#### BYLAW 2275/D&P/07

# BEING A BYLAW OF THE TOWN OF STONY PLAIN IN THE PROVINCE OF ALBERTA FOR THE PURPOSE OF ADOPTING THE SOUTH CREEK AREA STRUCTURE PLAN

WHEREAS Section 633(1) of the Municipal Government Act 2000 enables the Municipal Council to adopt by bylaw an area structure plan for the purpose of providing a framework for subsequent subdivision and development of an area of land in a municipality;

AND WHEREAS the South Creek Area Structure Plan addresses the requirements of an area structure plan as outlined in Section 633(2) of the Municipal Government Act 2000;

NOW THEREFORE, the Council of the Town of Stony Plain in the Province of Alberta, pursuant to authority conferred upon it by the Municipal Government Act 2000 enacts as follows:

- 1. That this Bylaw 2275/D&P/07 is to be cited as the "South Creek Area Structure Plan".
- 2. That Schedule "A" attached hereto is hereby adopted as part of this Bylaw.
- 3. If any portion of this bylaw is declared invalid by a court of competent jurisdiction, then the invalid portion must be severed and the remainder of the bylaw is deemed valid.
- 4. That this bylaw shall come into force and take effect upon the date of third reading and signing in accordance with Section 213, Municipal Government Act, Revised Statutes of Alberta 2000.

Read a first time this 25<sup>th</sup> day of September, A.D. 2006.

Chair Ken Lemke

Councillor

Randy Dubord, CMA

Director, Finance and Administration

Public Hearing held on 14<sup>th</sup> day of November, A.D. 2006.

Read a second time this 14th day of November, A.D. 2006.

Deputy Mayor Paul McCanr

Randy Dubord, CMA

Director, Finance and Administration

Read a third time this 10<sup>th</sup> day of April, A.D. 2007.

Deputy Mayor Paul McCann

Randy Dubord, CMA

Director, Finance and Administration

### Qualico Developments West

# South Creek Area Structure Plan

NE ¼ Section 30 – 52 – 27 – W4th Stony Plain Alberta



September 2006

### Qualico Developments West

# South Creek Area Structure Plan

NE ¼ Section 30 – 52 – 27 – W4th

Stony Plain

Alberta

Consultant Team:

Pals & Associates Surveys

Associated Engineering

J.R. Paine & Associates

MH Project Planning

- Topographical & Legal Survey
- Civil & Transportation Engineering
- Geotechnical Assessment
- Urban Planning & Project Management

September 2006

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#### 1.0 INTRODUCTION

This proposed Area Structure Plan ( "South Creek ASP" ) is located in the southeast segment of Stony Plain, within lands recently annexed from the County of Parkland. These lands are part of the Town's urban expansion area as identified in Stony Plain's Municipal Development Plan. The development of the proposed South Creek ASP neighbourhood is a logical continuation of the Town's southeast residential sector, as it lies immediately adjacent to the developing residential community accessed from Fairway Drive.

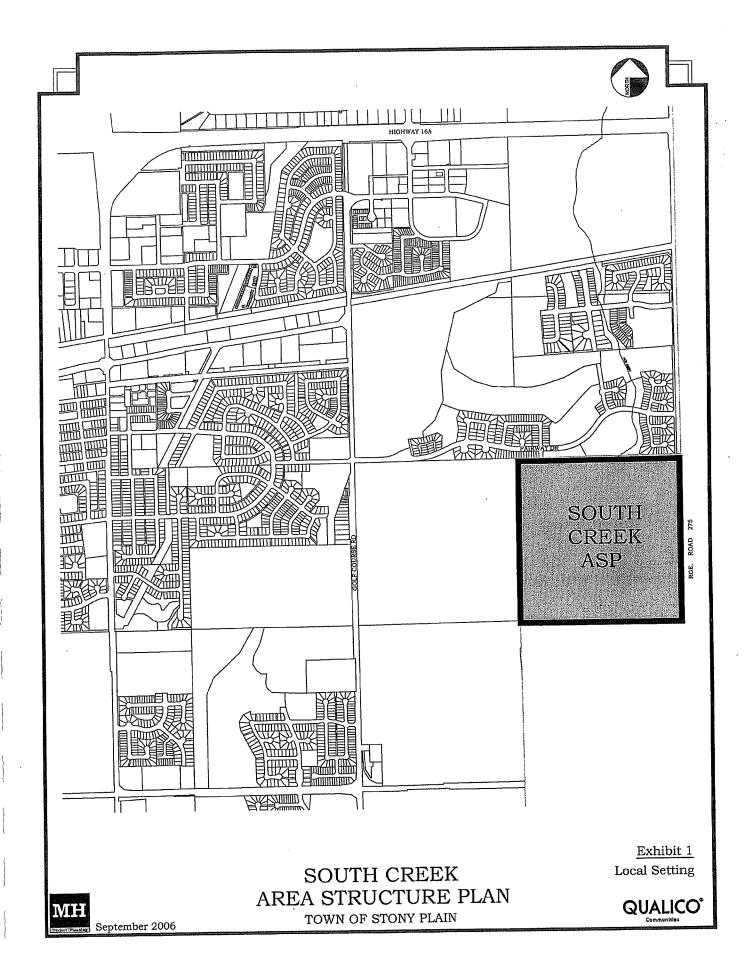
The requirement to prepare an Area Structure Plan as an integral part of the hierarchy of statutory planning documents comes both from the Province's Municipal Government Act, RSA 2000, Chapter M-26 and Stony Plain Town Council.

#### 1.1 Plan Purpose

In terms of detail and scope, an Area Structure Plan makes the intermediate step between the Town's Municipal Development Plan and site specific zoning and subdivision, prior to the physical development of the property. The level of detail contained within the Area Structure Plan will describe the land uses proposed for the subject lands having due regard for the general land use designations of the municipality's adopted Municipal Development Plan; the sequence of development proposed for the plan area; the density of population that could be expected to be generated from the type, pattern and intensity of land uses proposed; and the location of major transportation routes and public utilities that may be required to serve the plan area as well as the surrounding urban settlement.

