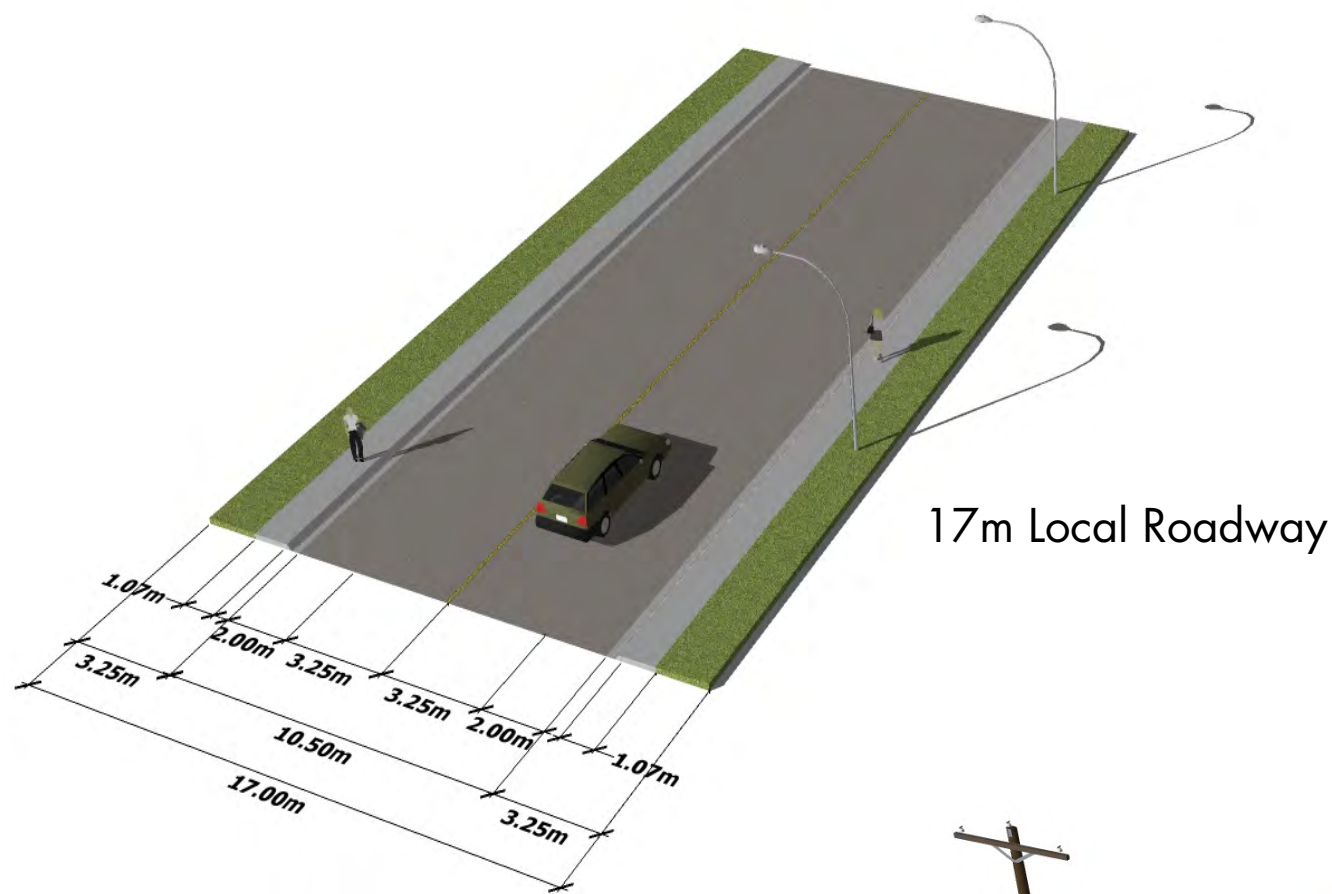


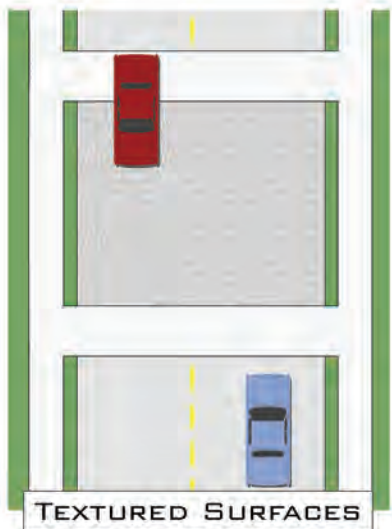
Figure 6.1 - Transportation Details  
**CHINOOK MEADOWS**  
 Olds, Alberta

