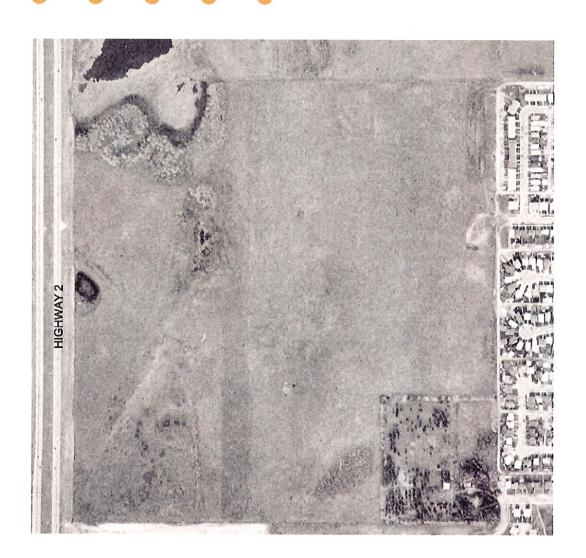
Blackfalds - Malibu NW 27-39-27-4

AREA STRUCTURE PLAN Blackfalds, Alberta





Stantec Consulting Ltd.

March 14, 2006 112871553 - APPROVED

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## 1.0 INTRODUCTION

#### 1.1 PURPOSE

Stantec Consulting Ltd. on behalf of Malibu Communities Ltd. has prepared the Blackfalds - Malibu Area Structure Plan.

The purpose of the Blackfalds - Malibu Area Structure Plan is to describe the land use framework and development objectives for the NW 1/4 Section 27-39-27-4 in the Town of Blackfalds. This quarter section is bounded by Highway 2 on the west side and the Harvest Meadows Subdivision on the east side. The proposed development includes an area of approximately 62.6 hectares (154.7 acres). A wetland exists directly to the north-west and extends slightly on that corner of the site. Another wetland exists directly north of the site. Commercial and industrial sites are located south of the site. Highway 597 is located further south.

Malibu Communities Ltd. is committed to developing balanced communities of residential, recreational, commercial and industrial properties with complimentary land uses. In order to achieve this, we have integrated the area with interconnected parks, open space linkages and high-quality residential opportunities. Together, these aspects will provide the Town of Blackfalds with a unique area for community development.

Approval of the Area Structure Plan will provide the basis for proceeding with Malibu Communities' and the Town of Blackfalds' vision for this area. The Area Structure Plan provides the opportunity to develop the components of this vision in the initial phases of development through recreational amenities and a variety of housing forms and lifestyles.

The purpose of this document is to define the land use pattern and development objectives for the Blackfalds-Malibu development. The Area Structure Plan will implement the land use framework and development objectives by identifying the type, size and location of various land uses, density of development, location of major roadways, conceptual servicing designs and sequence of development. Detailed design of each phase (redistricting and plans of subdivision) will refine the concept presented by this Area Structure Plan for the development.

## 1.2 DEFINITION OF PLAN AREA

The Blackfalds—Malibu Area Structure Plan consists of land located within the NW 27-39-27-4 and includes an area of approximately 62.6 hectares, as shown on Figure 1.0 – Location Plan.

The Blackfalds—Malibu Area Structure Plan constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations.

The majority of the ASP Area is under one titled landowner with the exception of the existing acreage in the southeast corner of the Plan. This acreage site currently also functions as a tree farm business.

## 2.0 SITE CONTEXT & DEVELOPMENT CONSIDERATIONS

## 2.1 TOPOGRAPHY, SOILS, AND VEGETATION

As shown on Figure 2.0 – Existing Conditions Plan, the existing topography on these lands is very dramatic and significantly impacts the development of the Concept Plan. There is a notable elevation drop in the northwest corner of the quarter section. A significant ridge divides this portion of the Plan, adjacent to the Highway, to the remainder of the Plan area. There is also a large depression in the north end of the Plan and a large knoll in the southwest corner. The majority of the land, located east of the existing ridge, generally drains to the northeast corner of the Plan.

The soils in this area are expected to consist of primarily sand covered by a thin layer of topsoil, which are suitable for urban development.

There are several small tree stands existing on this property. These tree stands are concentrated in the northwest corner of the development adjacent to the existing wetland and in the southeast corner of the Plan in the existing acreage and directly west of the acreage. There are also a few small tree bluffs along the existing ridge.

## 2.2 SURROUNDING DEVELOPMENT

Of special consideration is the existing Harvest Meadows subdivision directly adjacent to the east side of the project site. It is important for the proposed layout of the new development to blend with this existing community.