By preparing and ultimately adopting an Area Structure Plan, the municipality together with the land developer can reach agreement on the fundamental design prior to the preparation and submission of more detailed subdivision plans. In order to ensure compatibility of the proposed Area Structure Plan's land use concept and the growth pattern envisioned for the municipality as a whole, the Municipal Government Act requires conformance with the approved Municipal Development Plan.

This current Plan will examine in detail its compliance with the statutory context under which the proposed land use pattern has been prepared; the site's specific natural features and man-made constraints to development; the proposed pattern of land use for the development of this residential community; and the sequence of development under which this land area could reasonably proceed, having regard to the orderly extension of municipal infrastructure.



This Area Structure Plan has been prepared on behalf of the registered land owner of the majority of lands within this Area Structure Plan; Qualico Developments West Ltd., in consultation with the other local land owners.

#### 1.2 Plan Location

The plan area comprises 64.39 hectares (159.1 acres) within the north east Quarter Section 30 – Township 52 – Range 27 – west of the 4<sup>th</sup> Meridian, Stony Plain, Alberta. As shown in Exhibit 1: Local Setting, the plan area is located in the south east area of the Town, bounded by Boundary Road and the municipal boundary on the east and the developing residential community adjacent to Fairway Drive, to the north.

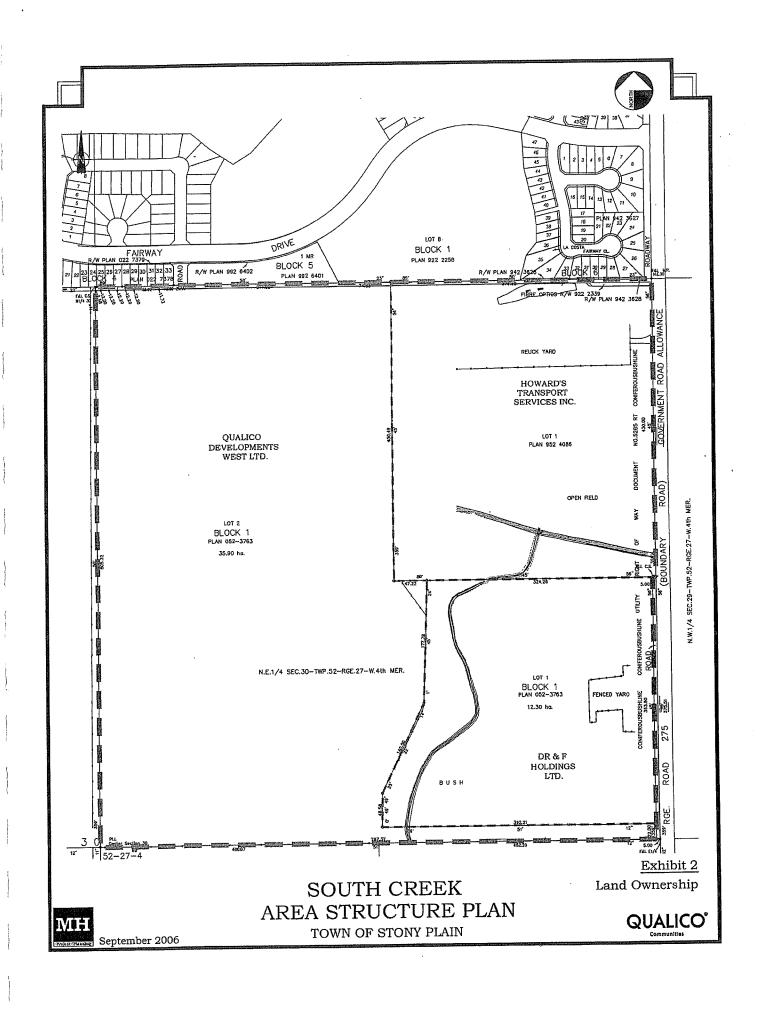
#### 1.3 Land Ownership

The distribution of ownership of the lands included in the proposed Area Structure Plan is presented in the Table below.

As shown, the Quarter Section is divided into three ownership interests. Slightly more than half of the land area is owned by Qualico Developments, while the balance of the lands held by two local owners.

Registered Land Owner	Description	Hectares	% of Plan Area
Qualico Developments West Ltd.	Lot 2, Block 1, Plan 052 3763	35.90	55.8%
Howard's Transport Services Inc.	Lot 1, Plan 952 4086	16.19	25.1%
DR&F Holdings Ltd.	Lot 1, Block 1, Plan 052 3763	12.30	19.1%
ASP Totals		64.39	100.0%

Copies of current Certificates of Title are attached to this report in Appendix 1.



#### 2.0 PLAN CONTEXT

#### **Statutory Context**

### 2.1 Town of Stony Plain, Municipal Development Plan

The future direction and pattern of growth has been established by the adoption of the Town's Municipal Development Plan, Bylaw No. 2226/D&P/05 as approved by Town Council in April 2005.

Stony Plain's Municipal Development Plan (MDP) designates this area for future urban expansion.