Prepared for:  
**LIBERTY LAND CORPORATION**  
 CALGARY, ALBERTA

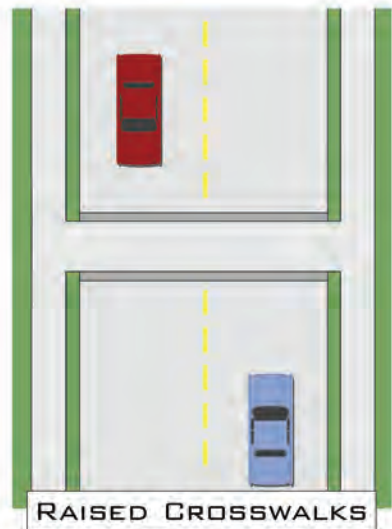


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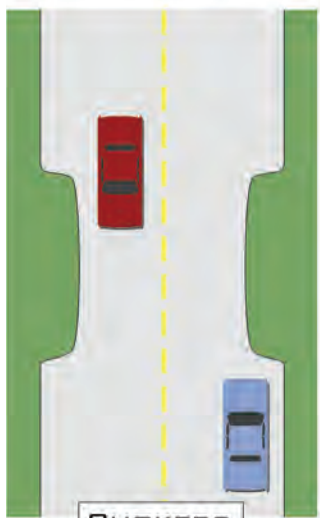
April 2011