The west side of the property is bordered by Highway 2 and is paralleled by the aforementioned Harvest Meadows Subdivision to the east. Highway 2 borders the site on the west. The land to the south of the site was recently redeveloped for light industrial. The land to the north is undeveloped and is currently used for agricultural purposes. There is an existing acreage located at the south east corner of the site and has been included in this Area Structure Plan.

## 2.3 EXISTING INFRASTRUCTURE

This development will be serviced by the existing storm, sanitary, and water mains located in the Westbrook and Womacks road right-of-ways. All of these existing utilities are directly adjacent to this development along the east boundary.

There are no existing gas lines or other shallow utilities located in the Plan area.

## 3.0 DEVELOPMENT OBJECTIVES & PRINCIPLES

## 3.1 DEVELOPMENT OBJECTIVES

The Blackfalds – Malibu Area Structure Plan has been prepared as a comprehensively planned neighbourhood taking advantage of both the natural topography and location attributes of the area. The main objectives of the plan are:

- To provide a framework to deliver high quality, comprehensively planned residential, commercial, and Industrial areas by defining the general pattern and composition of land uses, linkages, servicing designs and development staging;
- n To address and accommodate existing uses affecting the plan;
- To blend with the existing Town of Blackfalds through the use of appropriate design measures.
- To ensure the implementation of the plan takes place in an orderly and phased basis; and
- To provide passive and active recreational areas for use by the residents in this neighborhood
- To consider, and whenever possible, to embrace the history of the Town of Blackfalds through the design process.

## 3.2 DEVELOPMENT PRINCIPLES

Development of the various land uses within the Blackfalds-Malibu Area Structure Plan are defined through the following general principles:

#### 3.2.1 Residential

- Encourage a variety of housing types, from single detached housing to higher density multi-family units.
- All housing forms and options will recognize consumer preferences and be in conformance with municipal standards and policies set forth by the Town of Blackfalds.
- Encourage pedestrian friendly streetscapes and provide direct and safe pedestrian linkages to the community nodes, such as open space and recreational facilities.

- Locate residential development to take advantage of features such as stormwater management facilities, linear parks and other open spaces, and utility corridors.
- Create residential development that compliments and provides continuity to the existing Town of Blackfalds.

#### 3.2.2 Commercial and industrial

- Concentrate industrial development adjacent to Highway 2 to take advantage of marketing the opportunities of the highway.
- Integrate the industrial area along the east of the site parallel to highway 2 and the natural swale.
- Locate and orient commercial sites along arterial and/or collector roadways to ensure high visibility and to provide convenient access opportunities.
- The site is of sufficient size to support a local convenience center to serve the Blackfalds-Malibu development and surrounding area.
- Provide convenient pedestrian linkages to the commercial area and transit routes.
- A strong pedestrian link is planned along the swale that will act as a strong buffer between the residential and the industrial and commercial areas.

## 3.2.3 Municipal Reserves and Recreational Facilities

- Where possible and economically viable and sustainable, utilize future stormwater management facilities to provide pedestrian linkages and open space for passive or active recreational opportunities.
- Create open space linkages, which will be an amenity for passive recreation and serve as a means of pedestrian connectivity between the new development and the existing Town of Blackfalds.
- Allow for the provision of dispersed park space within the neighbourhood to provide open space and opportunities for recreation for residents through the dedication of Municipal Reserves.

## 3.2.4 Transportation

Provide a logical, safe and efficient transportation system within the plan area to accommodate pedestrian, bicycle and other multi-use modes and the vehicular transportation needs of residents moving to, from and within the Blackfalds-Malibu development as well as the adjacent areas.

- n Provide non-vehicular circulation options throughout the neighborhood.
- <sup>n</sup> Minimize walking distances by creating an interconnected street network.

## 3.2.5 Ecological Stewardship

- Develop land in an efficient manner and encourage intensive urban development.
- Incorporate open spaces into compatible land uses such as the stormwater management facilities to optimize the use of these areas.
- Encourage naturalized landscaping on public and private lands to the extent acceptable to the Town of Blackfalds to minimize environmental and economic costs associated with their maintenance.
- Promote the development of open spaces and walkway linkages for pedestrian traffic and connect them to the surrounding areas.
- Encourage energy efficient construction and other innovative building and infrastructure techniques.