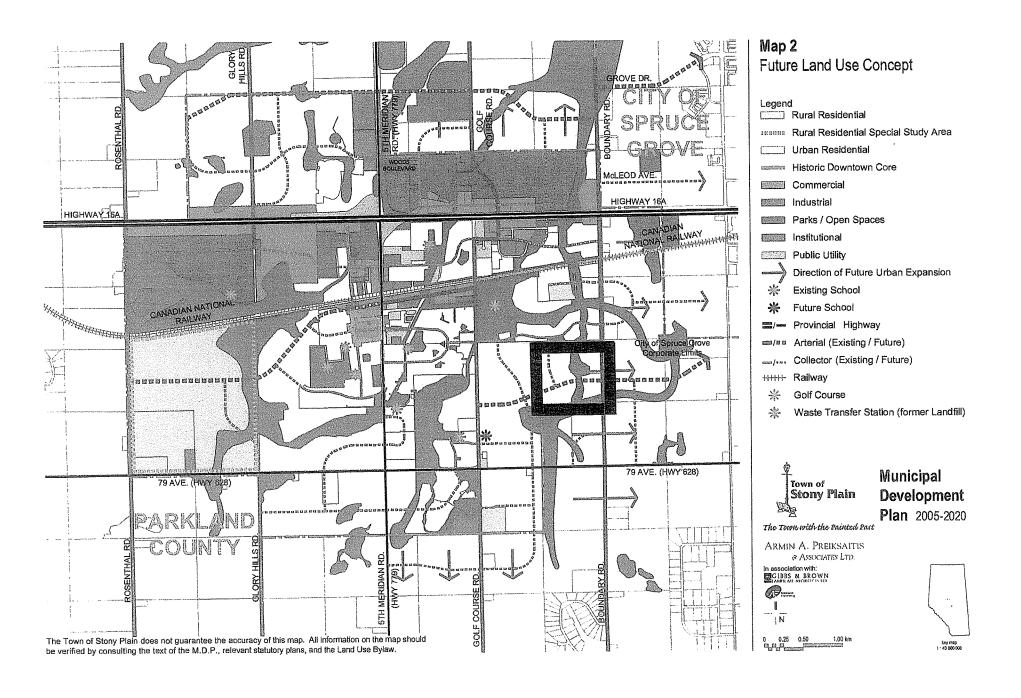
The MDP's Map 2 – Future Land Use Concept is shown on the following page with the location of the proposed South Creek Area Structure Plan indicated.

Environmental Management (6.0 MDP)

Goal: "Be responsible stewards of the environment by protecting and integrating natural watercourses and natural areas in new development and making land use decisions that maintain environmental quality for future generations."

- 6.1 Protection of Natural Areas
  - "The Town of Stony Plain shall require the protection and conservation of natural areas by the following means:
    - a) Environmental Reserve dedication;
    - b) Municipal Reserve Dedication.
- 6.2 Linking and Integrating Open Space
  - "Where possible, the Town of Stony Plain shall require ... that sustainable natural areas be integrated into the design of new development areas to form part of the linked and integrated parks and open space system, including the retention of natural corridors and storm water ponds to form continuous greenways."
- 6.8 Setbacks Along Watercourses and Wetlands
  - "The Town of Stony Plain may require a minimum lot setback of 10 metres to be dedicated as Environmental Reserve measured from ... the top of bank of watercourses such as creeks and streams or the high water mark of a wetland."

One of the primary design considerations during the preparation of the land use concept for this Area Structure Plan was the existing Atim Creek and its associated ravine system which passes through this Plan Area from north to south.



The creek lies within a well-defined ravine with top-of-bank in some areas greater than 5 metres above the creek bed. The ravine itself is heavily treed at both the north and south ends of its course through this Quarter Section.

This significant natural area will provide a very strong focal point for the neighbourhood, as well as provide a protected linkage to the developing residential communities to the north and to future communities to the south.

The creek and its ravine system will provide excellent opportunities for trail development as well as view-point parks adjacent to its top-of-bank and walkway tie-ins to proposed storm water management facilities.

Residential Development & Neighbourhood Design (7.0 MDP)

"Goal: Encourage the development of well-planned and attractive neighbourhoods that provide for a wide range of housing choice and amenities."

7.1 Location of Residential Development

" The Town of Stony Plain shall direct both rural and urban residential development to areas identified for this purpose on Map 2 – Future Land Use Concept.

7.2 Orderly and Contiguous Development

" The Town of Stony Plain shall encourage residential development to proceed in a logical, phased manner by encouraging the infilling of existing neighbourhoods prior to opening new areas for development.

7.3 Providing for a Range of Housing Choice

" The Town of Stony Plain shall endeavour to continue to provide a wide range of housing choice to meet varying housing needs based upon income and lifestyle including; large lot housing, small lot housing, duplexes, townhouses and apartments..."

7.13 Neighbourhood Design Principles

"Through the ASP and subdivision processes, ensure that residential neighbourhoods are designed and developed in a manner to make them safe, attractive, and well serviced."

This Area Structure Plan is located within an area designated for Future Urban Expansion and is immediately to the south of a developing residential community adjacent to Fairway Drive. The extension of municipal services and transportation routes to serve this proposed ASP will come directly from existing residential neighbourhoods to the north.

The land use concept proposed by the South Creek Area Structure Plan will also include provision for the orderly and efficient extension of services and roadways to future development lands to the south and west.

This residential neighbourhood design that creates a focal point comprising the Atim Creek and ravine system, storm water management ponds, and a centrally-located park space with direct linkage to the existing park space located on Fairway Drive. This land use concept provides strong visual interest and appeal; passive and active recreational opportunities; a variety single family home siting alternatives and provides future residents of this community with demonstrable pride of ownership and strong neighbourhood identity.

The proposed community design places a great deal of importance on the aesthetic and recreation opportunities that Atim Creek will afford the residents of this neighbourhood.

Transportation and Infrastructure (13.0 MDP)

Goal: "Plan and develop municipal roadways and infrastructure in a manner that most environmentally, efficiently and effectively meets the present and future needs of the Town."

13.1 Transportation Network

"The Town of Stony Plain shall use Map 4 — Transportation Netwrok as a guide for the future arterial and collector network, to be reflected in future land use planning to ensure that rights-of-way are preserved and the required future roadway capacity is provided."

13.10 Water Servicing Concept

"Map 5 – Water Distribution conceptually illustrates the existing and proposed water servicing concept within the existing boundaries and urban expansion areas. The Town shall require developers to provide detailed water servicing plans as part of the subdivision process."

