

# RIVER RUN AREA STRUCTURE PLAN

# Municipality Crowsnest Pass, AB 2007.01.23





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### 1. INTRODUCTION

This Area Structure Plan (ASP) relates to the lot(s) legally described as Plan: 8711401, Blocks: 1, 2 & 3, Part SW 2 & SE 3-8-4-W5, And NW 35-7-4-W5, compromising 52 acres in the Crowsnest Pass Municipality, illustrated in figure 1 and hereafter referred to as the Subject Site.

This ASP establishes the general planning principles for the subject site and the proposed relationships with the existing urban structure of Blairmore. This document also refers to proposed land-use district, 'Comprehensive Multi Use Development - 3 (CMUD-3)', which is intended to be adopted & incorporated to the Municipality of Crownest Land Use Bylaw as a specific land use district applicable to the subject site.

When fully realized, development of the subject site will bring significant benefit to the municipality in terms of economics of municipal services and local tax assessments. The proposed development will double the current population of Blairmore and will utilize existing municipal utilities, fire protection, library, schools and public recreation amenities without the need for upgrades to the existing underutilized facilities. This will ensure the viability of the existing services and infrastructure. It is foreseeable that the existing residents' property taxes may decline with the new growth and increased commercial and residential assessment.

A redesignation of the subject site's existing land-use will be necessary for implementation of this ASP. Because the Crowsnest Pass Municipal Land Use By-Law currently contains no land-use districts which would accommodate the type of development proposed in this ASP, a new proposed land use district accompanies this ASP. The proposed land use district, Comprehensive Multi Use Development (CMUD-3) outlines permitted uses, densities, setbacks, building heights, coverage, landscaping and parking provisions. It is intended that CMUD-3 be incorporated into the Crowsnest Pass Municipal Land Use By-Law through the necessary channels of review, approval, and adoption.

### 2. SUBJECT SITE

This ASP applies to an area of Blairmore AB, and consists of the S.E. ¼ of Section 3-8-4-5 and the S.W. ¼ of Section 2-8-4-5. This site totals approximately 21.00 hectares (52.0 acres) and it is bound to the north by Highway No. 3, to the south by the Crowsnest River and Blairmore, to the west by the Blairmore Creek, the shopping centre, the hospital and to the east by twelve existing mobile homes. Please refer to Figure 1 below.



Figure 1. Subject Site & Vicinity of Blairmore AB.

# 3. EXISTING SITE CONDITIONS

# 3.1 Land Ownership

Bridgecreek Development Corporation purchased the subject site in May 2006 and retains ownership at the date of this document.

# 3.2 Land Form

The study area lies  $\pm$  14.9 meters ( $\pm$ 49 feet) below the grade of Highway No. 3 to the north. The lands then fall generally from west to east with several lower "pockets"

occurring in the vicinity of the Crowsnest River. The Crowsnest River and Blairmore Creek form a natural edge condition to the south and west of the site as does the highway escarpment to the north.

Vegetative tree cover consists primarily along the river and creek embankments and in a few small clusters in the center of the site. The major portion of the site is treeless and contains non-native grasslands.

# 3.3 Drainage

Two major drainage channels border the site to the west and south via the Crowsnest River and Blairmore Creek, both of which flow from west and north to the east. The current topography appears to direct over-land flow to these two watercourses.

# 3.4 Agricultural Capability

According to the CLI rating, the entire area is class 6S. Soils in this class are capable of only producing perennial forage crops and improvement practices are not feasible. Further, the site is not large enough to sustain a farm operation.

# 3.5 Surficial and Bedrock Geology

The soils conditions encountered in the test pits undertaken in 1994 were similar across the site and comprised, in descending order of occurrence:

- Clay fill
- Coal/coal ash fill
- Clavev till

In accordance with the consultant's conclusions development of residential and commercial subdivision on the property is feasible. This has been substantiated by the AGRA report completed February 26, 1999.

### 3.6 Historical

In the previous studies undertaken, there was no indication of pre-historical resource potential in the study area. This site was previously used as an industrial site, in association with coal mining activities prevalent in the Crowsnest area. All evidence of coal mining has been removed from the site, with the exception of coal slag as identified in the previous ESA reports.

### 3.7 Crowsnest River Crossing

A new vehicular bridge is being proposed across the Crowsnest River at 119 Street, connecting the subject site to the Central business district of Blairmore. This crossing will require further design and review.

### 4. PLANNING HISTORY

The subject site has received previous planning and engineering studies and in 1998, the Riverside Estates ASP was submitted to the Municipality and received approval. Some other relevant planning & engineering events which have occurred include:

- "Preliminary Geotechnical Evaluation Proposed Commercial Subdivision,
  Blairmore, Alberta", prepared for the Municipality of Crowsnest Pass by HBT
  Agra Limited, Lethbridge, Alberta, May 1994. The findings of this report did not
  preclude development in the area, but did provide some recommendations for
  development and construction techniques.
- "Phase I Environmental Site Assessment, Plan 8711401, Blocks 1, 2 and 3, Part S.W. 2 and S.E. 3-8-4-W5 and N.W. 35-7-4-W5, Blairmore, Alberta", prepared for the Municipality of Crowsnest Pass by Agra Earth and Environmental Limited, October 1995. The findings of this study are positive towards development, however, a Phase II ESA was recommended to address:
  - The waste coal pile on the western section of the subject property
  - Buried concrete from the coal processing facility on the eastern portion of the site
  - The degree to which the site was reclaimed by Alberta Environmental Protection, Land and Forest Services
- "Report to the Municipality of Crowsnest Pass, Land Use Assessment, Blairmore, Alberta", prepared by Urban Systems Ltd., April 1995. The report discussed various land uses which could occur on the ±52 acres including highway commercial and residential uses. Access/egress for the site was also evaluated. In addition, the report flagged various potential uses for the property and investment dollars required.
- In April of 1998, an amendment to the Riverside Estates ASP identified access to the west across Blairmore Creek. This amendment was withdrawn.
- In September 1998, AGRA conducted a test hole program on the site and also prepared an accompanying report for use in detailed engineering.
- In March of 2000, the amended Riverside Estates ASP was approved.

### 5. PROPOSED PLANNING POLICY

The planning concept of this ASP is premised on a mix of low and medium density residential, with accommodation, commercial, recreational, and institutional uses. It is intended that the density and mixture of uses will result in an efficient and appropriate development for the subject site given its proximity to municipal services and public needs/access. The proposed commercial uses are intended to be small in scale, and will serve both the River Run Community, and the broader Blairmore area.

### 5.1 Concept

River Run is conceived to be an integrated piece of Blairmore's fabric. There are several locations around the subject site's periphery where potential pedestrian, bicycle & vehicular ties to the existing surrounding community exist. These connections may tie to surrounding facilities and amenities such as: the Crowsnest Pass Golf and Country Club, Powder Keg Hill Ski Resort, the Central Business District and community services such as the fire station and emergency services, library, government buildings and other public amenities.

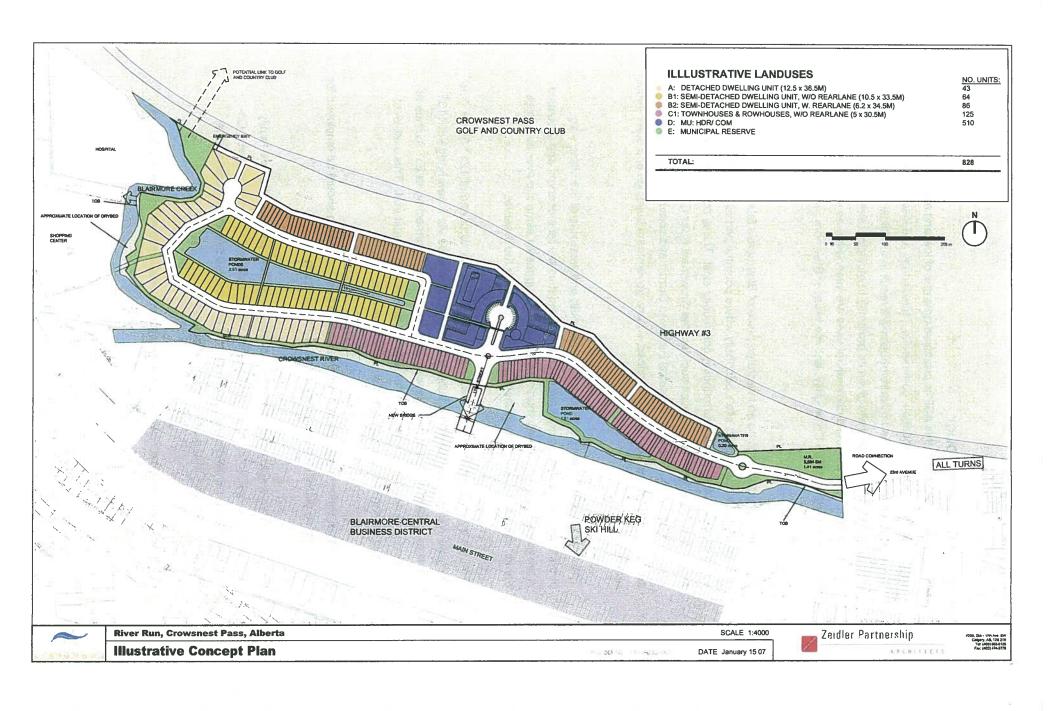
The river and creek banks that run along the south and west side of the site are an important environmental component of the site and thus will be preserved and protected. A ten meter wide right-of-way municipal reserve is suggested along the river and creek banks. Pedestrian and cycle pathways may occur within the reserve.

A bridge across the Crowsnest River currently exists at the north end of 121<sup>st</sup> Street. The principle vehicular access to the subject site is intended to be via a new bridge at 119<sup>th</sup> Street to a traffic circle intersecting with an east-west road connecting to 23<sup>rd</sup> avenue at the east end, and terminating in an on-site cul-de-sac at the west end. This east-west road will branch into a local traffic distribution network.

Boulevards, traffic circles, pedestrian crossings & parallel parking should be employed for the purposes of traffic calming throughout the subject site.

Parking is proposed to occur in a variety of structures from garages of single-family dwellings, to larger underground facilities for multi-family and commercial uses. Onstreet parallel & perpendicular parking should be provided to enhance commercial viability, calm traffic and aid in the pedestrian realm.

The illustrative land-use concept for the subject site are illustrated in Figure 2 fold-out, next page.



# 5.2 Public Open Space

River Run development will be governed by a 6 meter minimum setback along the shoreline of the Crowsnest River to help preserve the river bank. This setback zone will maintain public access for low-impact uses such as walking and cycling.

Landscaping will utilize indigenous planting material to integrate artificial landscaping with the existing landscape. Green spaces will feature a network of pedestrian and bicycle pathways and bridges that will link the River Run components and tie them to the surrounding natural and man made amenities. A number of storm water retention ponds will also be integrated with the landscape areas to recharge the ground water and reduce the required infrastructure.

It is not anticipated that schools or other educational uses will be included on the subject site. Any students residing in River Run will be accommodated within the community's existing school system.

## 5.3 Urban Design & Mixed Land Uses

A mixture of land uses including, but not necessarily limited to, residential, accommodation, commercial, recreational, and institutional uses are proposed to aid in the development of liveable, walkable, and sustainable community.

The highest residential densities and the most intensive uses are proposed to be focused at a mixed-use centre near the primary vehicular access at 119<sup>th</sup> Avenue. Use will become primarily mid-and-low density residential to the east and to the west of 119<sup>th</sup> Street. The lowest density single-family uses are intended to occur between the 6m setback from the Crowsnest River, and the east-west road. The urban design & master plan concept for the subject site are illustrated in Figure 3 fold-out, next page.

Residential uses may broadly occur as follows:

- Low-Density: Single-family dwellings
   Semi-detached dwellings
- Medium-Density: Townhouses & Rowhouses
- High-Density: Multi-Family apartment style dwellings

Multi-uses will generally coexist with the medium and high density residential, while low-density residential areas will be designated as residential use.

Development parameters regarding matters such height & setback are prescribed in the accompanying CMUD-3 land-use district.



# 5.4 CMUD-3 Land Use District Redesignation

It is intended that the subject site's land use will be redesignated as Comprehensive Multi Use Development (CMUD-3). CMUD-3 outlines distinct requirements for uses, densities, setbacks, building heights, coverage, landscaping and parking provisions. It is intended that CMUD-3 be incorporated into the Crowsnest Pass Municipal Land Use By-Law through the necessary channels of review, approval, and adoption.

# 5.5 Phasing

Development of the subject site may occur in phases identified below in Figure 4. Phasing may not necessarily occur in order of number, although it is intended to follow the pattern of constituent areas and uses.

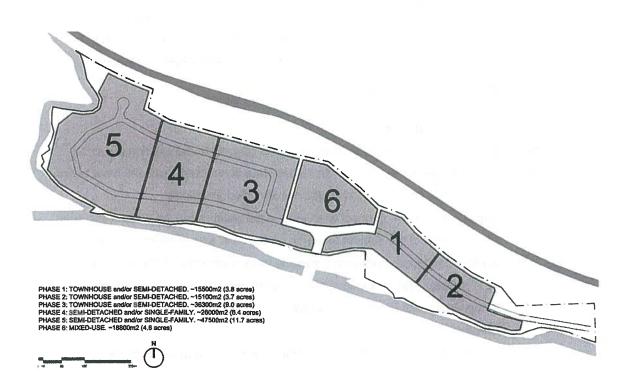


Figure 4. Intended Phasing Plan

### 6. ENGINEERING

# 6.1 Servicing Objectives

Municipal servicing of the subject property will be designed and constructed in accordance with the latest version of the *Engineering and Development Standards for the Municipality of Crowsnest Pass* and appropriate Alberta Environment guidelines.

Make effective use of the existing topographic conditions to service the subject

The objectives for the serving strategy are as follows:

- Property in the most efficient manner.
   Connect to existing water and sanitary sewer servicing connections in the general area surrounding the site, owned and operated by the Municipality of
- Connect to existing water and sanitary sewer servicing connections in the general area surrounding the site, owned and operated by the Municipality of Crowsnest Pass.
- Extend the services into the property that allow for phased construction.
- The initial costs for on-site roads, sidewalks, water, sanitary and storm sewers, shallow utilities, etc. shall be borne by the Developer.
- Provide a comprehensive design strategy that minimizes impact on the environment and in particular the Crowsnest River and Blairmore Creek.
- Prepare a storm water management plan that meets Alberta Environment's guidelines.

# 6.2 Water Supply and Distribution

The water supply system for the subject land shall connect to the existing water distribution system within Blairmore. Three separate connection locations have been identified in previous servicing studies and are identified as follows:

- West Connection connect to existing water main within the water easement, situated west of the subject property, on the west side of Blairmore Creek.
- South Connection connect to existing trunk main within 21<sup>st</sup> Avenue and 119<sup>th or</sup> 121<sup>st</sup> Street. This connection may be made through either a dedicated crossing of the Crowsnest River, or associated with the bridge construction along the 119<sup>th</sup> Street alignment.
- East Connection connect to the existing water main at 23<sup>rd</sup> Avenue, near 127<sup>th</sup>
   Street.

The water distribution system will be designed to accommodate both domestic water and fire protection demands for the full build-out of the subject property. In general, the water mains will be looped and the use of 'dead end' lines will be minimized. The water main connections to the three locations noted above will also provide looping to the existing water distribution system. A detailed Water Network Analysis will be provided at the time of detailed design, in order to accurately size the mains. Fire hydrants will be provided at

the appropriate spacing intervals required for this type of development, with input from the local Fire Department. Water storage requirements will be provided through existing water reservoirs and as such, no new reservoirs are proposed for this development.

# 6.3 Sanitary Servicing & Wastewater Collection

A sanitary sewer collection system is intended to collect wastewater via a proposed trunk collection system running within the road allowance. Each development parcel will be provided with a gravity sewer connection that will feed into the trunk collection system. The subject lands generally drain to the south-east corner of the property. The proposed collection system, will tie to the existing municipal sanitary collection system.

Previous servicing reviews for this development have identified two servicing options. Option 1 includes a lift station which services either the entire site, or the western portion of the development area. The lift station would require a force main which would connect to an existing trunk main within 19<sup>th</sup> Avenue either through the 119<sup>th</sup> or 121<sup>st</sup> Street alignment. Option 2 would see a single collection system that would service the entire site and make connection to the existing sanitary manhole at the intersection of 23<sup>rd</sup> Avenue and 127<sup>th</sup> Street (east side of the site). Under Option 2, the downstream capacity of the system would need to be reviewed to determine whether upgrades between the connection point and the trunk main within 19<sup>th</sup> Avenue have sufficient capacity to service the ultimate build-out potential of the subject property. Option 2 is preferred since it is a gravity collection system, and therefore does not require a lift station. More detailed analysis will be required to determine which option proves to be the most viable.

### 6.4 Storm Water Management

The roads, curb, & gutter will be constructed to Municipal Roadway standards. Rainfall runoff will be collected in the curb & gutter, and channeled into catch basins before transmission to a storm sewer system. Storm water runoff from the Highway #3 embankment will collect in a swale at the top of the existing slope, and will be diverted to a storm retention pond. Water in the underground collection system will be run through a series of storm retention facilities to address both quantity and quality of runoff before discharging into the Crowsnest River.

A storm water master drainage plan will be required in order to ensure that a comprehensive storm water management plan is in place to guide all subsequent storm water design. This document will identify treatment options, estimated flow volumes and provide recommendations for the detailed design phase.

### 6.5 Road Works

A bridge across the Crowsnest River currently exists at the north end of 121<sup>st</sup> Street. The principle vehicular access to the subject site is intended to be via a new bridge at 119<sup>st</sup> Street to a traffic circle intersecting with an east-west road connecting to 23<sup>rd</sup> avenue at the east end, and terminating in an on-site cul-de-sac at the west end. This east-west road will branch into a local traffic distribution network.

Boulevards, traffic circles, pedestrian crossings & parallel parking are intended to be employed for the purposes of traffic calming throughout the subject site.

The design of the internal road network aims to minimize the amount of paving, while facilitating the smart-phasing of development. This concept has multiple environmental & economic benefits in addition to the reduction of inconvenience to residents who may occupy dwellings while construction of subsequent development occurs.

All proposed public roads will be constructed to Municipal roadway standards, including curb, gutter and sidewalk. These roads will be paved with hot mix asphalt and include a crowned cross section. Any additional private roads which may service individual development parcels will connect to the main roadway network. The details of the future roadways will be designed in association with Development Permit applications made on a case-by-case basis.

Paved lanes may be incorporated where possible to facilitate the placement of residential garages away from the street.

The proposed roadway network is subject to further analysis and a Traffic Impact Assessment

# 6.6 Electrical System

Fortis currently maintains a sub-station and transmission lines that cross the property within an existing right-of-way. The long term plans for this sub-station and possible relocation need to be discussed further with Fortis.

### 6.7 Natural Gas

ATCO Gas currently has service to the Blairmore area. ATCO Gas will be contacted directly to discuss the availability of gas and the need for off-site upgrades, should they be required.

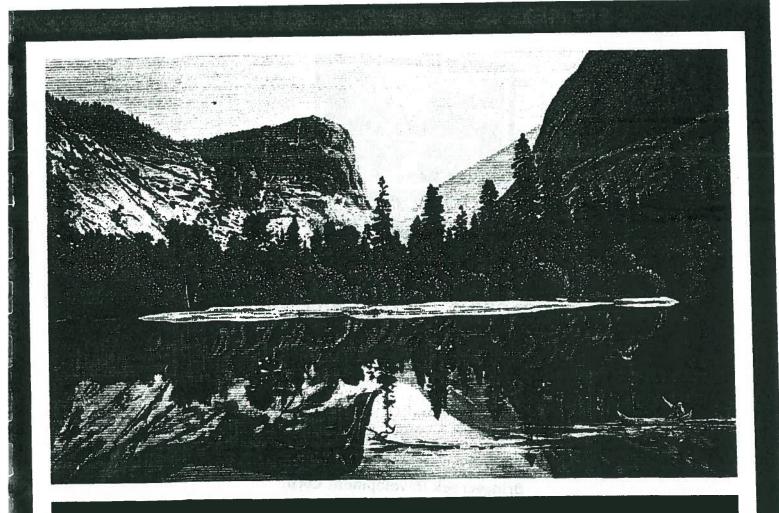
# 6.8 Telecommunications

Telus provides telephone service to the Crowsnest Pass area. Shaw Cable provides cable television service in this area. High speed internet and fiber optic capabilities will be considered throughout the development. A common utility trench would likely be used to run all shallow utilities within a single easement.

# 7. DEVELOPMENT AGREEMENTS

It is acknowledged in this Area Structure Plan that the Municipality of Crowsnest Pass will enter into an agreement with the developer of the subject lands. The agreement may outline such items as the terms of financing and construction of roads, paths, parking, servicing, and other infrastructure related to the development.

7 lidge gate



# BRIDGEGATE

on CROWSNEST LAKE



# BRIDGEGATE RESORT VILLAGE on Crowsnest Lake

# STRUCTURE AREA

Municipality of Crowsnest Pass, Alberta

on behalf of Bridgecreek Development Corp. Developer

> Civic Design Group Inc. Town Planners and Urban Design

Glamin & Associates Survey and Environmental

**Veritas Development Solutions** Engineers

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# 1.0 BACKGROUND

# INTRODUCTION

On behalf of Bridgecreek Development Corporation, Civic Design Group has prepared this Area Structure Plan for the future development of a mixed use, bareland condominium recreational resort development on Crowsnest Lake within the Municipality of Crowsnest Pass.

#### SITE AREA 1.2

The subject lands are located within the municipality of Crowsnest Pass in an area known as the Sentinel. Gross Lands covered within the ASP boundary total approximately 55 acres with an additional 38 acres of Lake area. The ASP boundary includes lands directly adjacent to Highway No. 3 and Crowsnest Lake. The most northern property line runs parallel to the Canadian Pacific Railway line right of way, which was established in the late 1800's. The mouth of the Crowsnest River starts at the southeast portion of the site.

# Legal description

Lands within the ASP boundary are located within the following quarter sections:

Portion of NE 1/4 Sec. 9-8-5-5 Portion of SE ¼ Sec. 9-8-5-5

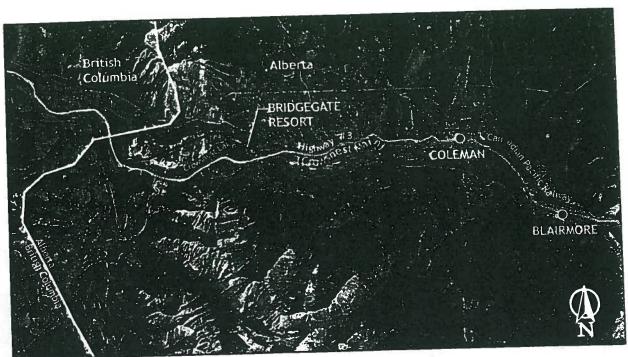


Figure 1.1, Location Plan

### **EXISTING LAND USES** 1.3

**Zoning Districts** 

Lands to the north of crowsnest lake are currently zoned Direct Control (DC-1) which defers specific elements of land use to the discretion of council. Lands to the south of the lake are zoned as Non-Urban Area (NUA-1).

**Existing Uses** 

The northerly portion of the site currently accommodates 7 rental houses and 8 rental cabins. An abandoned electrical generation plant is located on the western shore of the subject site. An abandoned community dance hall built in 1930 by Mr. Alec Moreney which occupies land owned by Alberta Forestry is located on the southeast portion of the site. This structure functioned as a community hall until the 1960's and has since fallen to disrepair. An existing public boat launch area lies just east of the dance hall. The southeast portion of the site currently accommodates 5 privately owned residential acreage lots ranging in size from 1 to 5 acres. Lands directly south of the acreage lots have been set aside for highway maintenance purposes.

Adjacent Uses.

Lands to the north, south, and west of the subject site are currently designated as Non Urban Area (NUA-1). A smaller portion of land east of the site and south of the Crowsnest River has been designated as Grouped Country Residential (GCR-1).

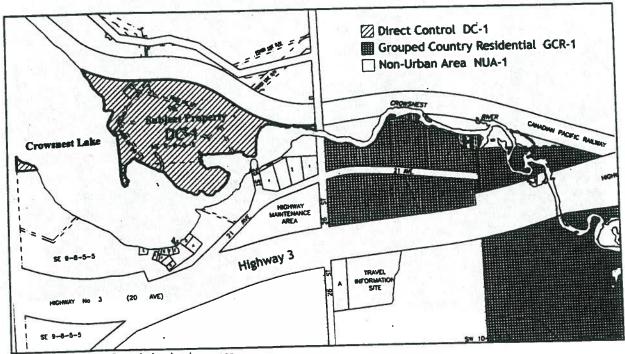
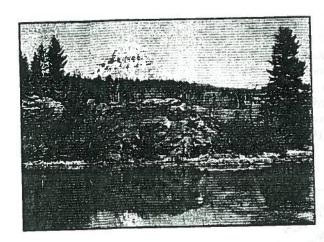
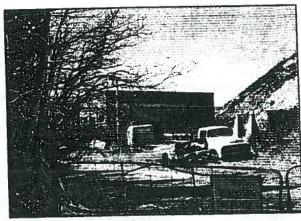
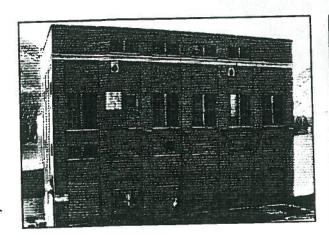
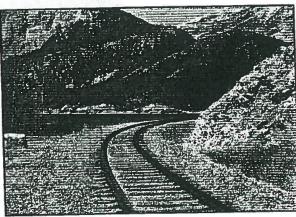


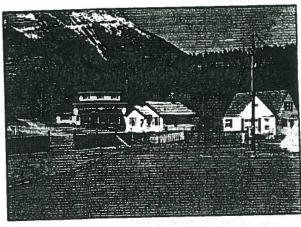
Figure 1.2, existing land use map











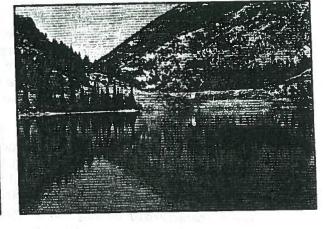


Figure 1.3, Site Photos

# TOPOGRAPHY AND LAND COVER

Carved out of the Crowsnest River system, the subject site has significant topographical features and a diversity of foliage and land cover. The site can be divided into three general topographical areas. An east-west ridgeline bisects the northern portion of the subject landsforming an upper bench and lower bench. A third area, referred to as the "south shore" takes in the remaining lands between the lake and Highway 3 (Crowsnest Trail). The overall elevation of the site ranges from 1347.5m to 1369.5m.