## 4.0 DEVELOPMENT CONCEPT

## 4.1 NEIGHBOURHOOD UNIT

The development concept for the Blackfalds-Malibu Area Structure Plan has been prepared in response to current and anticipated residential, commercial, and industrial market trends within the Town of Blackfalds and the Red Deer region. An analysis of these trends and an assessment of their implications assisted in shaping the plan with respect to the type, size and location of various land uses. The plan was also designed to be a natural west progression of the existing Town of Blackfalds to the southeast and east.

The development concept is shown on Figure 3.0 - Development Concept. The land use statistics, number of residential units and density are represented in Table 1 & 2.

## 4.2 RESIDENTIAL

The majority of land within the Blackfalds–Malibu Development is intended for residential development. The remainder of the Plan area has been proposed for industrial and commercial uses.

A mix of low and medium density (single and multi family) residential dwelling units is described and will be implemented based on market conditions and consumer preferences at the time of development. Residential densities are anticipated to be around 16 units per net hectare for low density residential and 30 housing units per net hectare for the medium density residential. The lot depths will typically be around 35 meters for single-family housing. Table 1 - Land Use Statistics, and Table 2 - Residential Units and Density both show the relationship of area, units and projected density for the development.

## 4.2.1 Low Density Residential

The majority of the residential lots will be for low density single family detached homes. These lots, which will be zoned either R-1M or R-1S to appeal to a different market demand. The R-1S lots will have a minimum lot width of 10.5 meters and the R-1M lots will have a minimum lot width of 12.5 meters. As shown on the concept plan, the R-1S lots are primarily concentrated in the northeast and southeast corners of the development. R-1L lots will be considered based on market demands at the time of development.

## 4.2.2 Medium Density Residential

Market trends in medium density residential development point to a growing interest in more lifestyle oriented housing and thus a shift of locating medium density sites closer to low density housing and oriented away from arterial roadways. Malibu Developments has identified one

location for medium density residential. This housing type is located along the main collector road through the development, which will prevent less traffic disturbance to the remainder of the neighborhood. This area is also well served by pedestrian linkages allowing convenient access to the neighborhood amenities including the commercial site. The multi-family sites proposed will consist of either townhouse, duplex housing, or a multi-level apartment style building.

## 4.3 PARKS AND OPEN SPACE

## 4.3.1 Neighborhood Park and Trail System

A large central park will be the focal point of the development serving as an access point to the residential areas of the development. This park has sufficient room to accommodate many active recreational uses, which will be determined by the needs of the Town when it comes time to develop this area. Possible amenities could include a soccer field, a hockey rink, a multi purpose pad, a playground, or a combination of these uses.

A second park is planned at the north end of the development. This park will also function as an active recreational use for the neighborhood and surrounding neighborhoods. It to could be developed with a playground or other use.

Along the boundary of Harvest Meadows an additional large park space is contemplated. Besides acting as a park amenity, this park will also serve a dual role in facilitating stormwater management for the residential areas. This facility may be developed as a dry stormwater detention pond or possibly as a constructed wetland style facility.

The existing wetland area at the north end of the site along with adjacent tree stands will be preserved. This area along with a portion of the existing ridge will be designated as environmental reserve.

The dedicated pathway in this park system will connect to the sidewalks and streets through pathway openings between housing areas. These recreational trails will allow for an interconnected pedestrian system throughout the proposed development.

## 4.3.2 Community Entrance

There maybe entrance feature signs incorporate into the Plan. One likely location is at the south end of the central park site. Other locations include the collector entrance to the northeast and the arterial entrance to the south.

#### 4.3.3 Boundary Treatments

The west boundary of the planned residential area is clearly defined and separated from the industrial development by an industrial access road that provides strong boundary treatments. A landscaped linear park provides visual screening and a buffer between the industrial area to the west, the commercial development to the south, and the residential development. The

change in elevation along this path also contributes to the separation of uses. As mentioned previously, a landscape concept will be prepared by a Landscape Architect and submitted to the Town for their approval once development proceeds.

Any possible noise disturbance issues related to Highway 2 will be looked at and resolved during the preparation of the development agreement.

## 4.4 TRANSPORTATION

## 4.4.1 Collector Roadways

The Blackfalds-Malibu Area Structure Plan provides an extension of two collector roadways, Westbrook and Womacks road.

Collector roads will be constructed within 22.0 meter wide right-of-ways, as per the Town of Blackfalds specifications.

## 4.4.2 Local Roadways

The system of local roads has been planned to provide access to individual development cells while at the same time discouraging outside traffic from short cutting through local roads. Local roads will be designed with 18 meter right-of-ways, as per the Town of Blackfalds specifications.

