

WHEATLAND COUNTY  
PROVINCE OF ALBERTA  
BYLAW 2007-23  
(ASP 2007-002 SPEARGRASS II)

Being a bylaw of Wheatland County for the purpose of adopting an Area Structure Plan and Rescinding Bylaw 2002-10, the Speargrass II Area Structure Plan.

**WHEREAS** notification of this Bylaw was circulated to area landowners within 1 mile and it was advertised in the Strathmore Standard a minimum two (2) weeks prior to the Public Hearing date.

**WHEREAS** a Public Hearing was held on May 1, 2007 at the Wheatland County office.

**WHEREAS** the applicant has requested amendments to Bylaw 2002-10 – Speargrass II Area Structure Plan.

**WHEREAS** the Speargrass II Area Structure Plan as amended is attached as Schedule “A”.

**FARTHING MOVED** first reading of Bylaw 2007-23, on February 20, 2007, this being a bylaw of Wheatland County for the purpose of adopting an Area Structure Plan as attached Schedule ‘A’ and to rescind Bylaw 2002-10, the existing Speargrass II Area Structure Plan, and it was

Carried.

**FARTHING MOVED** second reading of Bylaw 2007-23, on May 1, 2007 and it was

Carried.

**FARTHING MOVED** third and final reading of Bylaw 2007-23, on May 1, 2007 and it was

Carried.

Ben Armstrong  
Reeve



Jennifer Deak  
County Manager





## Area Structure Plan

Wheatland County

Amended November 2006  
Text Revised February 9, 2007

Prepared for:

**SPEAR GRASS**  
*Golf Course Community*

Prepared by:

**STONEFIELD**  
DEVELOPMENT



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## EXECUTIVE SUMMARY

The Speargrass plan area is located on Highway 24, 12.5 miles south of Strathmore and one mile east of the Hamlet of Carseland. The Wheatland County Municipal Development Plan (MDP) provides for recreational settlements and the Speargrass II Area Structure Plan is an extension of the existing Speargrass Golf Course and residential community. The existing use of the land, a feedlot and open fields, will be abandoned upon commencement of development.

The Speargrass II Area Structure Plan is an extension of the existing recreation-based development that builds upon Speargrass Golf Course. The Plan reinforces a ***“parkland meadow”*** Concept. This design mixes low density multi-family suburban and half acre lots, the vast majority of which back onto a setting of continuous open space. The meadows would be enhanced by enlarging the existing ponds and creating new contours that are similar to, but less intensive than, the earthmoving in Speargrass I. The site would be planted extensively with native trees, shrubs and riparian vegetation to re-create a parkland environment.

The 236 acre Plan will create approximately 424 additional residential dwelling units over and above the existing approved 161 units, including the homestead parcel. The site is intended at this time to be developed as fee simple subdivisions. Since approximately **34%** (22.74 ha. or 80.89 acres) of the development site will be open space, it is proposed that Municipal Reserve requirements be deferred to the portion of the lands that remain as open space. In return the developer will enter into an easement agreement with the County to provide for public trail access across the site. Water for the development will be provided from the Carseland/Speargrass joint use water Treatment facility and associated distribution system. It is considered that wastewater servicing will be provided by expanded facilities at Wheatland County's Carseland treatment facilities.



## **1.0 INTRODUCTION**

### **1.1 How to Use This Document**

This Area Structure Plan is Divided into Three Sections:

- ❖ Background information
- ❖ An explanation of the intent of the Plan: and,
- ❖ A set of specific policies that will guide the Subdivision and Development Authorities in their decisions.

The implementation policies direct the County to undertake specific actions that are required to ensure the area develops as intended by the Plan.

### **1.2 The General Setting (Map 1)**

The Plan area is located on Highway 24, 12.5 miles south of Strathmore and one mile east of the Hamlet of Carseland. The surrounding area is affected by pipeline rights-of-way over a gently undulating terrain. Highway 24 is the main route to Calgary in the area. The lands are currently used as a feedlot and phased agricultural cropland. The Speargrass Golf Course resort and recreational development is located immediately to the southeast. Three residences plus the homestead are located within a half mile of the subject quarter section.

### **1.3 Existing Municipal Policy Framework**

#### **Municipal Development Plan**

Section 10.0 of the 2006 Wheatland County Municipal Development Plan (MDP) provides for residential development in the rural area through the recognition of Hamlets and named areas where adequate servicing is provided. Speargrass is recognized as a named area which has adequate existing servicing, and therefore is a suitable area for future growth. The Speargrass II Area Structure Plan is an extension of the existing Speargrass Golf Course and recreational residential development. The MDP further provides for recreational settlements that have low impacts on groundwater availability, low impact on agricultural lands and are sensitive to the rural environment. The Speargrass II ASP will be serviced through piped water from the Bow River and therefore have no impact on groundwater. The bulk of the land upon which the development is proposed is developed as a feedlot, hayland or slough; therefore, the reduction of better agricultural land is minimized. The development proposes to return approximately 34% of the site to native species, open space



or enhanced wetland and parkland meadow. Therefore, this proposal is seen as exceptionally sensitive to the rural and natural environment.

### **Land Use Bylaw**

The Wheatland County Land Use Bylaw (LUB) identifies the Plan area as General Agriculture (GA). The LUB has already added several new districts to the land use bylaw to accommodate the Speargrass Golf Course and associated resort uses. It is proposed in the Speargrass II ASP to build upon those districts and add to it a supplementary District to accommodate special development. The existing districts to be included in the Speargrass II ASP include the Speargrass Public Open Space District (S-POS), Speargrass Low Density Residential District (S-LDR), and Speargrass Medium Density Residential District (S-MDR). A new Speargrass Special Low Density Residential District (S-SLDR) allows for larger parcels and will be created as a separate bylaw amendment. All land use bylaw amendments in the plan area will occur as a separate process apart from the adoption of the Area Structure Plan.