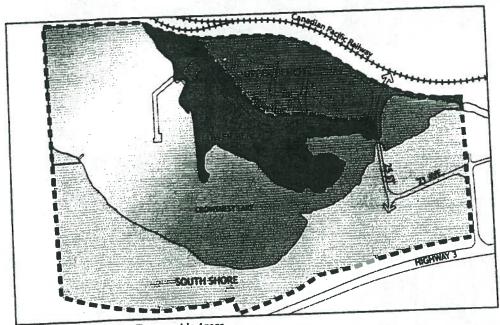


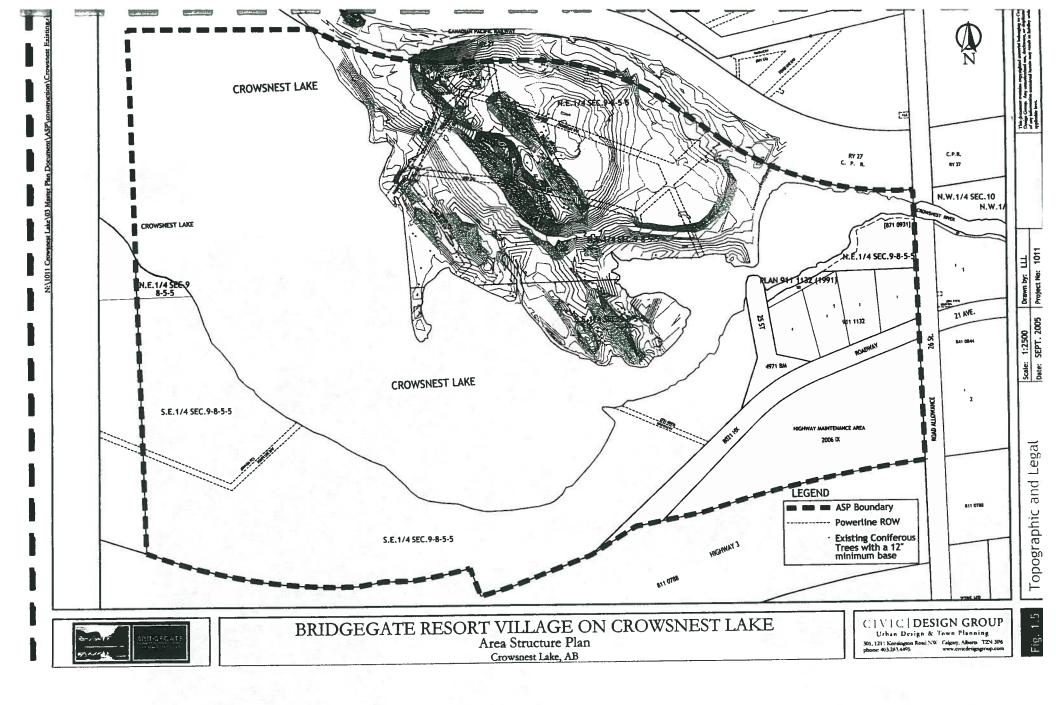
Figure 1.4, Topographic Areas

Upper Bench

The "upper bench" will house the proposed "Upper Village" and falls between the CPR right of way to the north and the major east-west ridgeline to the south. This area has rolling topography set atop a surrounding ridgeline. This site is generally more than 5 meters above the surrounding area. The majority of the land cover has been significantly altered by development and is largely defined by grasses and planted trees. Undisturbed areas feature a variety of coniferous and deciduous trees intensifying on the ridge to the south. A number of bedrock outcroppings are visible throughout the site.

# Lower Bench

The "lower bench" will house the proposed "Lower Village" and is positioned to the south of the east-west ridge line and the shoreline. A small portion borders the CPR right of way on the northwest. The lower bench has historically been used for the power plant operations and is characterized by long ridges and valleys generally stretching east-west. The major east-west ridgeline on the southern side exhib-







BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE
Area Structure Plan
Crowsnest Lake, AB

CIVICIDESIGN GROUP Urban Design & Town Planning 301,1211 Kensington Ruad NW Calgars, Alberta TX: 3P6 phone: 4913.281,4495

its significant exposed rock outcropings and is bolstered by a number of mature deciduous and coniferous trees. Two points extend south into the lake and are characterized by mature tree stands and a rugged terrain of small valleys and exposed rock outcroppings.

To the northwest, the site levels to a gentle slope consisting of grassy meadows and clusters of deciduous trees. These lands allow for easy access to the water and powerhouse. The shoreline has been altered near the power house, and may require enhancement elsewhere.

### **South Shore**

The "south shore" lands lie between Highway No. 3 and the south shore of the Crowsnest Lake. The south shore lands are primarily characterized as gently sloping lands including the forested area to the southwest adjacent to the abandoned dance hall. Dense stands of largely undisturbed forest exist on the western portion of the site.

# 1.5 HISTORICAL CONTEXT

The history of the subject lands are significant in that they are located in an area knows as the Sentinel. The book "Crowsnest and its People" published by the CRowsnest Pass Historical Society in1979 best describes the history of the Sentinel and the area. The following is a brief excerpt as it relates the subject lands.

"The history of the Sentinel was originally called Sentry Siding. The siding was set up in 1909 so clay could be loaded into railway cars and shipped to Medicine Hat to be used in the manufacture of sewer pipe. The name Sentry was later changed to Sentinel and a flag station was erected east of the railway crossing on Crowsnest 3 near Ferguson Supply of 1977.

The first boom period at Sentinel was the building and operating of the East Kootenay Power Plant on the shore of Crowsnest Lake. They adopted the name of Sentinel. Since then practically all the area west of Coleman to the Lake is referred to as Sentinel.

The siding at Sentinel grew over the years to its present size mainly to accommodate coal trains. Stock chutes and facilities were installed and for years were in use for loading and unloading live stock. (cattle horses and sheep.)

Early attempts were made to attract tourists to the Sentinel and lake areas. As early as 1915 Mr. Wes Johnston operated a passenger boat for Sunday visitors.

In 1930 Mr. A. Morency had a dancing pavilion and cabins constructed at the lake. He took passengers cruising while other boats were rented to fishing enthusiasts.

Another attempt was made to "trap" the tourist trade when Mr. Regner began construction of three log cabins, near the base of Sentry Mountain in 1935. He also set up gasoline pumps. The cabins were never completed and the gas tanks were never operated.

In the late 1940's Mr. and Mrs. C. Huffman set up Glacier Cabins (now called Kozy Knest) on the west shore of Crowsnest Lake. They offered travelers comfortable accommodation.

In 1951 Mr. and Mrs. Jim Kerr opened Chinook Motel, "a home away from home", on Allison Creek where the scenic grandeur was not surpassed anywhere in Alberta. in recent years industry has taken over Sentinel Valley.

East Kootenay Power Plant, Sentinel

in June 1922, East Kootenay Power had first supplied power to the Crowsnest Pass from a hydroelectric plant at Bull River, B.C. In March, 1924 a hydro plant at Elko, B.C. increased the company's generating capacity but demand for more power warranted the building of a steam generating plant at Sentinel, on the shore of Crowsnest Lake. The plant was to serve as an auxiliary source of power to the hydro plants. It was not long until the increased power load of the area justified the plant being run constantly.

The area at the east end of Crowsnest Lake had been officially designated a recreation area, jointly controlled by the towns of Coleman and Blairmore. Negotiations for realease of land on which East Kootenay Power Company would construct a steam generating plant began in March, 1924. Coleman Council minutes of July 18, 1926 indicate 2.9 acres was released and construction of the plant began that year.

Sentinel was the ideal site as a centre for distribution of power, adequate water supply from Crowsnest Lake and proximity to coal mines. It was to be the first plant in the far west which would use pulverized coal as fuel.

The method of firing was by powdered fuel being blown into the fire boxes by pressure and burned in suspension, 90% of the residue being carried off by a smokestack 200 ft. high and 11 ft. in diameter at the base. This would be the most complete supersteam plant in Alberta. It would require 200 tons of coal daily and take 10,000 gallons of water from the lake.

in 1929 and in 1946 equipment was replaced to keep abreast of progress.

Seven fine homes were built at the site for married employees and a three storey staff house for single men and visiting executive.

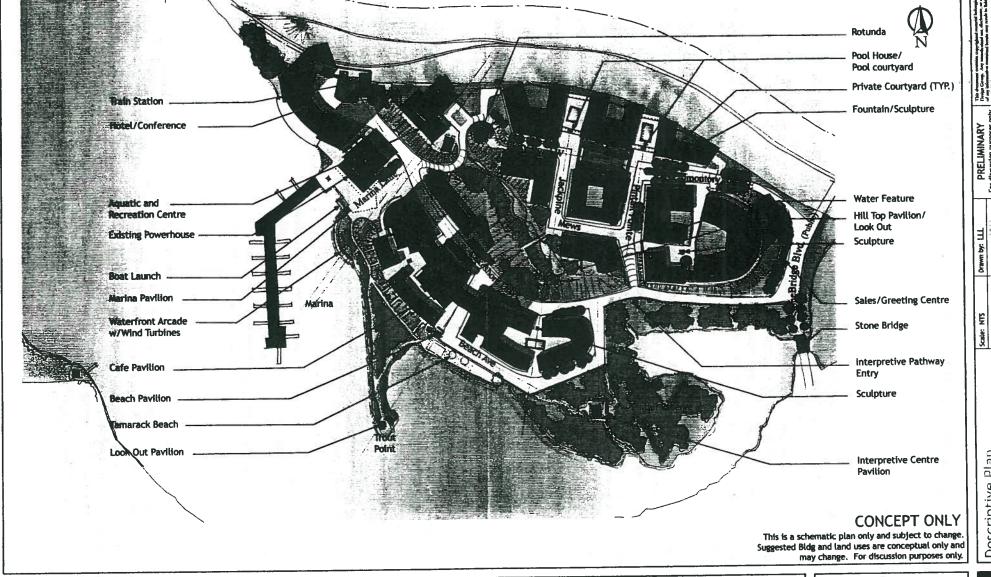
The chief engineer when the plant went into operation in 1927 was Mr. John T. Watson who left in 1928 to become city manager at Lethbridge. He was followed by Mr. Arthur Reid who left in 1929. Mr. Hugh Craig Sr. was chief for a time and Mr. Jack Penn, of a pioneering family from Hillcrest, was chief engineer for a number of years, followed Mr. Tinge.

Names recalled as earliest employees at the Power Plant are Dan Ross, Alb May, Nick Driver, Bill Driver, Adamson, Tommy Baker, Ken Blain, Fred Greenwood, Billie Archer, Billie Burns, Cliff Uphill, Neidig, and Billie Meier as tine-man.

Eventually B.C. Hydro took over East Kootenay Power Plants in B.C. The plant at Sentinel, Alberta was taken over Calgary Power. Mr. Dave Koop was chief engineer when operations ceased in February 1969."

# 1.6 CORE PRINCIPLES

The core principles of the design approach for this ASP is focused on the creation of humanly scaled cities, towns, hamlets and neighbourhoods through an imaginative and integrative approach to town planning. This approach is based on time-tested principles of town planning found in the most treasured places in the world. This will allow for the development and implementation of an environmentally, economically, and socially sustainable plan for future generations to enjoy.





BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE

Area Structure Plan Crowsnest Lake, AB

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# 2.0 DEVELOPMENT PLAN

### 2.1 VISION

Bridgegate Resort Village on Crowsnest Lake is envisioned to become Crowsnest Pass's premier resort village destination. For centuries the site has been a draw for living, working, and recreating along the Crowsnest lake shore at the mouth of the Crowsnest River. It is appropriate then, that the site embraces the historical use of this land with a resort village that once again brings people to enjoy its serene shoreline, picturesque setting, and intimate natural features as a playground and a home.

### The Resort

As a resort, Bridgate will offer a diversity of homes and accomodations in a range of settings. This will attract a broad cross section of residents to the village. Shopping and restaurants centred around the redeveloped power house will offer residents and visitors an active village life with cafes, main-street style shopping, and a range of eating establishments. Other amenities will include an aquatics centre, a beach, a boat launch and dock facilites, a number of indoor and outdoor pools, a multi-use lawn, and several amenities buildings that will serve as bandshells, lookouts, picnic areas, and other uses. A system of natural pathways leading to a number of smaller amenity buildings will offer a quiet setting away from village life.

# The Village

As a village, Bridgegate will take its form from the time-tested village character celebrated in the world's most loved places. Narrow tree lined streets, intimate public spaces, attractive humanly scaled architecture, a dense network of sidewalks and pathways, and carfeully crafted streetscapes will invoke visitors and residents the charm and character of a place that they will soon come to love. Visitors and residents will arrive by car, bus, water, helicopter, floatplane, or at the Village's train station on the CPR line. Once in the village, they will be able to access the village by foot along comfortable, attractive streets and pathways.

From the outside, the village will display a compact, contained urban environment surrounded by natural forests and parkland. This distinct duality of urban and natural is characteristic of the picturesque villages of Europe. Along with attractive architecture, the village will enhance rather than detract from the viewshed as seen from Crowsnest Trail and elsewhere.

### The Environment

Environmental integration and a link to nature are a primary focus of the Village. Preserved natural areas will be enhanced and protected for the enjoyment of visitors, residents, and wildlife. The village displays the walkable, human scaled urban form time tested throughout the world. Human systems such as stormwater will be integrated symbiotically with natural ones. Heating technologies utilizing geothermal energy and alternative energy systems harnessing the wind and the sun will be pursued. LEEDS qualified projects will be preferred.

### CONCEPT 2.2

Responding to the natural form of the subject site, three general areas are formed. An 'upper village' is found at the upper bench, a 'lower village' at the lower bench, and an additional development area within the 'south shore'.

The village is envisioned to have a distinct edge from the surrounding natural areas. To conserve land, concentrate village activity, and reduce the overall environmental footprint for the the village, development is envisioned to "go up" rather than spreading out. Separating the lower and upper village is a significant ridgeline with a number of unique rock outcroppings and mature tree stands. This ridgeline forms a natural seam between the two village areas. A system of pedestrian pathways and sidewalks link the two villages and tie in surrounding natural areas. Pedestrian movement will take precedent over vehicular movement.

Lower Village

The lower village will be the first to begin construction following a main east-west 'spine' street. Following a crescent formed between the ridgeline and the shoreline, a number of blocks are formed that will include street oriented row houses, a low rise mixed use building on the north, and towers supported by mid rise bases. Tower blocks will include street accessible town-houses, single and double level flats, tower units, and penthouses at the top of the towers. Rooflines and units are articulated to maximize views. Parking is provided underground.

A narrow street wraps around the eastern-most block allowing a lively public edge to a beach and a significant preserved natural area that protects the mouth of the Crowsnest River. The second block is bordered on the south by a pathway and a preserved natural point into the river. Terminating the view of the spine road is a railway station and platform. The station forms the gateway to a plaza fronted by a resort hotel and conference centre anchoring the western edge of the site.

The existing power house is redeveloped providing a number of restaraunt and entertainment uses. Ground floor, street-oriented commercial uses surronde a plaza and the main east-west spine. The plaza surrounds three sides of the power house and leads into a boat ramp, marina access, and a lakeside restaraunt patio. A marina extends into the lake allowing for boat slips and water access to the village.

**Upper Village** 

Three narrow roadways rise into the upper village. The upper village is largely mid-rise with street and courtyard oriented units and courtyard apartments. A single tower rises on the eastern edge with views down the crowsnest river corridor. The buildings are organized on a central east-west spine. The spine accomodates a formal street, a multi-use lawn at the centre of the village, and terminates at a multiuse civic building at the western end.

Buildings form private courtyards internally, and semi-public courts in between. These courts host pool areas, plazas, and other recreational uses. To mitigate train noise, buildings on the north end are oriented to form a high wall extending through the back of private courtyards and semi-private courts. An aquatic/recreational centre anchors the western edge of the upper village and forms a formal link to the lower village.

The entire upper village is elevated to accomodate underground parking and enhance views. Additional underground parking on the northern edge may accommodate the lower village as well. A natural water feature may be formed at the small valley formed at the southwestern edge of the site.

# **South Shore**

The south shore will allow for additional resort village uses significant areas of natural forested area. Hotel, institutional, commercial, and residential uses may be accommodated near the access road. The existing dance hall will be reconstructed to address its historical significance and the existing public boat lauch will be enhanced. A potential heliport will provide helicopter access to the site.

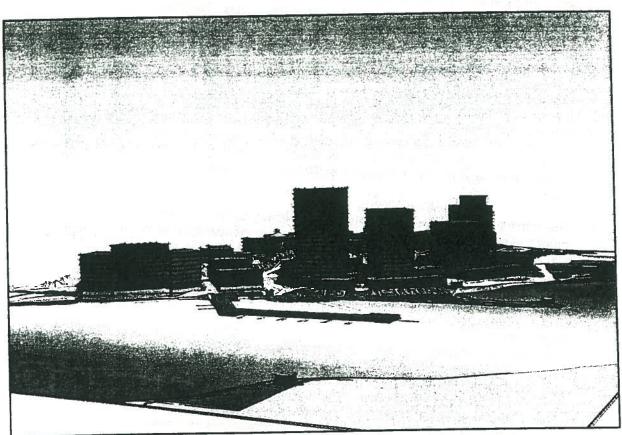


Figure 2.1, Conceptual Massing Model - View A

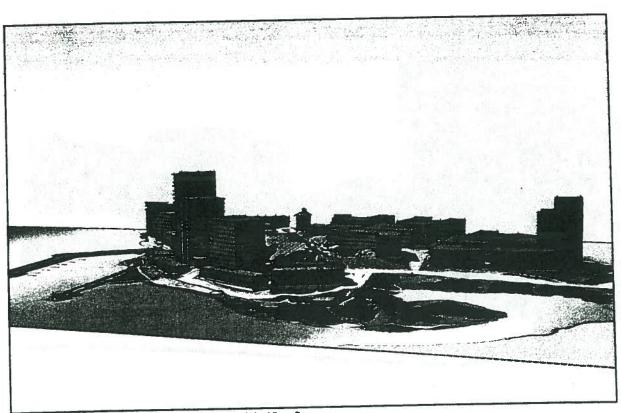


Figure 2.2, Conceptual Massing Model - View B

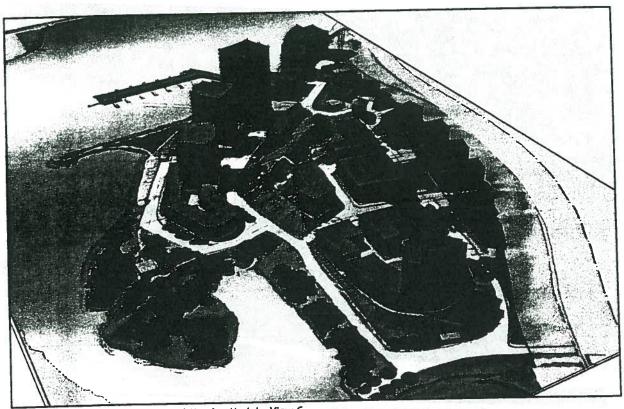


Figure 2.3, Conceptual Massing Model - View C

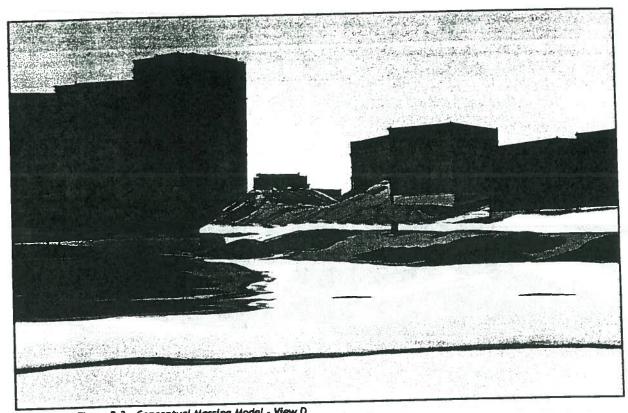


Figure 2.3, Conceptual Massing Model - View D

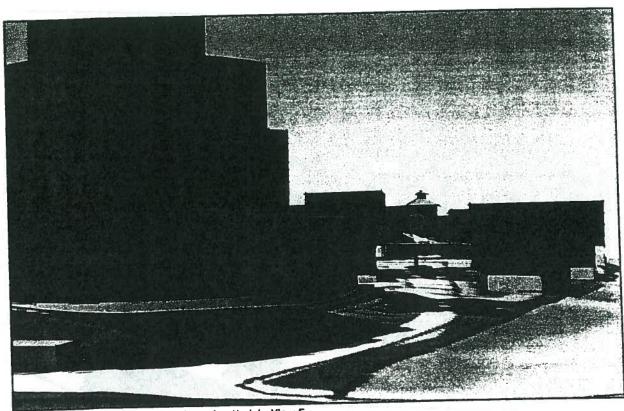


Figure 2.4, Conceptual Massing Model - View E

# 3.0 LAND USE

# 3.1 OVERVIEW

This section describes the general land uses proposed for the subject site. A more comprehensive and detailed "Comprehensive Resort Village" land use district in conjunction with detailed development standards will be submitted after ASP approval. This process is further outlined in Section 6.0. It will be the intention of the proposed CRV district to respect the natural setting while accommodating a comprehensive master plan tied to detailed development standards.

# 3.2 GENERAL LAND USES

All lands within the planning area are under either Direct Control (DC-1) or Non Urban Area (NUA) and currently defer land uses to the discretion of council. Specific land uses and parameters will be identified within the forthcoming land use district. The general land uses proposed within the planning area include, but are not limited to the following:

- Commercial including retail, entertainment, restaurants, drinking establishments, office, outdoor cafes, services, casino
- Residential
- Accomodations and related services
- Institutional
- Civic Spaces and municipal reserves
- Recreational Uses

# 3.3 NATURAL AREAS

In accordance to the Municipal Government Act, a minimum 10% of the gross developable land is to be either dedicated as municipal reserve or cash-in-lieu will be provided to the local Municipality. As illustrated within the proposed plan the retention of significant natural site features and vegetation is of primary importance. The proposed plan will meet and likely exceed the Municipal Reserve (MR) requirement. A detailed analysis of proposed Municipal Reserve Lands will be provided at future subdivision stages to the satisfaction of the Approving Authority.

### 3.4 DENSITY

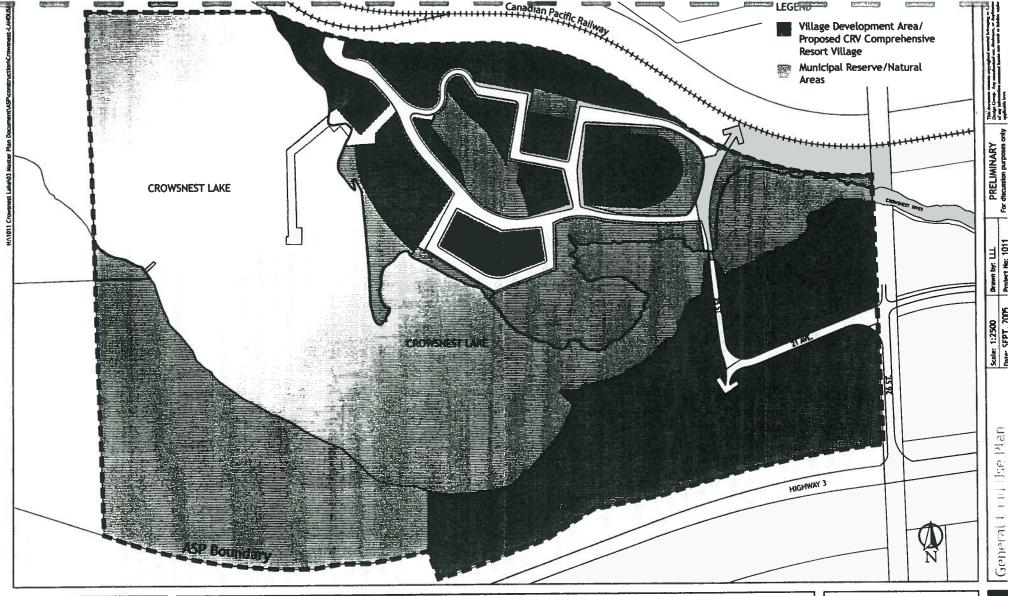
The anticipated density within the ASP boundary is to be up to 2000 residential dwelling and/or accommodation units of various sizes. Primary residential densities will occur in both the upper and lower village lands with the bulk of the densities to occur within the lower village lands.

# 3.5 BUILDING HEIGHT AND PLACEMENT

In order to ensure the greatest amount of flexibility in the design and implementation of the proposed plan, the maximum building height within the ASP boundary shall not exceed 25 stories. Building Placement will be in accordance to architectural, environmental, and urban design standards. The primary façade and entry to each building shall be oriented to the street, where possible.

# 3.6 PARKING AND LOADING

Parking and Loading will be provided as necessary, and will be designed to accommodate adequate access and servicing requirements. Throughout the Upper and Lower Village lands parking will generally be accommodated in either underground parking garages and or above ground parkade structures both visually screened from the street face. Above ground parking lots will be accommodated at the rear of the building. On street parking will be accommodated where possible to enhance commercial viability and provide the pedestrian with a sense of security. Parking for individual buildings may be accommodated offsite, or by shared parking standards, within the ASP boundaries and to the satisfaction of the approving authority.





BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE Area Structure Plan

Crowsnest Lake, AB

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#### 4.0 TRANSPORTATION

#### 4.1 OVERVIEW

The urban form of the village is traditionally characterized by a fine grained network of humanly scaled thoroughfares. The network allows multiple and direct routes to destinations and forms a block structure that is fundamental to sound urban form. A heirarchy differentiates local routes and more intense regional routes.

#### 4.2 THOROUGHFARE STANDARDS

The pedestrian serves as the primary mode of transportation within the village. All thoroughfares should be designed to adequately accomodate vehicular movements, but shall avoid oversized street dimensions that reduce pedestrian safety, encourage speed, and detract significantly from the character of the village. Minimum carriageway widths are strongly encouraged. Alternate means of accomodating emergency vehicles and service vehicles should be pursued rather than typical methods of oversized streets and cul-de-sac bulbs, to the satisfaction of the approving authority.