13.11 Sanitary Collection Concept

" Map 6 – Sanitary Collection conceptually illustrates the existing and proposed sanitary collection concept within the existing boundaries and urban expansion areas of the Town. Developers shall be required to provide detailed sanitary collection plans as part of the subdivision approval process in accordance with the Town of Stony Plain Deep Utility Study. "

13.14 Storm Water Management Concept

- "" Map 7 Storm Water Management conceptually illustrates the existing and proposed storm water management within the existing boundaries and urban expansion areas of the Town.
- Developers shall be required to ensure that the proposed storm water management system is adequate to accommodate post development flows and that adequate detention and polishing can be provided to meet both Alberta Environment and the Town's Municipal Standard Details. "

Section 4.0 of this ASP provides a detailed description of the proposed transportation and municipal infrastructure that will meet all of the Town's standards and serve the requirements of this land development.

#### SITE CONTEXT

#### 2.2 **Site Features**

Exhibit 3 provides a recent aerial view of the Plan Area and the adjacent lands. As seen in this photograph, much of the quarter section has been previously cleared for agricultural production, however substantive tree cover still exists within the Atim Creek ravine.

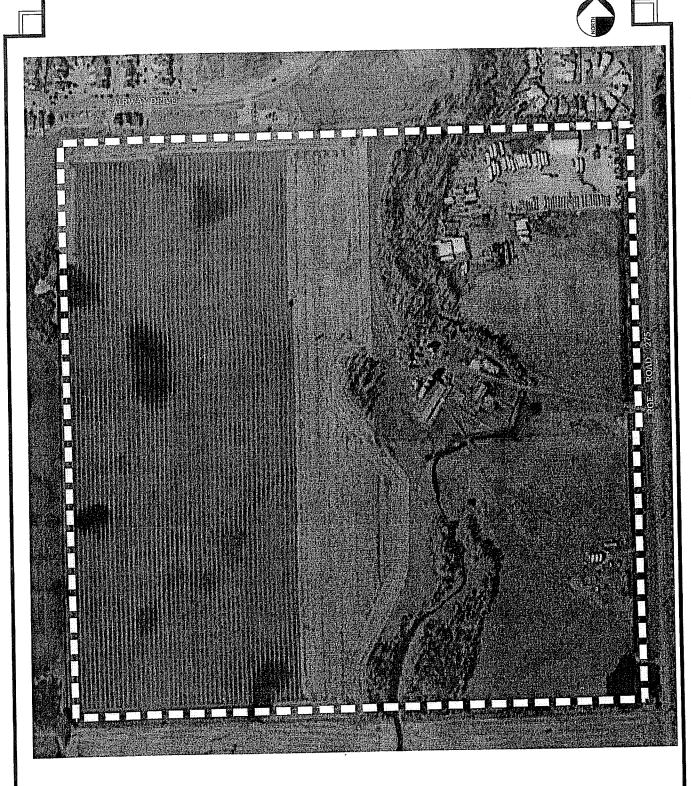
An examination of historical aerial photography identifies that generally the same cultivation/vegetation pattern has existed for some for 40 - 50 years.

Exhibit 4 illustrates the topographical form of the property which was determined on-site by an Alberta Land Surveyor. This exhibit shows a minimum ground elevation of 705 metres above the bank of Atim Creek high points of 710 metres in the north west portion of the Quarter Section.

The Atim Creek and its associated ravine system bisect the Quarter closer to Boundary Road. Within this feature the creek bed lies 2.5 metres to 5.0 metres below its top-of-bank.

#### **Geotechnical Considerations** 2.3

An on-site field investigation for this property was undertaken by J.R. Paine & Associates Ltd. in February 2005, including drilling four test holes. In general the soil conditions consist of silty to very silty medium plastic lacustrine clays, in combination with very clayey silts and in certain areas, sand.



SOUTH CREEK AREA STRUCTURE PLAN

TOWN OF STONY PLAIN

<u>Exhibit 3</u> Aerial Photograph

QUALICO° Communities



September 2006

The soil conditions found in the testholes are generally considered fair to poor for residential subdivision development. The main concern is the very silty, very moist to wet nature of the clays and sands encountered below approximately 1.5 – 3.5 metres depth. These soils are also sensitive to disturbance and difficult to work. These soils will require substantial drying if used as trench backfill and provide poor subgrade support, especially in areas where the soil has not been dried during trenching.

Overall the testhole soil conditions are typical of the Stony Plain area and are a challenge for designing and constructing residential development. J.R. Paine has been involved in numerous Stony Pain developments that have overcome poor soil conditions similar to those identified in the on-site testholes.

