

**Wapiti Ridge Estates Area Structure Plan**

SE 13-20-1 W5M

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Prepared For:

393494 Alberta Limited, and  
The Municipal District of Foothills No. 31

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**TABLE OF CONTENTS**

|            |  |           |
|------------|--|-----------|
| <b>1.0</b> | <b>INTRODUCTION</b>                            | <b>1</b>  |
| 1.1        | Context  |           |
| 1.2        | Population Growth                              |           |
| 1.3        | Public Involvement                             |           |
| 1.4        | Opportunities and Constraints in the Plan Area |           |
| <b>2.0</b> | <b>THE PLANNING PROCESS</b>                    | <b>3</b>  |
| 2.1        | Purpose of the Plan                            |           |
| 2.2        | The Legislation                                |           |
| <b>3.0</b> | <b>PLAN CONCEPT AND GOALS</b>                  | <b>5</b>  |
| 3.1        | Plan Concept                                   |           |
| 3.2        | Plan Goals                                     |           |
| <b>4.0</b> | <b>LAND USE STRATEGY (Figure 2)</b>            | <b>6</b>  |
| 4.1        | Balance Land Use                               |           |
| 4.2        | Residential Land Use                           |           |
| <b>5.0</b> | <b>NATURAL ENVIRONMENT</b>                     | <b>8</b>  |
| 5.1        | General Environmental Policy                   |           |
| 5.2        | Topography                                     |           |
| 5.3        | Municipal and Environmental Reserve            |           |
| <b>6.0</b> | <b>INFRASTRUCTURE</b>                          | <b>10</b> |
| 6.1        | All Infrastructure                             |           |
| 6.2        | The Municipal Road System (Figure 2)           |           |
| 6.3        | The Internal Road System                       |           |
| 6.4        | Water, Sewer and Storm Water Servicing         |           |
| 6.4.1      | Water Sources and Resources                    |           |
| 6.4.2      | Storm Water Management                         |           |
| 6.4.3      | Sanitary Sources and Resources                 |           |
| 6.4.4      | Solid Waste Disposal                           |           |
| 6.4.5      | Shallow Utilities                              |           |
| 6.5        | Protective Services                            |           |

**7.0 IMPLEMENTATION, REVIEW AND AMENDMENT**

**13**

- 7.1 Plan Implementation
- 7.2 Plan Review and Amendment

***List of Figures***

- Figure 1 – Location
- Figure 2 – Site Plan

***List of Appendices***

- Appendix A – Restrictive Covenant

## ***PURPOSE OF THE PLAN***

The Wapiti Ridge Estates Area Structure Plan (ASP) is intended to provide a review of the past history and future land use and development within the Plan Area. The Wapiti Ridge Estates ASP will assist municipal policy makers, planners, landowners, and the developer in understanding the project.



### ***1.0 INTRODUCTION***

#### **1.1 Context**

**Figure 1** identifies the subject property's location. This property is located 2.2 kilometres (1.5 miles) southwest of the south of the Town of Okotoks. The Wapiti Ridge Estates Area Structure Plan specifically addresses land contained within the southeast quarter of Section 13, Township 20, Range 1, West of the Fifth Meridian within the Municipal District of Foothills No. 31.

This area structure plan describes development proposed for the most easterly ninety (90) acres of the property. A previous subdivision of seventy (70) acres occurred on this property in 1997 when nine (9) country residential lots and one municipal reserve (MR) lot were created.

This area has undergone a transition away from traditional agricultural pursuits. Originally, William Lineham purchased this land from the Crown in 1902, paying \$3.00 per acre.<sup>1</sup> The Plan Area can presently be characterised as residential. The subject property supports a residential use and the land east of this property, on the "correction line", is subdivided for residential use. The land north of the subject property is the subject of a residential development application and land west of the subject property is subdivided for residential use.