## **2.0 EXISTING PHYSICAL SITE CHARACTERISTICS**

### **2.1 Topography, Drainage and Vegetation (Map 2)**

#### **Topography**

The Plan area relief is gently sloping terrain with an average grade of less than 1% and few sections being greater than 1.5%. The terrain rises approximately 8.0 metres between the low point in the central southeast and the high points in the northwest and southwest corners. Lands south and east of the Plan area have been re-contoured for the Speargrass Golf Course construction and do not have an effect on the drainage on the subject property.

#### **Drainage**

While four drainage basins have been mapped, water drainage is generally separated by a primary divide line running across the site generally from the east to west. A main seasonal drainage course runs from west to east across the centre portion of the Plan area and enters and continues through the Speargrass Golf Course, ultimately discharging into the Bow River. This creek also serves as the discharge drainage for the existing Wheatland-Carseland sewage lagoons. Discharge is once annually for a three – week period in spring. The west side of the quarter is bordered by a Western Irrigation District irrigation canal and the current landowner has an agreement to draw water for the agricultural land on the quarter for watering livestock.

#### **Vegetation**

The east half of the quarter is cereal-cropped annually, while the south half of the quarter is open grassland. There are remnant stands of trees on the homestead.

### **2.2 Surficial Features and Hydrology (Map 3)**

#### **Soils**

In general, the Plan Area proposed for future land uses is suitable for the recreational / residential form of development contemplated, with few geotechnical concerns. The presence of sand and gravel over the northeast portion of the Plan Area and more clay-based soil over the balance of the Plan Area offers little reason for concern other than drainage considerations within the clay soil zone. High ground water tables in some areas may create a need for trench dewatering. Further investigations are planned to be conducted prior to subdivision approval.





## **Groundwater**

Water table is assumed to be between 1.5 and 3m below surface level. This will be confirmed with soil testing to be done at later stages in the development process. Well tests have indicated that groundwater yields are in the range of 13 to 25 ipgm at 200 feet. The water contains some soda, but no sulphur has been identified. In the central part of the Plan area, a potential sand and gravel deposit serves as an underground recharge area.

## **Surface Disturbances**

Other significant surficial features include two areas on the central west side of the Plan area that are either composed of compacted fill or non-compacted fill as well as some areas that have stockpiled fill, both to a depth of 1.2 metres. A constructed berm is also located in the central east corner of the plan area. The purpose of the berm is to retain and channel surface runoff towards the east, off the quarter.



### **3.0 EXISTING HUMAN FEATURES (MAP 4)**

#### **3.1 Land Use**

An aerial photographic view of the Speargrass II Area Structure Plan is provided on Page 7 of this report.

##### **Feedlot**

The major existing land use in the northwest portion of the Plan Area is a feedlot which occupies the west half of the north quarter section. The feed lot can accommodate up to 7,000 head of cattle with an annual flow through of 15,000 head per year. It is expected that the existing feedlot will be abandoned upon first phase of development. The cropland on the balance of the north quarter and southwest half-quarter section produces cereal grains to support the feedlot operation. Appropriate site remediation will be undertaken by the developer prior to development of these lands.

##### **Residential**

Three other residences are located in close proximity of the Plan area. The homestead occupies the NW corner of the north quarter and is expected to remain as a severed parcel in the short term. However, it will ultimately convert to the proposed land used depicted in Map 6. A homestead is located across from the Plan area north of Highway 24 in NW 8-22-25-W4M. Another farmhouse is located directly west of the Plan area homestead in the NE 6-22-25-W4M. A third subdivided, 1.2 hectare (3ac) parcel is located in the W1/2 SW5-22-22-W4M.

##### **Golf Course**

The Speargrass Golf Course and residential community is located to the south and east of the Plan area on SE5 -22-25-W4, ptSW 5-22-25W4M and ptNE5-22-25-W4M. The Speargrass resort will contain 370 dwelling units, generating approximately 943 persons over a development footprint of 37.7 hectares (93 ac). A southerly road access is anticipated between the golf course development and the Plan area. No significant Speargrass residential development is expected to back onto Plan area, except for a limited low-density multi-family component proposed for the southwest corner of the Speargrass Golf Course development.



Figure 3.1 Plan Area and Existing Uses

### Pipelines and wells

The site is crossed by a Pan Canadian sweet gas line running north/south and a Ventus Energy water pipeline running east/west. With the pipelines approximately 2 metres below the surface, there do not appear to be undue constraints with the pipeline locations and agricultural operations at this point. A sour oil well is located 400 metres west of the Plan area but there is no flaring of gas.

### Servicing and Utilities

The existing franchise utilities are sufficient to meet the power, gas and telephone requirements for the development. Of special note is the proximity of an optical cable within 100 metres of the Plan area that could provide state-of-the-art, high-speed internet communications. The Plan area is serviced with three-phase power and an existing underground powerline to service the irrigation pivot for the west half of the quarter. A natural gas distribution line also services the farmstead and out buildings.



## **3.2 Transportation Network**

### **Existing Access Points**

The Plan area currently has access off Highway 24 in the northwest half quarter, in the form of a range road bounding the west side of the Plan area. The range road servicing the west side of the Plan Area is graveled, and will require certain improvements including an asphalt paved surface to extend to the southern-most site access point along the range road.

### **Existing Traffic Volumes**

Alberta Transportation conducted traffic volumes along Highway 24 between 1991 and 2000. The results show that in the year 2000, traffic volumes on Highway 24 on either side of the Plan area were in the vicinity of 2,450 vehicles per day Annual Average Daily Traffic (AADT). This is an increase from approximately 1,440 in 1991. The existing feedlot operation is estimated to generate a traffic flow of approximately 12 transport trucks per week. An updated Traffic Impact Assessment may be required by Alberta Transportation prior to subdivision approval.