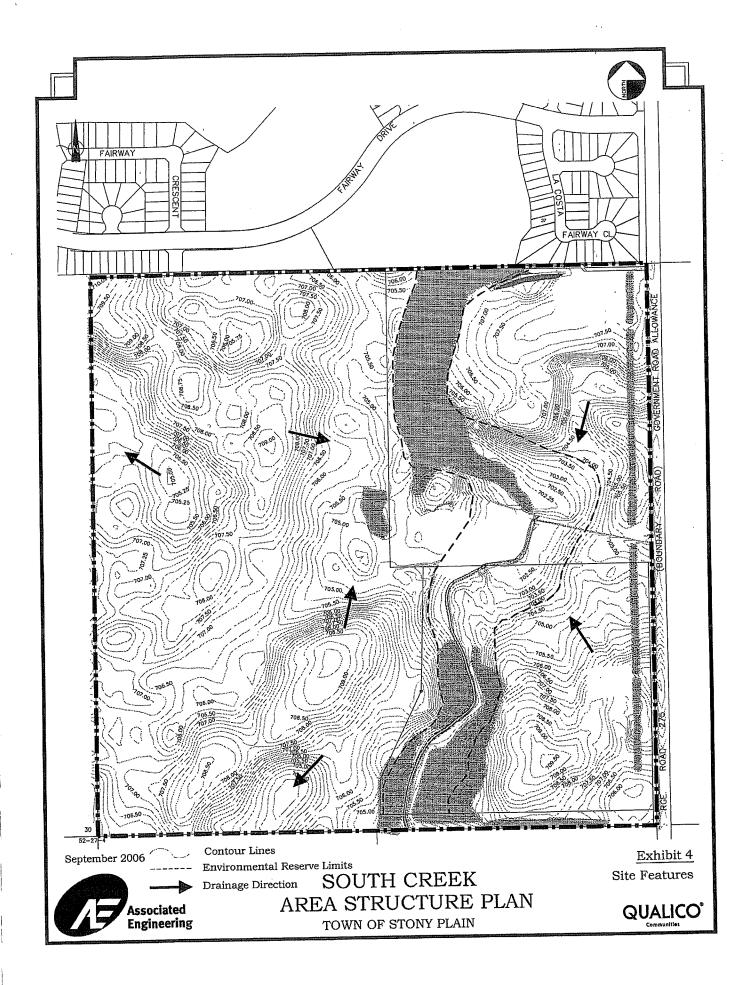
#### 2.4 Archeological Considerations

A brief review of this property with Alberta Community Development, Historic Site Services did not identify any previous archeological sites of interest within this quarter section. Since the majority of the Quarter Section has been under cultivation for some time and as such the surface soils have been disturbed, the potential for a significant archeological site are consider remote.

#### 2.5 Environmental Assessment

In September 2004, Venture Engineering Consultants carried out an environmental assessment of the lands to the west of Atim Creek. Based on their review of available documentation and visual inspection of the property, nothing was revealed to indicate potential contamination of the site and no further testing was considered to be warranted.

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#### 3.0 LAND USE CONCEPT

### 3.1 Neighbourhood Design Rationale

The residential neighbourhood proposed by this Area Structure Plan comprises a range of housing types and forms – low density single detached homes to medium density, multiple family housing. This neighbourhood's most significant feature and primary design element is the existing Atim Creek ravine system. The retention of this natural area, without potential disruption caused by roadway crossings, will contribute greatly to the community's park and open spaces and well-distributed network of local walkway linkages and connections to adjacent communities.

In addition to the ravine's well-treed areas, the Plan Area's undulating topography will provide a variety of home siting alternatives and attractive views and vistas. By integrating the neighbourhood's planned storm water facilities into the park/open space concept, the opportunities for pedestrian circulation throughout the Area Structure Plan, are enhanced.

The proposed Development Concept is illustrated in Exhibit 5 and the associated Land Use Summary is presented in Table 1, both of which follow this page.

#### 3.2 Residential

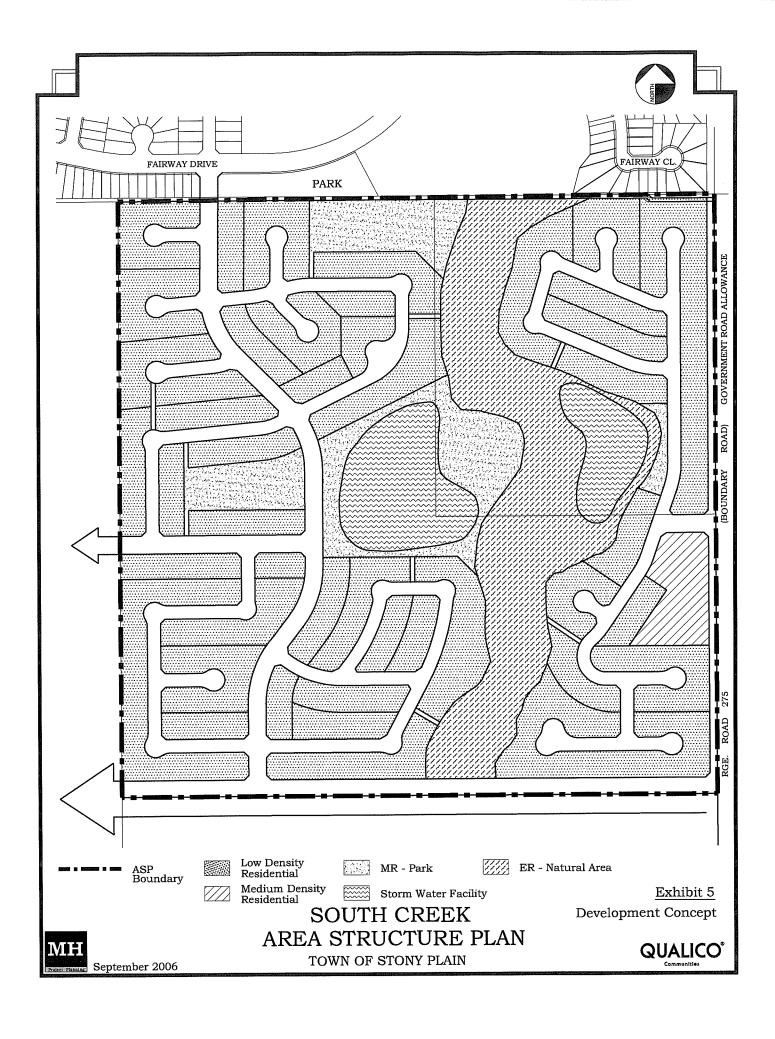
#### Low Density Residential

Residential lands are the predominant land use within the Plan Area and make up more than sixty-eight percent of the gross developable area.

This land use concept will achieve a range of low density housing choices by varying lot sizes and locational attributes.

In addition to the provision of single detached lots, a number of duplex housing opportunities are considered appropriate, fronting onto the neighbourhood's collector roadways.

Table 1 shows that the proposed low density lands comprise 35.82 hectares corresponding to a potential of 716 residential dwelling units. An estimated density of 20 units per hectare has been used in recognition of the desire to provide a variety of home choices, including smaller lot configurations as well as semi-detached (duplex) housing forms. At an estimated 3.2 persons per dwelling unit, the resulting population generated by these proposed low density homes is 2,292people. This estimated number of low density housing units corresponds to 93.0% of the total number of proposed dwellings within the Area Structure Plan.