This land consists of classes 5 and 6 soils according to both the Canada Land Inventory (CLI) and the Land Capability Classification for Arable Agriculture in Alberta (LCCAA) rating systems<sup>2</sup>. In the past this land has supported about forty

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<sup>1</sup> Glenbow Museum Archives

<sup>2</sup> "Assessment of Arability for a Portion of the SE ¼ 13-20-1 W5M" prepared by Matrix Solutions Inc., July 1998

(40) acres of hay and has remained in unimproved pasture. This land has not agriculturally viable for crop production.

**Figure 2** delineates the proposed development Wapiti Ridge Estates. **Figure 2** shows the new lots in relation to the existing lots on the quarter section. Wapiti Ridge Estates will consist of four (4) country residential lots ranging in size from five (5) to eight (8) more or less acres (2.05 +/- ha to 3.48 +/- ha), and one balance lot of 66.4 acres +/- (26.88 ha). The creation of Wapiti Ridge Estates will result in the quarter section continuing to support a country residential use.

## 1.2 Population Growth

A statutory requirement of an ASP is to generally or specifically describe a population density for the proposed development. The population in the Plan Area will be determined by a number of factors including planning and development policies contained in the Wapiti Ridge Estates ASP and the Municipal District of Foothills Municipal Development Plan and Land Use Bylaw, as well as the availability of services and infrastructure.

To provide some indication of future population potential, the following scenario could be considered:

If the Plan Area was fully developed as outlined in the Wapiti Ridge Estates ASP, the total Plan Area population is estimated at approximately ten (10.4) persons. This projection assumes an average household size of 2.6 persons - the average Canadian household size in the 1996 federal census - and that land is developable allowing for environmental considerations municipal and road reserves. The projection does not consider municipal reserve lots and public utility lots as sustaining a resident population. If the existing development on the quarter section is considered the total projected population of the subject quarter section is estimated at thirty-two (32) persons.

## 1.3 Public Involvement

A statutory Public Hearing was held October 19, 2000. First reading of this ASP (Bylaw 173/2000) was given October 26, 2000.

Second reading was obtained December 15, 2000 and third reading was granted \_\_\_\_\_ and Bylaw \_\_\_\_/00 was adopted.

In addition, stakeholder meetings were held to provide a better understanding of specific concerns. An informal public Open House was held October 15<sup>th</sup> and thirty (30) neighbouring landowners were invited to attend.

## **1.4 Opportunities and Constraints in the Plan Area**

A number of issues and technical considerations were evaluated as part of the Wapiti Ridge Estates ASP process, and the following opportunities and constraints were identified:

- a. Transitional Character of the Area - the Plan Area is undergoing a transition away from agriculture to country residential use. Both the poorer quality of agricultural lands and the proximity to an urban centre contribute to this transition (see **Section 1.0**).
- b. Ground Water - This development will rely on ground water wells for service to residents. Ground water in a rural area is a constant consideration due to the impact use may have on surrounding landowners. In this area it appears that ground water supplies can support the development with out adverse impact on adjacent landowners (see **Section 6.4**).
- c. Road Infrastructure - Wapiti Ridge Estates will gain access from the municipal road system. It is important that the road be developed to a standard that can accommodate new traffic generated by the development. With the initial development of this quarter section, a lot levy for road improvement was paid to the municipality and the road has been upgraded to accommodate residential traffic (see **Sections 6.2 and 6.3**).
- d. Density - The density of the project is proposed at one unit per five acres in title. This density was chosen as the property gains direct access to a surfaced road, has good ground water supplies, and does not result in taking any productive land out of an agricultural use.

## **2.0 THE PLANNING PROCESS**

### **2.1 Purpose of the Plan**

This ASP was prepared in accordance with the Municipal District of Foothills Municipal Development Plan (MDP) and land use bylaw. An ASP is required when eight (8) or more lots are proposed on a quarter section. This request is made to address municipal concerns that subdivision of land without proper planning would be detrimental to the municipality as a whole.