### **Highway 24 Future Road Alignment**

Alberta Transportation has plans to re-align Highway 24 to access into an upgraded Highway 817 north to Strathmore. This would involve de-gazetting the current Highway 24 designation west of the intersection of Hwy 24 and Hwy 817. In addition, Hwy 24 would be upgraded and extended straight eastward to 817 rather than bisecting NE5-22-25-W4M. Therefore, that section of Hwy 24 between the above-noted intersection and the edge of the Plan area would become a local road. Since the timing for this is uncertain, the Plan will assume the primary future access to this portion of the Highway will be off the Range Road on the west of the Plan area.

## **3.3 Water Supply, Wastewater and Stormwater Management**

Water supply to the Plan Area and its development would be from the Wheatland County-Carseland / Speargrass joint-use water treatment and distribution system. Expansions to the water treatment component of this facility may be required. Distribution of water to the Plan Area would be by means of extensions to the existing Speargrass area watermains and by connection to the existing watermain to Carseland, which is located along the south side of Highway 24 (i.e. the north boundary of the Plan Area).



Wastewater servicing of the Plan Area and its development as considered would be provided by expanded treatment facilities at the existing Wheatland County sewage stabilization lagoons. An internal sanitary sewer system would be designed and constructed within the Plan Area development, and the collected wastewater would be pumped to the Wheatland – Carseland plant.

### **3.4 Land Development Capability**

A review of the land capability shows that the land is well-suited for development. The soils appear favourable. The gentle but adequate grade is favourable for gravity servicing. The potential development areas can easily avoid the pipeline rights-of-way, low wet areas, and existing major drainage features. Removing the existing feedlot is a positive development for surrounding residents. The existing availability of surface water is an opportunity for stormwater management, creation of the wetland and aesthetically pleasing landscaping in a region known for its arid climate. Direct access to Highway 24, the reasonable commuting distance to Calgary on excellent roads, the proximity of the Speargrass Golf Course and the Bow River are positive additions to this strategically located Plan Area and future development site.

## 4.0 AREA STRUCTURE PLAN CONCEPT

### 4.1 Introduction

Section 4 of this Plan summarizes the spirit and intent in which the Plan policies are written. This section should not be interpreted as policies but as context for the policies. Section 5 contains the policies that express the specific Plan regulations. The mapping included in the Plan is conceptual in nature and may require further field adjustments to verify dimensions at the subdivision approval stage.

### 4.2 Land Use Concept (Map 5)

#### Parkland Meadows Concept

The Speargrass II Area Structure Plan is a recreation-based development that builds upon Speargrass Golf Course on Wyndham and residential development. The Plan reinforces a **“parkland meadow”** concept. This design mixes suburban and ¼ acre lots with limited low density multi-family in key areas, the vast majority of which back onto a setting of continuous open space. Approximately **34%** of the developable site is shown as open space. The meadow would be created by enlarging the existing ponds and creating new contours that are similar to, but less intensive than the earthmoving in Speargrass I. The site would be planted based on a landscape plan developed during the subdivision design and approvals stage with native trees, shrubs and riparian vegetation to re-create a parkland environment

#### Development Density

The Plan will create approximately 424 additional dwelling units beyond the existing approved units. The type of residential products would be similar to the low density residential district (SLDR) of Speargrass I with the exception that fully serviced ¼ acre lots and limited low density multi-family townhouse product will be added to the mix. In total, the mix may include approximately the following

- 248 Speargrass Low Density Residential District (SLDR) lots at 664m<sup>2</sup> (7,150 sq.ft.), typically at 17m x 40m (55ft x 130ft);
- 183 Speargrass Special Low Density Residential District (SSLDR) single family lots with ¼ acre lots averaging 24m x 41m (80ft x 135ft) in size;
- 154 low density multi-family (SLDMP) district townhouse-style dwelling units.





## **Open Space, Municipal Reserve and Trails**

The site is intended at this time to be developed as a fee simple subdivision with the parkland being dedicated as a Municipal Reserve. Approximately 34% (22.74 ha. or 80.89 acres) of the development site will be open space Municipal Reserve.

More detailed design of the trail system, open space landscaping, land re-contouring and surface-water management will be submitted as part of a more detailed outline Plan at the time of subdivision.

Pedestrian trails are designed to wind through the Plan area. Further, a trail extension along Highway 24 is proposed to extend along the periphery of the Plan area. The intent is to enhance the regional trail system around the Bow River. Ultimately, the extension of this trail would connect to the Hamlet of Carseland.

## **4.3 Transportation Concept**

### **Road Standards**

Internal roads will be paved and have curb and gutter (similar to the existing Speargrass development) and a 20-metre right-of-way.

### **Road Access to Hwy 24 (see Map 8)**

As a result of discussion with Alberta Transportation, access from Highway 24 will be from the west-side Range Road. Other access points depend upon the future alignment of Highway 24. According to the Province, Highway 24 may eventually be re-aligned straight north from the Bow River along Highway 817 with the result that the current road alignment on the east side of Speargrass golf course would become a local road. However, that part of Highway 24 adjacent to the north side of Speargrass II will allow for only one access along the Range Road in the NW corner of the plan area. Depending upon Alberta Transportation requirements, this could involve the construction of acceleration / deceleration lanes with a possible center left turn lane.

The plan proposes two main access points off the range road as well as an emergency access in the northeast of the Plan Area. Minor improvements to the range road, including asphalt servicing, will be required to facilitate access off of the range road. The emergency access may be developed as a second proper access if the current Highway 24 is eventually realigned to go straight north from the Bow River. In addition, an east / west service road corridor accessing the Speargrass Golf Course maintenance facility is incorporated in the center of the Plan Area off of the range road.



#### **4.4 Phasing Of Development (Map 6)**

The project owners of both Speargrass projects are working cooperatively. Speargrass I may be built in phases over the next 6 years while Speargrass II could come on stream in the next 3-5 years and in a manner that would ensure long term success of both projects. The Phasing is determined by the most efficient servicing and road development pattern. The lotting arrangement is conceptual and subject to further refinement at the subdivision approval stage.