## 4.4.3 Pedestrian Routes

Pedestrian connections between proposed open spaces and the the nearby existing subdivision have been accounted for in that the principle of the pedestrian system is that all foot traffic from and to the open space system will feed into the north/south roadway spine serving as a backbone for the pedestrian traffic. The dedicated pathway in this park system will connect to the sidewalks and streets through pathway openings between housing areas.

#### 4.4.4 Lanes

The majority of the Blackfalds-Malibu development has been designed with the lots backing onto laneways, with the exception of any lots that back onto green spaces. Rear laneways are shown as 6.0 meters wide.

Special consideration of the landscape adjacent to the lanes facing the existing roadway will occur. Screening of these lanes will be done through the use of various landscape materials.

## 4.4.5 Emergency Access To the Industrial Area

A public utility lot has been identified on the Plan directly north of the proposed commercial area. A 2.5m wide paved walkway complete with knock down bollards will be installed at both ends of this P.U.L. This will facilitate emergency access to the industrial area in the event that the main access road in blocked off. An additional emergency access is provided at the north end of the guarter section between the industrial collector and the residential lane.

## 4.5 TABLE 1

# TOWN OF BLACKFALDS LAND USE STATISTICS

	Area (ha)	% of GDA
Gross Developable Area	62.6	100%
Single Family		
R-1S	7.32	11.6%
R- 1M	12.92	20.6%
Multi Family	1.76	2.8%
Open Space – Environmental Reserve	4.28	6.8%
Open Space – Municipal Reserve *	7.30	11.7%
Industrial	17.18	27.4%
Commercial	1.59	2.5%
Roads	9.57	15.2%
Lanes	1.33	2.1%

<sup>\*</sup> Some Open Space used for stormwater management will not be creditable M.R. This will be determined at detailed design phase and is estimated at approximately 1 ha.

# 4.6 TABLE 2 TOWN OF BLACKFALDS

## **RESIDENTIAL UNITS AND DENSITY**

Land Use	Gross Developable Area (ha)	Units	Units/Ha
Single family (R-1S/R-1M)	38.06	324	8.5
Multi family (R3)	2.00	60	30
Total	40.06	384	10.4

## 5.0 ENGINEERING SERVICES

## 5.1 STORMWATER DRAINAGE

Two stormwater management facilities (SWMF) are incorporated into the layout for the Blackfalds - Malibu development to properly manage and control major storm events. The first is the existing wetlands located in the northwest corner of the project and the other SWMF is located along the east boundary. These SWMF's will be designed to accommodate 1:100 year stormwater flows and restrict flows to predevelopment rates from this site.

An underground storm pipe system will be constructed to convey minor storm events, less than the 1 in 5 year duration, from this development. This pipe system and the runoff will be directed into the SWMF's. The east pond will discharge through a pipe system, at a controlled rate, into the existing storm system. Runoff from the industrial area will be directed into a storm pipe system which discharges into the existing wetland to the north. The proposed pipe system is shown in Figure 4.0.

## 5.2 SANITARY SERVICING

The sanitary sewer system to service this development is presented in Figure 5.0. All flows from within the Blackfalds – Malibu Development will be directed to the existing sewer system through the existing mains along Westbrook Road and Womacks Road.

The existing sanitary mains are too shallow to service this entire development and therefore, a sanitary lift station will be constructed in the northwest corner of this development to accommodate sanitary flows form the industrial area. A forcemain will be constructed in a PUL between the residential and industrial lands and will discharge sanitary flows from the lift station into the proposed sanitary sewer system.

## 5.3 WATER SERVICING

The overall water distribution system needed to service the Blackfalds—Malibu Development is shown in Figure 6.0. These mains will be an extension of the existing Town of Blackfalds system and will be connected at two different locations. Three future connection points will also be provided, two to the south and one to the north in order to accommodate future development.

## 5.4 SHALLOW UTILITIES

There are no major servicing concerns regarding shallow utilities (gas, power, telephone and cable). All shallow utilities will be extensions of those already in place in the existing Town of Blackfalds. This development will be serviced with streetlights.

## 6.0 IMPLEMENTATION

## 6.1 DEVELOPMENT STAGING

Infrastructure to service this development will be extended into the neighborhood from the existing infrastructure in the Town of Blackfalds. 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 7.0 - Phasing, development in the first part of the Blackfalds-Malibu Development is anticipated to begin from the extension of Westbrook Road. All construction traffic will be directed out of this entrance.

The phasing boundaries are shown conceptually and may vary from those of actual redistricting and subdivision applications. As well, portions or all of the separate phases may be developed concurrently if there is sufficient demand and / or if the engineering design is made more efficient as a result.