#### Table 1 Land Use Summary

### South Creek Area Structure Plan

· ·	Hectares	Acres
Gross ASP Area	64.39	159.11
Atim Creek - Environmental Reserve	7.78	19.22
Arterial Road Dedication	<u>2.24</u>	5.54
Gross Developable Area	54.4	134.35
Municipal Reserve @ 10% of GDA	5.44	13.43
Dispersed Park Sites	3.16	7.81
Storm Pond/Creek Interface	<u>2.31</u>	<u>5.71</u>
Total Municipal Reserve Dedicated	5.47	13.52
Storm Water Management Facilies (2)	3.80	9.39
Circulation	7.93	19.60
Gross Residential Area	37.17	91.85

			1	Units/		
Residential Summary		Hectares	Acres	Hectare	Units	People
Low Density Residential		35.82	88.51	20.0	716	2,292
Medium Density Residential		1.35	3.34	40.0	54	130
Totals		37.17	91.85		770	2,422
Overall Unit Density		12.0	units	s/hectare		
Overall Population Density		42.8	persor	s/hectare		
Housing Mix	Units	Ratio				
Low Density Residential	716	93.0%				
Medium Density Residential	<u>54</u>	7.0%				
Total Housing Units	770					

Table 2
Estimated Student Generation

	K - 6	Junior High	Senior High	Total Students
Public System	230	49	26	305
Separate System	124	26	14	164
Total Students	354	76.	40	470
Student Distribution	75.4%	16.1%	8.5%	100.0%

Assumptions:

Students per dwelling=

0.61

Public/Separate Ratio=

65/35

#### Medium Density Residential

A limited range of medium density, multiple-family sites are in the east portion of the community, adjacent to Boundary Road. These sites could include row housing/town houses and/or multi-story, apartment housing.

In total 1.35 hectares of land are proposed for medium density housing forms which could yield approximately 54 dwelling units. Due to this range of potential housing that could be developed, a corresponding density estimate of 40 units per hectare has been used for the density calculations reported in Table 1. Using a household size of 2.4 persons, the medium density component of this community could generate a total of 130 people.

#### **Residential Summary**

As proposed by this development concept, the total number of all types of residential units is estimated to be 770 which corresponds to a population projection of 2,442 persons. A neighbourhood population density of 42.8 persons per gross developable hectare could be achieved at the full build-out of this residential community.

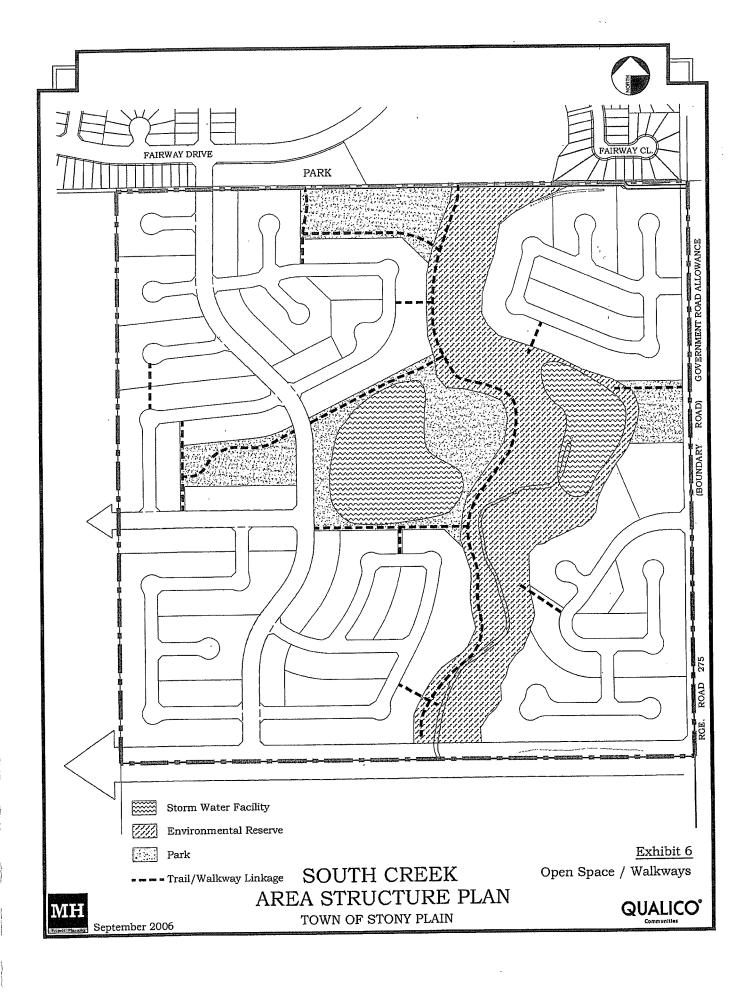
#### 3.3 Parks & Open Space

When viewed overall, this neighbourhood's parks and natural spaces account for over twenty percent of the total land area of the Quarter Section. The generously distributed system of walkways and linkages will further enhance community's recreational opportunities.

The system of trails and walkways will form an integral connection to all development cells within the ASP, and will as well provide excellent connectivity to existing park space in the neighbourhood to the north and to future residential areas located to the south and west.

The park sites located adjacent to the storm water facility account for about 35% of the total perimeter of the storm pond and will contribute greatly to the public accessibility to this viewing feature.

The complete system of parks, natural areas and network of trails and walkways is shown in Exhibit 6.



### 3.4 Schools and Student Generation

Stony Plain's MDP does not designate a school within this Area Structure Plan. The MDP does contemplate the provision of a school to the south west which will serve the needs of future residents in the area. An estimate of the numbers of students that could be expected from this neighbourhood at build-out is presented in <u>Table 2</u> included in the Land Use Summary, and is replicated below.