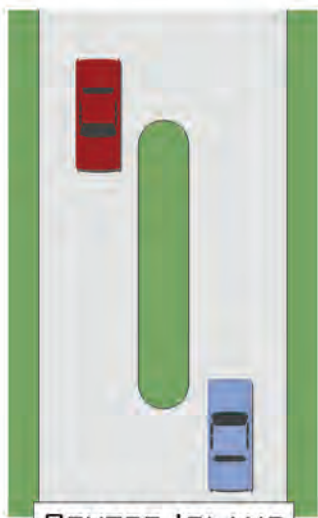
TEXTURED SURFACES



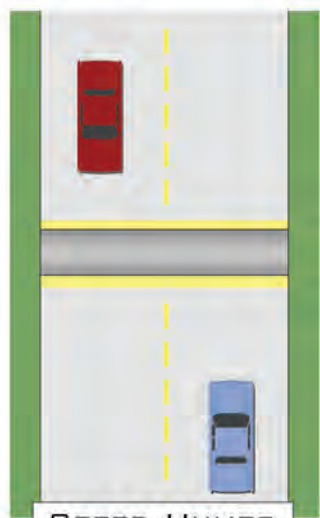
RAISED CROSSWALKS



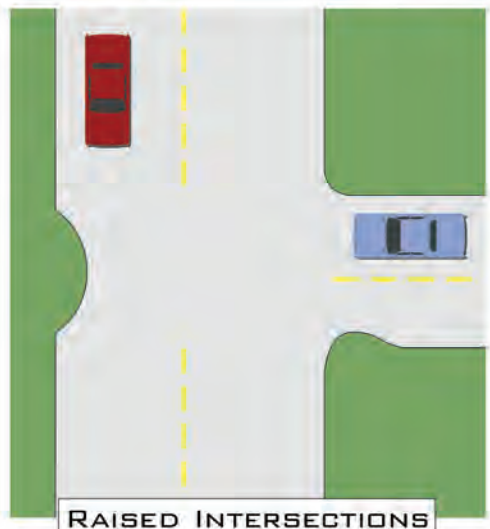
CHOKERS



CENTRE ISLAND



SPEED HUMPS



RAISED INTERSECTIONS



TRAFFIC BUTTON

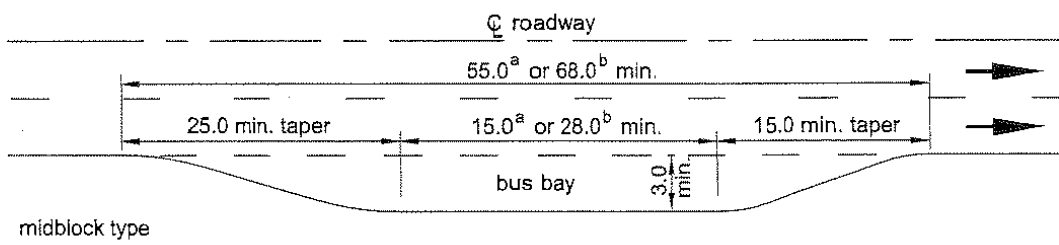
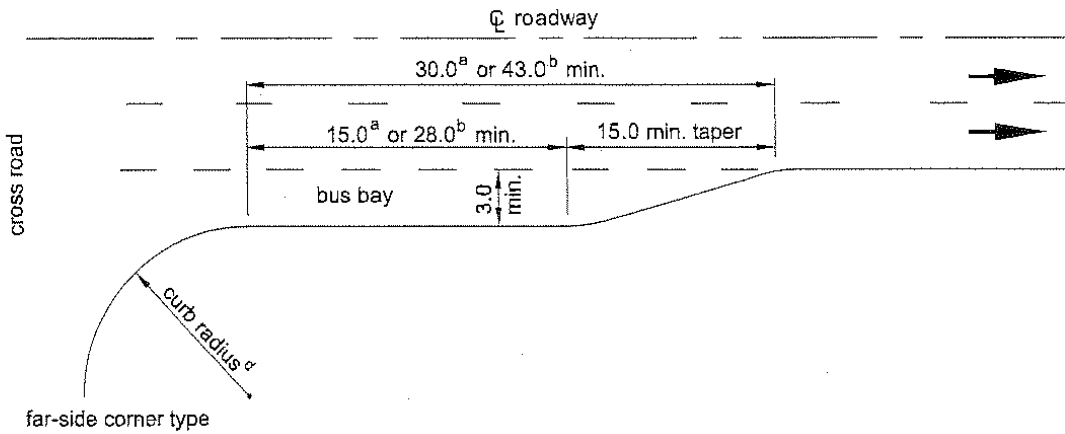
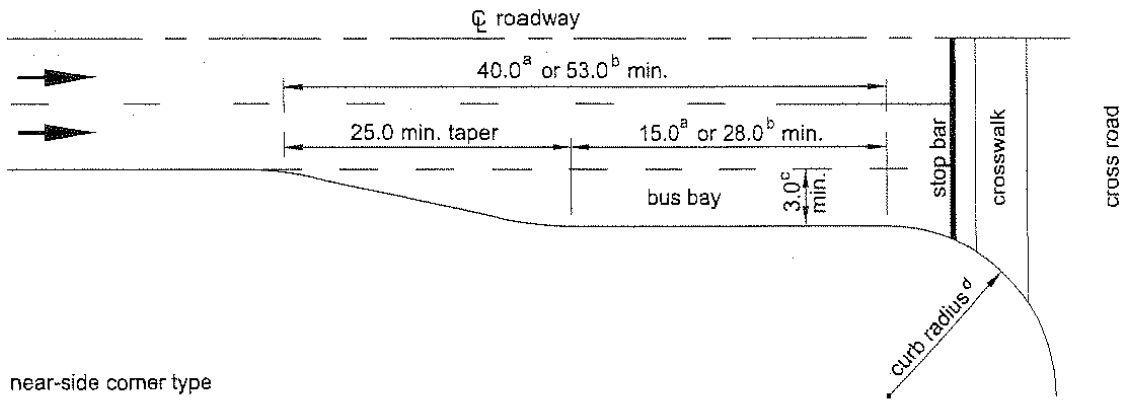
Figure 7.0 - Traffic Calming Measures  
 Chinook Meadows  
 Olds, Alberta

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 Calgary, Alberta



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 PROJECT #: 112848088

April 2011



- Notes:
- a. Dimensions to accommodate a single city bus.
  - b. Dimensions to accommodate two city buses.
  - c. Dimension increased to 3.5 m if used as a combination bus bay, right-turn bay.
  - d. Refer to Chapter 1.2 for design vehicle turning radius.

For an articulated bus, a bus bay length of 25 m and two 30 m tapers are suggested minimum dimensions.

Figure 8.0 - Bus Bay Details  
 Chinook Meadows  
 Olds, Alberta

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 Calgary, Alberta

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MARCH 2011



## 6.0 SITE DEVELOPMENT & MUNICIPAL SERVICING

### 6.1 SITE GRADING

Upon approval and commencement of development, the Plan Area will be graded as required by each phase of development. Generally, the phase area, and some additional land as required, will be stripped of topsoil, which may be temporarily stockpiled onsite or removed prior to grading. Though the development concept and servicing requirements have been designed to suit the existing grades, the overall grading requirements are considered normal in comparison to typical developments. Regardless of this, attention will be given to minimize the impact of site grading.

### 6.2 STORMWATER SYSTEM

As discussed in **Section 2.1—Topography, Soils, & Vegetation**, the proposed development area slopes from east to west in the east quarter section and from northeast to southwest in the west quarter section. There is an existing low-lying vegetated area that frequently experiences ponding. All of the stormwater drainage will flow into the low-lying vegetated area naturally.