#### **4.5 Servicing Concept (Maps 7A, 7B, 7C)**

##### **A Fully Serviced Recreational Resort**

As discussed earlier, water for the development will be provided from the Carseland/Speargrass joint use Water Treatment Facility and associated distribution system.

Wastewater collection from the Plan development would be by means of gravity sewers to a lift station(s) facility(ies). A forcemain to the existing Wheatland – Carseland wastewater stabilization ponds would be used to convey the sewage to this treatment plant, which will require expansion and upgrading. The above infrastructure improvements will be built at the developer's expense.

##### **Surface Water Management**

Stormwater management will, for the most part, be over-ground and will form an integral part of the proposed brook and wetland system.

Compared to the other land in the area, the drainage running through the site provides a natural opportunity to store storm runoff on the site. The plan takes advantage of this feature by proposing to deepen and widen existing sloughs and connect drainages wherever possible. It is also recognized that the climate pattern is quite dry. Therefore, in dry years the water bodies would become meadows themselves. In wetter years they would act as ponds to attract waterfowl and other fauna. Market studies have demonstrated that wetland and open space features are highly desirable features, comparable in ranking with view lots.

The natural drainage in the center of the quarter would be maintained in a manner that allows residential units to back onto the golf course while maintaining important existing drainage features. It is expected that since water draining off this portion of the Plan Area would remain fairly similar to current patterns, any Provincial approvals would be minor.



## **5.0 AREA STRUCTURE PLAN POLICIES**

### **5.1 Introduction**

The following policies are the specific actions and standards that the developer and the County shall follow unless an application is made to amend the Plan and / or the Land Use Bylaw.

### **5.2 Land Use Policies**

- a) Future subdivision and development shall be in accordance with the Area Structure Plan. Major deviations to the Plan design and policies shall require an amendment to this Plan. Minor relaxations may be considered without an amendment to this plan where the developer can demonstrate to the satisfaction of the Subdivision or Development Authority, as the case may be, that the reconfiguration of parcels and road design would maintain the overall intent of the plan policies.
- b) The parcel density shall consist of approximately 585 total residential dwelling units, to be finalized at the time of subdivision approval. Further residential subdivision shall not be approved without an amendment to this plan.
- c) Expected land uses shall include single detached dwellings, low density multi-family dwellings and associated public utilities as may be needed to service the Plan area.
- d) Architectural design guidelines may need to be established by the developer in accordance with the proposed conceptual plan.
- e) The developer shall consider as a first option, the use of shielded fixture lighting at the subdivision stage of development.
- f) The statistics for the Speargrass II Concept Plan are as follows:



### Speargrass II Concept Plan Statistics

<b>Districts</b>	<b>Average lot size</b>	<b>Total Hectares (Ac)</b>	<b>Residential Yield</b>	<b>Estimated Population (@2.74 PPDU-SF) (2.3 PPDU – MF)</b>
Speargrass Special Low Density Residential (SSLDR);	<b>1020 m<sup>2</sup> (10,800 ft.<sup>2</sup>)</b>	<b>18.93 (46.78)</b>	<b>183</b>	<b>501</b>
Speargrass Low Density Residential (SLDR)	<b>690 m<sup>2</sup> (7,300sq.ft.)</b>	<b>17.12 (42.30)</b>	<b>248</b>	<b>680</b>
Speargrass Low Density Multi-Family (SLDMF)	<b>N/A</b>	<b>52.06 (21.07)</b>	<b>154</b>	<b>354</b>
Speargrass Public Open Space District (SPOS)	<b>Common Open Space</b>	<b>32.74 (80.89)</b>	<b>N/A</b>	
<b>Roads</b>		<b>18.28 (45.16)</b>		
<b>Totals</b>		<b>95.60 (236.20)</b>	<b>585</b>	<b>1535</b>

### 5.3 Reserve Land Policies

- a) At the time of subdivision, municipal reserve owing for a specific phase shall be allocated as part of that phase.
- b) The developer shall enter into an agreement with the County to provide an easement for public access to trail system established on the subdivision. The terms of the easement shall be negotiated with the County at the time of subdivision approval.
- c) In general, the reserve lands to be dedicated to the County will be landscaped to a semi-natural state incorporating indigenous low-maintenance plantings requiring limited irrigation and minimal attention from a maintenance standpoint.
- d) It is anticipated that upon 60% buildout, maintenance of these lands will be undertaken by the Speargrass Homeowner Association on behalf of Wheatland County on a contract basis.

### 5.4 Servicing Policies

- a) Development Agreement – The developer may be required to enter into a development agreement with Wheatland County prior to construction of the Residential portion of the Plan area.
- b) Servicing Costs - The developer shall be responsible for all costs associated with on site infrastructure development related to deep and shallow utilities.
- c) Sanitary Sewers – A sanitary sewer treatment and distribution system shall be provided to the satisfaction of Alberta Environment and Wheatland County.
- d) Water Mains – A water source, treatment and distribution system shall be provided to the satisfaction of Alberta Environment and Wheatland County.
- e) Shallow Utilities – Underground power, street lights, telephone, and gas services shall be provided in accordance with the requirements of the shallow utilities standards and the satisfaction of Wheatland County.
- f) Assessments – Assessments, fees, permits, environmental considerations, amenities and/or landscaping shall be determined prior to construction and in accordance with the development agreement.
- g) Stormwater – Stormwater management will generally be in accordance with the stormwater servicing plan as shown conceptually on Map 7, and in accordance with standard engineering practice requiring that post-development runoff not exceed pre-development runoff rates.