**Estimated Student Generation** 

Estimated Su	Juent Generaus	<u> </u>		Total Estimated
	Kindergarten-			t i
	Elementary	Junior High	Senior High	Students
Dublia	230	49	26	305
Public		26	14	164
Separate	124	20		470
Total Students	354	76	40	470
(Distribution)	(75.4%)	( 16.1% )	(8.5%)	( 100.0% )

Student Generation Assumptions:

Students per dwelling = 0.61

Public System capture rate = 65% of students generated.

#### 3.5 Other Land Uses

This Plan does not propose commercial nor religious assembly land uses. The close proximity to numerous, large-scale commercial shopping opportunities directly north at Highway 16A, will serve the future needs of these residents well.

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#### 4.0 TRANSPORTATION and UTILITIES

#### 4.1 Transportation Network

In accordance with the Town of Stony Plain Municipal Development Plan, 2005-2020, the transportation network in the ASP lands is to consist of an arterial roadway spanning west-east and a collector roadway spanning north-south.

The purpose of the arterial roadway is to connect Golf Course Road with Boundary Road, and eventually link up eastward with the City of Spruce Grove roadway network. The internal collector links Fairway Drive with the proposed arterial.

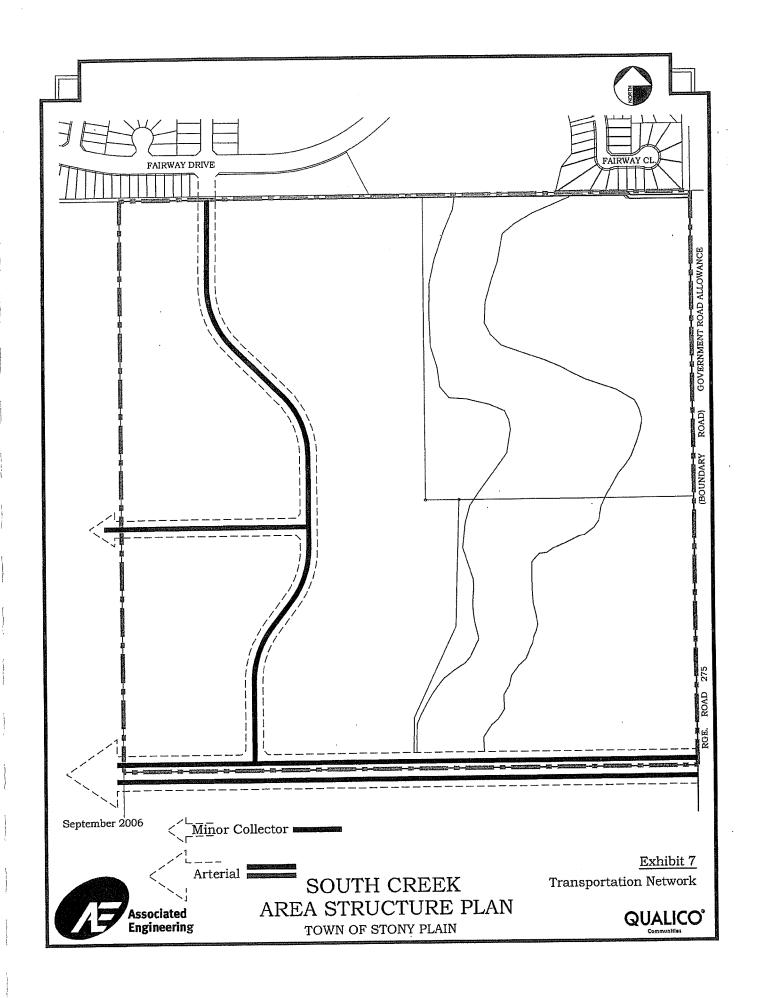
Exhibit 7 presents the proposed roadway network for the ASP lands. Due to the topography of the ASP lands and location of Atim Creek, the following roadway network is proposed:

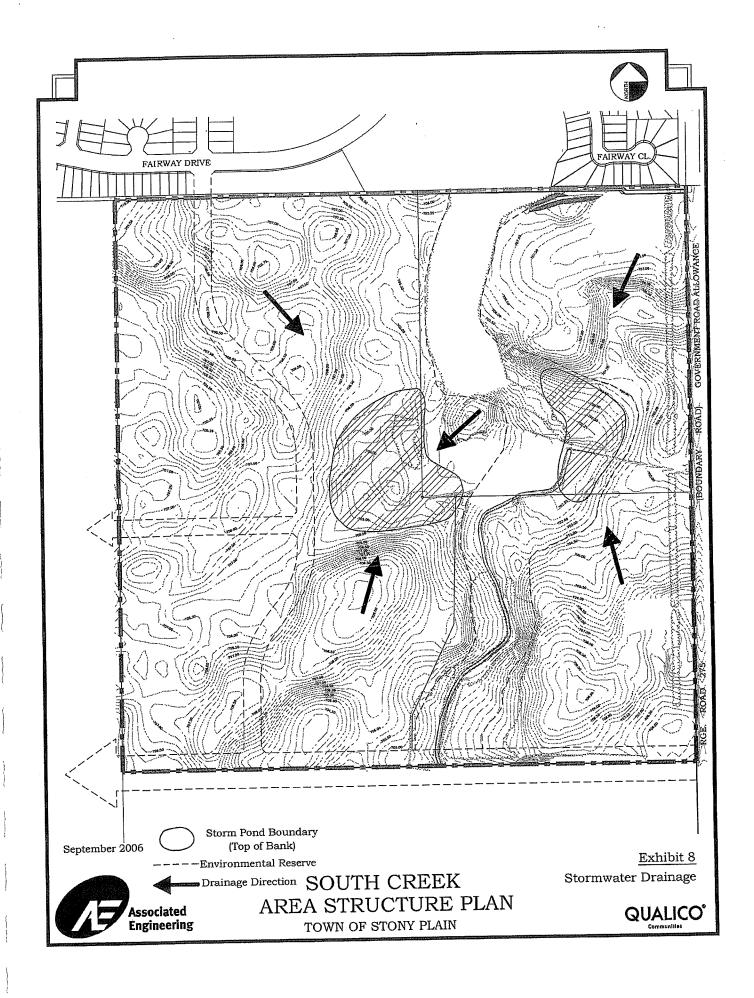
- A four (4) lane urban undivided arterial roadway to be located along the south quarter section line. The road right-of-way will straddle the quarter section line.
- The arterial roadway right-of-way can be increased on the south side to include channelization of Atim Creek. South of the quarter section line, Atim Creek is defined by a man-made ditch. Future development of the area should include Atim Creek improvements.
- A north-south minor collector will link the south arterial with Fairway Drive. An east-west minor collector will link the north-south minor collector with the quarter section to the west.