Two stormwater management facilities (SWMF's) will be constructed to accommodate stormwater runoff. As shown in Figure 9.0—Stormwater System, one SWMF will be constructed in each quarter section. Both SWMF's will be constructed as wet ponds and will be designed to naturally improve water quality to an established level before discharging. All storm water management ponds and related facilities will conform with the requirements set out by Alberta Environment.

The SWMF on the west quarter section will be constructed in the low-lying area located on the southwest corner of the quarter section. This pond will accommodate the stormwater from all of the west quarter section and much of the northern and western portions of the east quarter section (approximately 60% of the total proposed area). This pond will outlet across 75 Avenue to tie into the rest of the existing low-lying area and eventually flow to Olds Creek.

The SWMF on the east quarter section will accommodate the eastern portion of the east

quarter section. A control structure and outlet will be installed on the west side of this pond to connect to the system in the west quarter section. The storm trunk from the future development east of Chinook Meadows will tie into this SWMF via a storm trunk and ultimately to the SWMF in the west quarter section.

All SWMF's will be sized to accommodate stormwater detention for 1:100 year storm events. Once a detailed servicing study is completed, the stormwater management requirements will be confirmed. If necessary, the detention ponds may be increased or reduced in size.

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 SWMF's 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 will also be designed to accommodate weeping tile connections to the homes via a shallow or deep storm connection. Necessary drainage controls and their actual locations will be identified in the detailed service study prior to the approval of the related Development Agreement .

### 6.3 SANITARY SERVICING

Ultimately, the proposed development will primarily be serviced by a future 450.0mm diameter sanitary trunk from the Highlands subdivision to the north, as shown in **Figure 10.0— Sanitary System** The sanitary trunk in The Highlands development will be required to be installed at a depth that will ensure the trunk servicing Chinook Meadows and future development to the east of Chinook Meadows can be accommodated by gravity sewer.

In the short term phases of development, the northern portions of the east quarter section of Chinook Meadows are proposed to be serviced by gravity mains that tie into the existing stubs at the north property lines. However, the existing sanitary sewer infrastructure downstream of the tie-in points is believed to be at, or near, full capacity. As part of the future servicing study,

flow monitoring will be completed at critical locations of the Town's existing sanitary system to assess the current sewer flows and quantify the amount of development that can take place without overwhelming the system. There is potential to construct the short-term component of the sanitary sewer system to tie into the existing system while providing the Town with a future option to switch the flows and tie into the ultimate trunk system, if required.

In order to convey the sanitary wastewater from the low-lying area on the southwest side of Chinook Meadows and connect to The Highlands connection stub, a lift station will be constructed in the low-lying area on the west side of the proposed development area. A force main will run along the east/west collector road from the proposed lift station to tie into the gravity sewer. The lift station and force main will, in addition, be designed to also accommodate other future developments west and south of the Chinook Meadows boundaries as required.

Routing the gravity trunk to tie into The Highlands development, instead of to the future lift station, will reduce the lift station's design flows and energy requirements. This routing will maximize the long term sustainability of the overall sanitary system in the overall future development area.

The sanitary sewer system will be designed in accordance with the Town of Olds Minimum

Design Standards for Development and will be turned over to the Town of Olds after a two-year maintenance period.

#### 6.4 WATER DISTRIBUTION

Ultimately, the proposed development will be serviced by a future 300.0mm diameter water trunk from the northeast of the proposed development, as shown in **Figure 11.0—Water Distribution System**. The proposed trunk will run westward through the development and tie into the Highlands trunk system. Water mains and stubs will also be installed to accommodate future development west and south of Chinook Meadows.