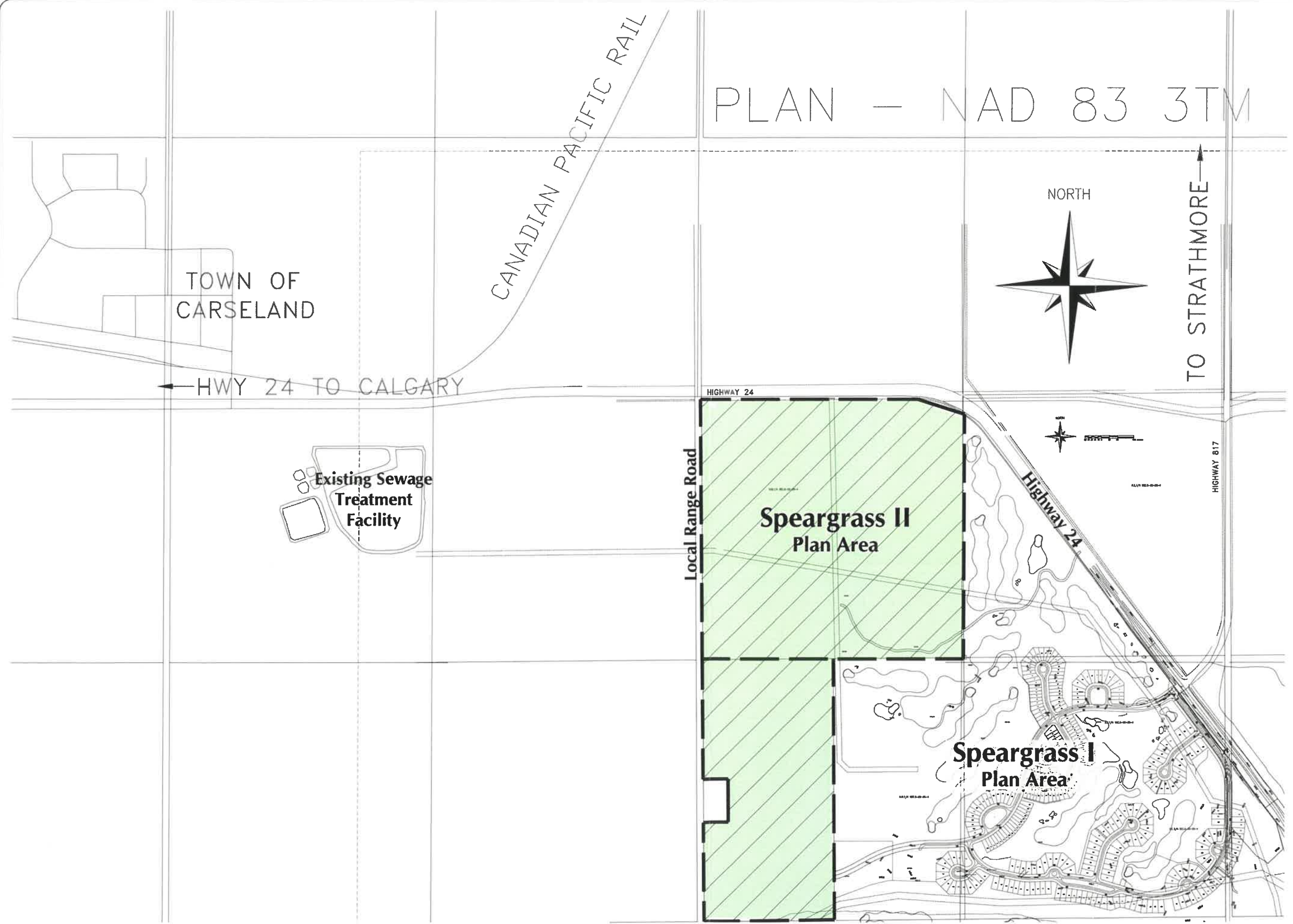
## 5.5 Access Policies

- a) At the time of subdivision approval, the developer shall be required to design and construct intersection improvements between the entry to the Speargrass II site and Highway 24 in accordance with Alberta Transportation. The developer shall first prepare a Transportation Impact Assessment. This assessment shall include provision for dust control in front of existing homes located adjacent to the boundaries of the Speargrass II site, which will be addressed through paving of the existing range road.
- b) At the time of subdivision approval, the developer shall enter into an agreement to ensure that the existing west-side Range Road as shown in Figure 6 is built to County standards and in a manner that is commensurate with expected traffic flows. The developer shall not be required to construct or improve additional County road beyond that which is already constructed.
- c) The developer shall develop roads within the site to a paved standard based on an 8-metre paved surface within a 20-metre right of way.

## 5.6 Community Services Policies

- a) Fire Protection – The developer shall enter into an agreement with the County to provide sufficient fire hydrant protection to the satisfaction of the County. Residents of Speargrass II will be required to make arrangements with the Carseland Volunteer Fire Department, and any other recommendations of the Fire Marshal.
- b) Police Protection – Wheatland County does not provide police protection services. The existing RCMP detachment located in Strathmore will provide police services.
- c) Hospital Services – Residents of Speargrass will receive hospital services at the Valley General Hospital in Strathmore. The Wheatland and adjacent Emergency Medical Services Association provide an ambulance service out of Strathmore.
- d) Schools – The Speargrass II area can be serviced from a school perspective via the existing school in Carseland, or through the existing school system in the Town of Strathmore via bussing. Either or both will be the ultimate decision of Golden Hills Regional Division No.15.
- e) Garbage Disposal – Garbage disposal services will be provided by Wheatland County through participation in the Drumheller Solid Waste Management Association. Wheatland County operates a waste transfer site south of the Carseland for household garbage. It shall be the responsibility of each resident of the community to transport waste to this site.