For character and for alternate means of slowing and controlling traffic, alternative street standards may be employed. These may include alternative surface treatments, non-aligned curbs resulting in the contraction and expansion of the street, squared corners and reduced corner radii, and unique sidewalk and edge treatments. On-street parking, street trees, and lighting are allowable on all thoroughfares and shall be integrated as part of the comprehensive design of the village. All street standards shall be designed to the satisfaction of the approving authority.

#### 4.3 SITE ACCESS

The site is currently accessed from the south at the intersection of 26th Street and Crowsnest Trail (Highway 3). The village is then accessed through a series of municipal roadways, east along 21st Avenue and then north along 25th street. While not ideal, this provides an adequate access to the site.

Crowsnest trail is a major thoroughfare serving the east-west traffic through the pass and is currently under review for improvements and possible realignment. Future access may be provided onto 25th allowing direct access into the village. The future intersection design will take into consideration the densities proposed for the subject site, and will minimize impacts on existing residential uses.

#### 4.4 PEDESTRIAN NETWORK

A range of pedestrian pathways will form a permeable network throughout the site and will range from more urban sidewalks, plazas, and midblock passages to more natural pathways. Pathway and sidewalk connections outside of the site will be encouraged when possible.

#### 4.5 VEHICULAR NETWORK

Access to the village is on the eastern edge along 25th street. As an entry road, 25th Street will serve as an important entry feature and should be improved to reflect the character of the village while adequately accomodating vehicular traffic. Street design should be kept narrow and should be equipped with adequate sidewalks and/or pathways. The existing bridge over the mouth of the Crowsnest River should remain as a narrow two lane bridge with the addition of sidewalks on both sides. The bridge will be rebuilt to reflect the character of the village and will act as the primary entry feature.

Internal village circulation is accommodated by a small network of public and private streets. Figure 4.1 demonstrates the proposed circulation network. An east-west public roadway will form a spine through the village from 25th street terminating at the proposed hotel site and train station.

#### 4.6 RAIL

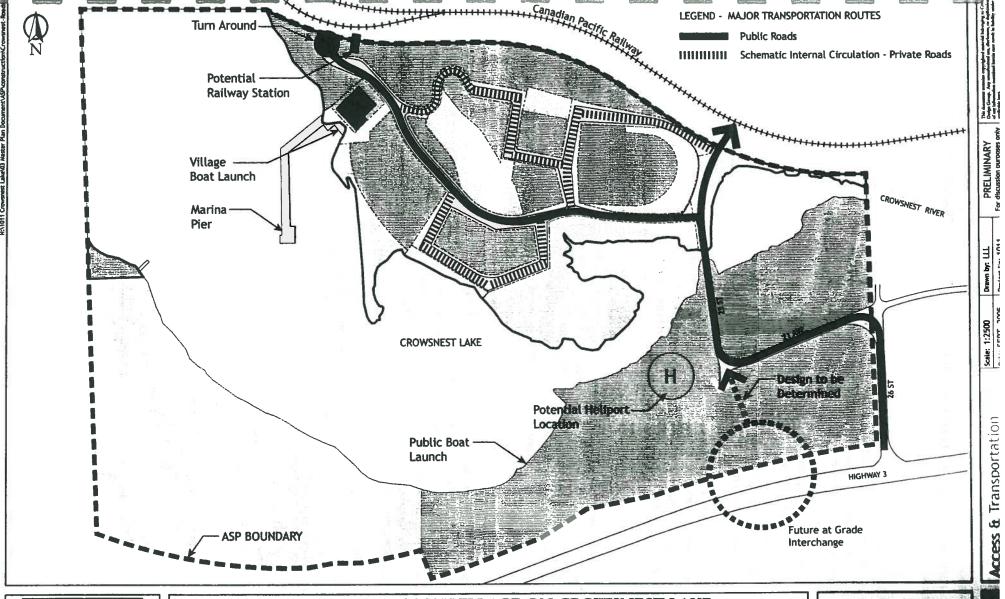
An active Canadian Pacific Railway line borders the village to the north. A recently built spur line provides the potential for a passenger rail connection with Canada wide connections including the immediate local connection to Fernie and Banff. The feasibility of this connection will be considered as part of a separate agreement with Canadian Pacific Railway.

#### 4.7 WATERWAYS

A proposed dock will provide access to and from the village site by private watercraft. Regulations concering the use of private watercraft will be provided as part of the approved land use district, or by seperate agreement to the satisfaction of the approving authority. An existing public boat launch in the south shore area will be enhanced and integrated into future development schemes.

#### 4.8 AIRCRAFT

A heliport may be provided in the south shore area and will be positioned and designed to minimize impacts on surrounding uses. Additional air access may be provided by floatplanes.





BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE
Area Structure Plan
Crowsnest Lake, AB

CIVIC DESIGN GROUP
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# 5.0 SERVICING OVERVIEW

#### 5.1 SERVICING OBJECTIVES

Servicing of the lands defined within the ASP boundary will be designed and constructed in accordance with the guidelines from the Municipal District of the Crowsnest Pass, as well as Alberta Environment and related standards and practices in effect at the time of the development.

The objectives for the servicing strategy are as follows:

- Making effective use of the existing topographic conditions to service the subject property in the most effective and efficient manner.
- Connect to the off-site servicing connections provided by the MD,
- Extend the services into the property allowing for phased construction,
- The initial costs for on-site roads, sidewalks, water, sanitary and storm sewer, shallow utilities, etc. shall be borne by the Developer,
- Provide a comprehensive design that minimizes the impacts to the environment and in particular the Crowsnest Lake.
- Design a stormwater management system that meets or exceeds the Alberta Environment guidelines.

#### 5.2 PROPOSED WATER SUPPLY AND DISTRIBUTION

The water supply system for the subject lands is proposed to connect to the MD's domestic supply system. Off site upgrades will be required to extend the water servicing from its current location to the subject property. The details concerning the location of the connection point will be identified in the servicing review to be completed by Stantec Consulting of Lethbridge. This report will also identify the trunk size of the main entering the site.

In general, the watermains within the resort core will be looped, and the use of 'dead end' lines will be minimized. The water supply system will serve both domestic usage and fire fighting capability. A complete detailed Water Network Analysis will be provided at the time of detailed design in order to accurately size the mains. Stubs for future development areas will be provided in the areas identified in Figure 5.1. The need for a balancing tank/reservoir will be assessed once the Stantec report is available.

# 5.3 PROPOSED SANITARY SERVICING & WASTEWATER COLLECTION

A sanitary sewer system within the property is proposed to collect wastewater via gravity sewer connections to each development parcel. Figure 5.1 shows the preliminary collection system within the road allowance and also identifies a lift station at the low end of the site, near the intersection of Crowsnest Lake and Crowsnest River. The lift station will likely be required to connect into the proposed off-site tie-in point, based on a preliminary review of the topogra-

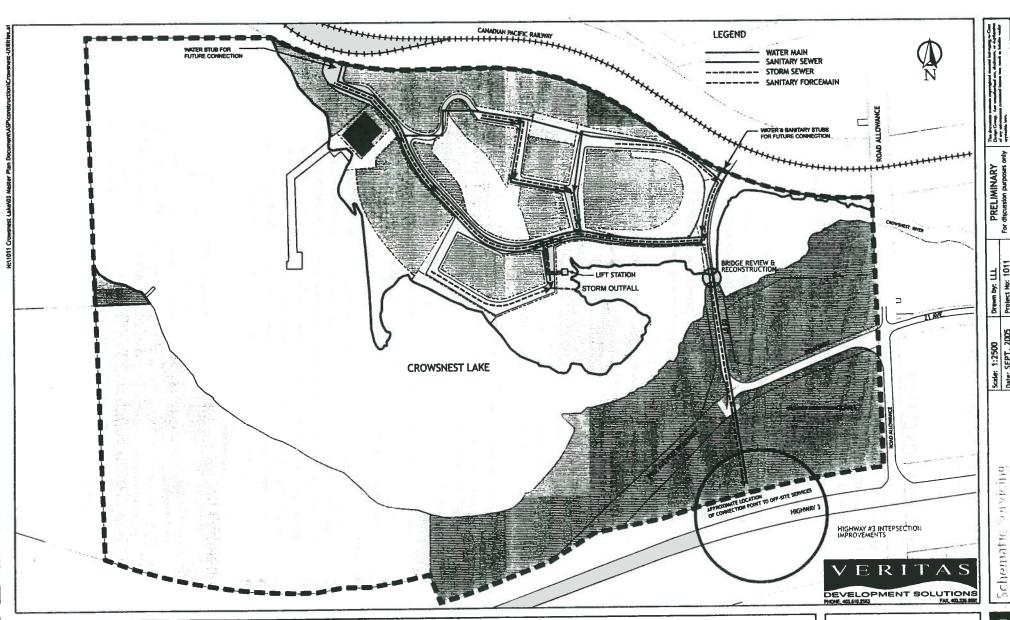


Fig. 5.1

CIVIC DESIGN GROUP Urban Design & Town Planning 301, 1211 Kensington Road NW Calgan, Alberta T2N 1P6 phone: 403,283,4495 www.enterleagingtroop.com

phy. The invert elevation on the north side of Crowsnest River near the existing bridge appears to be below the assumed elevation of the gravity connection to be provided by the MD of Crowsnest Pass. The off-site servicing review by Stantec will identify the proposed connection point, at which time we could confirm whether or not a lift station is required.

Development areas on the south side of Crowsnest Lake will also make connection to the gravity main to be installed by the MD along Highway #3. Stubs for future connection will also be included for developments areas to the north of the existing railway right-of-way.

The gravity sewer system to be installed by the MD connects to the existing sewage treatment plant located in Frank. Again, the off-site servicing review by Stantec will identify if the existing plant has sufficient capacity and make recommendations for any upgrades required.

#### 5.4 STORM WATER MANAGEMENT

An on-site storm water collection system is proposed to service the entire resort core area. Storm water runoff will be discharged into the Crowsnest Lake, since it is the lowest point in the development area. Therefore the discharge of storm water shall be managed in accordance with the required quantity and quality guidelines established by the MD of Crowsnest Pass and Alberta Environment. Storm water will be collected through catch basins and a collection system within the roadway allowances. Storm water management may include buried treatment facilities to ensure that the quality of the water entering the lake has been treated for oil and grit removal.

A storm water master drainage plan will be required in order to guide all subsequent storm water design. This document will identify treatment options, estimated flow volumes and provide recommendations for the detailed design process. To our knowledge, there has not been a comprehensive stormwater analysis completed for the subject lands.

#### 5.5 SHALLOW UTILITIES

**Electrical System** 

Fortis is currently responsible to maintain the transmission lines that cross the property. The East Kootenay Power Plant was once present on-site (building still remains). Given the history of the site, a large amount of electrical infrastructure still remains. Therefore, the existing transmission lines will be used to service this site development.

An internal power distribution system will be designed to service the individual development parcels. All new electrical lines within the site will be buried underground and protected with utility easements.

#### **Natural Gas**

ATCO Gas currently has service to the subject lands via an underground pipeline. Therefore the future development area will be serviced through this existing system. ATCO Gas will be contacted directly to discuss the availability of gas and the need for off-site upgrades, should they be required.

#### **Telecommunications**

Telus provides telephone service to the to the Crowsnest Pass area. In the case of the subject property, Telus has a submarine line at the bottom of Crowsnest Lake. Service would be made to the site through the closest connection point and run underground throughout the development. High speed internet and fiber optic capabilities will be considered throughout the development. A common utility trench would likely be used to run all shallow utilities within the same easement.

# 6.0 IMPLEMENTATION

#### MASTER PLAN

Following approval of the Area Structure Plan, a subdivision plan, detailed engineering, and a comprehensive land use district will be submitted for approval. A comprehensive Master Plan will be produced for the village providing all the necessary documents to implement the plan including detailed design concepts, subdivision, outline plan, the implementation process, and a summary of engineering.

# LAND USE: COMPREHENSIVE RESORT DISTRICT

The area structure plan establishes general land uses as described in section 3.0. Following ASP approval, a "Comprehensive Resort Village" land use district will be submitted for approval and will include the following:

Regulating Plan

A plan indicating thoroughfare locations and types, the form and location of public spaces, building or lot types, build-to lines for buildings, primary frontages, and other design elements as necessary.

#### Urban Standards

A matrix of graphics and text regulating the configuration of buildings and development parcels and how the affet the public realm. Parameters may include height, frontage types, frontage treatments, building functions, building entries, parking and parking access, and other design elements as necessary.

#### Architectural Standards

To establish a harmonious architectural character and a high standard for architectural quality and construction, the Architectural Standards will set out minimum standards and will communicate the intentions for the desired style and character of architectural expression.

Thoroughfare Standards

To establish thoroughfares that serve both capacity and character, the Thoroughfare Standards will establish specifications and parameters for all vehicular and pedestrian ways specialized for their context and use. Specifications will include roadways, sidewalks, planters, street trees, and street lights.

Landscape Standards

To establish coherent landscaping and street tree planting throughout the village, and to provide for a healthy natural-urban landscape in harmony with the crowsnest region, Landscape Standards will set out sepcifications for plant species, their location, and planting pattern.

Environmental Standards

In pursuit of long term environmental viability and an urban pattern that is integrated with the surrounding environment, the Environmental Standards will provide requirements, recommendations, and best practices regarding both the public realm and private development lots. Standards may include building materials, construction techniques, natural areas protection, and other parameters as needed. Standards will be reflective of LEED Canada standards as maintained by the Canadian Green Building Council.

#### **OUTLINE PLAN** 6.3

The information presented under Section 5.0 Servicing Overview is preliminary in nature and based on the information available to date. Through a more detailed Outline Plan process, additional engineering reviews, reports, and studies will provide a greater level of detail and serve as guiding documents for the balance of the design process. A number of supporting documents to the Outline Plan have been identified and are noted in the following list along with a description of the corresponding scope of work. The preliminary review presented herein is subject to a more thorough review contained in these reports. These engineering reports will be summarized within the Master Plan.

## Storm Water Master Plan

A Storm Water Master Plan identifies the manner in which the runoff from the site will be addressed with respect to quality and quantity before being discharged into the receiving water course. This document will provide the framework for all subsequent design associated with how runoff is collected and managed. This report would be subject to the review of the MD of Crowsnest Pass, as well as Alberta Environment.

Transportation Impact Study

This report will address items related to the access requirements from Highway #3, laning requirements on the private bridge crossing the Crowsnest River and the alignment and preliminary design of the internal roadway system. This report will form as the backbone for all the subsequent road designs associated with this development.

■ Environmental Site Assessment (ESA) Level 1.

An ESA provides a general overview of the history and past uses of a site to highlight potential environmental liabilities, non-compliance with current regulations, possible chemical use or waste management issues.

Off-site Servicing Review.

Stantec Consulting of Lethbridge has been retained to conduct a servicing review and preliminary design for water and sanitary sewer servicing to the subject lands. The outcome of this report is critical to the design of the related on-site servicing concept and therefore direct communication with Stantec will be required. The Stantec report

must be reviewed in consort with the servicing concept presented in subsequent engineering designs for the Crowsnest Lake Resort. The servicing strategies presented are therefore very broad in nature since the details cannot be established until such time as the Stantec report is complete.

Geotechnical Investigation.

A drilling program and field review of the existing conditions is required to provide the necessary background on subsurface conditions. Water table elevations, depth of bedrock, pavement structure designs, footing recommendations, etc. will be included in this document.

#### **SUBDIVISION** 6.3

The village will be organized as a bareland condo with a number of subdivided development parcels. A subdivision plan will be provided following approval of the ASP, and will be submitted as part of the Outline Plan process.

# SEQUENCE OF DEVELOPMENT

The staging of development within the village will be guided primarily by servicing and market constraints. Some degree of flexibility will be required as the project progresses. Early phases will be concentrated of the lower village moving from the eastern edge to the west, as well as the redevelopment of the existing power house. The public east-west street through the village site will be the first thoroughfare constructed and will serve as a central spine for phasing. Figure 6.1 illustrates tentative phasing of the village.

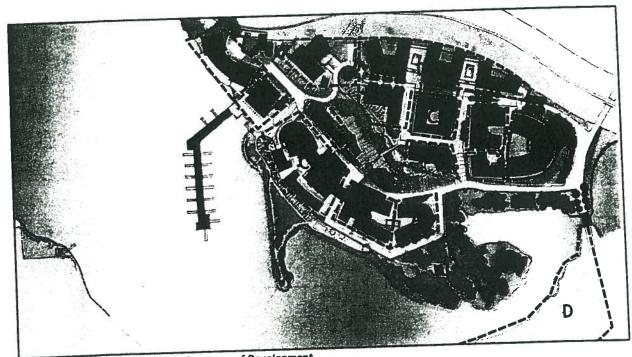


Figure 6.1, Tentative Sequence of Development

BETWEEN:

#### The Municipality of Crowsnest Pass

of P.O. Box 600, Crowsnest Pass, Alberta, T0K 0E0 (Hereinafter called the "Municipality")

Party of the First Part

- and -

#### **Bridgegate Financial Corporation**

of 505, 1550 – 8<sup>th</sup> Street SW, Calgary, Alberta, T2R 1K1 (Hereinafter called the "Developer")

Party of the Second Part

#### **AGREEMENT**

WHEREAS the Developer is the registered owner of certain lands situated in the Municipality of Crowsnest Pass, in Sentinel, legally described as follows:

#### FIRSTLY:

MERIDIAN 1 RANGE 5 TOWNSHIP 8 SECTION 9

THOSE PORTIONS OF LEGAL SUBDIVISION 9 AND THE EAST HALF OF THE NORTH WEST QUARTER OF LEGAL SUBDIVISION 10 ALL IN THE NORTH EAST QUARTER WHICH WERE NOT COVERED BY THE WATERS OF THE CROWSNEST LAKE AT THE TIME OF SURVEY OF THE SAID LAKE AS SHOWN ON THE TOWNSHIP PLAN APPROVED AT OTTAWA ON THE 5 JUNE 1913 AND LYING TO THE SOUTH OF THE RAILWAY ON PLAN R Y 27 CONTAINING 9.50 HECTARES (23.47 ACRES) MORE OR LESS

CONTAINING 9.50 HECTARES (23.47 ACRES) MORE OR LESS EXCEPTING THEREOUT:

THAT PORTION OF THE NORTH EAST QUARTER OF SAID SECTION 9 LYING TO THE SOUTH OF THE CROWSNEST LAKE AS SHOWN ON PLAN 8710931 CONTAINING 0.331 HECTARES (0.818 ACRES) MORE OR LESS EXCEPTING THEREOUT ALL MINES AND MINERALS

#### SECONDLY:

MERIDIAN 5 RANGE 5 TOWNSHIP 8 SECTION 9

THOSE PORTIONS OF LEGAL SUBDIVISIONS 7 AND 8 LYING TO THE NORTH OF THE NORTH SHORE OF CROWSNEST LAKE IN THE SOUTH EAST QUARTER AS SHOWN ON THE TOWNSHIP PLAN APPROVED AT OTTAWA ON THE 12 OCTOBER 1915

CONTAINING 1.13 HECTARES (2.79 ACRES) MORE OR LESS EXCEPTING THEREOUT ALL MINES AND MINERALS

AND WHEREAS the Developer requires to construct a replacement bridge across the Crowsnest River at Sentinel;

AND WHEREAS the Developer will be required to have an upgrade at the intersection at Highway #3 and a road access upgrade pursuant to the terms and conditions of an Engineering Report;

AND WHEREAS the Municipality of Crowsnest Pass is retaining the services of Stantec Consulting Ltd. (hereinafter called "Stantec") which employment is recommended by the Operational Services Committee of the Municipality of Crowsnest Pass and approved by Municipal Council;

AND WHEREAS the Municipality of Crowsnest Pass would contract with Stantec Consulting Ltd. for the purposes of carrying out all of the necessary engineering work for these projects, HOWEVER the Developer is to bear all costs associated with the retention of Stantec Consulting and all engineering work to be performed;

AND WHEREAS two proposals have been received from Stantec Consulting Ltd., plus a Costing Summary, copies of which are attached hereto and form part of this Agreement as follows:

- A. Attachment "A" Cost Summary;
- B. Schedule "B" Sentinel Bridge Summary;
- C. Schedule "C" Proposal to replace bridge crossing Crowsnest River at Sentinel;
- D. Schedule "D" Highway #3 intersection upgrade and access road upgrade;
- E. Schedule "E" Landscape Architecture Summary.

AND WHEREAS the Municipality of Crowsnest Pass may request additional services of Stantec to assist adjacent land owners with servicing third party lands or land owned by the Municipality itself, and in the event that the Municipality undertakes such additional servicing arrangements, the cost of such services shall be proportionately shared with the Developer.

NOW THEREFORE WITNESSETH in consideration of the mutual terms, conditions and covenants herein contained, the parties hereto covenant and agree as follows:

- 1. That the terms and conditions detailed in the preamble hereto shall form and be part of this Agreement.
- 2. That the proposed engineering fees are detailed in the Schedules as follows:

A.	Schedule "B":	Fees Estimated disbursements: GST:	\$ 16,320.00 3,368.00 	
		TOTAL:		\$ 20,869.28
В.	Schedule "C":	Fees: Estimated disbursements: GST:	\$ 302,940.00 27,735.00 19,840.50	
		TOTAL:		\$ 350,515.50
C.	Schedule "D":	Fees: Estimated disbursements: GST	\$ 183,839.00 14,707.00 11,912.76	
		TOTAL:		\$ 210,458.76
D.	Schedule "E":	Fees: Estimated disbursements: GST	\$ 31,239.00 3,124.00 2,061.78	
		TOTAL:		<u>\$ 36,424.78</u>
	GRAND TOTA	L:		\$ 618,268.32

- 3. a. The Developer agrees to arrange for an Irrevocable Letter of Credit with a lending institution which is to be approved by the Municipality, in the sum of \$618,268.32 and which Letter of Credit is unconditionally payable to the said Municipality;
  - b. It shall be a term of the said Letter if Credit that the Municipality of Crowsnest Pass may draw funds against the Letter of Credit at any time and in such amounts as may be required by the Municipality to satisfy the Stantec invoices which will be received and be payable from time to time, and in varying intervals:
- 4. The parties hereto further agree that should the Municipality of Crowsnest Pass request additional services of Stantec over and above those detailed in the attached Schedules to obtain a benefit for itself or for any third party who is not subject to this Agreement, in that event it is agreed that the Municipality of Crowsnest Pass shall pay its proportionate share of the additional engineering costs, which share the Developer shall be permitted to set off against any other sums due by the Developer to the Municipality of Crowsnest Pass.

- 5. In addition, the Developer agrees to pay for any cost overruns that may be properly billed by Stantec or by any other approved parties to the Municipality of Crowsnest Pass for work performed on the Bridgegate project.
- 6. It is further specifically agreed that the Developer shall be responsible for the following costs:
  - a. The costs incurred in the preparation of all architectural controls, urban designs, building structural design, highway design, landscaping guidelines, detailed engineering plans, costs incurred by the Municipality of Crowsnest Pass for any required background studies and for the preparation of any other documentation;
  - b. The Developer shall pay for the costs incurred for planners, consultants, engineers, lawyers and any and all other professionals for and in respect of the creation of the necessary engineering matters associated with the Stantec proposal;
  - c. All items, services and costs summarized in Attachment "A" and Schedules "B" to "E" inclusive, but not necessarily limited thereto;
  - d. Any and all other costs incurred by the Municipality in compliance with any of the requirements of Stantec Consulting Ltd. in the performance of their duties.
- 7. This Agreement and the terms, covenants, conditions and other provisions contained herein, and all obligation under it or pursuant to this Agreement shall enure to the benefit of the parties hereto and their respective successors and assigns.
- 8. Any notices to be given under the terms of this Agreement shall be in writing, and shall be given to the applicable parties by personal service or by first-class mail with postage fully prepaid, or by facsimile at the number herein set forth, provided that, where mailed, it shall be deemed to have been received on the fifth (5<sup>th</sup>) day following the date of the mailing:

To the Municipality of Crowsnest Pass P.O. Box 600 Municipality of Crowsnest Pass, Alberta T0K 0E0 Facsimile No. (403) 563-5474

To Bridgegate Financial Corporation: 505, 1550 – 8<sup>th</sup> Street SW Calgary, Alberta T2R 1K1

- 9. Time shall be the essence of this Agreement and every part thereof.
- 10. Nothing herein contained shall be deemed or construed so as to make any of the parties hereto partners with one another.
- 11. This Agreement may be executed in any number of counterparts with the same effect as if all parties hereto had signed the same document. All counterparts shall be construed together and shall constitute one Agreement, but in making proof of this Agreement shall not be necessary to produce or account for more than one such counterpart.

IN WITNESS WHEREOF the parties hereto have affixed their corporate seals by the hands of their duly authorized officers on their behalf, and the other parties have hereunto set their hands and seals as at the day and year first above written.

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Per:

Per:

BRIDGEGATE FINANCIAL CORPORATION

Per:



# PROFESSIONAL SERVICES AGREEMENT ATTACHMENT "A"

Attached to and forming part of the AGREEMENT

BETWEEN:

MUNICIPALITY OF CROWSNEST PASS (hereinafter called the "CLIENT")

- and -

STANTEC CONSULTING LTD. (hereinafter called "STANTEC")

**EFFECTIVE:** 

August 27, 2007

This Attachment details the SERVICES, CONTRACT TIME, CONTRACT PRICE, ADDITIONAL CONDITIONS and ADDITIONAL ATTACHMENTS forming part of the above described AGREEMENT,

SERVICES:

STANTEC shall perform the following SERVICES:

Off Site Consulting Services - Bridgegate / Sentinel Bridge Survey

Off Site Consulting Services - Bridgegate Bridge Crossing

Off Site Consulting Services - Highway 3 Intersection & Access Road Upgrade

Off Site Consulting Services - Landscape Architecture Services

(hereinafter called the "SERVICES")

**CONTRACT TIME:** 

Commencement Date:

October 1, 2007

**Estimated Completion Date:** 

December 31, 2008

**CONTRACT PRICE:** 

Subject to the terms below, CLIENT will compensate STANTEC as follows:

**BRIDGEGATE DEVELOPMENT** 

Off Site Consulting Services - Bridgegate / Sentinel Bridge Survey
\$19,688.00
Off Site Consulting Services - Bridgegate Bridge Crossing
\$330,675.00
Off Site Consulting Services - Highway 3 Intersection & Access Road Upgrade
\$198,546.00
Off Site Consulting Services - Landscape Architecture Services
\$34,383.00
SUBTOTAL
\$583,272.00
PLUS 6% GST
\$34,996.32
TOTAL

An eight percent (8%) flat rate disbursement (FRD) recovery charge will be applied to the Stantec fees to cover miscellaneous project expenses, internal incidental printing, copying and plots, film, CDs and report materials; communications expenses (e.g., faxes, office and mobile phones, blackberries, pagers, and other devices); office expenses (e.g., postage, couriers, equipment, common software and other supplies); staff local mileage/kilometrage; and archive maintenance. As this is a FRD, no supporting document will be provided with invoices.