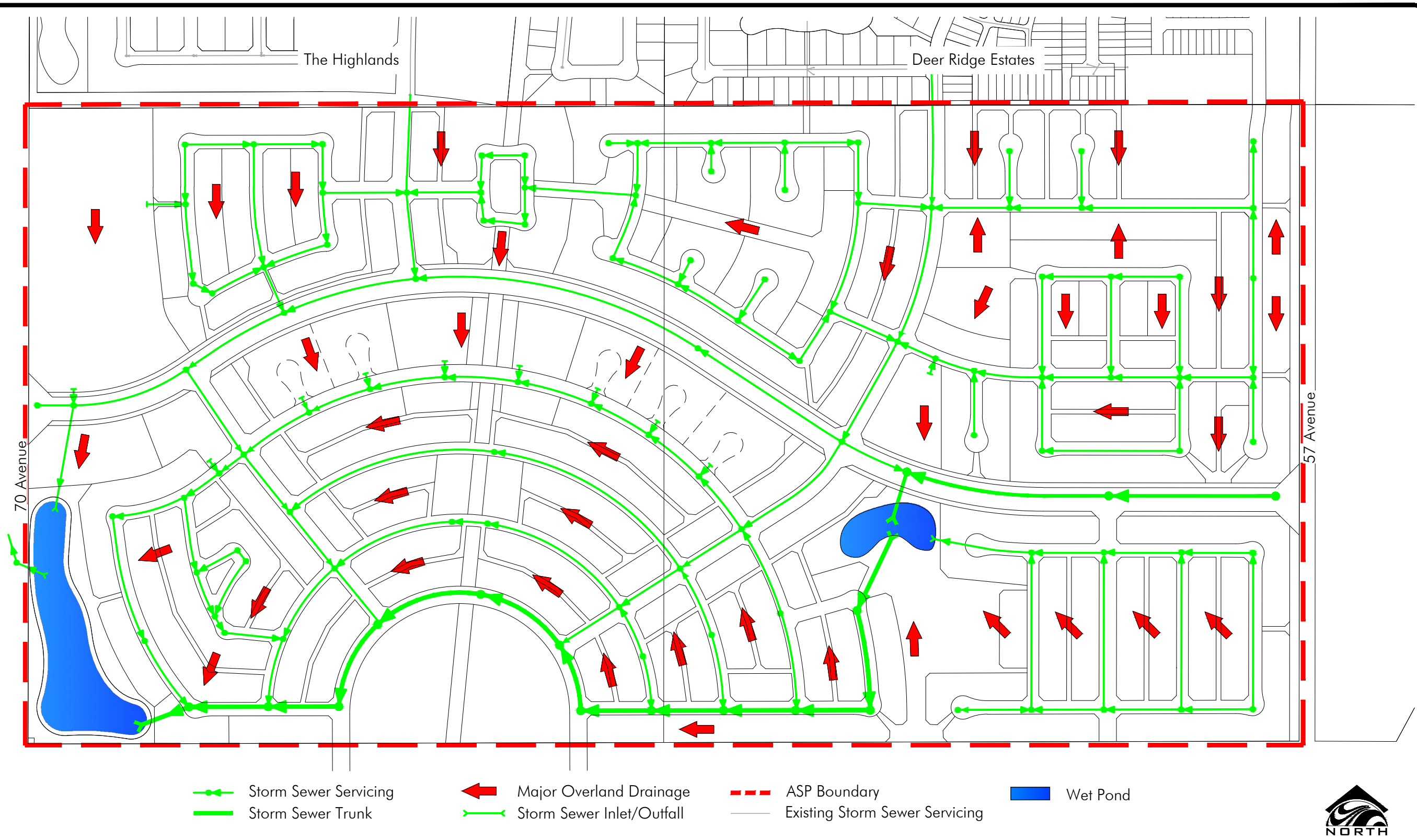
The short term phases of the Chinook Meadows development will tie into the existing 200.0mm stubs on Lake Ridge Road and 62 Avenue. The extent of short term development that can be accommodated by these stubs prior to the connection to the future 300.0mm water trunk will be assessed in the detailed servicing study.

The water system will be designed utilizing the water model completed by the Town of Olds and in accordance with the Town of Olds Minimum Design Standards for Development. The system will be turned over to the Town of Olds after a two-year maintenance period.

#### 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 extensions of 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 network will follow typical Town of Olds standards including shallow bury within easements paralleling the road Rights-of-Way.



- Storm Sewer Servicing
- ← Major Overland Drainage
- ASP Boundary
- Wet Pond
- Storm Sewer Trunk
- Storm Sewer Inlet/Outfall
- Existing Storm Sewer Servicing