## LEGEND

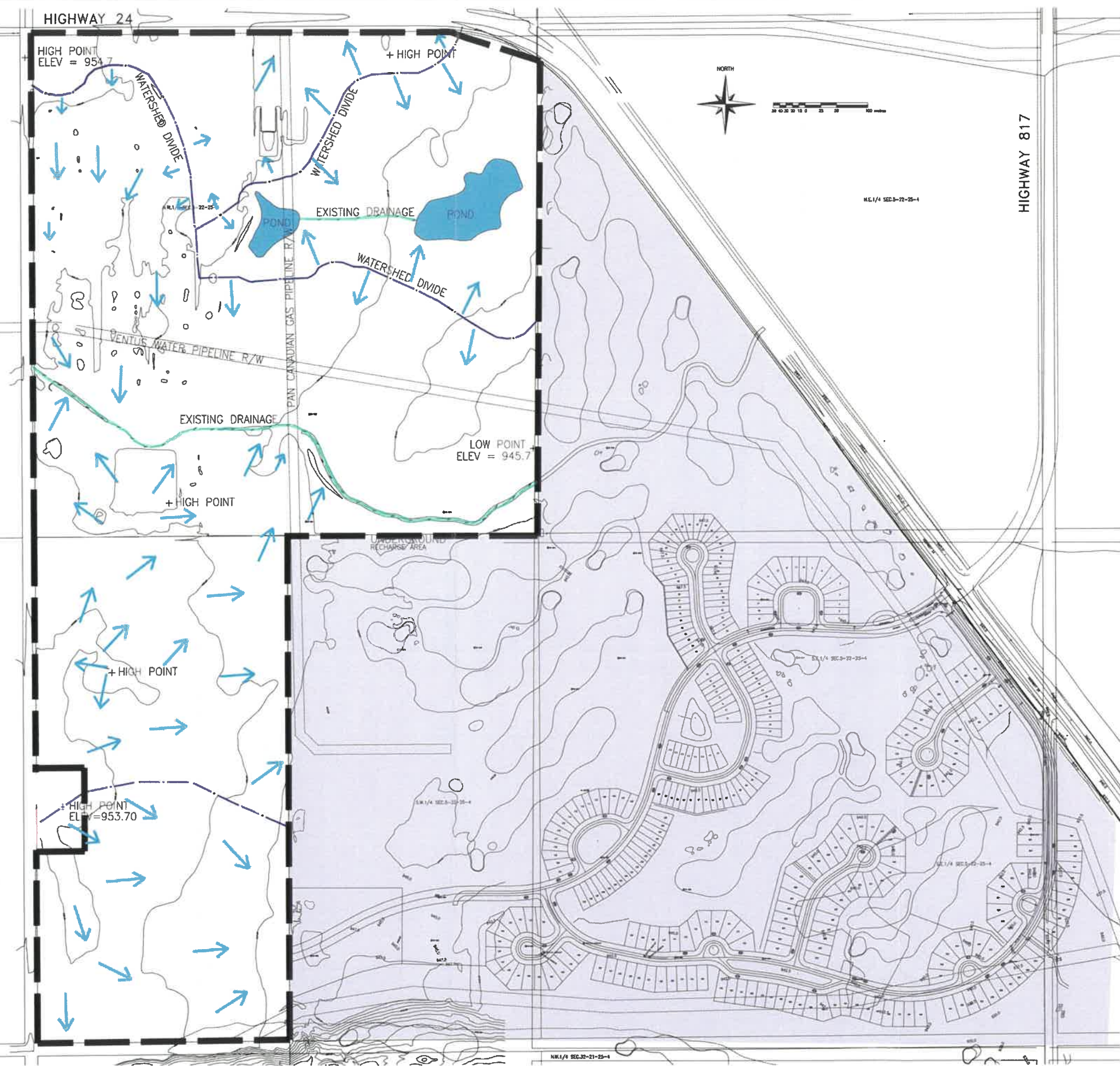
Direction of Flow



Watershed Divide



Existing Drainage



## Map 2 - Existing Drainage & Topograophy

Area Structure Plan

Amended November 2006

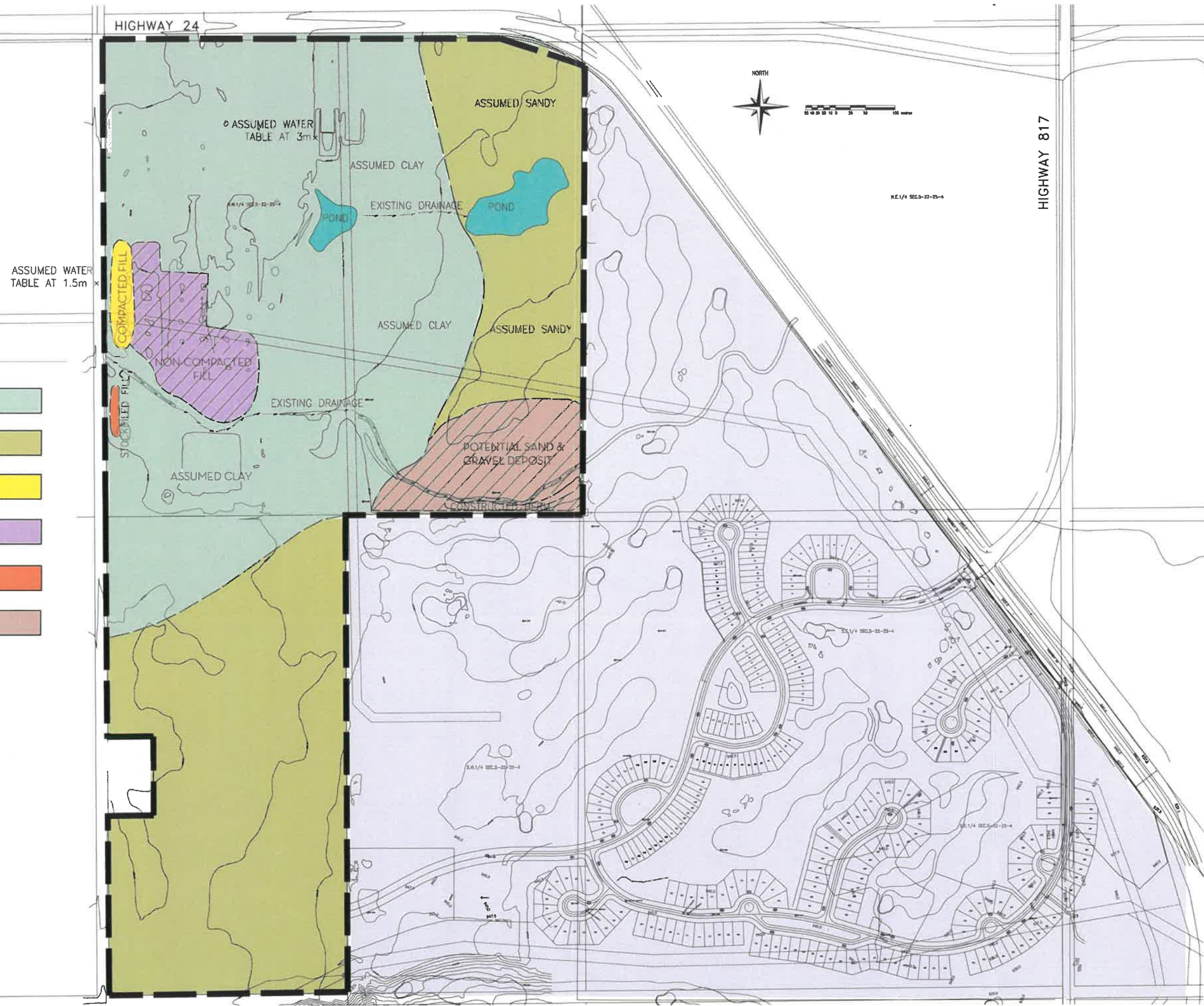
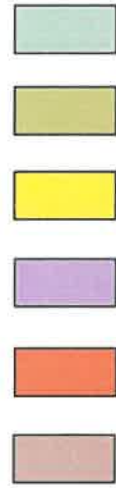
Prepared by  
**STONEFIELD**  
ANALYTICAL CONSULTANTS