Project specific charges, such as subconsultants; travel, accommodations and meals; project-specific printing of deliverables; consumables; usage charges for specialized field equipment and company-owned, leased or rented project vehicles; external testing lab charges and other external services charges; specialized computer software costs; and other significant project-specific expenses will be invoiced in addition to labor fees and to the FRD.

Where not stated as being included in the fees, project specific subconsultant, contractor and similar third party expenses will be charged as incurred with a ten percent (10%) markup



Stantec Consulting Ltd. 290 - 220 - 4th Street South Lethbridge AB T1J 4J7 Tel: (403) 329-3344 Fax: (403) 328-0664

August 24, 2007 File: 112999000.100.200

Bridgecreek Development Corp. Suite 300, 1333 8 Street SW Calgary, Alberta T2R 1M6

Attention:

Mr. Bill Bradley, Vice President Bridgecreek Development Corp.

Dear Sir:

Reference:

Sentinel Bridge and Highway #3 intersection Survey

As per your request, we are providing a budget to perform the required topographic surveys for the Sentinel Bridge upgrade and Highway #3 intersection for the proposed Bridgegate development in Sentinel, Crowsnest Pass.

This survey will be conducted in conjunction with the Sentinel Sewer Project survey that is currently underway. The allowance for traffic control is estimated, and will be invoiced at cost. This allowance is for two (2) days of traffic control on Highway #3, but we expect to only require one day of traffic control.

The project is to be managed by the Municipality of Crowsnest Pass for Bridgecreek Development Corp. The Municipality will be invoiced for this work. By acceptance of this proposal, Bridgecreek Development Corp. agrees to reimburse the Municipality of Crowsnest Pass for these costs.

Should you require any further information, please do not hesitate to contact he undersigned.

Sincerely.

STANTEC CONSULTING LTD.

I confirm my acceptance of the foregoing agreement:

Jeff Drain, RET Senior Project Manager Tel: (403) 329-3344 Fax: (403) 328-0844

Fax: (403) 328-0644 jeff.drain@stantec.com

Date

Attachment:

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# Municipality of Crowsnest Pass Bridgewater/Sentinel Bridge and Highway #3 Survey Professional Fee Estimate

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	Seff Drain Project Manager	Marvin Van Naanen Survey	Seen türby CAD	Field Burvey (Two Nan crow	Bubconsultants	Subtotal Heurs	Saha	Intel Page	Dishurasmont	Total Fees	
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Bridge Survey									3,059		12,921
Intersection Survey								1.150			1.277
Baseplan Preparation								2,248			2,530
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Stantec Consulting Ltd. 290 - 220 - 4th Street South Lethbridge AB T1J 4J7 Tel: (403) 329-3344 Fax: (403) 328-0664

#### Stantec

September 6, 2007 File: 112941285

Municipality of Crowsnest Pass P.O. Box 600 Crowsnest Pass AB TOK 0E0

Attention:

Mr. Gordon Lundy, CAO

Dear Sir:

Reference:

Proposal to Replace Bridge Crossing Crowsnest River at Sentinel

#### PROJECT UNDERSTANDING

It is our understanding that the project consists of the replacement of an existing bridge across the Crowsnest River immediately downstream of Crowsnest Lake. The replacement will consist of two bridges to satisfy redundancy requirements for egress from the site. These bridges will each have two lanes with minimal shoulders and a 2.5 m sidewalk. We understand that the bridges will be designed to meet Alberta Infrastructure and Transportation design standards however the design process and the drawings do not need to meet the AIT standards. We have carried a nominal fee for liaison with AIT for development of a cost sharing/funding formula only. Production of drawings and tendering in AIT format is not included.

It is our understanding that the existing bridge will remain in service while the first of the new bridges is constructed. Following completion of the first new bridge the existing bridge will be taken out of service to permit the construction of the second bridge. This operation will result in construction activities extending over two seasons.

The current bridge consists of a three span structure with precast concrete plank type girders supported by a timber substructure. The total length of the structure appears to be approximately 20m.

#### **BRIDGE PROJECT TEAM**

#### Eric Tromposch, M.Sc., P.Eng.

#### Principal Bridge Engineer

Eric is the Managing Principal of the Structural Engineering Group for Stantec Consulting Ltd. in Calgary. He has over 25 years of experience in the planning, design and inspection of bridge projects. He has been involved in the numerous bridge projects in Alberta including the Stoney Trail /Nose Creek Bridge crossing and the Stoney Trail / CPR Crossing. Other major bridge projects include the Fish Creek/ 37<sup>th</sup> Street Bridge, the Shawnnessy/Macleod Interchange and the Hwy 4:02 Milk River bridges for Alberta Infrastructure. He is also familiar with the various environmental and permitting requirements that are specific to stream crossings. Eric's role on the project will be to lead the preliminary design phase and to provide overall direction during subsequent phases.

#### James Hanley, P.Eng.

#### Senior Bridge Engineer

James has over 20 years of experience in designing, inspecting and administering contracts for the construction of bridges and other heavy civil structures. Jim will lead the final design, coordinate and coordinate with Stantec's Project Manager on the overall delivery of the project. Jim completed a similar assignment on the recently completed Fish Creek 37th Street Bridge project and is currently completing the same task on the Stoney Trail / CPR crossing. Jim's role on this project will be to lead the design of the bridges, coordinate the production of the contract documents and coordinate the inspection of the construction.



August 30, 2007 Mr. Gordon Lundy, CAO Page 2 of 4

Reference: Proposal to Replace Bridge Crossing Crowsnest River

#### SCOPE OF WORK

#### **Bridge Planning**

At the bridge crossing we will review with the roadway designers the initial and ultimate stage geometry of the bridges. This evaluation is an iterative process that involves a systematic examination of the various factors that will influence the final geometry and cost of the structures.

Following receipt of the geotechnical report we will confirm the total out to out length of the bridges. We assume that a simple span structure will be constructed to minimize the environmental impacts associated with this Class B fish bearing stream. After the approximate span has been identified we will also identify an approximate structure depth and confirm that clearance requirements above the 1:100 year flood levels. Revisions to the grade lines will be investigated if minimum clearance requirements cannot be comfortably achieved.

The objective of this design phase will be to finalize the geometry of the bridges to permit the evaluation of structural options to begin. The deliverable from this design phase will be a preliminary general layout drawing for each bridge.

#### **Fisheries Assessment**

The fisheries assessment will be conducted by **Townsend Environmental Consulting Ltd.** This work will entail one site visit for field work and an assessment report. This fee does not include any discussions or negotiations with government officials for any potential habitat restoration or compensation by Townsend Environmental Services.

#### Bridge Geometric Alignment Design

#### Roadway Design

During the Preliminary Design Phase, we will provide the preliminary geometric alignment for the bridge superstructure. This alignment will be based upon the recommendation contained in the Traffic Impact Analysis Study completed by DA Watt Consulting Group Ltd., September 13, 2006. This alignment will be developed in conjunction with the proposed Highway #3 Intersection Upgrade.

Upon completion of the preliminary design, the horizontal and vertical alignment of the roadway will be finalized in conjunction with the detailed design of the bridge structure and providing the details for the intersection in to the proposed development. Intersectional and bridge lighting is not included as part of this submission.

Construction Inspection Fees or Tendering Fees have not been included for this portion of the work outside of the bridge abutment fills and are assumed to be included in the Highway #3 Intersection and Access Road Upgrade.

#### Bridge Engineering

#### Preliminary Design

During the Preliminary Design Phase we will carry out an evaluation of the possible bridge superstructure options. We propose to evaluate a precast concrete girder option and a steel girder option.

We will also have our in house architects provide input on possible aesthetic enhancements. We will then review these concepts with BridgeCreek staff to develop the appropriate aesthetic approach.

#### Stantec

August 30, 2007 Mr. Gordon Lundy, CAO Page 3 of 4

Reference: Proposal to Replace Bridge Crossing Crowsnest River

Once the review of the options is complete we will create a Preliminary Design Report detailing our findings. This report will include information on:

- Span length and bridge configuration
- Abutment and foundation types
- Proposed system for supporting water and sewer pipes
- The superstructure systems evaluated including availability of materials
- Proposed Architectural features
- The initial capital cost for each alternative
- Recommendations
- The final design schedule

The objective of this phase will be to finalize the nature of the bridge designs.

#### Permit Application

After the bridge concept has been finalized and preliminary drawings have been developed we will apply for the following permits and authorizations:

- Transport Canada under the Navigable Waters Protection Act
- Department of Fisheries and Oceans
- Alberta Environment

Note that all of these applications may require public consultation involving advertising and soliciting comments from the public.

#### Detailed Design and Contract Documents

Following selection of the desired alternative Stantec will complete the Detailed Design and the Contract Documents for each bridge. Drawings will not include reinforcement bar lists that are typical on AIT projects.

Stantec will submit drawings for review at 90% completion. After receipt and incorporation of comments we will develop a standard tender package utilizing a Stantec supplied front end document. Stantec will produce a pre-tender cost estimate that will be based on local unit rates.

#### Tender and Award

Stantec will attend the pretender meeting, produce the meeting note, respond to questions from contractors, issue any addenda required to clarify the contract documents, review the submitted tenders and provide the Municipality of Crowsnest Pass and BridgeCreek with our recommendations.

#### Construction Services

Stantec will administer the contract including recording site meeting notes and reviewing progress claims. We have assumed that meetings would occur monthly. We will provide general engineering services including answering site questions and review contractor generated shop drawings. We will also carry out periodic quality assurance inspections during construction. We have assumed that this would include 13 days of inspection for each bridge or 26 days in total. We will also coordinate the services of materials testing agencies. We are assuming that specialty materials inspection and testing agencies (geotechnical, pile foundation, concrete and steel fabrication inspection) will be retained directly by BridgeCreek.

We have also provided a separate fee for precast concrete girder inspection assuming that girder fabrication takes place in Calgary. If steel girders are selected then this fee is not applicable however a steel fabrication inspection firm will need to be retained.

#### Stantec

August 30, 2007 Mr. Gordon Lundy, CAO Page 4 of 4

Reference: Proposal to Replace Bridge Crossing Crowsnest River

Drawings of Record
Stantec will incorporate both consultant and contractor identified changes into the Drawings of Record.

#### SCHEDULE

Our tentative schedule is based on achieving the following milestones:

- Notice to proceed 10 Sept 2007
- Complete Bridge Planning 28 September 2007
- Submit permit applications October 10, 2007.
- Complete Preliminary Design 10 November 2007
- Complete final design for review 15 February 2008
- Complete tender package 14 March 2008
- Tender Period 14 March 2008 to 4 April 2008.
- Construction starts May 2008.
- Construction completion end of June 2009.

#### **ENGINEERING FEES**

Our engineering fees for the design of the two new bridge structures based on the above noted scope of work are summarized as follows:

- AIT Liason Fee \$9,150
- Bridge Planning Fee \$10,266
- Roadway Planning Fee \$10,904
- Preliminary Design Fee \$11,454
- Permit applications Fee- \$13,639
- Bridge Detailed Design Fee \$134,170
- Roadway Detailed Design Fee \$12,422
- Tender Fee \$15,430 (excluding advertisement costs)
- Construction Inspection Fee—\$62,370
- Precast concrete girder inspection Fee \$7004
- Post-Construction Fee \$10,856

Total fixed engineering fee of \$302,940 plus 8% disbursements plus GST.

Sincerely,

STANTEC CONSULTING LTD.

Jeff Drain, RET

Senior Project Manager

Tel: (403) 329-3344 Fax: (403) 328-0644 jeff.drain@stantec.com

#### Attachment:

c. Mr. Mark Bellamy, Stantec Consulting Ltd. Mr. Eric Tromposch, Stantec Consulting Ltd.

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# Municipality of Crowsnest Pass Bridge Crossing Crowsnest River Replacement Professional Fee Estimate

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\*Does not include Geotechnical Investigations, Legal Surveys, CEAA Assessment or Bridge Lighting Desing

TOTAL

\$19,841 350,516

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Stantec Consulting Ltd. 290 - 220 - 4th Street South Lethbridge AB T1J 4J7 Tel: (403) 329-3344 Fax: (403) 328-0664

#### Stantet

September 7, 2007 File: 112999000.100.200

Municipality of Crowsnest Pass P.O. Box 600 Crowsnest Pass AB TOK 0E0

Attention:

Mr. Gordon Lundy, CAO

Dear Sir:

Reference:

Highway #3 Intersection Upgrade and Access Road Upgrade

As per the request of Bridgecreek Development Corporation, we are providing a budget and scope of work to perform the engineering design and construction management services for the required Highway #3 intersection upgrade at Sentinel. It is our understanding that this project will be managed by the Municipality of Crowsnest Pass, with funding by Bridgecreek Developments Corp.

The design of the intersection and access road upgrade will be developed from the recommendations contained in the Traffic Impact Study for the Bridgegate Report by D.A> Watt Consulting Group Ltd. Dated September 13, 2006.

#### **SCOPE OF WORK**

#### Preliminary Geometric Design

We will prepare a preliminary horizontal geometric design of the recommended intersection type and submit the proposed design to Alberta Infrastructure and Transportation.

#### Detailed Design

Upon acceptance of the proposed geometric design, by AIT, a detailed design of the proposed intersection and access road upgrade will be undertaken. The horizontal and vertical alignment of the roadway and intersection will be finalized. Stantec Consulting Ltd. will submit 90% drawings to Alberta Infrastructure and Transportation for final approvals. Upon receipt and incorporation of comments, we will develop a standard tender package utilizing a Stantec supplied front end document. Stantec will produce a pre-tender cost estimate. Roadway and intersectional lighting design is not included as part of this scope of work. If required, a separate proposal will be submitted, upon confirmation of requirements of any lighting.

#### Tender and Award

Stantec will attend the pretender meeting, produce the meeting note, respond to questions from contractors, issue any addenda required to clarify the contract documents, review the submitted tenders and provide the Municipality of Crowsnest Pass and BridgeCreek with our recommendations.

#### Construction Services

Stantec will administer the contract including recording site meeting notes and reviewing progress claims. We have assumed that meetings would occur monthly. We will provide general engineering services including answering site questions and review contractor generated materials quality control testing. We will also carry out periodic quality assurance inspections during construction. We have assumed that this would include 675 hours of inspection for the intersection and roadway upgrade. We will also coordinate the services of materials testing agencies. We are assuming that specialty materials inspection and testing agencies (geotechnical and materials testing services) will be retained directly by BridgeCreek.

#### Stantec

September 7, 2007 Mr. Gordon Lundy, CAO Page 2 of 2

Reference: Highway #3 Intersection Upgrade and Access Road Upgrade

Drawings of Record

Stantec will incorporate both consultant and contractor identified changes into the Drawings of Record.

#### **SCHEDULE**

Our tentative schedule is based on achieving the following milestones:

- Notice to proceed 17 Sept 2007
- Complete Preliminary Geometric Design 20 November 2007
- Complete final design for review 29 February 2008
- Complete tender package 21 March 2008
- Tender Period 21 March 2008 to 4 April 2008.
- Construction starts May 2008.
- Construction completion end of September 2009.

#### **ENGINEERING FEES**

Our engineering fees for the design of the Highway #3 intersection and access road upgrade, based on the above noted Scope of Work, are <u>\$183,839.00</u> plus 8% disbursements, plus GST, as detailed on the attached Fee Summary.

Sincerely,

STANTEC CONSULTING LTD.

Jeff Drain, RET

Senior Project Manager Tel: (403) 329-3344

Fax: (403) 328-0644 jeff.drain@stantec.com

Attachment:

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vap v:\1129business\_development\proposals\mcnp\_hwy\_3\_upgrade\tlr\_pro\_hwy\_3\_upgrade\_090707.doc

# **Municipality of Crowsnest Pass Highway #3 Intersection Upgrade and Access Road Upgrade**Professional Fee Estimate



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	\$123	\$133	\$82	\$109	\$67	Subtotal Hours	Sub	total Fees	Disb	ursements	To	tal Fees
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Roadway Detailed Design	60	30	250		S	378	<b>\$</b>	31.805	ş	2.789	s	37.655
Final Design Review with AIT	8	S	S		4	28	\$	2.972	0.000	238		3,210
Tender	60	8	30	10	30	108	5	17.27-1		1.352		18 656
Construction Inspection Services	120	8	20	5/5	50	883	ş	95,059		7,605		102.664
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<sup>\*</sup>Does not include Geotechnical Investigations, Materials Testing, Legal Surveys, or Roadway Lighting Design

Estimated to be confirmed upon reciept of tenders and schedule
 V:\1129\business\_development\proposals\mcnp\_bridge replacement

\$11,913 \$210,459



Stantec Consulting Ltd. 290 - 220 - 4th Street South Lethbridge AB T1J 4J7 Tel: (403) 329-3344 Fax: (403) 328-0664

Septmeber 9, 2007 File: 112999002

Bridgecreek Development Corporation Suite 300, 1333 - 8 Street S.W. Calgary AB TZR 1MG

Attention:

Mr. Bill Bradley

Vice President

Dear Sir.

Reference:

Proposal for Bridgegate Landscape Architecture Services

#### PROJECT BACKGROUND

It is our understanding that Bridgegate is a new development and that it will be built in 2 Phases, in the Crowsnest Pass, located north along the Crowsnest Lake and near the British Columbia Border. Phase 1 will consists of primarily a commercial development, while Phase 2 will boast the ETEA Spa Resort. An attractive gateway approach and entry feature is a key to the success of Bridgegate.

It is also our understanding that the project consists of significant road upgrades in the immediate area. There is to be a replacement of an existing bridge across the Crowsnest River immediately downstream of Crowsnest Lake. The replacement will consist of two bridges to satisfy redundancy requirements for egress from the site. These bridges will each have two lanes with minimal shoulders and a 2.5 m sidewalk. These bridge projects will require a minimum of landscape rehabilitation and allow for the opportunity of an enhanced landscape treatment in the boulevards from Highway 3 to the entrances to Bridgegate

There is also the Highway 3 Proposed interchange Connection will be the primary access to Bridgegate. The construction of this interchange will require proper landscape rehabilitation to ensure that the natural setting of the Crowsnest Pass is preserved.

We have based our proposal for Landscape Architecture Services on the following:

- Conceptual Entry Feature Development for the Bridgegate Development (two entrances).
- Landscape Rehabilitation for the new bridge construction,
- Opportunities for an enhanced landscape treatment from Highway 3 to the Bridgegate Development and
- Landscape Rehabilitation for the Highway 3 proposed interchange connection.

#### . Stantec

September 9, 2007 Mr. Bill Bradley Vice President Page 2 of 4

Reference: Proposal for Bridgegate Landscape Architecture Services

#### **PROJECT TEAM**

#### Lead Landscape Architect

Devin Huber, CSLA

Devin will act as the Lead Landscape Architect and be responsible to ensure project deliverables are achieved on schedule and on budget, and to coordinate the roles, responsibilities, and performance of all team members. Devin will administer meetings and be Stantec's primary point of contact for this project.

Devin has completed landscape strategies for the Legacy Ridge, RiverStone, Sherring Business Industrial Park Developments and the Mayor Magrath Drive and Whoop-Up Drive Arterial Roadways, all in Lethbridge. Most recently Devin completed his role of Project coordinator for both the City of Lethbridge Parks Master Plan and the Bikeways and Pathways Master Plan.

#### Senior Review and Irrigation Design

Ned Wesenberg, CSLA, CID, CLIA

Ned has been responsible for the design and project management of conceptual landscape/irrigation design, detailed landscape/irrigation design, layout, project administration and construction management for major projects that include municipal parks, residential developments, commercial projects, corporate and institutional buildings. With over 20+ years of experience, Ned will provide a wealth of knowledge as to what works and what doesn't when it comes to entry features and landscape treatments.

#### Graphics and Illustration

Drew Ferrari, Dip. Arch. Tech., BES

Drew Ferrari will round out the Stantec Team by applying his extensive experience in preparing and graphically presenting schematic designs. Drew also has a strong background in 'visioning' and 'theming' as he uses his unique skills to sketch out concepts and ideas to develop concepts that stimulate creativity and articulate the community's vision. Drew has completed innovated conceptual designs for Alberta Children's Hospital, Memorial Drive, The Landscape of Memory, McKenzie Towne Community Theming, all located in Calgary. Drew has also completed conceptual design for Village Centre — Three Sisters mountain Village in Canmore.

#### Landscape Design

Kathryn Guenther, LAT, BLA

Kathryn is an Intern Landscape Architect and Landscape Architectural Technologist. She utilizes concept development by using both computer and hand graphic techniques to generate creative design solutions through time management strategies. Her areas of expertise include extensive plant knowledge, conceptual to detailed design of community parks, streetscape development and commercial, industrial and residential landscapes.

#### Stantec

September 9, 2007 Mr. Bill Bradley Vice President Page 3 of 4

Reference: Proposal for Bridgegate Landscape Architecture Services

#### SCOPE OF WORK

Our Lead Landscape Architect, Devin Huber will ensure the successful execution of the project by efficiently initiating the project, coordinating all aspects of the work plan, providing deliverables on schedule, facilitating communications with the Municipality of Crowsnest Pass and other involved parties. By providing a single focal point for internal and external communication and facilitation, Devin will serve as a link between the project team and the Municipality of Crowsnest Pass

#### **Project Initiation**

A Start-Up Meeting will allow for the project team to become familiar with the site, collect all necessary data and prepare a working base plan for the Bridgegate Development.

#### Conceptual Development

Our Design Team will prepare two exciting landscape concepts for the Entry Features into the new community of Bridgegate. These concepts will be in colour and include reviews with the Municipality of Crowsnest Pass. The concept will incorporate:

- two alternative entry concepts for the new community of Bridgegate
- opportunities for water conservation
- possible wildlife impacts
- innovative environmental design and maintenance strategies
- the use of native plant materials
- opportunities for landscape rehab (Highway 3 Intersection and Crowsnest Lake, Bridge Upgrade)
- opportunities for boulevard treatments from Highway 3 to the Bridgegate Entrance
- conceptual construction estimates for each concept
- finalization of the preferred concept

## Detailed Design Development

The key deliverables from this stage of the project will include design drawings for the layout planting and irrigation, specifications, approvals, tender packages, which include the following:

- Site Plan
- Landscape Layout (Entry/ Boulevard Landscape Treatment and Entry Features)
- Planting Plan
- Irrigation Plan
- Details Plan
- Drawing Approvals
- Specifications
- Tender Drawings

#### Stantec

September 9, 2007 Mr. Bill Bradley Vice President Page 4 of 4

Reference: Proposal for Bridgegate Landscape Architecture Services

#### **RESOURCE ALLOCATION**

The Stantec Team is founded on knowledge, expertise and capacity to deliver this project in a timely, efficient and accurate manner. For this project, we have prepared a detailed work plan, shown in Figure 4.1: Resource Allocation Table that outlines efficient resource allocation for consulting services. Our focus is to engage the right experience at the right time, to ensure value and efficiency to your project. This is our formula for efficiency and success on your project.

Landscape Architecture Services as per the above scope - Hourly rate to an upset fee of \$34,363.00

The above fees include 8% disbursements charge, but do not include GST. Services not noted in this proposal are not included in this fee.

#### SUMMARY

Stantec offers the Municipality of Crowsnest Pass an efficient and qualified team for this exciting Landscaped Entrance in to the Bridgegate Community. Stantec offers expertise that has successfully been deployed on numerous projects throughout southern Alberta, including Waterton, Pincher Creek and Canmore. In addition, our team has developed excellent working relationships with the Municipality of Crowsnest Pass and local Contractors.

We look forward to working with the Municipality of Crowsnest Pass on this important project and assisting in the visioning and landscape treatment for the new subdivision of Bridgegate in the Municipality of Crowsnest Pass.

If you have any questions with regard to this proposal submission, please contact me at (403) 329-3344 at your convenience.

Sincerely.

STANTEC CONSULTING LTD.

Jeff Drain, RET Senior Project Manager Tel: (403) 329-3344

Fax: (403) 328-0644 jeff.drain@stantec.com

Attachment:

c. Mr. Devin Huber, Stantec Consulting Ltd.

Bridgegate Development Corporation Landscape Architecture Services  Resource Allocation Table	Jeff Drain Project Manager	Devin Huber Lead Landscape Architect	Ned Wesenberg Senior Review and migation Desgin	Drew Ferrari Graphics and Illustration	Kathryn Guenther Landscape Design	Landscape Technologist Drafting/ Graphic Support	Administrative Supprt	Sub-Total	Sub-Task Fees	Disburrements	Sub-Task Totals	je ,
ASK DESCRIPTION	\$123	\$109	\$118	\$99	\$82	\$75	\$60	110018	1003	"	, s	Task Totals
N PROJECT INITIATION							114.04	Star Wife	Pirser.	ATTO SEE SEE	THE WORLD	\$ 5.100.
Start-Up Meeting/ Site Familiarization	10	10		i	10		4	34	\$ 3,380	\$ 338	\$ 3,718	
Prepare Base Plan				1.5	8	8		16	\$ 1,256	\$ 126	\$ 1,382	
B. CONCEPTUAL DEVELOPMENT	35. V. S	Nill Ital	A HES		0.001.002	SEREN	No. of	A STATE OF		BALLEN SAL	1,002	AND DESCRIPTION OF THE PERSON NAMED IN
Develop Two Concepts	WAYN THE	20	5	30	40	10		405			amenters.	\$ 15,431
Prepare Cost Estimates		8	2	30	10	10		105	\$ 9,770			
Resolve Direction and Determine Preferred Concept		10			10	4	2	20	\$ 1,928 \$ 2,330	\$ 193 \$ 233	\$ 2,121 \$ 2,563	P
DETAILED DESIGN DEVELOPMENT (ESTIMATE)	IV-IV-III					W-1 VOI	الطألعا	20	7 2,000	¥ 233	₹ £,003	The second second
Detailed Design for Preferred Concept		42	40	45	20	00						\$ 13,832
Prepare Tender Package		12 8	10	15	30 12	30 16	40	97	\$ 8,683			
riopero (ortani i antago			<del>                                     </del>		- 12	10	10	48	\$ 3,892	\$ 389	\$ 4,281	98427
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	10	68	19	45	120			L l	•	-	-	i .