The Wapiti Ridge Estates ASP has been prepared to address the development of land in a comprehensive manner. This ASP describes the proposed density, method of servicing, method of access, and contains policies that address the characteristics and long-term impact of the project.

## **2.2 The Legislation**

The Wapiti Ridge Estates ASP has been prepared in accordance with provincial requirements outlined in s.633 of the *Municipal Government Act (MGA)* (*Statutes of Alberta, 1994, Chapter M-26.1*).

*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.*

In addition, this ASP was prepared in accordance with the Municipal District of Foothills Municipal Development Plan and Land Use Bylaw and complies with the Municipal guidelines for the preparation of Area Structure Plans.

## **3.0 PLAN CONCEPT AND GOALS**

### **3.1 Plan Concept**

*Wapiti Ridge Estates is a comprehensively planned development with amenities that come with proximity to an urban area. The community is represented by a high quality of development throughout with sensitivity to the rural nature of the setting. Enhancements such as tree planting and a restrictive covenant outlining housing types will promote the quality of the community.*



### **3.2 Plan Goals**

Wapiti Ridge Estates is built on the above concept and the concept is supported by the following goals:

- a. Achieve a country residential development that is compatible with the area and works in harmony with the rural setting.
- b. Utilize a sustainable source of ground water and meet required municipal and provincial standards.
- c. Provide access to an efficient and safe road network.
- d. Locate within the vicinity of an employment and/or commercial centre.
- e. Ensure that Wapiti Ridge Estates is developed in accordance with approved policies and guidelines for the area.
- f. Ensure that all proposed lots have at least one acre of developable land (i.e. – support a building site and are not encroaching on environmentally sensitive areas) and have direct access to a surfaced internal road.

### **4.0 LAND USE STRATEGY (Figure 2)**

**Figure 2** delineates both approved and proposed lots in the Plan Area. The quarter section contains nine (9) previously approved Country Residential lots ranging in size from 5.68

to 7.05 acres (2.29 ha to 2.65 ha) and one Municipal Reserve (MR) lot of 7.18 acres (2.90 ha). This ASP address the future development of four (4) residential lots ranging in size from five (5) to eight (8) more or less acres (2.05 ha to 3.48 ha), and one (1) balance lot of 66.4 acres +/- (26.88 ha). Two (2) of the four (4) proposed lots contain existing dwellings. In its entirety, this development would result in the quarter section containing thirteen (13) country residential lots, one MR lot, and (1) large balance lot.

The following general polices apply to the Plan Area and this ASP as a bylaw of the municipality:

- a. When considering redesignation, subdivision or development applications in the Plan Area, the Municipality shall confirm that the application conforms to the land use strategy illustrated in **Figure 2** and is compatible with the policies of this Plan.
- b. Any application in the Plan Area that is contrary to the land use strategy and policies contained within the Wapiti Ridge Estates ASP requires a formal application for amendment to the Wapiti Ridge Estates ASP.

#### **4.1 Agricultural Land Use**

The Plan Area has supported a forty-acre hay crop but has never been under intensive agricultural use. The natural topography of the property, excessive stoniness of the land and the poor quality of soil did not facilitate the raising of crops and makes removal of hay difficult. The land has largely remained as unimproved rangeland supporting the intermittent grazing of livestock.

Soil consists of a mix of Canada Land Inventory ratings of soil classes 5 and 6. The development is located on the class 4 and 5 soils<sup>3</sup>.

Urban growth pressures from Okotoks and Calgary, increasing non-agricultural land values, demand for country residential development, and conflicts between residential and agricultural land use increase pressure for non-agricultural uses. Agricultural lands within the Plan Area have potential for long-term transition to residential uses provided the transition is orderly and based on market-driven build-out. Policies for the transition of the agricultural parcel to a residential used are listed below.

The Wapiti Ridge Estates project will contain one 66.4 acres +/- (26.88 ha) agricultural lot. It is anticipated that the agricultural land will support the intermittent grazing of livestock. Due to the proximity of residential uses, there should be no intensive agricultural operations on the agricultural parcel. The

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<sup>3</sup> Matrix Solutions Inc. "Assessment of Arability for a Portion of the SE ¼ 13-20-1 W5M", July 1998

balance land will be designated Agricultural in accordance with the M.D. of Foothills Land Use Bylaw.