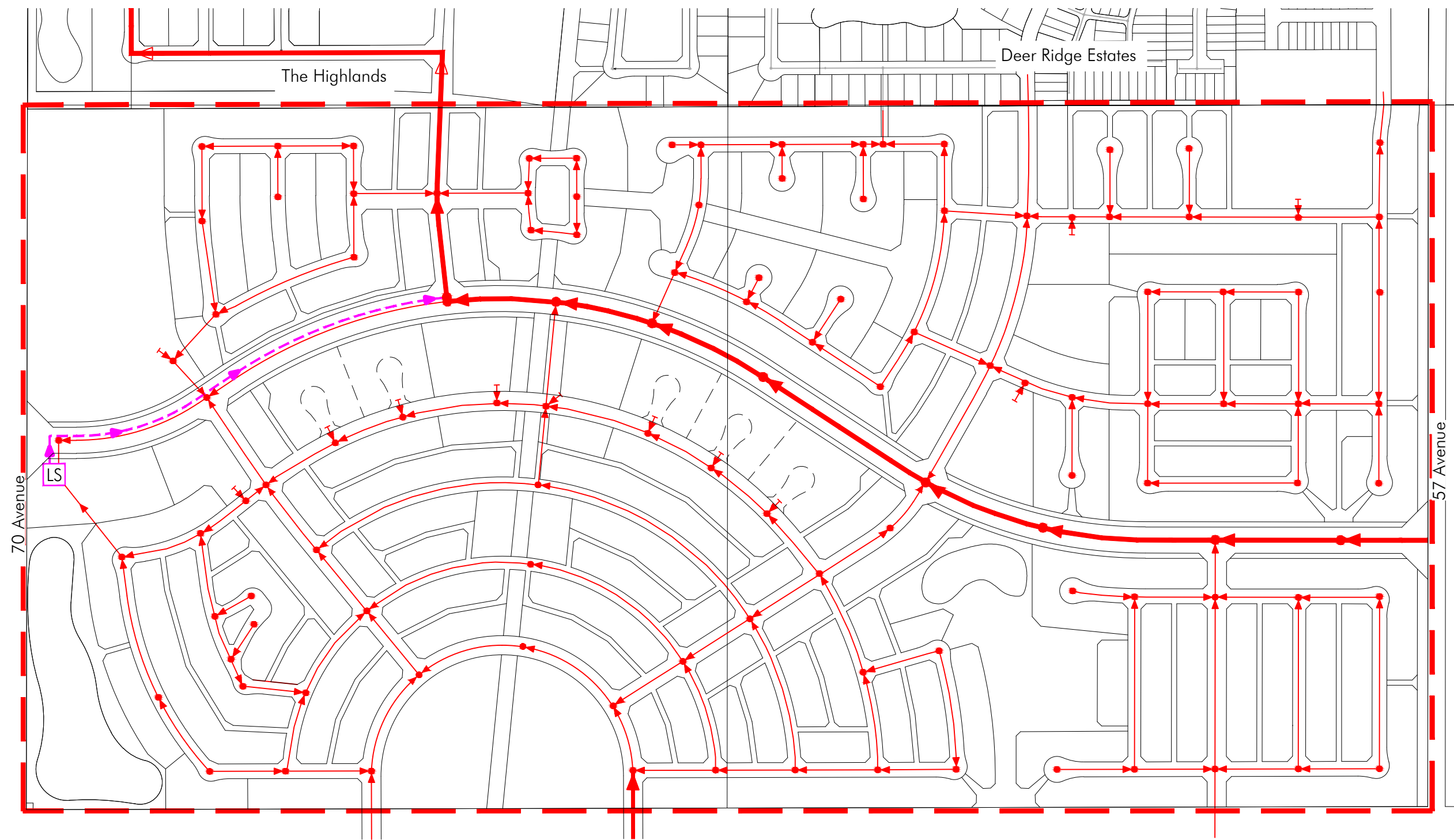
FIGURE 9.0 - Stormwater System  
**CHINOOK MEADOWS**  
 Olds, Alberta

Prepared for:  
**LIBERTY LAND CORPORATION**  
 CALGARY, ALBERTA



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June 21, 2011



- Sanitary Sewer Servicing
- Sanitary Sewer Trunk
- ASP Boundary
- Existing Sanitary Sewer Servicing
- Sanitary Sewer Forcemain
- Lift Station