TOTAL INCLUDING DISBURSMENTS =

\$ 34,363.00

51

2,04.7

Resource Allocation Table Figure 1.0 BETWEEN:

#### The Municipality of Crowsnest Pass

of P.O. Box 600, Crowsnest Pass, Alberta, T0K 0E0 (Hereinafter called the "Municipality")

Party of the First Part

- and -

**River Run Corporation** 

of 300, 1333 – 8<sup>th</sup> Street SW, Calgary, Alberta, T2R 1M6 (Hereinafter called the "Developer")

Party of the Second Part

#### **AGREEMENT**

WHEREAS the Developer is the registered owner of certain lands situated in the Municipality of Crowsnest Pass, in Blairmore, legally described as follows:

#### FIRSTLY:

ALL THAT PORTION OF THE STATUTORY ROAD ALLOWANCE ADJOINING THE EAST BOUNDARY OF THE SOUTH EAST QUARTER OF SECTION 3 TOWNSHIP 8 RANGE 4 WEST OF THE 5<sup>TH</sup> MERIDIAN

LYING SOUTH OF THE PRODUCTION ACROSS SAID ROAD ALLOWANCE OF THE SOUTH LIMIT OF ROAD PLAN 8410909 AND NORTH OF THE PRODUCTION ACROSS SAID ROAD ALLOWANCE OF FLOODED AREAS 'B' AND 'C' ON PLAN IRR513

EXCEPTING THEREOUT ALL MINES AND MINERALS;

SECONDLY:

PLAN 8711401

BLOCK 2

EXCEPTING THEREOUT ALL MINES AND MINERALS AREA: 9.9 HECTARES (24.46 ACRES) MORE OR LESS;

THIRDLY:

PLAN 8711401

BLOCK 3

EXCEPTING THEREOUT ALL MINES AND MINERALS AREA 1.78 HECTARES (4.4 ACRES) MORE OR LESS;

FOURTHLY;

PLAN 8711401

BLOCK

CONTAINING 8.92 HECTARES (22.04 ACRES) MORE OR LESS

**EXCEPTING THEREOUT:** 

HECTARES (ACRES) MORE OR LESS

A) PLAN 9011127 ROAD 0.125 (0.309)

**EXCEPTING THEREOUT ALL MINES AND MINERALS** 

AND WHEREAS the Developer requires access to his development and the construction of a bridge crossing across the Crowsnest Pass River to access the Blairmore project;

AND WHEREAS the Municipality of Crowsnest Pass is retaining the services of Stantec Consulting Ltd. (hereinafter called "Stantec") which employment is recommended by the Operational Services Committee of the Municipality of Crowsnest Pass and approved by Municipal Council;

AND WHEREAS the Municipality of Crowsnest Pass would contract with Stantec Consulting Ltd. for the purposes of carrying out all of the necessary engineering work for these projects, HOWEVER the Developer is to bear all costs associated with the retention of Stantec Consulting and all engineering work to be performed;

AND WHEREAS two proposals have been received from Stantec Consulting Ltd., plus a Costing Summary, copies of which are attached hereto and form part of this Agreement as follows:

- A. Attachment "A" Cost Summary;
- B. Schedule "B" Proposal for bridge crossing, River Run project, Blairmore; and
- C. Schedule "C" Proposal for Deep Utilities.

AND WHEREAS the Municipality of Crowsnest Pass may request additional services of Stantec to assist adjacent land owners with servicing third party lands or land owned by the Municipality itself, and in the event that the Municipality undertakes such additional servicing arrangements, the cost of such services shall be proportionately shared with the Developer.

NOW THEREFORE WITNESSETH in consideration of the mutual terms, conditions and covenants herein contained, the parties hereto covenant and agree as follows:

- 1. That the terms and conditions detailed in the preamble hereto shall form and be part of this Agreement.
- 2. That the proposed engineering fees are detailed in the Schedules as follows:

a. Schedule "B": Fees: \$281,111.00

Estimated disbursements: 25,989.00 GST 18,426.00

TOTAL: \$ 325,526.00

101AL.

b. Schedule "C": Fees: \$133,808.10

Estimated disbursements: 10,705.00 GST: 8,670.78

TOTAL: \$ 153,183.78

GRAND TOTAL" <u>\$ 478.709.78</u>

- 3. a. The Developer agrees to arrange for an Irrevocable Letter of Credit with a lending institution which is to be approved by the Municipality, in the sum of \$478,709.78 and which Line of Credit is unconditionally payable to the said Municipality;
  - b. It shall be a term of the said Letter if Credit that the Municipality of Crowsnest Pass may draw funds against the Letter of Credit at any time and in such amounts as may be required by the Municipality to satisfy the Stantec invoices which will be received and be payable from time to time and in varying intervals.
- 4. The parties hereto further agree that should the Municipality of Crowsnest Pass request additional services of Stantec over and above those detailed in the attached Schedules to obtain a benefit for itself or for any third party who is not subject to this Agreement, in that event it is agreed that the Municipality of Crowsnest Pass shall pay its proportionate share of the additional engineering costs, which share the Developer shall be permitted to set off against any other sums due by the Developer to the Municipality of Crowsnest Pass.
- 5. In addition, the Developer agrees to pay for any cost overruns that may be properly billed by Stantec or by any other approved parties to the Municipality of Crowsnest Pass for work performed on the River Run project.
- 6. It is further specifically agreed that the Developer shall be responsible for the following costs:

- a. The costs incurred in the preparation of all architectural controls, urban designs, building structural design, highway design, landscaping guidelines, detailed engineering plans, costs incurred by the Municipality of Crowsnest Pass for any required background studies and for the preparation of any other documentation;
- b. The Developer shall pay for the costs incurred for planners, consultants, engineers, lawyers and any and all other professionals for and in respect of the creation of the necessary engineering matters associated with the Stantec proposal;
- c. All items, services and costs summarized in Attachment "A", Schedule "B" and Schedule "C" but not necessarily limited thereto;
- d. Any and all other costs incurred by the Municipality in compliance with any of the requirements of Stantec Consulting Ltd. in the performance of their duties.
- 7. This Agreement and the terms, covenants, conditions and other provisions contained herein, and all obligation under it or pursuant to this Agreement shall enure to the benefit of the parties hereto and their respective successors and assigns.
- 8. Any notices to be given under the terms of this Agreement shall be in writing, and shall be given to the applicable parties by personal service or by first-class mail with postage fully prepaid, or by facsimile at the number herein set forth, provided that, where mailed, it shall be deemed to have been received on the fifth (5<sup>th</sup>) day following the date of the mailing:

To the Municipality of Crowsnest Pass P.O. Box 600 Municipality of Crowsnest Pass, Alberta TOK 0E0 Facsimile No. (403) 563-5474

To River Run Corporation: 300, 1333 – 8<sup>th</sup> Street SW Calgary, Alberta T2R 1M6

- 9. Time shall be the essence of this Agreement and every part thereof.
- 10. Nothing herein contained shall be deemed or construed so as to make any of the parties hereto partners with one another.

11. This Agreement may be executed in any number of counterparts with the same effect as if all parties hereto had signed the same document. All counterparts shall be construed together and shall constitute one Agreement, but in making proof of this Agreement shall not be necessary to produce or account for more than one such counterpart.

IN WITNESS WHEREOF the parties hereto have affixed their corporate seals by the hands of their duly authorized officers on their behalf, and the other parties have hereunto set their hands and seals as at the day and year first above written.

#### **MUNICIPALITY OF CROWSNEST PASS**

RIVER RUN CORPORATION

\_



# PROFESSIONAL SERVICES AGREEMENT ATTACHMENT "A"

Attached to and forming part of the AGREEMENT

**BETWEEN:** 

MUNICIPALITY OF CROWSNEST PASS (hereinafter called the "CLIENT")

- and -

STANTEC CONSULTING LTD. (hereinafter called "STANTEC")

EFFECTIVE:

September 7, 2007

This Attachment details the SERVICES, CONTRACT TIME, CONTRACT PRICE, ADDITIONAL CONDITIONS and ADDITIONAL ATTACHMENTS forming part of the above described AGREEMENT.

SERVICES:

STANTEC shall perform the following SERVICES:

Off Site Consulting Services - River Run - Bridges

Off Site Consulting Services - River Run - Deep Utilities

(hereinafter called the "SERVICES")

**CONTRACT TIME:** 

Commencement Date:

October 1, 2007

**Estimated Completion Date:** 

December 31, 2008

**CONTRACT PRICE:** 

Subject to the terms below, CLIENT will compensate STANTEC as follows:

RIVER RUN DEVELOPMENT

Off Site Consulting Services - River Run - Bridges \$307,100.00

Off Site Consulting Services - River Run - Deep Utilities \$144,513.00

SUBTOTAL \$451,613.00

PLUS 6% GST \$27,096.78

TOTAL \$478,709.78

An eight percent (8%) flat rate disbursement (FRD) recovery charge will be applied to the Stantec fees to cover miscellaneous project expenses, internal incidental printing, copying and plots, film, CDs and report materials; communications expenses (e.g., faxes, office and mobile phones, blackberries, pagers, and other devices); office expenses (e.g., postage, couriers, equipment, common software and other supplies); staff local mileage/kilometrage; and archive maintenance. As this is a FRD, no supporting document will be provided with invoices.

Project specific charges, such as subconsultants; travel, accommodations and meals; project-specific printing of deliverables; consumables; usage charges for specialized field equipment and company-owned, leased or rented project vehicles; external testing lab charges and other external services charges; specialized computer software costs; and other significant project-specific expenses will be invoiced in addition to labor fees and to the FRD.

Where not stated as being included in the fees, project specific subconsultant, contractor and similar third party expenses will be charged as incurred with a ten percent (10%) markup

Unless otherwise noted, the fees in this agreement do not include any value added, sales, or other taxes that may be applied by Government on fees for services. Such taxes will be added to all invoices as required.

Revision 2007-08-31



# PROFESSIONAL SERVICES AGREEMENT ATTACHMENT "A"

Page 2 of 2

#### Stanted

Where the SERVICES or services conditions change, STANTEC shall submit to the CLIENT in a timely manner, documentation of the revisions to Attachment "A" adjusting the Contract Services Time and Price as required.

Unless otherwise specified, charges for SERVICES are based on STANTEC'S hourly billing rate table ("Rate Table"), attached hereto. The Rate Table is subject to escalation from time to time.

ADDITIONAL CONDITIONS:

The following additional conditions shall be read in conjunction with and constitute part of this AGREEMENT:

No additional Conditions

ADDITIONAL ATTACHMENTS:

The following additional attachments shall be read in conjunction with and constitute part of this AGREEMENT:

- Letter Proposal dated September 7, 2007 Off Site Consulting Services River Run Bridges
- Letter Proposal dated September 24, 2007 Off Site Consulting Services River Run Deep Utilities

# INSURANCE REQUIREMENTS:

Before any services are provided under this agreement, STANTEC shall procure, and maintain in effect during the term of this agreement, insurance coverage in amounts and on terms not less than set forth below.

- A. General Liability: Commercial general liability insurance for personal and bodily injury, including death, and property damage in the amount of \$1,000,000 each occurrence and not less than \$2,000,000 in the aggregate.
- B. Automobile Liability: Automobile liability insurance for bodily injury, including death, and property damage in the amount of \$1,000,000 each occurrence.
- C. Professional Liability: Professional liability insurance for damages incurred by reason of any negligent act, error or omission committed or alleged to have been committed by STANTEC in the amount of \$1,000,000 per claim and in the aggregate.
- D. Workers' Compensation: As prescribed by applicable law.
- E. Certificates: Upon request, STANTEC shall provide certificates of insurance evidencing coverage required above. Each certificate shall provide that the coverage therein afforded shall not be cancelled except with thirty (30) days prior written notice to the CLIENT.



Stantec Consulting Ltd. 290 - 220 - 4th Street South Lethbridge AB T1J 4J7 Tel: (403) 329-3344 Fax: (403) 328-0664

September 7, 2007 File: 11299900.100,200

Municipality of Crowsnest Pass P.O. Box 600 Crowsnest Pass AB TOK 0E0

Attention:

Mr. Gordon Lundy, CAO

Dear Sir:

Reference:

**Bridge Crossing River Run** 

#### **PROJECT UNDERSTANDING**

It is our understanding that the project consists of the construction of a new bridge across the Crowsnest River to access the River Run subdivision in Blairmore. The bridge will be located where Street 01 crosses the River as shown on Drawing 3 of 13 produced by Highway Technical Engineering Services Ltd. We understand that the bridge will be designed to meet Alberta Infrastructure and Transportation design standards however the design process and the drawings do not need to meet the AIT standards.

The flood mapping study completed by AMEC Earth and Environmental dated February 2007 indicates that the calculated 1:100 year high water elevation approximately 50 m upstream and 275 m downstream of the proposed site are 1293.38 and 1291.51 respectively. Assuming a linear river slope in this region the 1:100 year water level at the site would be 1293.09.

The width of the bridge appears to be 17.3 m with a sidewalk on each side. The total length of the structure appears to be approximately 38m. Given this length of span and the potential environmental constraints in the area we are assuming a single span structure would be designed. We understand that because of the 2 m grade difference at the south end of the proposed bridge that retaining walls will be required.

## **BRIDGE PROJECT TEAM**

# Eric Tromposch, M.Sc., P.Eng.

**Principal Bridge Engineer** 

Eric is the Managing Principal of the Structural Engineering Group for Stantec Consulting Ltd. in Calgary. He has over 25 years of experience in the planning, design and inspection of bridge projects. He has been involved in the numerous bridge projects in Alberta including the Stoney Trail / Nose Creek Bridge crossing and the Stoney Trail / CPR Crossing. Other major bridge projects include the Fish Creek/ 37<sup>th</sup> Street Bridge, the Shawnnessy / Macleod Interchange and the Hwy 4:02 Milk River bridges for Alberta Infrastructure. He is also familiar with the various environmental and permitting requirements that are specific to stream crossings. Eric's role on the project will be to lead the preliminary design phase and to provide overall direction during subsequent phases.

# James Hanley, P.Eng.

Senior Bridge Engineer

James has over 20 years of experience in designing, inspecting and administering contracts for the construction of bridges and other heavy civil structures. Jim will lead the final design, coordinate and coordinate with Stantec's Project Manager on the overall delivery of the project. Jim completed a similar assignment on the recently completed Fish Creek 37th Street Bridge project and is currently completing the same task on the Stoney Trail / CPR crossing. Jim's role on this project will be to lead the design of the bridges, coordinate the production of the contract documents and coordinate the inspection of the construction.

September 7, 2007 Mr. Gordon Lundy, CAO Page 2 of 4

Reference: Bridge Crossing River Run

#### SCOPE OF WORK

#### **Bridge Planning**

At the bridge crossing we will review with the roadway designers the proposed geometry of the bridge crossing. This evaluation is an iterative process that involves a systematic examination of the various factors that will influence the final geometry and cost of the structure.

Following receipt of the geotechnical report we will confirm the total out to out length of the bridges. We assume that a simple span structure will be constructed to minimize the environmental impacts associated with this Class B fish bearing stream. After the approximate span has been identified we will also identify an approximate structure depth and confirm that clearance requirements above the 1:100 year flood levels. Revisions to the grade lines will be investigated if minimum clearance requirements cannot be comfortably achieved.

The objective of this design phase will be to finalize the geometry of the bridges to permit the evaluation of structural options to begin. The deliverable from this design phase will be a preliminary general layout drawing for the bridge.

### **Bridge Engineering**

Preliminary Design

During the Preliminary Design Phase we will carry out an evaluation of the possible bridge superstructure options. We propose to evaluate a precast concrete girder option and a steel girder option.

Once the review of the options is complete we will create a Preliminary Design Report detailing our findings. This report will include information on:

- Span length and bridge configuration
- Abutment and foundation types
- Retaining wall extent
- The superstructure systems evaluated including availability of materials
- The initial capital cost for each alternative
- Recommendations
- The final design schedule

The objective of this phase will be to finalize the nature of the bridge design.

#### Permit Application

After the bridge concept has been finalized and preliminary drawings have been developed we will apply for the following permits and authorizations:

- Transport Canada under the Navigable Waters Protection Act
- Department of Fisheries and Oceans
- Alberta Environment

Note that all of these applications may require public consultation involving advertising and soliciting comments from the public.

September 7, 2007 Mr. Gordon Lundy, CAO Page 3 of 4

Reference: Bridge Crossing River Run

#### **Detailed Design and Contract Documents**

Following selection of the desired alternative Stantec will complete the Detailed Design and the Contract Documents for the bridge and the retaining walls. Drawings will not include reinforcement bar lists that are typical on AIT projects.

Stantec will submit drawings for review at 90% completion. After receipt and incorporation of comments we will develop a standard tender package utilizing a Stantec supplied front end document. Stantec will produce a pre-tender cost estimate that will be based on local unit rates.

#### Tender and Award

Stantec will attend the pretender meeting, produce the meeting note, respond to questions from contractors, issue any addenda required to clarify the contract documents, review the submitted tenders and provide the BridgeCreek with our recommendations.

#### Construction Services

Stantec will administer the contract including recording site meeting notes and reviewing progress claims. We have assumed that meetings would occur monthly. We will provide general engineering services including answering site questions and review contractor generated shop drawings. We will also carry out periodic quality assurance inspections during construction. We have assumed that this would include 24 days of inspection. We will also coordinate the services of materials testing agencies. We are assuming that specialty materials inspection and testing agencies (geotechnical, pile foundation, concrete and steel fabrication inspection) will be retained directly by BridgeCreek.

We have also provided a separate fee for precast concrete girder inspection assuming that girder fabrication takes place in Calgary. If steel girders are selected then this fee is not applicable however a steel fabrication inspection firm will need to be retained.

### Drawings of Record

Stantec will incorporate both consultant and contractor identified changes into the Drawings of Record.

# Bridge Geometric Alignment Design

#### Roadway Design

During the Preliminary Design Phase, we will provide the preliminary geometric alignment for the bridge superstructure. This alignment will be based upon the subdivision design drawings by Highway Technical Services Ltd. The roadway geometric design will provide two options for connection in to the existing streets, cul-de-sac for the avenue as one option, and the second option will evaluate raising the roadway grade on 22 avenue to provide a level intersection with the bridge.

Upon completion of the preliminary design, the horizontal and vertical alignment of the roadway will be finalized in conjunction with the detailed design of the bridge structure and providing the details for the intersection to the existing streets in Blairmore. Intersectional and bridge lighting is not included as part of this submission.

#### **Fisheries Assessment**

No allowance for a fisheries assessment has been made. At this time it is assumed that it will not be required. If required, it can be conducted by **Townsend Environmental Consulting Ltd** under a separate fee proposal.

September 7, 2007 Mr. Gordon Lundy, CAO Page 4 of 4

Reference: Bridge Crossing River Run

#### SCHEDULE

Our tentative schedule is based on achieving the following milestones:

- Notice to proceed 28 Sept 2007
- Complete Bridge Planning 19 October 2007
- Submit permit applications 26 October 2007.
- Complete Preliminary Design 30 November 2007
- Complete final design for review 3 March 2008
- Complete tender package 31 March 2008
- Tender Period 4 April 2008 to 25 April 2008.
- Construction starts May 2008.
- Construction completion end of November 2008.

# **ENGINEERING FEES**

Our engineering fees for the design of the two new bridge structures based on the above noted scope of work are summarized as follows:

- Bridge Planning Fee \$8,639
- Roadway Planning Fee \$11,832
- Preliminary Design Fee \$17,274
- Permit Applications Fee- \$14,623
- Bridge Detailed Design Fee \$113,860
- Roadway Detailed Design Fee 12,378
- Tender Fee \$17,620
- General Engineering and Construction Inspection Fee- \$66,830
- Precast concrete girder inspection Fee \$7,210
- Post-Construction Fee \$10,845

Total fixed engineering fee of \$281,111 plus 8% disbursements plus GST.

Sincerely,

STANTEC CONSULTING LTD.

Jeff Drain, RET

Senior Project Manager Tel: (403) 329-3344

Fax: (403) 328-0644

jeff.drain@stantec.com

Attachment:

C.

# Municipality of Crowsnest-Pass Bridge Crossing River Run Professional Fee Estimate



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Bridge Planning	:0			10	10	3113	\$103	\$113		\$200	\$109	\$67	67	1000	5 635	\$ 691		9.3
Roadway Planning	74	1		THE ALL						7.			100		11 502			
Preliminary Design				300		10	U	30	10				157					18.6
Permit Application								40	10				335		1410/3			15.7
Bridge Detailed Design				10	:00	3.10		300	1.02				1010	1.	113 860			122 40
Roadway Detailed Design	19	16	80					300	7.11				1.0	,	12 172			13.30
Tender	16		20		20		ils	10						,	17 178			140
General Engineering & Construction Inspection	70			12250	40	5,0	190	20			71.		1/9	1				75.67
Precast Concrete Girder Inspection							70			15.23.00	160		610		56.536			7.78
Past Construction								10		Tee les	The state of			\$	7.219			
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\*Does not include Geotechnical Investigations, Naterials Testing, Lagal Surveys, CEAA Assessment or Bridge Lighting Design

70741

4225

# SCHEDULE"C"

Stantec Consulting Ltd. 290 – 220 – 4 Street South Lethbridge AB T1J 4J7 Tel: (403) 329-3344 Fax: (403) 328-0664



September 24, 2007 File: 112999000.100.200

Municipality of Crowsnest Pass Administration Office 8502 19<sup>th</sup> Ave. Coleman, AB T0K 0M0

Attention: Mr. Gordon Lundy

CAO

Dear Sir:

Reference: Municipality of Crowsnest Pass

**River Run Offsite Utilities Servicing** 

# Introduction / Background

Stantec Consulting Ltd. presents for your consideration, our proposal to undertake detailed design and construction of Off-Site Utilities Servicing for the River Run Development in Blairmore.

Stantec has worked closely with the Municipality and Bridgecreek Developments in the planning and preliminary infrastructure servicing strategy for the River Run Development. This proposal covers the provision of offsite water and sanitary sewer servicing with ties to existing infrastructure within the Blairmore Townsite.

This project has its unique challenges! The project will demand a dedicated team with a well defined and executed Project Plan, combined with the necessary skills to meet the requirements for this needed infrastructure. The ability to work collaboratively with Municipality staff, Bridgecreek Developments and a complete knowledge of the Municipalities infrastructure will expedite the design process. Sensitivity to community issues and consideration for construction staging, safety, and environmental stewardship will result in an end product that optimizes value for investment and reflects the long-term needs of the Municipality of Crownest Pass and Bridgecreek Developments.

To meet these challenges, **Stantec Consulting Ltd.**, has assembled a specially selected team with the required expertise and resources to complete this assignment. We have developed a detailed work plan with specific consideration to the challenges of these projects. We recognize that for this project to be successful it must be both well planned and executed. Our Project Implementation Plan will define a Quality Management process that will be embedded into every work task within a comprehensive Project Management framework.

Our success in working with the Municipality of Crowsnest Pass over the last 5 years on key projects including the Bellevue Water Supply, Blairmore Main Street Reconstruction, Sentinel

September 24, 2007 Mr. Gordon Lundy, CAO Page 2 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

Servicing Preliminary Design, and the Water/Wastewater Master Plans means that our Team will "hit the ground running", and complete this assignment in an efficient, cost-effective manner. This design effort has its unique challenges and opportunities and we are committed to work collaboratively with the Municipality of Crowsnest Pass and Bridgecreek Developments to develop the offsite deep utilities servicing.

# **Scope of Services**

The scope of this assignment is to prepare the detailed design, tender and provide contract administration services for the off-site water and sanitary sewer servicing for the River Run Development in Blairmore to the tie-in to existing infrastructure. Internal on-site design on infrastructure will be undertaken by Bridgecreek Developments.

The specific deep utilities infrastructure to be designed and constructed include:

# Sanitary Sewer

 Proposed new 400mm Sanitary main tying south across the Crowsnest River to the existing sanitary trunk line (approx. 350m).

### Potable Water Servicing

- 250 mm watermain East Looping with tie to existing system.
- 400mm watermain Tie south across the Crowsnest River to existing main. Will look at an option of attaching insulated watermain on new bridge structure crossing the Crowsnest River.
- 250mm watermain- West looping with tie to existing main near hospital.

The specific scope of services provided by Stantec Consulting Ltd. and associated sub-consultants is presented below:

#### **STAGE 1.0 - PROJECT MANAGEMENT**

- 1.1 Develop Draft Project Implementation Plan
- 1.2 Project Kick-off Meeting, Agenda to Include;
  - > Introduce Team Members / Roles / Responsibilities
  - Key Project Contacts
  - > Discuss Project Objectives
  - Review and Finalize Project Management Plan
  - Preliminary Data Requirements / Identify Sources of Existing Data
  - Discuss Problem Area / Extent / Issues / Constraints

Deliverable: Kick-off Meeting Minutes within 3 Working Days of the meeting

1.3 Finalize and Circulate Project Management Plan

Deliverable: Project Management Plan.

1.4 Ongoing Implementation of the Project Management Plan.

September 24, 2007 Mr. Gordon Lundy, CAO Page 3 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

#### **STAGE 2.0 - DETAILED DESIGN**

#### 2.1 Topographic Survey

- Detailed GPS Survey of all existing features along proposed pipeline route, tied to legal survey boundaries
- > Survey tie-in of geotechnical test holes.