#### 6.2 REDISTRICTING & SUBDIVISION

Redistricting and subdivision applications will be made for each phase of development. This document will assist in guiding these applications.

**APPENDICES - FIGURES** 







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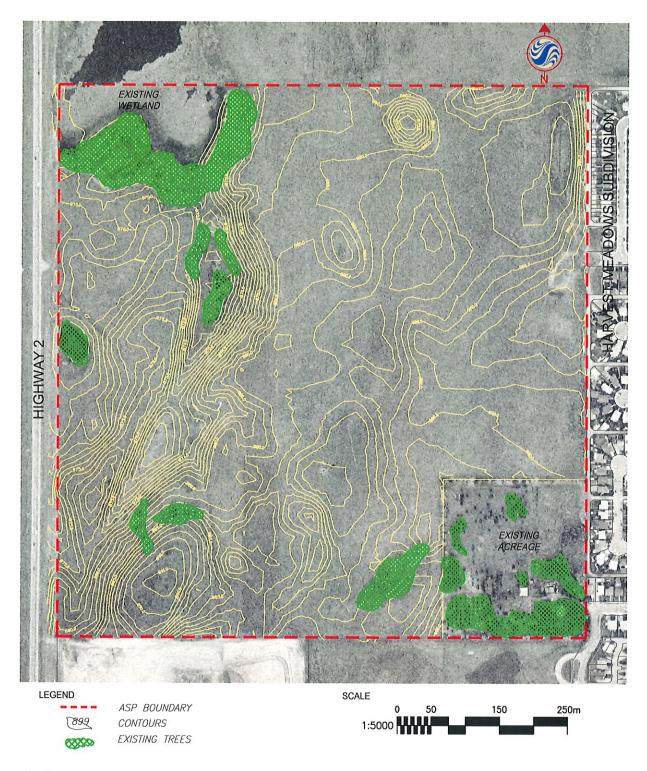
AREA STRUCTURE PLAN

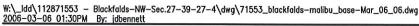
Figure No.

Title

**LOCATION PLAN** 

ORIGINAL SHEET - ANSI A





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Figure No. 2.0

Title

EXISTING CONDITIONS PLAN

CONCEPT

ORIGINAL SHEET - ANSI A

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AREA STRUCTURE PLAN Figure No.

4.0

PROPOSED STORMWATER MANAGEMENT PLAN

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Figure No.

5.0

PROPOSED SANITARY SEWER PLAN

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AREA STRUCTURE PLAN

PROPOSED WATER

**DISTRIBUTION PLAN** 

Figure No.

Title

6.0

FUTURE CONNECTION

ORIGINAL SHEET - ANSI A

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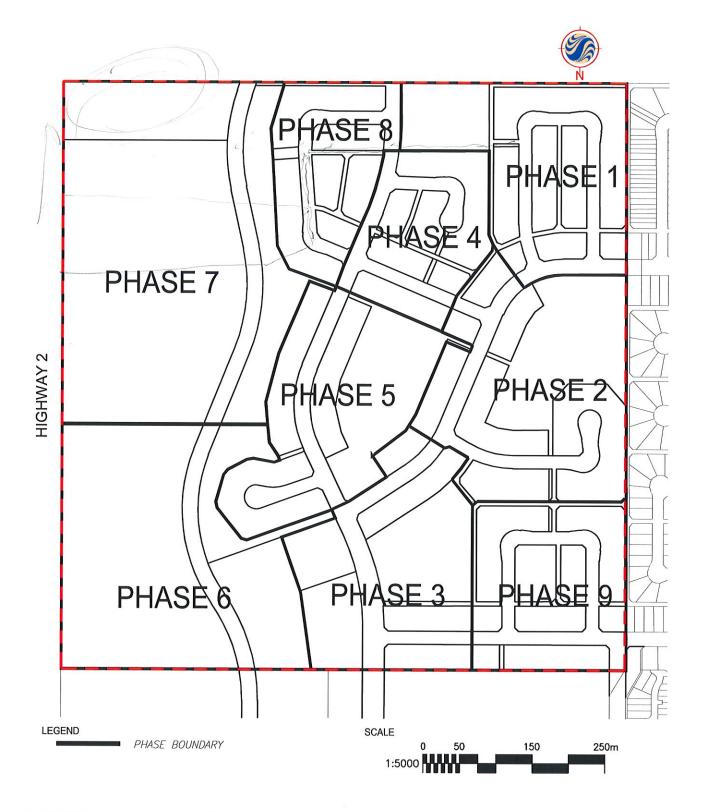
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Figure No.

7.0

PROPOSED PHASING PLAN