**SPEARGRASS II**  
Self-Contained Community  
Wheatland County



## LEGEND

Assumed Clay Soil  
Assumed Sandy Soil  
Compacted Fill  
Non-Compacted Fill  
Stockpile  
Sand & Gravel



## Map 3 - Existing Surficial Features

Area Structure Plan  
Amended November 2006












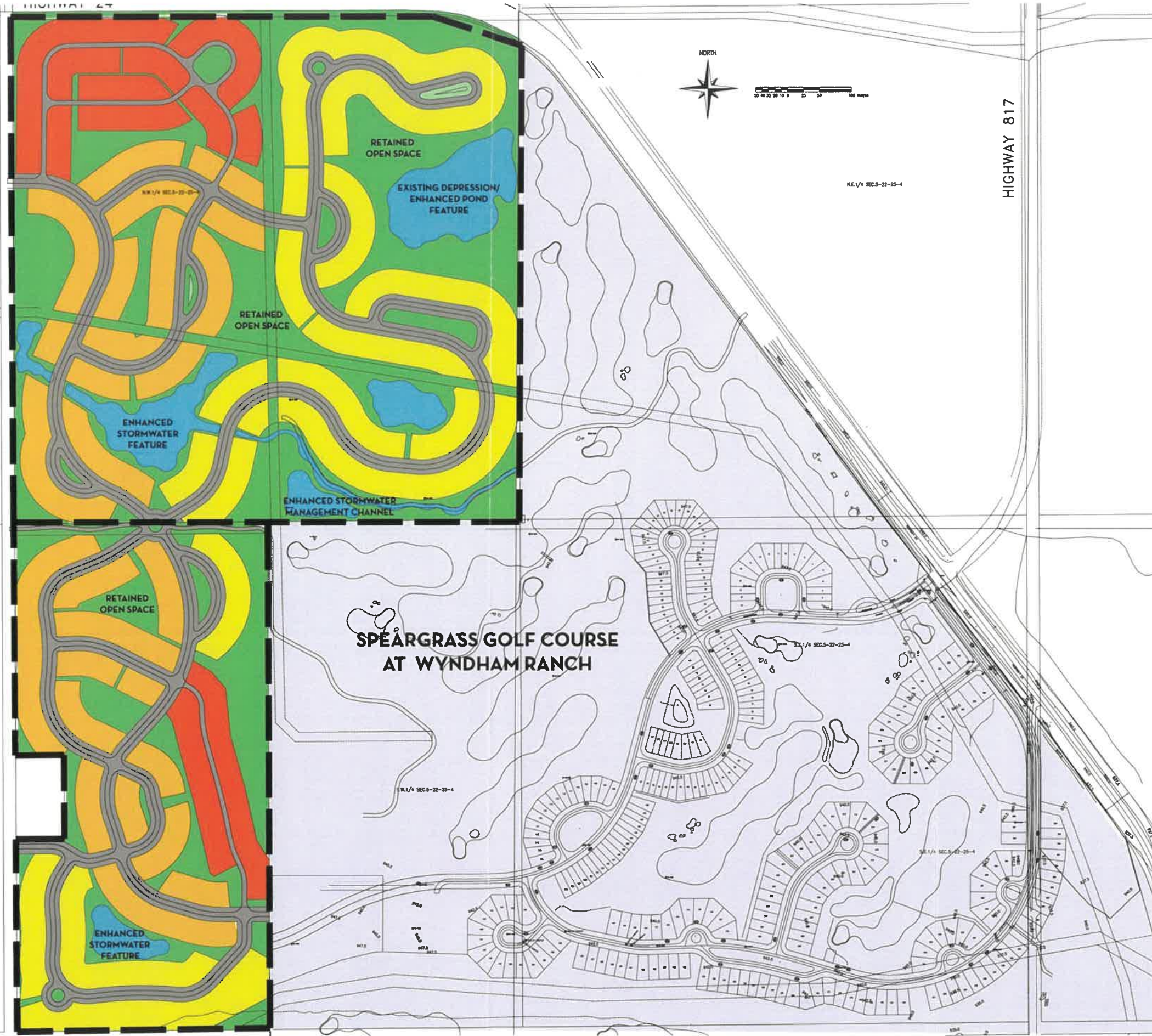
Map 4 - Existing Human Features

Area Structure Plan  
Amended November 2006



LEGEND

SSDR	
SLDR	
SLDMF	
Stormwater/ Drainage	
SPOS Greenspace/MR	
Road Network	
Previous Phase	