### 2.2 Detailed Base Mapping

- > Incorporation of field data in preliminary AutoCAD base mapping
- > Develop a Digital Terrain Model (DTM) using Land Development Desktop (LDD)
- > Realign record pipe with field confirmed locations
- > Review of As-built plan/profile records to ensure the base plan is accurate

**Deliverable: Detailed Base Map** 

#### 2.3 Determine Deep Utilitles Line Assignments

- > Develop a recommended deep utilities assignments
- > Prepare Base Line Assignment drawing
- > Meet with MCNP/Bridgecreek staff and finalize line assignment

Deliverable: Prepare and Submit Meeting Minutes.

## 2.4 Meet with Shallow Utility Companies

Meeting to discuss the project, sewer line assignment and potential issues with shallow utilities, rail and roadway officials.

Deliverable: Prepare and Submit Meeting Minutes within 3 work days.

# 2.5 Design Development to 30%

- > Develop profiles of existing ground over pipe centerline using LDD
- > Size the pipe based on design criteria established in the preliminary design stage
- > Identify and mitigate all horizontal and vertical conflicts
- > Prepare 30% Design Drawings.

Deliverable: 30% Drawings for Review 5 days in advance of the 30% Design Review

# 2.6 Develop 30% Cost Estimate

- > Use 30% drawings to perform quantity takeoffs for the typical payment items in a unit price contract for similar installation projects.
- > Review historical tender unit prices from similar projects in southern Alberta
- > Summarize the cost estimate in tabular format with estimated quantities and unit prices plus 30% contingencies.

**Deliverable: 30% Cost Estimate** 

September 24, 2007 Mr. Gordon Lundy, CAO Page 4 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

#### 2.7 30% Design Review Meeting

> Agenda to include;

- Project Management update of project status versus predefined targets (schedule, budget, deliverables and earned value)
- o Summary of 30% Design Development Progress
- Detailed review of the 30% package including drawing and the cost estimate
- o Compilation and documentation of all review comments from the project team
- o Summary of the Action plan to design completion

Deliverable: Prepare and Submit Meeting Minutes.

# 2.8 Drawing Development to 95% Completion

- > Develop drawings to a 95% completion stage including an index sheet, overall cover sheet including existing utilities and new infrastructure, plan profiles at 1:500H 1:50V and detail sheets and required
- > Develop all detail drawings and incorporate standard details in the drawing package.

Deliverable: 95% Drawings to the MCNP/Bridgecreek for Review.

### 2.9 Develop Contract Specifications to 95% Completion

- > Stantec Specifications and Contract 'Front End' will be used to develop specifications.
- > Payment items will be developed based on all work shown on the 95% drawings
- Measurement and Payment clauses will be developed for each unit price payment item. Concise and thorough payment clauses are critical toward minimizing disputes during construction.

**Deliverable:** 95% Contract Specifications to MCNP/Bridgecreek for review.**2.10Develop 95% Cost Estimate** 

- > Use 95% drawings to perform quantity takeoffs for the typical payment items in a unit price contract for deep utilities installation projects
- > Summarize the cost estimate in tabular format with estimated quantities and unit prices plus 10% contingencies.

Deliverable: 95% Detailed Cost estimate

# 2.10 95% Design Review Meeting

- Agenda to include;
  - o Project Management update of project status versus predefined targets (schedule, budget, deliverables and earned value)
  - o Summary of Design Development Progress to 95%
  - o Detailed review of the 95% package including drawings and the cost estimate
  - o Compilation and documentation of all review comments from the project team
  - Discussion of each comment and develop consensus on an action plan for each item
  - o Summary of the Action plan to finalize the design and tender package

**Deliverable:** Prepare and distribute meeting minutes.

September 24, 2007 Mr. Gordon Lundy, CAO Page 5 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

#### 2.11 Design Finalization

> Complete Design Drawings and Specifications.

> Submit documentation to appropriate approvals and regulatory agencies and liaison necessary to gain approvals.

Deliverable: All required approvals to proceed to Construction.

### Stage 3.0 - Tender / Construction Services

#### 3.1 Tendering Services

> Call for Tenders, receive inquiries during the Tender Period. Attend Tender Close and provide recommendations for award. We have assumed that one Tender only for the above infrastructure.

Deliverable: Recommendation for Tender Award.

#### 3.2 Contract Administration

- > Administration of Contract including attendance at construction review meetings, review and recommendations for payment, clarification of any design issues, and general administration of the contract.
- Periodic Inspection during Construction to confirm that work conforms to the design intent and requirements. Our fee estimate is based on a resident inspector on-site for 40 hours per week for 10 weeks.

# 3.3 Project Close-out

- > Attend Final Inspection and issue Construction Completion Certificate.
- > Prepare Record Drawings for incorporation into the MCNP GIS System.
- > Final FAC Inspection and Project Close-out documentation.

September 24, 2007 Mr. Gordon Lundy, CAO Page 6 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

# **Project Team**

Our team for this project has been assembled to provide the necessary expertise and an appropriate mix of senior and intermediate staff to economize consulting costs. Our chosen team leverages our deep pool of expertise in the design of wastewater infrastructure designs.

It is our philosophy that quality service is achieved through the assignment of key team members who are involved in the project from initiation of the assignment to completion of all work. Stantec is proud to be able to offer its clients this ability to maintain a stable and working relationship with our committed professional and support staff.

The team selected for this project will fill a wide variety of requirements, such as:

- Strong team building capabilities, proven coordination skills, and leadership characteristics,
- Effective communication skills during work within the project team and for dialogue with the Municipality of Crowsnest Pass Project Manager and other important stakeholders, and
- Vast design experience to ensure the design is economical, operations-friendly, and constructible.

The team members for this project are described herein.

#### **Project Principal**

Mark Bellamy, P. Eng.

Mark is Stantec's Managing Principal for Southern Alberta and has 25 years of local experience in the management and design of a wide range of municipal infrastructure and urban land development projects. He is the project manager for the \$35 million Mayor Magrath Drive Upgrade and East Lethbridge Sanitary Sewer Expansion projects that are nearing completion. Other major projects include the \$10M East Lethbridge Stormwater Improvements, Southeast Lethbridge Urbanization Study, \$15M Sherring Industrial Park, and the award winning Riverstone residential development.

Mark has also managed a number of projects for the Municipality of Crowsnest Pass over the last 15 years including the Bellevue Water Supply Project, Blairmore Main Street Reconstruction, Frank Wastewater Treatment Plant Evaluation, MCNP 2000 Infrastructure Assessment, Sentinel Servicing Pre-feasibility Assessment, and the initial stages of the Coleman Watermain Replacement program.

Mark will be responsible for Quality Assurance for all project processes and will ensure a high level of Stantec corporate commitment to the Municipality of Crowsnest Pass for this project.

### **Project Manager**

Jeff Drain, RET

Experience in engineering, project management, and construction has provided Jeff with a comprehensive understating of project management in municipal, land development, industrial and transportation projects. Jeff possesses a diverse background of proven project management, and construction skills.

Jeff is a Registered Engineering Technologist in Alberta He has 15 years of experience in the Municipal Engineering field and over 7 years in the construction field and has managed both as a contractor and consultant major infrastructure projects in the \$5-30 Million range.

September 24, 2007 Mr. Gordon Lundy, CAO Page 7 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

Jeff was born and educated in the Crowsnest Pass, and has worked on numerous consulting and construction assignments in the community, and has a thorough understanding of the communities infrastructure. Jeff has managed all consulting activities related to this project including the preliminary design and has assisted in the preparation in the Cost-sharing Agreement and the CAMRIF Grant application on behalf of the Municipality.

### **Senior Design Engineer**

Trent Purvis, P. Eng.

Trent Purvis, P. Eng., as Senior Design Engineer brings 12 years of experience in multidisciplinary water and wastewater design projects and will ensure that the design process is thorough and organized. Trent has played a key design or project management role on numerous water and sewer pipeline projects with design issues ranging from river and highway crossings, complex approvals, high groundwater, large diameter pipe, alternate contracting strategies, 'trenchless' installation and complex connections to existing infrastructure.

Trent will ensure that design team communication is maintained and that the design is practical and cost effective. He is also fully knowledgeable with all the approvals processes required, and has worked closely with DFO and Alberta Environment to gain approvals on similar assignments.

### **Hydraulic Modeling Specialist**

Mike Van Doorn, P.Eng.

Mike has 9 years of experience on numerous infrastructure analysis, planning and design projects throughout North America. His specialized skills in infrastructure modeling are sought after for projects throughout western Canada and the United States from Arizona to Florida. Mike was the primary analysis engineer responsible for the Blairmore / Coleman Interconnection study, Sentinel Servicing Preliminary Design and the Water/Wastewater Master Plans. These projects have given Mike a thorough and comprehensive understanding of the project as well as the infrastructure systems in Blairmore and Coleman.

## **Design Engineer**

Adam McDonald, P. Eng.

Adam is a Municipal Engineer with 7 years of experience specializing in solutions for sustainable water and wastewater infrastructure... Adam's experience includes project management, construction administration, engineering analysis, and detailed design for a wide range of municipal infrastructure projects including sanitary sewer trunk mains.

Adam most recently completed the Municipality of Crowsnest Pass Water and Wastewater Master Plans, and participated in the preliminary design for the Sentinel Sewer Servicing.

September 24, 2007 Mr. Gordon Lundy, CAO Page 8 of 8

Reference: Municipality of Crowsnest Pass

River Run Development Off-Site Utilities Servicing

# Fee Proposal

Stantec Consulting Ltd. has undertaken a thorough review of the Scope of Work. We understand the Scope of Work and services to be provided. We propose to undertake this assignment in accordance with the Scope of Services presented in our proposal for the consideration presented below.

- 1. Stantec Detailed Design Services Hourly rate to an estimated fee of \$ 68,213.
- 2. Stantec Services During Construction Hourly to an estimated fee of \$76,300.

Figure 2 summarizes cost and effort for each task presented in our Work Plan. Careful consideration to the allocation has been made to ensure adequate effort has been allotted for each step in the design and construction process. Construction Services are bases on full-time on site for a period of 10 weeks.

The above fee includes all disbursements and expenses, excluding the Goods and Services Tax. We propose that disbursements and expenses be billed at a fixed rate of 8% of the time fee cost.

The 8% rate would include all communications, travel, accommodation, printing, computer, software, mileage and miscellaneous costs associated with the project. Invoicing will be monthly and based on actual time incurred on the project and progress achieved.

The above fee does not include Geotechnical Investigations or Environmental Assessments if required. Materials testing and Construction Surveys would be conducted by the Contractor.

#### Closure

Thank you for the opportunity to submit our proposal. Should you have any questions, please do not hesitate to contact the undersigned at (403) 329-3344.

Yours truly,

STANTEC CONSULTING LTD.

Mark Bellamy, P. Eng.

Managing Principal, Southern Alberta

Tel: (403) 329-3344 Fax: (403) 328-0664 Attachment

cc. Mr. Ray Mahieux – MCNP Public Works Manager Mr. Jeff Drain, Trent Purvis – Stantec Consulting Ltd.



# River hun Development

# Off - Site Utilities Servicing Professional Fee Estimate Figure 2



Con Link and Print to Turpe Co	Jeff Drain Project Manager	Trent Purvis Senior Engineer	Adam McDona 8 Design Engineer	Paul Stokes 6 Design Engineer	Mike Van Door Design Review	Sean Kirby	Marvin Van M	9 Veronica Pani	Subtotal Hours	Subto	tal Fees	Disburseme	Establishment and all the second	Total Fee
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# **MUNICIPALITY OF CROWSNEST PASS**

# **BY-LAW NO. 753, 2008**

A BYLAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF CLOSING TO PUBLIC TRAVEL AND DISPOSING OF PORTIONS OF PUBLIC HIGHWAY IN ACCORDANCE WITH SECTION 22 OF THE MUNICIPAL GOVERNMENT ACT, CHAPTER M-26.1, REVISED STATUTES OF ALBERTA 1994 AS AMENDED.

WHEREAS the lands hereafter described are no longer required for public travel, and

WHEREAS application has been made to the Council to have the highway closed, and

WHEREAS the Council of the Municipality of Crowsnest Pass deems it expedient to provide for a Bylaw for the purpose of closing to public travel certain roads, or portions thereof, situated in the said Municipality, and thereafter disposing of same, and

WHEREAS notice of intention of the Council to pass a Bylaw has been given in accordance with Section 606 of the Municipal Government Act, and

WHEREAS Council was not petitioned for an opportunity to be heard by any person claiming to be prejudicially affected by the Bylaw;

NOW THEREFORE, be it resolved that the Council of the Municipality of Crowsnest Pass does hereby close to public travel and dispose of the following described highway, subject to rights of access granted by other legislation or regulations:

Plan 081 0946

that portion of 25<sup>th</sup> Avenue in the S.W. ¼ Section 2, Township 8, Range 4, W5M identified as Area "A" on the attached map

(River Run - Blairmore)

# Excepting thereout all mines and minerals

Read a first time this \_\_\_\_1st \_\_\_\_ day of \_\_\_\_\_ April \_\_\_\_\_, 2008.

CARRIED UNANIMOUSLY
John Suns
Mayor
Chief Administrative Officer
Approved this 23 day of July , 2008.
Approved this, and, 2008.
14 May 1
Than the second of the second
MINISTER OF INFRASTRUCTURE AND TRANSPORTATION

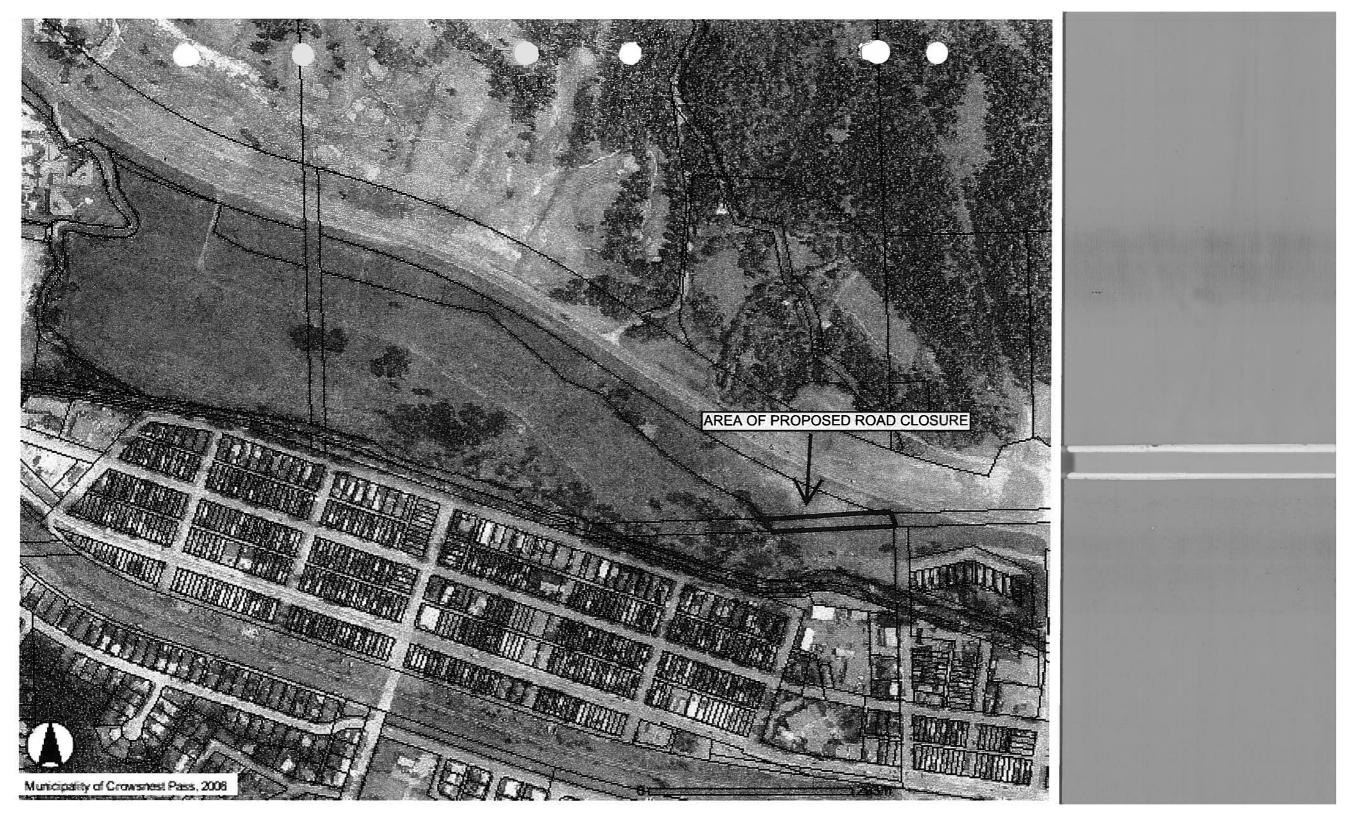
Municipality of Crowsnest Pass BYLAW NO. 753, 2008 Road Closure- River Run-Blairmore

# MUNICIPALITY OF CROWSNEST PASS BYLAW NO. 753, 2008 PAGE 2 of 2

Read a second time this7 <sup>th</sup>	_ day of	October	_, 2008.	
CARRIED UNANIMOUSLY				
Read a third time and finally passed this _	7 <sup>th</sup>	_ day of	October	, 2008.
CARRIED UNANIMOUSLY				

Mayor

Municipality of Crowsnest Pass BYLAW NO. 753, 2008 Road Closure-River Run - Blairmore





# P.O. BOX 600 CROWSNEST PASS, ALBERTA TOK 0E0 PHONE (403) 562-8833 FAX (403) 563-5474

October 22<sup>nd</sup>, 2007

River Run Corporation
Suite 300, 1333 8<sup>th</sup> Street S.W.

CALCARY, Alberta
T2R 1M6

**ATTENTION: MR. BILL BRADLEY** 

Dear Mr. Bradley:

# RE: REZONING OF BLOCK 4, PLAN 071 ----

With reference to the above noted matter, a Public Hearing was held during the regular, Council meeting of Tuesday, September 25<sup>th</sup>, 2007. At that time only one presentation was heard in opposition to the proposed rezoning and no written comments were received.

Please be advised that Bylaw No. 734, 2007 received second and third readings at said meeting, approving the rezoning of Block 4, Plan 071 ---- from MUNICIPAL RESERVE (MR) to COMPREHENSIVE MULTI USE DEVELOPMENT (CMUD-3).

If you require additional information or have any questions regarding this matter please do not hesitate to contact our office.

Yours truly,

Gordon O. Lundy

Chief Administrative Officer

cc: ORRSC

Development Officer

GOL/lo

COMPLETE

# **MUNICIPALITY OF CROWSNEST PASS**

# **BY-LAW NO. 734, 2007**

A BY-LAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, TO AMEND THE LAND USE BYLAW NO. 632, 2004, OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA.

THE COUNCIL OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, in accordance with the power conferred on it by the Municipal Government Act, being Chapter M-26 of the R.S.A. 2000 and amendments thereto, do hereby enact as follows:

hereby enact as for	ellows:
That the Land Use	e Bylaw No. 632, 2004 be amended by deleting:
(MR) and	an 071, as provided on the attached map, from MUNICIPAL RESERVE Land District Map #5 and reclassifying Block 4, Plan 071to ENSIVE MULTI USE DEVELOPMENT (CMUD-3) and amend Land District ordingly.
(River Run	Development-Blairmore)
Bylaw No. 734, 2	007 shall come into effect upon third and final reading thereof.
Read a first time	this
CARRIED UNANIM	OUSLY
	MAYOR
	CHIEF ADMINISTRATIVE OFFISER
	CHIEF AUNITORIATIVE OFFICER

Read a second time this \_\_\_\_25th \_\_\_ day of \_\_September\_\_, 2007.

CARRIED UNANIMOUSLY

Read a third time and finally passed this <u>25th</u> day of <u>September</u> 2007.

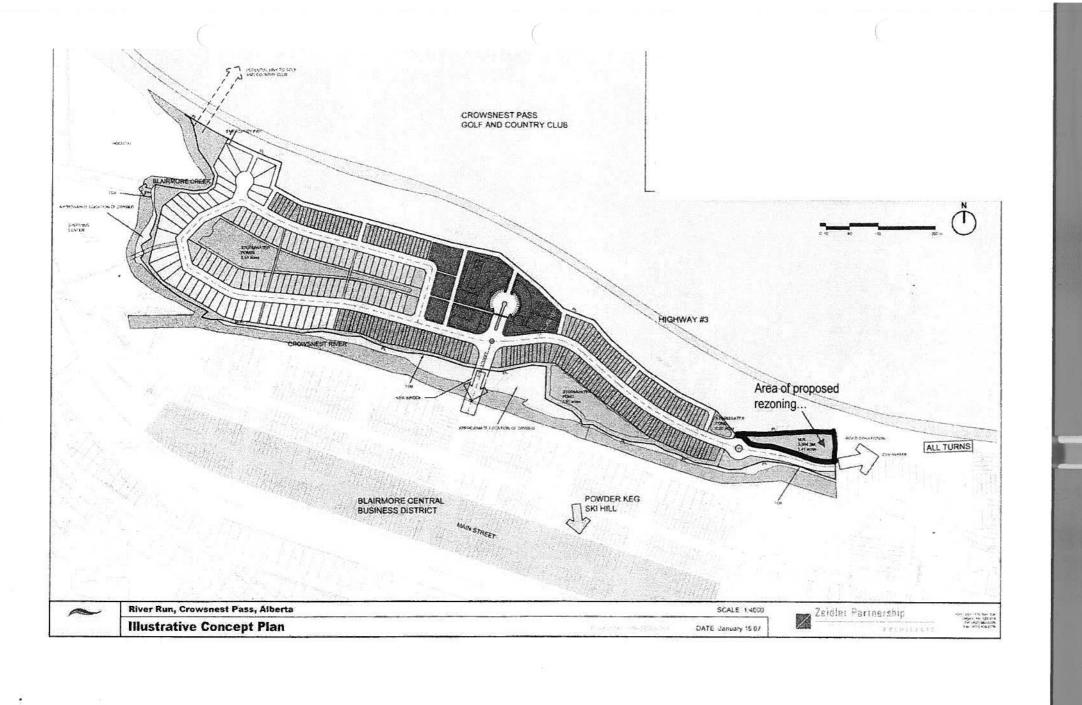
CARRIED UNANIMOUSLY

MAYOR

CHIEF ADMINISTRATIVE OFFICER

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	`_	COUNTES SURVEYS (1975) LTD. 110, 2020 - 3rd Avenue N.C., Colgory, Aborto 12A 517: 403-207-0302; File: 07-20525

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# P.O. BOX 600 CROWSNEST PASS, ALBERTA TOK 0E0 PHONE (403) 562-8833 FAX (403) 563-5474

January 31st, 2007

River Run Corporation 300, 1333 – 8<sup>th</sup> Street S.W. CALGARY, Alberta T2R 1M6

ATTENTION: MR. BILL BRADLEY

Dear Mr. Bradley:

RE: AREA STRUCTURE PLAN AND REZONING OF BLOCKS 1-3, PLAN 871 1401 AND A PORTION OF THE S.E. ½ 3-8-4-W5M

Regarding the above noted matters, the required public hearings were held during the regular Council meeting of Tuesday, January 23<sup>rd</sup>, 2007.

Please be advised that Bylaw No.714, 2006 (Rezoning) and Bylaw No. 715, 2006 (Area Structure Plan) received Third and Final Reading at said meeting, successfully adopting the Area Structure Plan and rezoning Blocks 1-3, Plan 871 1401 and a portion of the S.E. 1/4 Section 3, Township 8, Range 4, W5M from Comprehensive Resort Village (CRV) to Comprehensive Multi-Use Development (CMUD-3).

Should you have any questions regarding this matter, please do not hesitate to contact this office.

Yours truly,

Gordon O. Lundy

Chief Administrative Officer

cc: Bev Cole, Development Officer

GOL/lo



# **MUNICIPALITY OF CROWSNEST PASS**

# BY-LAW NO. 714, 2006

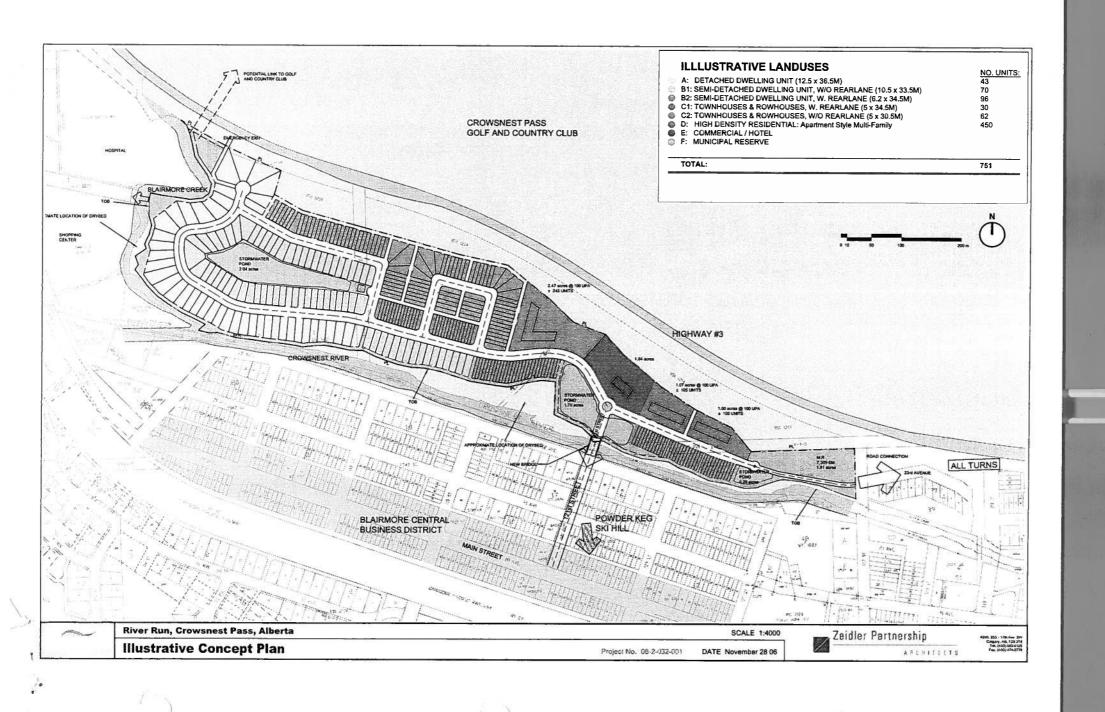
A BY-LAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, TO AMEND THE LAND USE BY-LAW NO. 632, 2004 OF THE MUNICIPALITY OF CROWSNEST PASS IN THE PROVINCE OF ALBERTA.