- a. The balance will be designated Agricultural in accordance with the M.D. of Foothills Land Use Bylaw. Intensive agricultural operations are discouraged from locating within the Plan Area
- b. Any further subdivision of the agricultural parcel shall require an amendment to this Area Structure Plan. A Restrictive Covenant forbidding subdivision shall be placed on the agricultural parcel.

#### 4.2 Country Residential Land Use

The Plan area contains a ridge on the west side and many slopes and draws are associated with the ridge. The country residential development, proposed on the eastern slope of the ridge, will take advantage of the natural topography to provide some character to the development. The land has not been a viable crop producer due to excessive stoniness and topographical constraints. The quarter section lends itself to country residential use - initial groundwater exploration indicates good supply and the surrounding land uses are primarily country residential. A restrictive covenant is proposed in order to prevent haphazard or inharmonious construction on the proposed lots.

- a. Country residential lots within Wapiti Ridge Estates shall be no less than five (5.0) acres in size (2.02 ha)
- b. Country residential lots shall be supplied by individual ground water wells drilled, tested and licensed in accordance with the Water Act and to the satisfaction of the Municipality and the Groundwater Licensing Department of Alberta Environment.
- c. Country residential lots shall have direct access to a internal subdivision road in accordance with the Municipal road policies. Access to the proposed lots shall be from the internal subdivision road. Access directly onto 402 Avenue on the south side of the Plan Area is discouraged.
- d. Uses on country residential lots shall comply with the Restrictive Covenant registered on title, copied here in **Appendix A**.
- e. Country residential housing types shall be consistent with the country residential housing types previously approved on this quarter section to achieve a cohesive appearance of development.

## 5.0 NATURAL ENVIRONMENT

The physical characteristics and environmental significance of lands in the Plan Area should be considered in applications for development. Natural environmental characteristics in the Plan Area are limited. The property contains a ridge and undulates at various locations. A slight draw is located along the southern portion of the quarter section. Within the draw, a dugout has been developed and will be backfilled upon construction of the housing. The property does not contain a river, creek or slopes in excess of a fifteen (15) percent gradient.

### 5.1 General Environmental Policy

- a. The Municipality, through its Municipal Development Plan policies, encourages the preservation of significant and/or sensitive natural environments in the development process.
- b. The Municipality may require that a proponent, in support of a proposal for redesignation, subdivision or development, and at their sole expense, prepare and submit the following in a form and content satisfactory to the Municipality, and in accordance with all pertinent Alberta Environment guidelines or requirements of the appropriate Provincial Departments:
  - i. A Geotechnical report pursuant to the provisions of the *Municipal Development Plan*;
  - ii. An Archaeological and/or Historical Resources Impact Assessment pursuant to the provisions of the *Municipal Development Plan* and to the satisfaction of the provincial department of Alberta Culture.
- c. A dugout located on proposed Lot 2 shall be backfilled by the developer prior to the issuance of a building permit for Lot 2.

### 5.2 Topography

The Plan Area contains irregular sloping topography. A high rounded ridge dominates the west side of the subject property from north to south. Off the ridge

on the east side, eight percent (8%) slopes 50 to 150 metres in length are found. Slopes affected by the proposed development are primarily to the east. The property is well drained and does not contain any permanent bodies of water.

- a. The Municipality may require a geotechnical report prepared by a qualified engineer in areas where topography is a factor of development. The geotechnical report should contain all information required by the Municipality as described in MD policy.

### **5.3 Municipal and Environmental Reserve**

Municipal Reserve can be dedicated, deferred or contributed by way of cash-in-lieu. The developer is requesting a deferral of reserves owing on the four-lot subdivision. There does not appear to be any physical characteristics on the subject property that would qualify for the Environmental Reserve (ER) designation as defined under The Municipal Government Act.