# Map 5 - Future Land Use Concept




Area Structure Plan  
Amended November 2006

Prepared by  
**STONEFIELD**  
LANDSCAPE ARCHITECTS




**SPEARGRASS II**  
Spear Grass County  
Wheatland County



**DEVELOPMENT SUMMARY**

134 ESTATE LOTS (1/4 Ac)   
128 55' LOTS   
108 MF UNITS (2 units/lot)   
370 TOTAL

**DEVELOPMENT SUMMARY**

49 ESTATE LOTS (1/4 Ac)   
120 55' LOTS   
46 MF UNITS (2 units/lot)   
215 TOTAL



**Map 6 - Conceptual Lotting**

Area Structure Plan  
Amended November 2006

**SPEARGRASS II**  
Speargrass II  
Wheatland County

Prepared by  
**STONEFIELD**  
CONSULTANTS



LEGEND

Conceptual Sanitary

WEST TO CALGARY



Map 7A - Sanitary Servicing Concept

Area Structure Plan  
Amended November 2006

Prepared by  
**STONEFIELD**  
ENVIRONMENTAL CONSULTANTS

**SPEARGRASS II**  
Speargrass II Golf Course  
Wheatland County



LEGEND

Conceptual Water

WEST TO CALGARY



Map 7B - Water Servicing Concept

Area Structure Plan  
Amended November 2006

Prepared by  
**STONEFIELD**  
SURVEYING & CONSULTING

**SPEARGRASS II**  
Spear Grass Community  
Wheatland County



LEGEND

Conceptual Storm Sewer

Potential Storm Water Detention

Enhanced Storm Water Feature

WEST TO CALGARY



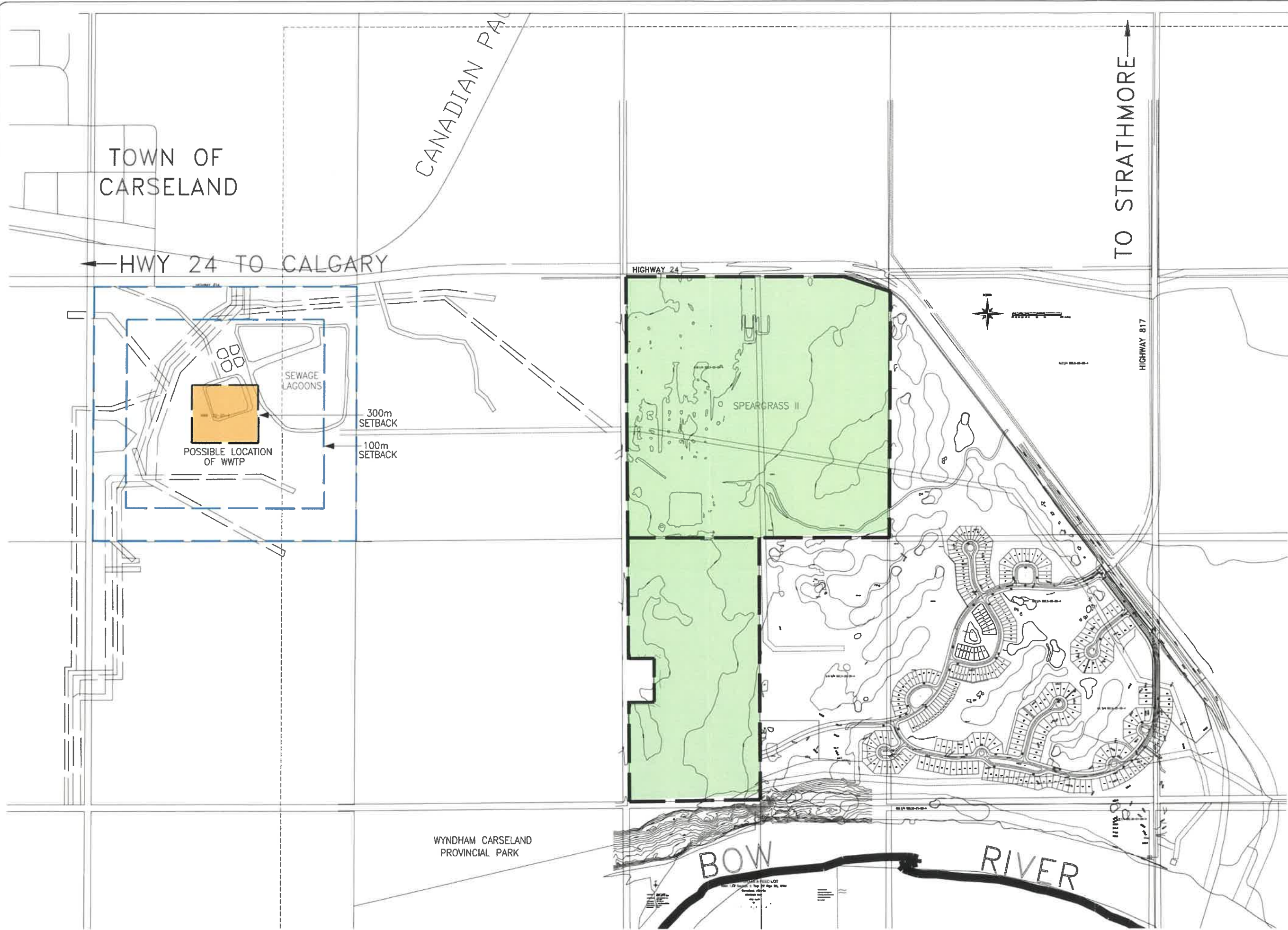
Map 7C - Storm Servicing Concept

Area Structure Plan  
Amended November 2006

Prepared by  
**STONEFIELD**  
CONSULTANTS

**SPEARGRASS II**  
Golf Course Community  
Wheatland County





Map 8 - Waste Water Treatment Plant Setback