THE COUNCIL OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, in accordance with the power conferred on it by the Municipal Government Act, being Sections (606)(6) with amendments thereto, do hereby enact as follows:

That the Land Use By-Law #632, 2004 be amended as follows:

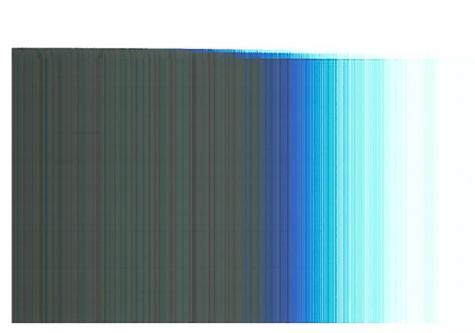
- 1. That Schedule 1 of Bylaw 632, 2004 be amended to include the land use district "Comprehensive Multi Use Development CMUD-3" as attached.
- 2. By deleting Blocks 1, 2 and 3, Plan 871 1401 and a portion of the S.E. ¼ 3-8-4-W5M from Comprehensive Resort Village (CRV) and Land District Map #5 and reclassifying part of the Blocks 1, 2 and 3, Plan 871 1401 and a portion of the S.E. ¼ 3-8-4-W5M, as provided on the attached map to Comprehensive Multi Use Development (CMUD-3), and amend Land District Map #5 accordingly.

Read a first time this5 <sup>th</sup>	day of	December	_,2006.		
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SCHEDULE 13	
Form G	APPLICATION NO.
APPLICANT: Bridge Creek Development of ADDRESS: 300, 1333-8 St. S.W Calgo	Corporation T2R 1M6
REGISTERED OWNER:	
ADDRESS:	
LEGAL DESCRIPTION: Lot(s) Block	Plan <u>8711401</u>
Quarter Section Township	Range
PROPOSED AMENDMENT: FROM: Direct Control DC-1	
TO: CRV	
APPLICANT'S SUBMISSION:  Please state your reasons for applying for this amendment. necessary.	Attach a separate sheet if
REGISTERED OWNER OR PERSON ACTING ON BEHALF OF: I certify that I am the registered owner or that the registered owner(s) is aware of this application.	) of the land described above
Fees Submitted \$ 60000	
DATE: July 13/06 SIGNED:	Applicant

Page 99



Municipality of Crowsnest Pass Land Use Bylaw No. 632-2004

# **SCHEDULE 13** Form G APPLICATION NO. ADDRESS: 300, 1333-8 St. S.W. Colon, AB TOR IMB REGISTERED OWNER: \_\_\_ ADDRESS: \_\_ LEGAL DESCRIPTION: Lot(s) \_\_\_\_\_ Block\_ Quarter\_\_\_\_ Section \_\_\_\_ Township \_\_\_\_ Range \_\_ PROPOSED AMENDMENT: FROM: Direct Control hen sive APPLICANT'S SUBMISSION: Please state your reasons for applying for this amendment. Attach a separate sheet if necessary. REGISTERED OWNER OR PERSON ACTING ON BEHALF OF: I certify that I am the registered owner or that the registered owner(s) of the land described above is aware of this application. Fees Submitted \$ 6 00.00 Receipt No.

Page 99

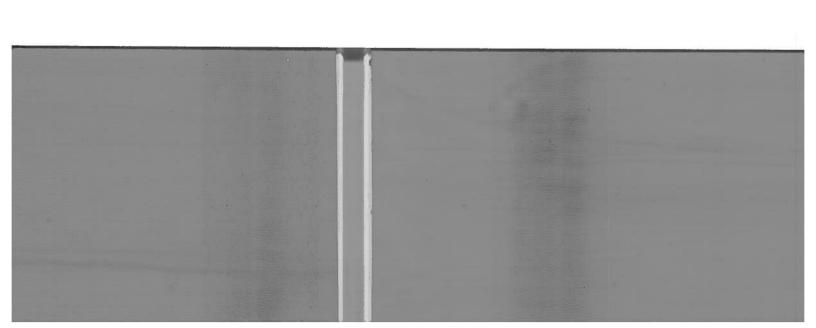
Municipality of Crowsnest Pass Land Use Bylaw No. 632-2004

# **SCHEDULE 13** APPLICATION NO. \_\_\_\_\_ Form G REGISTERED OWNER: ADDRESS: \_\_ LEGAL DESCRIPTION: Lot(s) \_\_\_\_\_ Block \_\_\_\_\_3 Quarter\_\_\_\_\_ Section \_\_\_\_ Township \_\_\_\_ Range \_ PROPOSED AMENDMENT: FROM: Direct Control DC. APPLICANT'S SUBMISSION: Please state your reasons for applying for this amendment. Attach a separate sheet if necessary. REGISTERED OWNER OR PERSON ACTING ON BEHALF OF: I certify that I am the registered owner or that the registered owner(s) of the land described above is aware of this application. Fees Submitted \$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Receipt No. \_\_ SIGNED: \_

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Municipality of Crowsnest Pass Land Use Bylaw No. 632-2004

SCHEDULE 13 Form G	APPLICATION NO.
APPLICANT: Bridge Creek 1	Jevelopnent Corporation
ADDRESS: 300, 1333 - 85	Texplopment Corporation T. S.W. Colgay, AB TOR IMA
REGISTERED OWNER:	
ADDRESS:	
Quarter $SE$ Section $3$	BlockPlanPlan
PROPOSED AMENDMENT: FROM: Direct Control Do	
TO: CRV.	
APPLICANT'S SUBMISSION: Please state your reasons for applying necessary.	for this amendment. Attach a separate sheet if
REGISTERED OWNER OR PERSON ACTI I certify that I am the registered owner or that is aware of this application.	ING ON BEHALF OF: at the registered owner(s) of the land described above
Fees Submitted \$ 600.00	
Receipt No	SIGNED: Applicant
Municipality of Crowsnest Pass Land Use Bylaw I	No. 632-2004 Page 99



# **MUNICIPALITY OF CROWSNEST PASS**

# **BY-LAW NO. 715, 2006**

A BY-LAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, TO ADOPT THE <u>RIVER RUN</u> AREA STRUCTURE PLAN.

WHEREAS the Municipal Council is in receipt of a development proposal for designated lands with the Municipality;

AND WHEREAS the Council wishes to adopt a detailed plan which governs land use for the said development proposal;

AND WHEREAS the purpose of Bylaw No. 715, 2006 is to adopt an area structure plan which will provide a framework for the subsequent subdivision and development of an area of land within the Municipality as illustrated in Figure 1 in attached Schedule "A";

NOW THEREFORE, under the authority and subject to the provisions of the Municipal Government Act, Statues of Alberta 1994, Chapter M-26.1, as amended, the Council of the Municipality of Crowsnest Pass in the Province of Alberta duly assembled does hereby enact the following:

- 1. Council shall adopt the area structure plan for lands outlined in Figure 1 in Schedule "A" attached hereto.
- 2. Council shall adopt the Area Structure Plan attached as Schedule "A".
- 3. This plan, upon adoption, shall be known as the <u>River Run</u> Area Structure Plan.
- 4. This Bylaw comes into effect upon third and final reading hereof.
- 5. Bylaw No. 696, 2006 is hereby repealed.

Read a first time this	d	lay of	December	, 2006	. Af	
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Mayor

Chief Administrative Officer

Municipality of Crowsnest Pass
Bylaw715, 2006 – River Run Area Structure Plan



# RIVER RUN AREA STRUCTURE PLAN

# Municipality Crowsnest Pass, AB 2007.01.23





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- 2. SUBJECT SITE (including Figure 1: Subject Site & Vicinity of Blairmore AB.)
- 3. EXISTING SITE CONDITIONS
  - 3.1 Land Ownership
  - 3.2 Land Form
  - 3.3 Drainage
  - 3.4 Agricultural Capability
  - 3.5 Surficial and Bedrock Geology
  - 3.6 Historical
  - 3.7 Crowsnest River Crossing
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  - 6.6 Electrical System
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  - 6.8 Telecommunications
- 7. DEVELOPMENT AGREEMENTS

#### 1. INTRODUCTION

This Area Structure Plan (ASP) relates to the lot(s) legally described as Plan: 8711401, Blocks: 1, 2 & 3, Part SW 2 & SE 3-8-4-W5, And NW 35-7-4-W5, compromising 52 acres in the Crowsnest Pass Municipality, illustrated in figure 1 and hereafter referred to as the Subject Site.

This ASP establishes the general planning principles for the subject site and the proposed relationships with the existing urban structure of Blairmore. This document also refers to proposed land-use district, 'Comprehensive Multi Use Development - 3 (CMUD-3)', which is intended to be adopted & incorporated to the Municipality of Crownest Land Use Bylaw as a specific land use district applicable to the subject site.

When fully realized, development of the subject site will bring significant benefit to the municipality in terms of economics of municipal services and local tax assessments. The proposed development will double the current population of Blairmore and will utilize existing municipal utilities, fire protection, library, schools and public recreation amenities without the need for upgrades to the existing underutilized facilities. This will ensure the viability of the existing services and infrastructure. It is foreseeable that the existing residents' property taxes may decline with the new growth and increased commercial and residential assessment.

A redesignation of the subject site's existing land-use will be necessary for implementation of this ASP. Because the Crowsnest Pass Municipal Land Use By-Law currently contains no land-use districts which would accommodate the type of development proposed in this ASP, a new proposed land use district accompanies this ASP. The proposed land use district, Comprehensive Multi Use Development (CMUD-3) outlines permitted uses, densities, setbacks, building heights, coverage, landscaping and parking provisions. It is intended that CMUD-3 be incorporated into the Crowsnest Pass Municipal Land Use By-Law through the necessary channels of review, approval, and adoption.

# 2. SUBJECT SITE

This ASP applies to an area of Blairmore AB, and consists of the S.E. ¼ of Section 3-8-4-5 and the S.W. ¼ of Section 2-8-4-5. This site totals approximately 21.00 hectares (52.0 acres) and it is bound to the north by Highway No. 3, to the south by the Crowsnest River and Blairmore, to the west by the Blairmore Creek, the shopping centre, the hospital and to the east by twelve existing mobile homes. Please refer to Figure 1 below.

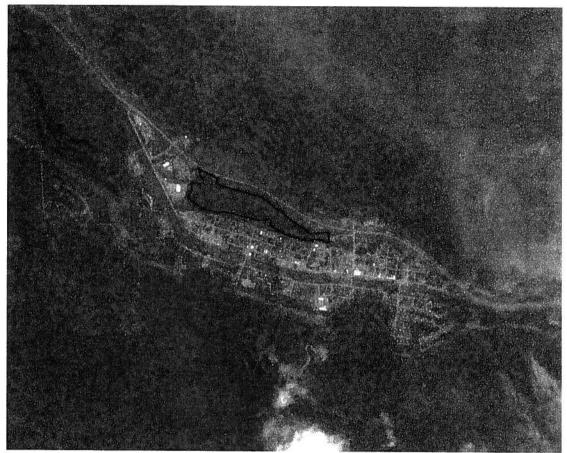


Figure 1. Subject Site & Vicinity of Blairmore AB.

# 3. EXISTING SITE CONDITIONS

# 3.1 Land Ownership

Bridgecreek Development Corporation purchased the subject site in May 2006 and retains ownership at the date of this document.

# 3.2 Land Form

The study area lies  $\pm$  14.9 meters ( $\pm$ 49 feet) below the grade of Highway No. 3 to the north. The lands then fall generally from west to east with several lower "pockets"

occurring in the vicinity of the Crowsnest River. The Crowsnest River and Blairmore Creek form a natural edge condition to the south and west of the site as does the highway escarpment to the north.

Vegetative tree cover consists primarily along the river and creek embankments and in a few small clusters in the center of the site. The major portion of the site is treeless and contains non-native grasslands.

# 3.3 Drainage

Two major drainage channels border the site to the west and south via the Crowsnest River and Blairmore Creek, both of which flow from west and north to the east. The current topography appears to direct over-land flow to these two watercourses.

# 3.4 Agricultural Capability

According to the CLI rating, the entire area is class 6S. Soils in this class are capable of only producing perennial forage crops and improvement practices are not feasible. Further, the site is not large enough to sustain a farm operation.

# 3.5 Surficial and Bedrock Geology

The soils conditions encountered in the test pits undertaken in 1994 were similar across the site and comprised, in descending order of occurrence:

- Clay fill
- Coal/coal ash fill
- Clayey till

In accordance with the consultant's conclusions development of residential and commercial subdivision on the property is feasible. This has been substantiated by the AGRA report completed February 26, 1999.

# 3.6 Historical

In the previous studies undertaken, there was no indication of pre-historical resource potential in the study area. This site was previously used as an industrial site, in association with coal mining activities prevalent in the Crowsnest area. All evidence of coal mining has been removed from the site, with the exception of coal slag as identified in the previous ESA reports.

# 3.7 Crowsnest River Crossing

A new vehicular bridge is being proposed across the Crowsnest River at 119 Street, connecting the subject site to the Central business district of Blairmore. This crossing will require further design and review.

#### 4. PLANNING HISTORY

The subject site has received previous planning and engineering studies and in 1998, the Riverside Estates ASP was submitted to the Municipality and received approval. Some other relevant planning & engineering events which have occurred include:

- "Preliminary Geotechnical Evaluation Proposed Commercial Subdivision,
  Blairmore, Alberta", prepared for the Municipality of Crowsnest Pass by HBT
  Agra Limited, Lethbridge, Alberta, May 1994. The findings of this report did not
  preclude development in the area, but did provide some recommendations for
  development and construction techniques.
- "Phase I Environmental Site Assessment, Plan 8711401, Blocks 1, 2 and 3, Part S.W. 2 and S.E. 3-8-4-W5 and N.W. 35-7-4-W5, Blairmore, Alberta", prepared for the Municipality of Crowsnest Pass by Agra Earth and Environmental Limited, October 1995. The findings of this study are positive towards development, however, a Phase II ESA was recommended to address:
  - The waste coal pile on the western section of the subject property
  - Buried concrete from the coal processing facility on the eastern portion of the site
  - The degree to which the site was reclaimed by Alberta Environmental Protection, Land and Forest Services
- "Report to the Municipality of Crowsnest Pass, Land Use Assessment, Blairmore, Alberta", prepared by Urban Systems Ltd., April 1995. The report discussed various land uses which could occur on the ±52 acres including highway commercial and residential uses. Access/egress for the site was also evaluated. In addition, the report flagged various potential uses for the property and investment dollars required.
- In April of 1998, an amendment to the Riverside Estates ASP identified access to the west across Blairmore Creek. This amendment was withdrawn.
- In September 1998, AGRA conducted a test hole program on the site and also prepared an accompanying report for use in detailed engineering.
- In March of 2000, the amended Riverside Estates ASP was approved.

#### 5. PROPOSED PLANNING POLICY

The planning concept of this ASP is premised on a mix of low and medium density residential, with accommodation, commercial, recreational, and institutional uses. It is intended that the density and mixture of uses will result in an efficient and appropriate development for the subject site given its proximity to municipal services and public needs/access. The proposed commercial uses are intended to be small in scale, and will serve both the River Run Community, and the broader Blairmore area.

#### 5.1 Concept

River Run is conceived to be an integrated piece of Blairmore's fabric. There are several locations around the subject site's periphery where potential pedestrian, bicycle & vehicular ties to the existing surrounding community exist. These connections may tie to surrounding facilities and amenities such as: the Crowsnest Pass Golf and Country Club, Powder Keg Hill Ski Resort, the Central Business District and community services such as the fire station and emergency services, library, government buildings and other public amenities.

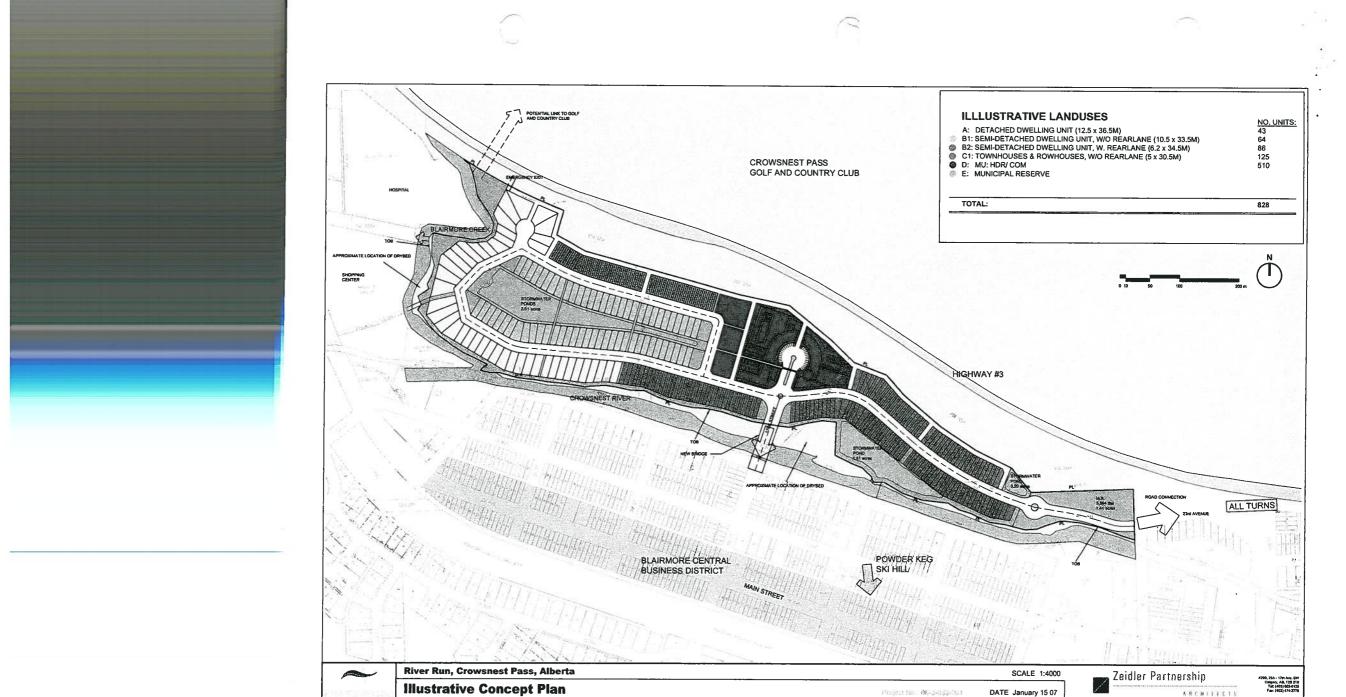
The river and creek banks that run along the south and west side of the site are an important environmental component of the site and thus will be preserved and protected. A ten meter wide right-of-way municipal reserve is suggested along the river and creek banks. Pedestrian and cycle pathways may occur within the reserve.

A bridge across the Crowsnest River currently exists at the north end of 121<sup>st</sup> Street. The principle vehicular access to the subject site is intended to be via a new bridge at 119<sup>th</sup> Street to a traffic circle intersecting with an east-west road connecting to 23<sup>rd</sup> avenue at the east end, and terminating in an on-site cul-de-sac at the west end. This east-west road will branch into a local traffic distribution network.

Boulevards, traffic circles, pedestrian crossings & parallel parking should be employed for the purposes of traffic calming throughout the subject site.

Parking is proposed to occur in a variety of structures from garages of single-family dwellings, to larger underground facilities for multi-family and commercial uses. Onstreet parallel & perpendicular parking should be provided to enhance commercial viability, calm traffic and aid in the pedestrian realm.

The illustrative land-use concept for the subject site are illustrated in Figure 2 fold-out, next page.



#### 5.2 Public Open Space

River Run development will be governed by a 6 meter minimum setback along the shoreline of the Crowsnest River to help preserve the river bank. This setback zone will maintain public access for low-impact uses such as walking and cycling.

Landscaping will utilize indigenous planting material to integrate artificial landscaping with the existing landscape. Green spaces will feature a network of pedestrian and bicycle pathways and bridges that will link the River Run components and tie them to the surrounding natural and man made amenities. A number of storm water retention ponds will also be integrated with the landscape areas to recharge the ground water and reduce the required infrastructure.

It is not anticipated that schools or other educational uses will be included on the subject site. Any students residing in River Run will be accommodated within the community's existing school system.

#### 5.3 Urban Design & Mixed Land Uses

A mixture of land uses including, but not necessarily limited to, residential, accommodation, commercial, recreational, and institutional uses are proposed to aid in the development of liveable, walkable, and sustainable community.

The highest residential densities and the most intensive uses are proposed to be focused at a mixed-use centre near the primary vehicular access at 119<sup>th</sup> Avenue. Use will become primarily mid-and-low density residential to the east and to the west of 119<sup>th</sup> Street. The lowest density single-family uses are intended to occur between the 6m setback from the Crowsnest River, and the east-west road. The urban design & master plan concept for the subject site are illustrated in Figure 3 fold-out, next page.

Residential uses may broadly occur as follows:

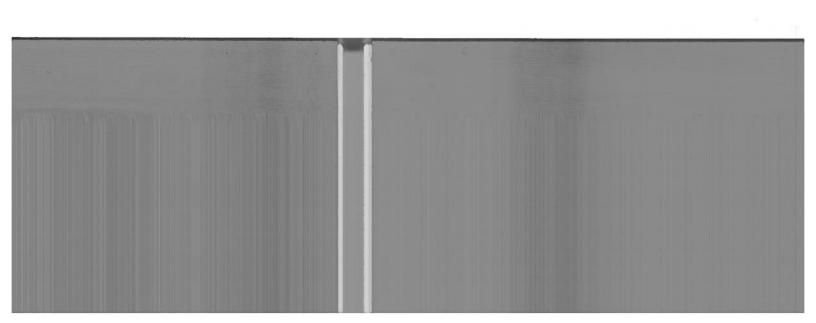
Low-Density: Single-family dwellings
 Semi-detached dwellings

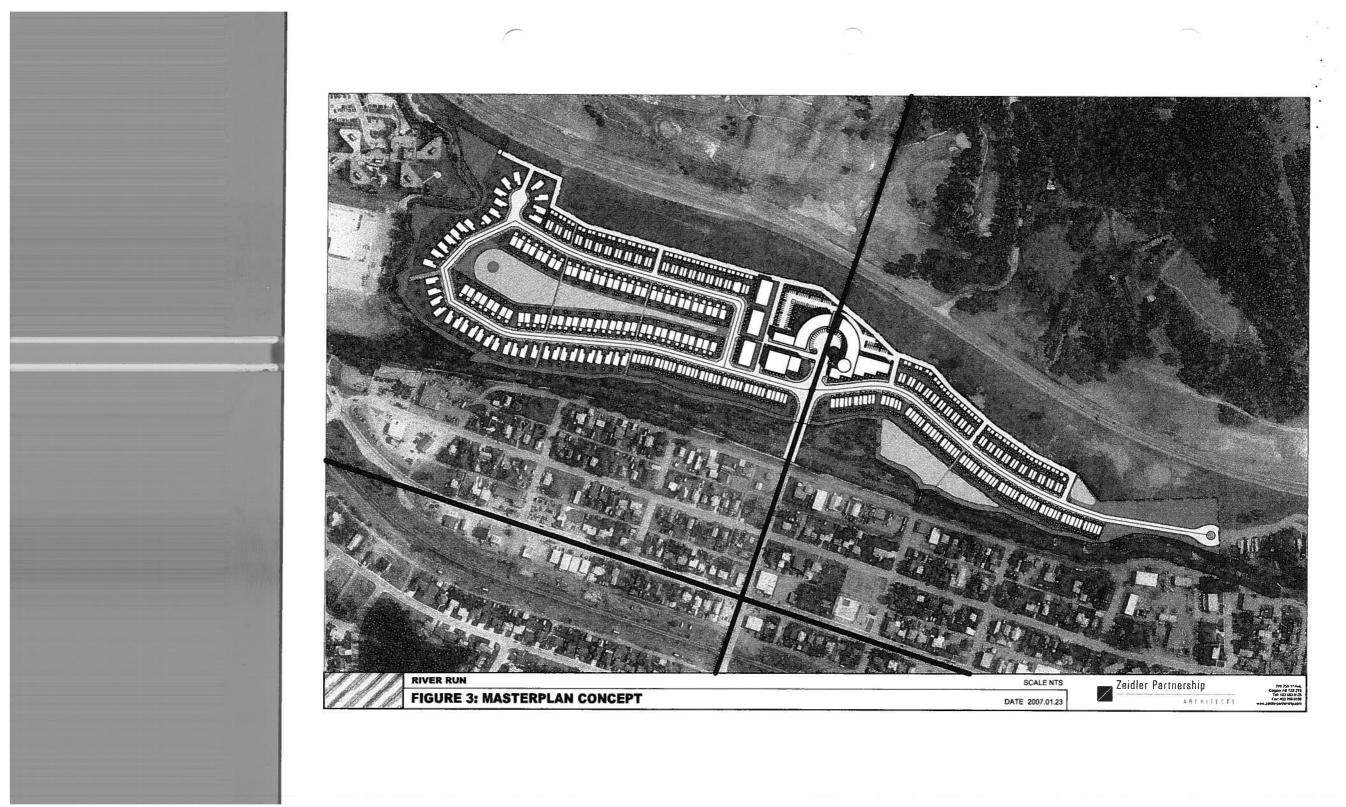
• Medium-Density: Townhouses & Rowhouses

High-Density: Multi-Family apartment style dwellings

Multi-uses will generally coexist with the medium and high density residential, while low-density residential areas will be designated as residential use.

Development parameters regarding matters such height & setback are prescribed in the accompanying CMUD-3 land-use district.





#### 5.4 CMUD-3 Land Use District Redesignation

It is intended that the subject site's land use will be redesignated as Comprehensive Multi Use Development (CMUD-3). CMUD-3 outlines distinct requirements for uses, densities, setbacks, building heights, coverage, landscaping and parking provisions. It is intended that CMUD-3 be incorporated into the Crowsnest Pass Municipal Land Use By-Law through the necessary channels of review, approval, and adoption.

#### 5.5 Phasing

Development of the subject site may occur in phases identified below in Figure 4. Phasing may not necessarily occur in order of number, although it is intended to follow the pattern of constituent areas and uses.