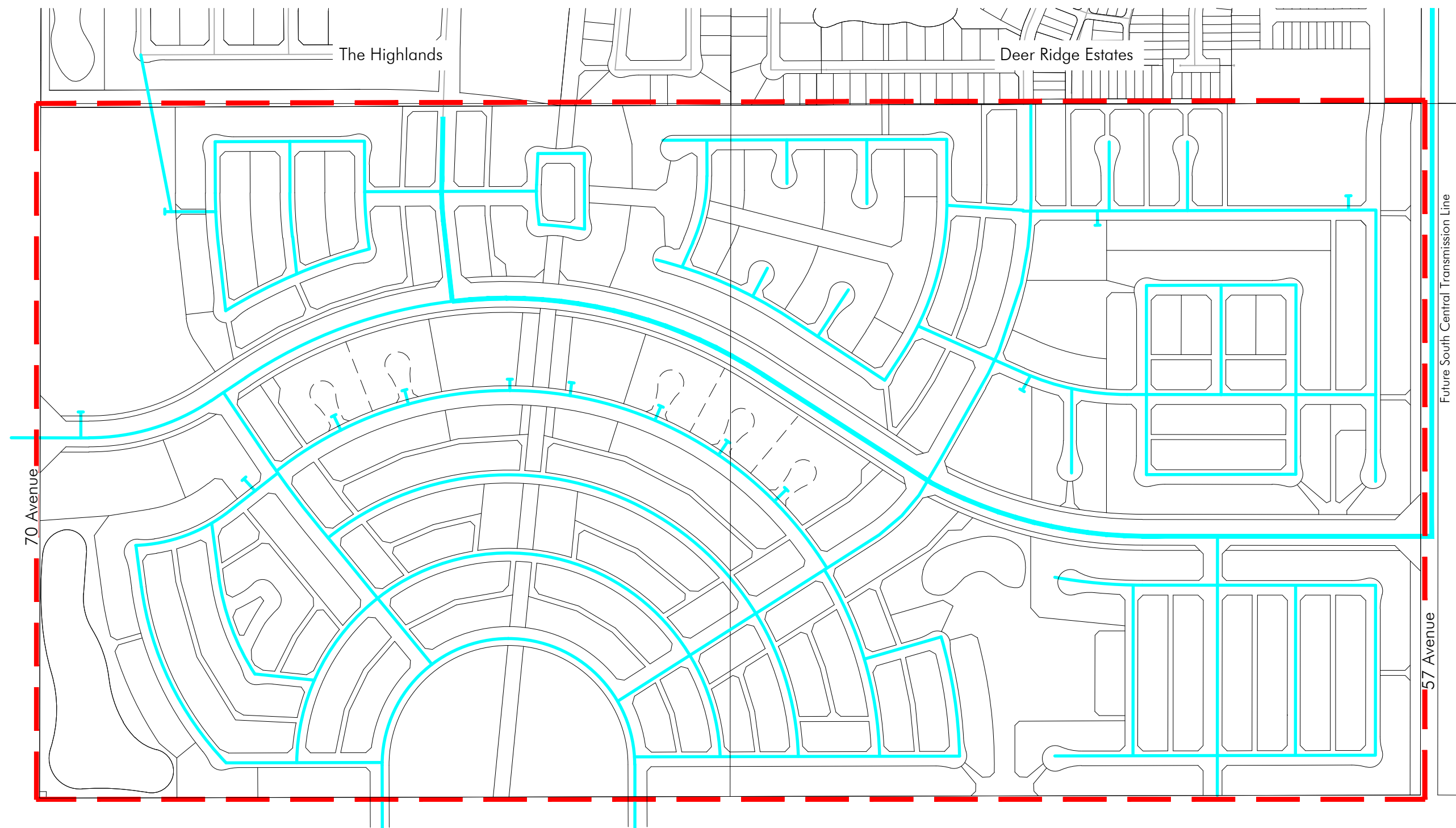
Figure 10.0 - Sanitary Sewer System  
**CHINOOK MEADOWS**  
 Olds, Alberta

Prepared for:  
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- Water Servicing
- 300mm Water Trunk
- Water Stub
- Existing Water Servicing
- - - ASP Boundary



Figure 11.0 - Water System  
**CHINOOK MEADOWS**  
 Olds, Alberta

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## 7.0 PLAN IMPLEMENTATION

### 7.1 DEVELOPMENT STAGING

Infrastructure to service the Plan Area will be extended into this development from the existing sanitary and storm trunks located in the Deer Ridge Estates and The Highlands developments. Each successive stage will be developed with the logical and economical extension of these municipal services with the intent of meeting the needs of the regional and local housing market.

As shown on **Figure 12.0 – Phasing Plan**, the phasing is generally expected to begin in the northeast and continue to the southwest. The phasing boundaries are shown conceptually and may vary when redistricting and subdivision applications are made. Portions of separate phases may be developed concurrently pending sufficient demand and/or if the municipal servicing is efficiently produced.