#### 4.2 Storm Water Management

In accordance with the Town of Stony Plain Municipal Development Plan, 2005-2020, all storm water from the ASP lands is to be routed into Atim Creek. Although the MDP indicates a single stormwater management pond, to be located at the north end of the ASP lands, due to existing topography and the location of Atim Creek, two stormwater management ponds will be required.

The stormwater management facility to the west of Atim Creek is to consist of a wet pond, while the facility to the east of Atim Creek is to be a wetland/wet pond type (refer to Exhibit 8).





It is proposed that the wetland/wet pond facility be situated within the Environmental Reserve of Atim Creek, due to the flat topography and lack of space in these low situated lands.

A west portion of the ASP lands, naturally drains towards the northwest. The proposed storm servicing scheme requires that the low lying lands be filled and drainage rerouted toward the west storm pond.

The proposed stormwater management facilities and their respective design parameters, are summarized in the following Table:

Stormwater Management Facility	Туре	Catchment Area (ha)	Pond Volume (m³)	Design Outflow Rate (I/s)
West Pond	Wet Pond	35.1	24,160	87.6
East Pond	Wetland/Wet Pond	23.2	14,440	58.0

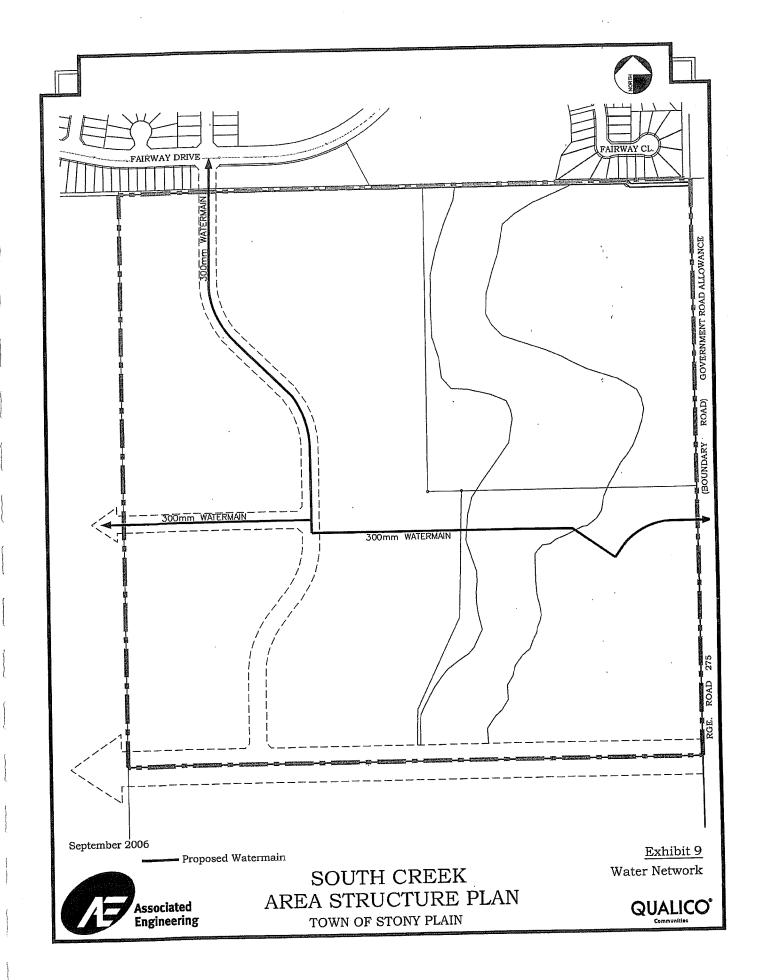
Access PUL's will be required to the storm facilities to enable maintenance.

The storm facilities are to be designed and constructed in accordance with Alberta Environment Standards and Guidelines.

#### 4.3 Water Service

The MDP indicates that a 300 mm main water distribution trunk be extended from Fairway Drive to service the ASP lands. The MDP requires that the 300 mm main be extended to the west and east of the ASP lands.

Sizes of the mains have been adopted from the MDP, while the pipe alignments follow the main transportation routes. Proposed water distribution system for the ASP lands is shown in Exhibit 9.



#### 4.4 Sanitary Sewer

The MDP requires the ASP lands to be serviced by the east sanitary trunk. The east sanitary trunk is to be extended along the west side of Atim Creek.

Future extensions of the trunk system have been included to the south and east of the ASP lands, as required by the MDP.

Sizes of the main trunks have been adopted from the Town of Stony Plain Deep Utility Study.

Proposed sanitary drainage system for the ASP lands is shown in Exhibit 10.

#### 4.5 Shallow Utilities

It is anticipated that natural gas, power, cable TV and telephone services will be provided through extensions of the existing systems.

### 4.6 Development Staging

Staging of development will require to follow the logical extension of the water distribution and sanitary collection systems (refer to Exhibit 11). Therefore, the ASP lands situated directly west of Atim Creek and south of Fairway Drive, will constitute the first stage of development.

The remnant ASP lands will be developed in a counter clockwise sequence and follow the sanitary and watermain extensions.

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