- a. The Municipality supports the retention and enhancement of open space and recreation facilities in the municipality. Linkages between, and continuity of, these spaces are encouraged.
- b. Dedication of MR and ER in the Plan Area shall be determined by the Municipality in accordance with MDP policy and Sections 666 and 664 of the *Municipal Government Act*.
- c. The Municipality shall consider the creation of public recreation spaces in developments where large amounts of MR are owing and the community has agreed upon a demonstrated use for the property. The Municipality encourages pedestrian linkages from residential development areas to MR sites.
- d. MR parcels shall be permitted at the discretion of the Municipality .

## **6.0 INFRASTRUCTURE**

### **6.1 All Infrastructure**

Infrastructure includes the hierarchy of road networks, public and private water systems, septic systems, solid waste management systems, and police, fire, and ambulance service. The Wapiti Ridge Estates ASP contains policies that address infrastructure servicing and responsibility for the provision of that infrastructure.

- a. The Municipality has developed standards for roads and infrastructure servicing of country residential developments. A Development Agreement is prepared and shall be entered into by the developer prior to Redesignation approval being granted.

## **6.2 The Municipal Road System**

To access the property one would likely travel via Highway No. 7 then travel one mile south on either Secondary Road 783 or 8<sup>th</sup> Street SE then west along 402 Avenue to the south side of the subject property. Secondary Road 783 is a municipal major road that is paved with full shoulders. 402 Avenue is a surfaced road that is dust-proof and developed to municipal standard. Upon previous subdivision of this quarter section a road levy was paid to the municipality to upgrade 402 Avenue in order to increase the standard for residential use.

- a. The municipal road may be upgraded, as necessary, to Municipal standard.
- b. The developer may be required to enter into a Development Agreement regarding upgrading or contribution toward the upgrading of 402 Avenue, at the discretion of the Municipal District of Foothills No. 31.

## **6.3 The Internal Road System**

Wapiti Ridge Estates shall be serviced with an internal road that terminates in a cul-de-sac. Entry to the internal road will be via 402 Avenue. The internal road will be constructed to municipal standard and paved as required. The developer shall enter into a Development Agreement with the municipality to outline construction and maintenance of the internal subdivision road.

- a. The internal subdivision road shall be constructed to Municipal standard at the sole expense of the developer.
- b. Ownership and maintenance of the internal subdivision road shall be the responsibility of the Municipality upon issuance of a Final Acceptance Certificate to the developer.

## **6.4 Water, Sewer and Storm Water Servicing**

The provision and movement of water, either ground water, surface water or storm water, is an important development consideration. Each residential lot at Wapiti Ridge Estates will be serviced by individual ground water wells. Groundwater Exploration and Research Ltd conducted a ground water investigation in 1997, during the initial development of this quarter section. Three wells were drilled on existing Lot 7, Lot 8 and Lot 9. The research concluded the following<sup>4</sup>:

- The static water level was 7 to 12 metres from the top of the casing. All wells recovered from 90 to 100 percent after pumping.
- Lot 7 achieved a Q20 rate of 26.18 m<sup>3</sup>/day (4.0 igpm) and is capable of sustaining up to 24 lots.
- Lot 8 achieved a Q20 rate of 49.09 m<sup>3</sup>/day (7.5 igpm) and is capable of sustaining up to 45 lots.
- Lot 9 achieved a Q20 rate of 26.18 m<sup>3</sup>/day (4.0 igpm) and is capable of sustaining up to 24 lots.

It appears given these findings that there is a sustainable supply of ground water available to service this development.

#### **6.4.1 Water Sources and Resources**

- a. The Wapiti Ridge Estates development shall be dependant on individual ground water wells for potable water service. The use of ground water wells will require licensing and approvals issued by Alberta Environment. Preliminary research indicates that the aquifer has the capacity to sustain the increase in use long-term.