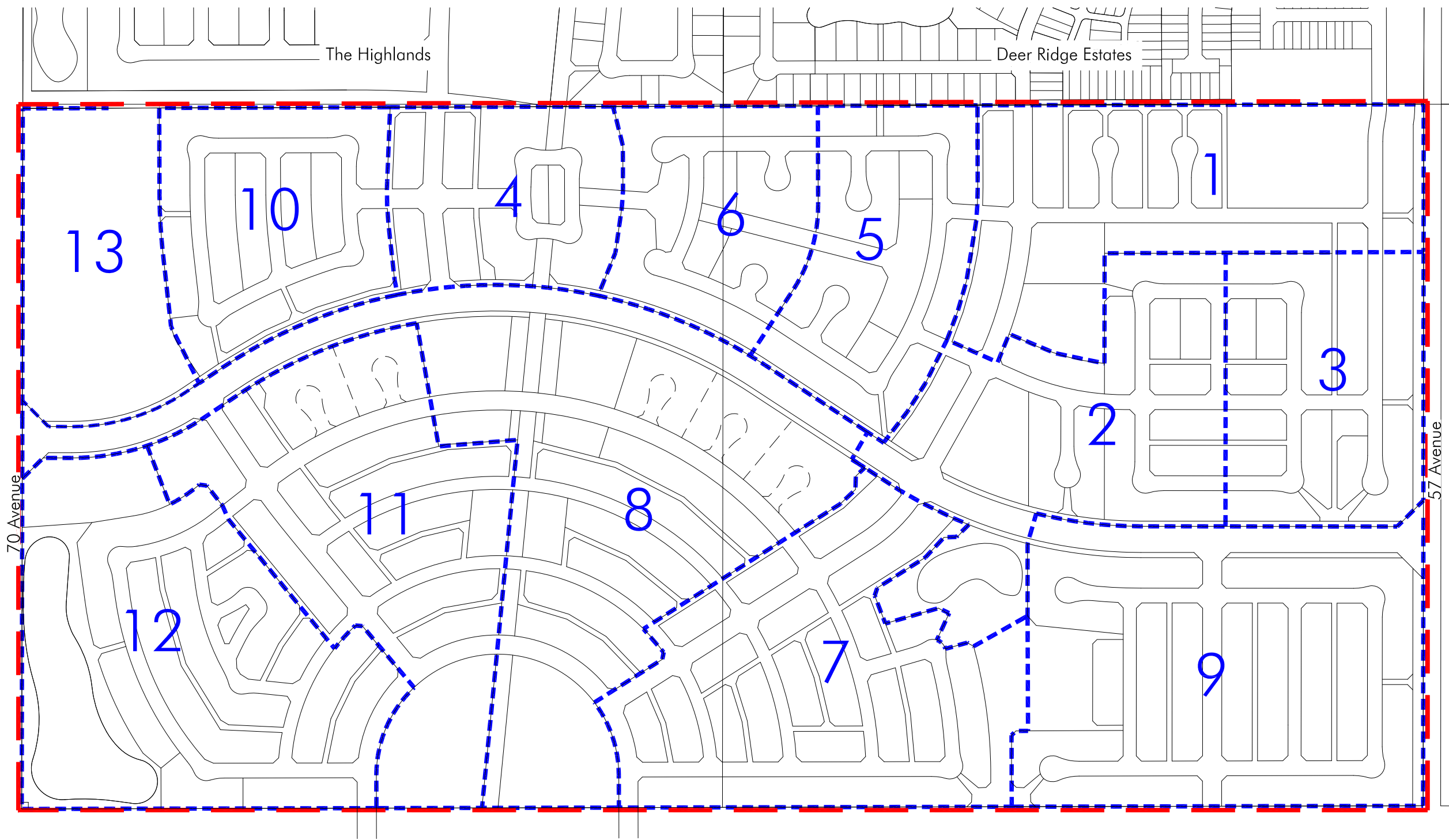
In an effort to minimize impact to the surrounding communities, access to the north shall be barricaded and a temporary construction access be developed to on 57<sup>th</sup> Avenue during the early construction phases. Emergency access locations will also be determined through each successive stage to ensure an appropriate level of services.

### 7.2 REDISTRICTING & SUBDIVISION

Redistricting and subdivision applications shall conform to the land use designations as described in the Town of Olds's LUB, ASP, and MDP. Applications will be undertaken as necessary and address additional required information.

### 7.3 ARCHITECTURAL GUIDELINES

An overall theme will be developed for this neighbourhood and architectural controls will be developed to ensure that all building construction will comply and conform to the overall vision and theme for the neighbourhood.



- - - ASP Boundary  
- - - Phasing Boundary



Figure 12.0 - Phasing Plan  
**CHINOOK MEADOWS**  
 Olds, Alberta

Prepared for:  
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June 21, 2011

# APPENDIX A: REVIEW & CONSULTATION PROCESS

The Town of Olds MDP dictates that as part of the process of development in the community, public input shall be facilitated on matters of general or specific development planning interest. The MDP also states that input should be facilitated as early in the decision making process as possible. The process of developing Chinook Meadows reflected Olds's MDP in regards to the public consultation process that was followed. The review and consultation process will include:

- Plan reviews by the Town of Olds
- Plan distribution to the Town and identified stakeholders such as school board, health divisions, etc.
- Plan submission for additional review by the Town
- Open houses to inform the public of the Chinook Meadows development and gather public comments.

Public meetings were held in centrally located venues to discuss the project and the process as it moved forward. These meetings served as an opportunity to discuss anticipated timelines as well as give Stantec the opportunity to solicit public comment and input. Each meeting was held on a weekday evening and included presentations from the Stantec team, followed by a question and answer period. Display boards were used for reference and comment sheets were made available to all attendees to fill out and return with their feedback.