#### **6.4.2 Storm Water Management**

Storm water and natural drainage on this property drains from the west to the east. There is a culvert in the cul-de-sac to the east that helps natural drainage move eastward. The east flowing drainage runs via a small draw in the southern portion of the land. The land can sufficiently handle

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<sup>4</sup> Groundwater Exploration and Research, "Groundwater Supply Evaluation Sharp Wells: SE 13-20-1 W5M Municipal District of Foothills", September 1997

naturally occurring flows. The drainage does not appear to be part of a watershed or drainage basin for a large system. The land is well drained with no permanent water bodies.

- a. All storm water shall be contained within the proposed development area. No surface water shall be directed to municipal road ditches. Post-development flows shall not exceed pre-development flows.
- b. The Municipality may request the preparation of a Storm Water Management Plan to be prepared at the sole expense of the developer.
- c. The natural drainage course on within the Plan Area shall be maintained in its natural state.
- d. Storm Water Management shall be prepared to the satisfaction of the Municipal Engineer.

#### **6.4.3 Sanitary Sources and Resources**

Conventional septic field and tile systems are proposed to service Wapiti Ridge Estates. Treatment of sanitary effluent is generally restricted to on-site disposal through septic fields as per the Alberta Private Sewage Systems Standard of Practice. This is typical of domestic use within the M.D. of Foothills.

- a. On-site sewage disposal systems shall be developed to the standards of the Municipality and the Alberta Private Sewage Systems Standard of Practice.
- b. The Municipality may, at their discretion, request that Percolation and High Water Table Testing be conducted at the sole expense of the developer at the Redesignation stage.

#### **6.4.4 Solid Waste Disposal**

- a. Solid waste from the Wapiti Ridge Estates development shall be hauled by individual landowners to the Municipal Landfill site near to the development.

#### **6.4.5 Shallow Utilities**

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| Shallow utility services include natural gas, telephone, cable, and electricity. |
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- a. Provision of Shallow Utilities in applications for redesignation, subdivision, and/or development shall be at the sole expense of the developer to the extent required in the Municipal Standard Development Agreement.

#### **6.5 Protective Services**

- a. The Municipality requires that proposals for redesignation, subdivision, and/or development accommodate design elements that consider safety measures and appropriate levels of servicing required for fire, police, and ambulance services.
- b. Police Service to the Plan Area shall be provided by the Okotoks detachment of the Royal Canadian Mounted Police and M.D. of Foothills Special Constables.

### **7.0 IMPLEMENTATION, REVIEW AND AMENDMENT**

#### **7.1 Plan Implementation**

The Wapiti Ridge Estates ASP falls within a hierarchy of applicable plans. The M.D. of Foothills *Municipal Development Plan* (MDP) is the guiding document for all development within the municipality. The *Land Use Bylaw* (LUB) establishes the land use rules and regulations. The Wapiti Ridge Estates ASP presents a greater level of planning detail within the specific Plan Area and is required to be consistent with both the MDP and LUB.

Development in the Plan Area should be acceptable to the community and consistent with policy contained within the Wapiti Ridge Estates ASP. The Wapiti Ridge Estates ASP does not supersede, repeal, replace or otherwise diminish any other statutory plan in effect in the Plan Area.

- a. The policies contained within this document shall be reviewed and implemented by Municipal District of Foothills Council members at their discretion.

## **7.2 Plan Review and Amendment**

As the Wapiti Ridge Estates ASP is a bylaw of the Municipality, a formal process as outlined in the Municipal Government Act is required to amend the Plan.

- a. The future land use and development outlined in the Wapiti Ridge Estates ASP is intended to address a long-term time horizon. Periodic review and occasional amendment of the Wapiti Ridge Estates ASP may be required in accordance with the *Municipal Government Act*. The Wapiti Ridge Estates ASP is flexible enough to allow for review and amendment every five years should the Municipality deem that appropriate.

***Appendix A: Restrictive Covenant***

***Appendix B: Air Photo Overlay***