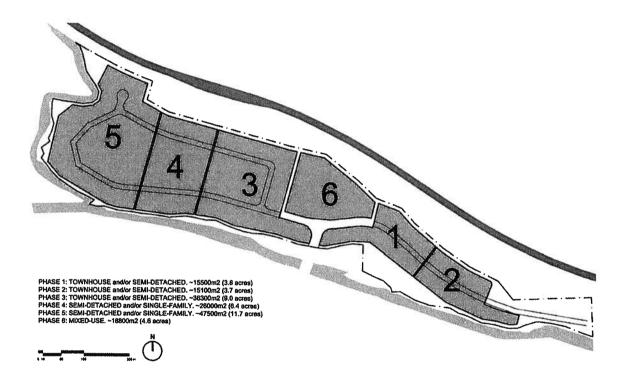


Figure 4. Intended Phasing Plan

#### 6. ENGINEERING

#### **6.1 Servicing Objectives**

Municipal servicing of the subject property will be designed and constructed in accordance with the latest version of the *Engineering and Development Standards for the Municipality of Crowsnest Pass* and appropriate Alberta Environment guidelines.

The objectives for the serving strategy are as follows:

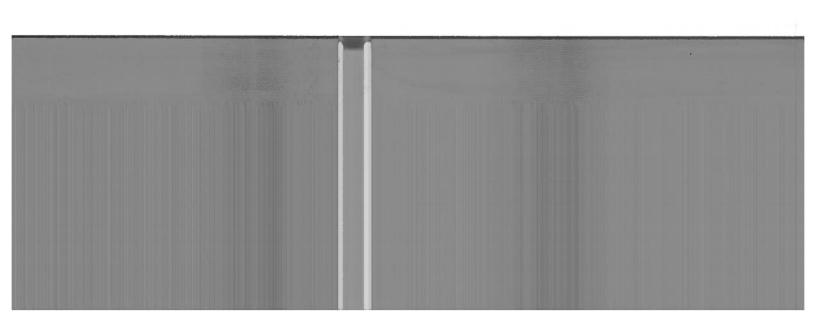
- Make effective use of the existing topographic conditions to service the subject property in the most efficient manner.
- Connect to existing water and sanitary sewer servicing connections in the general area surrounding the site, owned and operated by the Municipality of Crowsnest Pass.
- Extend the services into the property that allow for phased construction.
- The initial costs for on-site roads, sidewalks, water, sanitary and storm sewers, shallow utilities, etc. shall be borne by the Developer.
- Provide a comprehensive design strategy that minimizes impact on the environment and in particular the Crowsnest River and Blairmore Creek.
- Prepare a storm water management plan that meets Alberta Environment's guidelines.

#### 6.2 Water Supply and Distribution

The water supply system for the subject land shall connect to the existing water distribution system within Blairmore. Three separate connection locations have been identified in previous servicing studies and are identified as follows:

- West Connection connect to existing water main within the water easement,
   situated west of the subject property, on the west side of Blairmore Creek.
- South Connection connect to existing trunk main within 21<sup>st</sup> Avenue and 119<sup>th or</sup> 121<sup>st</sup> Street. This connection may be made through either a dedicated crossing of the Crowsnest River, or associated with the bridge construction along the 119<sup>th</sup> Street alignment.
- East Connection connect to the existing water main at 23<sup>rd</sup> Avenue, near 127<sup>th</sup>
   Street.

The water distribution system will be designed to accommodate both domestic water and fire protection demands for the full build-out of the subject property. In general, the water mains will be looped and the use of 'dead end' lines will be minimized. The water main connections to the three locations noted above will also provide looping to the existing water distribution system. A detailed Water Network Analysis will be provided at the time of detailed design, in order to accurately size the mains. Fire hydrants will be provided at



the appropriate spacing intervals required for this type of development, with input from the local Fire Department. Water storage requirements will be provided through existing water reservoirs and as such, no new reservoirs are proposed for this development.

#### 6.3 Sanitary Servicing & Wastewater Collection

A sanitary sewer collection system is intended to collect wastewater via a proposed trunk collection system running within the road allowance. Each development parcel will be provided with a gravity sewer connection that will feed into the trunk collection system. The subject lands generally drain to the south-east corner of the property. The proposed collection system, will tie to the existing municipal sanitary collection system.

Previous servicing reviews for this development have identified two servicing options. Option 1 includes a lift station which services either the entire site, or the western portion of the development area. The lift station would require a force main which would connect to an existing trunk main within 19<sup>th</sup> Avenue either through the 119<sup>th</sup> or 121<sup>st</sup> Street alignment. Option 2 would see a single collection system that would service the entire site and make connection to the existing sanitary manhole at the intersection of 23<sup>rd</sup> Avenue and 127<sup>th</sup> Street (east side of the site). Under Option 2, the downstream capacity of the system would need to be reviewed to determine whether upgrades between the connection point and the trunk main within 19<sup>th</sup> Avenue have sufficient capacity to service the ultimate build-out potential of the subject property. Option 2 is preferred since it is a gravity collection system, and therefore does not require a lift station. More detailed analysis will be required to determine which option proves to be the most viable.

#### 6.4 Storm Water Management

The roads, curb, & gutter will be constructed to Municipal Roadway standards. Rainfall runoff will be collected in the curb & gutter, and channeled into catch basins before transmission to a storm sewer system. Storm water runoff from the Highway #3 embankment will collect in a swale at the top of the existing slope, and will be diverted to a storm retention pond. Water in the underground collection system will be run through a series of storm retention facilities to address both quantity and quality of runoff before discharging into the Crowsnest River.

A storm water master drainage plan will be required in order to ensure that a comprehensive storm water management plan is in place to guide all subsequent storm water design. This document will identify treatment options, estimated flow volumes and provide recommendations for the detailed design phase.

#### 6.5 Road Works

A bridge across the Crowsnest River currently exists at the north end of 121<sup>st</sup> Street. The principle vehicular access to the subject site is intended to be via a new bridge at 119<sup>st</sup> Street to a traffic circle intersecting with an east-west road connecting to 23<sup>rd</sup> avenue at the east end, and terminating in an on-site cul-de-sac at the west end. This east-west road will branch into a local traffic distribution network.

Boulevards, traffic circles, pedestrian crossings & parallel parking are intended to be employed for the purposes of traffic calming throughout the subject site.

The design of the internal road network aims to minimize the amount of paving, while facilitating the smart-phasing of development. This concept has multiple environmental & economic benefits in addition to the reduction of inconvenience to residents who may occupy dwellings while construction of subsequent development occurs.

All proposed public roads will be constructed to Municipal roadway standards, including curb, gutter and sidewalk. These roads will be paved with hot mix asphalt and include a crowned cross section. Any additional private roads which may service individual development parcels will connect to the main roadway network. The details of the future roadways will be designed in association with Development Permit applications made on a case-by-case basis.

Paved lanes may be incorporated where possible to facilitate the placement of residential garages away from the street.

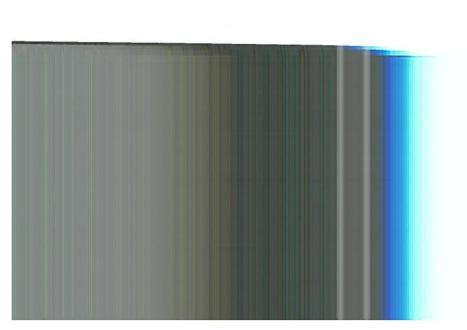
The proposed roadway network is subject to further analysis and a Traffic Impact Assessment.

#### 6.6 Electrical System

Fortis currently maintains a sub-station and transmission lines that cross the property within an existing right-of-way. The long term plans for this sub-station and possible relocation need to be discussed further with Fortis.

#### 6.7 Natural Gas

ATCO Gas currently has service to the Blairmore area. ATCO Gas will be contacted directly to discuss the availability of gas and the need for off-site upgrades, should they be required.



#### 6.8 Telecommunications

Telus provides telephone service to the Crowsnest Pass area. Shaw Cable provides cable television service in this area. High speed internet and fiber optic capabilities will be considered throughout the development. A common utility trench would likely be used to run all shallow utilities within a single easement.

#### 7. DEVELOPMENT AGREEMENTS

It is acknowledged in this Area Structure Plan that the Municipality of Crowsnest Pass will enter into an agreement with the developer of the subject lands. The agreement may outline such items as the terms of financing and construction of roads, paths, parking, servicing, and other infrastructure related to the development.

#### **MUNICIPALITY OF CROWSNEST PASS**

#### **BY-LAW NO. 696, 2006**

A BY-LAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, TO ADOPT THE <u>RIVER RUN</u> AREA STRUCTURE PLAN.

WHEREAS the Municipal Council is in receipt of a development proposal for designated lands with the Municipality;

AND WHEREAS the Council wishes to adopt a detailed plan which governs land use for the said development proposal;

AND WHEREAS the purpose of Bylaw No. 696, 2006 is to adopt an area structure plan which will provide a framework for the subsequent subdivision and development of an area of land within the Municipality as illustrated in Figure 1 in attached Schedule "A";

NOW THEREFORE, under the authority and subject to the provisions of the Municipal Government Act, Statues of Alberta 1994, Chapter M-26.1, as amended, the Council of the Municipality of Crowsnest Pass in the Province of Alberta duly assembled does hereby enact the following:

- 1. Council shall adopt the area structure plan for lands outlined in Figure 1 in Schedule "A" attached hereto.
- 2. Council shall adopt the Area Structure Plan attached as Schedule "A".
- 3. This plan, upon adoption, shall be known as the River Run Area Structure Plan.
- 4. This Bylaw comes into effect upon third and final reading hereof.

Read a first time this0	day of	July, 2006.	
CARRIED UNANIMOUSLY		Mayor	Sins
	_	Chief Administrative	• Officer
Read a second time this day of	of As	9 <u>051</u> , 2006.	

CARRIED UNANIMOUSLY

CARRIED

Chief Administrative Officer

Municipality of Crowsnest Pass Bylaw 696, 2006 – River Run Area Structure Plan



# AREA STRUCTURE PLAN AND COMPREHENSIVE RESORT VILLAGE LAND USE POLICY

Plan: 8711401

Blocks: 1, 2 & 3

Part SW 2 & SE 3-8-4-W5

And NW 35-7-4-W5

Crowsnest Pass, Alberta July 5, 2006



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#### 1. Introduction

The purpose of this report is to provide an Area Structure Plan (ASP) and Comprehensive Resort Village (CRV) Land Use Policy for the subject property compromising 52 acres in the Crowsnest Pass Municipality.

The ASP outlines the general planning policy to be adopted by the Municipal Council for the subject property within the context of the Blairmore area in Crowsnest Pass. The ASP establishes the relationships between the existing urban structure of Blairmore with the subject property. There is a significant benefit to the Municipality to see the 52 acre development proceed in terms of economics of scale of municipal services and local tax assessments. The development will double the current population of Blairmore. The proposed expansion of the community will better utilize existing municipal utilities, fire protection, library, schools and public recreation amenities without the need for upgrades to the existing underutilized facilities. This will ensure the viability of the existing services and infrastructure. It is likely that existing residents' property taxes should decline with the new growth and increased commercial and residential assessment.

The CRV is the main mechanism to implement the ASP in terms of establishing a land use policy and urban design guidelines for the Municipality for the subject property. The CRV outlines the permitted uses, densities, setbacks, building heights, coverage, landscaping and parking provisions under the Crowsnest Pass Municipal Land Use By-Law.

#### 2. Planning Area

The River Run Structure Plan (ASP) site consists of a portion of the S.E. ¼ of Section 3-8-4-5 and the S.W. ¼ of Section 2-8-4-5. This site totals approximately 21.00 hectares (52.0 acres) and lies immediately south of Highway No. 3, within the Municipality of Crowsnest Pass. It is bound to the north by Highway No. 3, to the south by the Crowsnest River and Blairmore residential, to the west by the Blairmore Creek, the shopping centre, the hospital and to the east by twelve existing mobile homes. (See Fig. 1)

#### 3. Planning Context

. . .

This site has been the subject of previous planning and engineering studies. In the spring of 1998, the Riverside Estates ASP was formally submitted to the Municipality and received approval. What has occurred on this property to date is described as follows:

- "Preliminary Geotechnical Evaluation Proposed Commercial Subdivision,
  Blairmore, Alberta", prepared for the Municipality of Crowsnest Pass by HBT
  Agra Limited, Lethbridge, Alberta, May 1994. The findings of this report did not
  preclude development in the area, but did provide some recommendations for
  development and construction techniques.
- "Phase I Environmental Site Assessment, Plan 8711401, Blocks 1, 2 and 3, Part S.W. 2 and S.E. 3-8-4-W5 and N.W. 35-7-4-W5, Blairmore, Alberta", prepared for the Municipality of Crowsnest Pass by Agra Earth and Environmental Limited, October 1995. The findings of this study are positive towards development, however, a Phase II ESA was recommended to address:
  - ⇒ The waste coal pile on the western section of the subject property
  - ⇒ Buried concrete from the coal processing facility on the eastern portion of the site
  - ⇒ The degree to which the site was reclaimed by Alberta Environmental Protection, Land and Forest Services
- "Report to the Municipality of Crowsnest Pass, Land Use Assessment, Blairmore, Alberta", prepared by Urban Systems Ltd., April 1995. The report discussed various land uses which could occur on the ±52 acres including highway commercial and residential uses. Access/egress for the site was also evaluated. In addition, the report flagged various potential uses for the property and investment dollars required.
- In April of 1998, an amendment to the ASP was prepared which identified access to the west across Blairmore Creek. This amendment was withdrawn.
- In September 1998, AGRA conducted a test hole program on the site and also prepared an accompanying report for use in detailed engineering.
- In February 1999, a Geotechnical Site Assessment was completed by Agra Earth and Environmental Limited to provide recommendation for the design and construction of a proposed residential subdivision.
- In March of 2000, a revised plan and ASP amendment was approved.
- In June 2001, an Aquatic Assessment of the Proposed Crossings of the Crowsnest River was completed by Townsend Environmental Consulting to Meet Provincial Standards.

A Phase II Environmental Assessment was completed in August, 2004.

#### 4. Existing Conditions

#### 4.1 Land Ownership

The firm Bridgecreek Development Corporation purchased the subject property in May 2006.

#### 4.2 Land Form

The study area lies  $\pm$  14.9 meters ( $\pm$ 49 feet) below the grade of Highway No. 3 to the north. The lands then fall generally from west to east with several lower "pockets" occurring in the vicinity of the Crowsnest River. The Crowsnest River and Blairmore Creek form a natural edge condition to the south and west of the site as does the highway escarpment to the north.

Vegetative tree cover consists primarily along the river and creek embankments and in a few small clusters in the center of the site. The major portion of the site is treeless and contains non-native grasslands.

#### 4.3 Drainage

Two major drainage channels border the site to the west and south via the Crowsnest River and Blairmore Creek, both of which flow from west and north to the east. Under the current site conditions the drainage appears to be directed to these two watercourses.

#### 4.4 Agricultural Capability

According to the CLI rating, the entire area is class 6S. Soils in this class are capable of only producing perennial forage crops and improvement practices are not feasible. Further, the site is not large enough to sustain a farm operation.

#### 4.5 Surficial and Bedrock Geology

The soils conditions encountered in the test pits undertaken in 1994 were similar across the site and comprised, in descending order of occurrence:

- Clay fill
- Coal/coal ash fill
- Clayey till

In accordance with the consultant's conclusions development of residential and commercial subdivision on the property is feasible. This has been substantiated by the AGRA report completed February 26, 1999.

#### 4.6 Historical

In the previous studies undertaken, there was no indication of pre-historical resource potential in the study area. This site was previously used as an industrial site, in association with coal mining activities prevalent in the Crowsnest area. All evidence of coal mining has been removed from the site, with the exception of coal slag as identified in the previous ESA reports.

#### 4.7 Crowsnest River Crossing

A new vehicular bridge is being proposed across the Crowsnest River at 121 Street, connecting the subject site to the Central Business District of Blairmore. This crossing will require further design and review.

#### 5. Planning Policies

The development concept is premised on achieving a low to medium density infill form of residential and commercial mixed uses on the subject property. This form of development is very efficient and suitable for the property given its proximity to municipal services and public needs/access. This site is envisioned for a development with some smaller scale commercial components with the absence of "Big Box Store" usage. The commercial component, which is suited to and needed within the community, is a large full- service hotel with amenities. It is proposed within this ASP.

#### 5.1 General

The land use and transportation concept for the River Run ASP is designed to capitalize on the location of the site by increasing the visual presence of Blairmore to Highway #3. The intent is to revitalize the community by bringing more people and businesses into the region. River Run is conceived as an integrated link within the existing fabric of Blairmore. The site will potentially tie the existing roadways in three locations and will also contain several dedicated pedestrian and bicycle connections. The aim is to intimately connect existing facilities in Blairmore such as the Crowsnest Pass Golf and Country Club, Powder Ski Keg Hill, the Central Business District and community services such as the fire station and emergency services, library, government buildings and other public amenities.

The river and creek banks that run along the south and west side of the site is considered an important landscape and environmental component of the site and thus will be preserved and protected. A ten meter wide right-of-way municipal reserve is suggested along the river and creek banks. Pedestrian and cycle pathways are designed within the reserve.

The majority of the site will be accessed via a curvilinear collector road which will also function as a link between the Highway #3 and Blairmore's Central Business District via 121<sup>st</sup> Street. The roadway was designed in order to slow highway traffic to a residential speed. This road will act as the spine for the development and will be characterized by a landscaped median and generous number of trees and shrubbery along its edge. The road will contain a central traffic circle with a architectural feature where it intersects with 121<sup>st</sup> Street.

The River Run site will predominately utilize underground parking garages in order to reduce the amount of surface parking spaces to allow for larger landscaped areas and encourage more pedestrian traffic. However, on street parking will still be available where possible to enhance commercial viability and to provide the pedestrian an increased sense of security.

#### 5.2 Residential Land Use

A variety of land uses are proposed for the River Run Area Structure Plan to attract a broad cross section of residents and tourists to Blairmore. (See Fig. 2)

The site plan is loosely divided into four areas: mixed use/commercial, mid-density residential, low-density residential and single family lots. The site will be zoned to respond to neighboring land use designations. The highest density commercial and residential land uses are located on the North West corner of the site adjacent to the highway, the Crowsnest Pass Hospital facility and the existing shopping mall. From the North West corner the land use designation gradually steps down in density to the south east to respond to the existing surrounding residential neighborhoods.

The commercial land use site is located next to Highway #3 will function as a beacon to attract tourists into the area. The commercial area is intended to add to the existing substance of the Central Business District without replacing or competing with it. The predominate program proposed for the mixed use site is a 300 unit hotel and the corresponding services for this development. This site was also selected for a hotel so

that the taller mass of the building will act like a physical barrier to mitigate noise from the highway. The main level of the hotel structure may incorporate a number of commercial/entertainment elements. The hotel may also contain an aquatic recreation centre on the north side of the site.

On the North West corner of the site, located between the existing shopping mall and the proposed hotel, is an area dedicated to mid-density residential buildings. The tallest of these is zoned to approach a maximum height of 9 stories, where the most eastern of the towers will step down to 6 stories to integrate with the height of the proposed neighboring low density residential structures. These sites are intended to be linked to the commercial amenities to the west via pedestrian and bicycle pathways and bridges. The mid-density land use designation is intended to facilitate the construction of taller buildings that have a reduced footprint so that they consume less land and thus allow for larger landscaped areas. In addition, the massing of the buildings will be designed to create a more human scaled architecture at their base (See Fig. 3).

The low density residential land use properties on the River Run site were strategically located to act as a buffer between the higher density commercial and residential components of the site and the single family lots. The buildings that will be erected within these properties have been conceived as 4 level mid-rise structures with street facing and courtyard units. The scale of these buildings will step down to 3 levels where they are adjacent to semi-detached/single family residences.

The low density single family residential lots on the site are envisioned to link the new development with the existing residential neighborhoods across the river. Although not directly located on the river bank, these lots will have direct access to the public pathways that follow the shoreline which will encourage pedestrian and bicycle travel.

#### 5.3 Public Open Space

Taking cues from the existing community, the River Run development will feature a 10 meter wide green space along the shoreline of the Crowsnest River to preserve the natural environment of the river bank. The creek and river bank is seen as an existing wildlife corridor, and thus we will strive to preserve and enhance the riparian zone. The River Run project will utilize indigenous planting material to further integrate the development with the fabric of the existing landscape, and thereby promote the stability of the current ecosystems. This green space will feature a network of pedestrian and

bicycle pathways and bridges that will link the River Run components and tie them to the surrounding natural and man made amenities. A number of storm water retention ponds will also be integrated with the landscape areas to recharge the ground water and reduce the required infrastructure.

There are no school sites allocated for the development. All students that live within the new development will be accommodated within the community's existing school system.

#### 5.4 Land Use

The Land Use Districts are described in **Table 1**. These Land Uses are intended to form a Comprehensive Resort Village designation in conformance with the Crowsnest Pass Land Use Policy.

#### 6. Engineering

#### 6.1 Servicing Objectives

Municipal servicing of the subject property will be designed and constructed in accordance with the latest version of the *Engineering and Development Standards for the Municipality of Crowsnest Pass* and appropriate Alberta Environment guidelines.

The objectives for the serving strategy are as follows:

- Make effective use of the existing topographic conditions to service the subject property in the most efficient manner.
- Connect to existing water and sanitary sewer servicing connections in the general area surrounding the site, owned and operated by the Municipality of Crowsnest Pass.
- Extend the services into the property that allow for phased construction.
- The initial costs for on-site roads, sidewalks, water, sanitary and storm sewers, shallow utilities, etc. shall be borne by the Developer.
- Provide a comprehensive design strategy that minimizes impact on the environment and in particular the Crowsnest River and Blairmore Creek.
- Prepare a storm water management plan that meets Alberta Environment's guidelines.

#### 6.2 Water Supply and Distribution

The water supply system for the subject land shall connect to the existing water distribution system within Blairmore. Three separate connection locations have been identified in previous servicing studies and are identified as follows:

- West Connection connect to existing water main within the water easement, situated west of the subject property, on the west side of Blairmore Creek.
- South Connection connect to existing trunk main within 21<sup>st</sup> Avenue and 119<sup>th</sup>
   Street. This connection may be made through either a dedicated crossing of the
   Crowsnest River, or associated with the bridge construction along the 121<sup>st</sup>
   Street alignment.
- East Connection connect to the existing water main at 23<sup>rd</sup> Avenue, near 127<sup>th</sup>
   Street.

The water distribution system will be designed to accommodate both domestic water and fire protection demands for the full build-out of the subject property. In general, the water mains will be looped and the use of 'dead end' lines will be minimized. The water main connections to the three locations noted above will also provide looping to the existing water distribution system. A detailed Water Network Analysis will be provided at the time of detailed design, in order to accurately size the mains. Fire hydrants will be provided at the appropriate spacing intervals required for this type of development, with input from the local Fire Department. Water storage requirements will be provided through existing water reservoirs and as such, no new reservoirs are proposed for this development.

#### 6.3 Sanitary Servicing & Wastewater Collection

A sanitary sewer collection system is intended to collect wastewater via a proposed trunk collection system running within the road allowance. Each development parcel will be provided with a gravity sewer connection that will feed into the trunk collection system. The subject lands generally drain to the south-east corner of the property. Figure 4 shows the proposed collection system, and the connection points to the existing sanitary collection system. (See Fig. 4)

Previous servicing reviews for this development have identified two servicing options. Option 1 includes a lift station which services either the entire site, or the western portion of the development area. The lift station would require a force main which would connect to an existing trunk main within 19<sup>th</sup> Avenue either through the 119<sup>th</sup> or 121<sup>st</sup> Street alignment. Option 2 would see a single collection system that would service the entire

site and make connection to the existing sanitary manhole at the intersection of 23<sup>rd</sup> Avenue and 127<sup>th</sup> Street (east side of the site). Under Option 2, the downstream capacity of the system would need to be reviewed to determine whether upgrades between the connection point and the trunk main within 19<sup>th</sup> Avenue have sufficient capacity to service the ultimate build-out potential of the subject property. Option 2 is preferred since it is a gravity collection system, and therefore does not require a lift station. More detailed analysis will be required to determine which option proves to be the most viable.

#### 6.4 Storm Water Management

The roads are to be constructed on the Municipal Roadway standard, complete with curb and gutter. Rainfall runoff will be collected in the curb and gutter, channelled into catch basins and collected in a storm sewer system. Storm water runoff from the Highway #3 embankment will collect in a swale at the toe of the existing slope, and will be diverted to the storm retention pond near the central traffic circle at the heart of the site. Water that is collected in an underground collection system will eventually need to discharge into the Crowsnest River, since it is the lowest point in the development area. Prior to discharging into the river, the storm water will be run through a series of storm retention facilities to address both quantity and quality of runoff.

A storm water master drainage plan will be required in order to ensure that a comprehensive storm water management plan is in place to guide all subsequent storm water design. This document will identify treatment options, estimated flow volumes and provide recommendations for the detailed design phase.

#### 6.5 Road Works

The proposed road network servicing this site is identified in Figure 4. Three access points are proposed to gain entrance to the property. A 'right-in-right-out' access is proposed at Highway #3 at the west end of the site. This would allow east bound highway traffic to enter and exit the site without traffic signals. West bound traffic on the highway would use existing intersections at either 20<sup>th</sup> Avenue or 129<sup>th</sup> Street, and will enter the property from 121<sup>st</sup> Street. The third connection point is at the east end of the site, where the property connects to 23<sup>rd</sup> Avenue (at 127<sup>th</sup> Street). This entrance may be reserved for emergency vehicles only. The proposed roadway network is subject to further analysis and a Traffic Impact Assessment.

The roads shown on the attached Figure 4 will be constructed to full Municipal roadway standards, including curb, gutter and sidewalk. These roads will be paved with hot mix asphalt and include a crowned cross section. Additional private roads servicing individual development parcels will connect to the main roadway network. The details of the future roadways will be designed in association with Development Permit applications made on a case-by-case basis.

#### 6.6 Electrical System

Fortis currently maintains a sub-station and transmission lines that cross the property within an existing right-of-way. The long term plans for this sub-station and possible relocation need to be discussed further with Fortis.

#### 6.7 Natural Gas

ATCO Gas currently has service to the Blairmore area. ATCO Gas will be contacted directly to discuss the availability of gas and the need for off-site upgrades, should they be required.

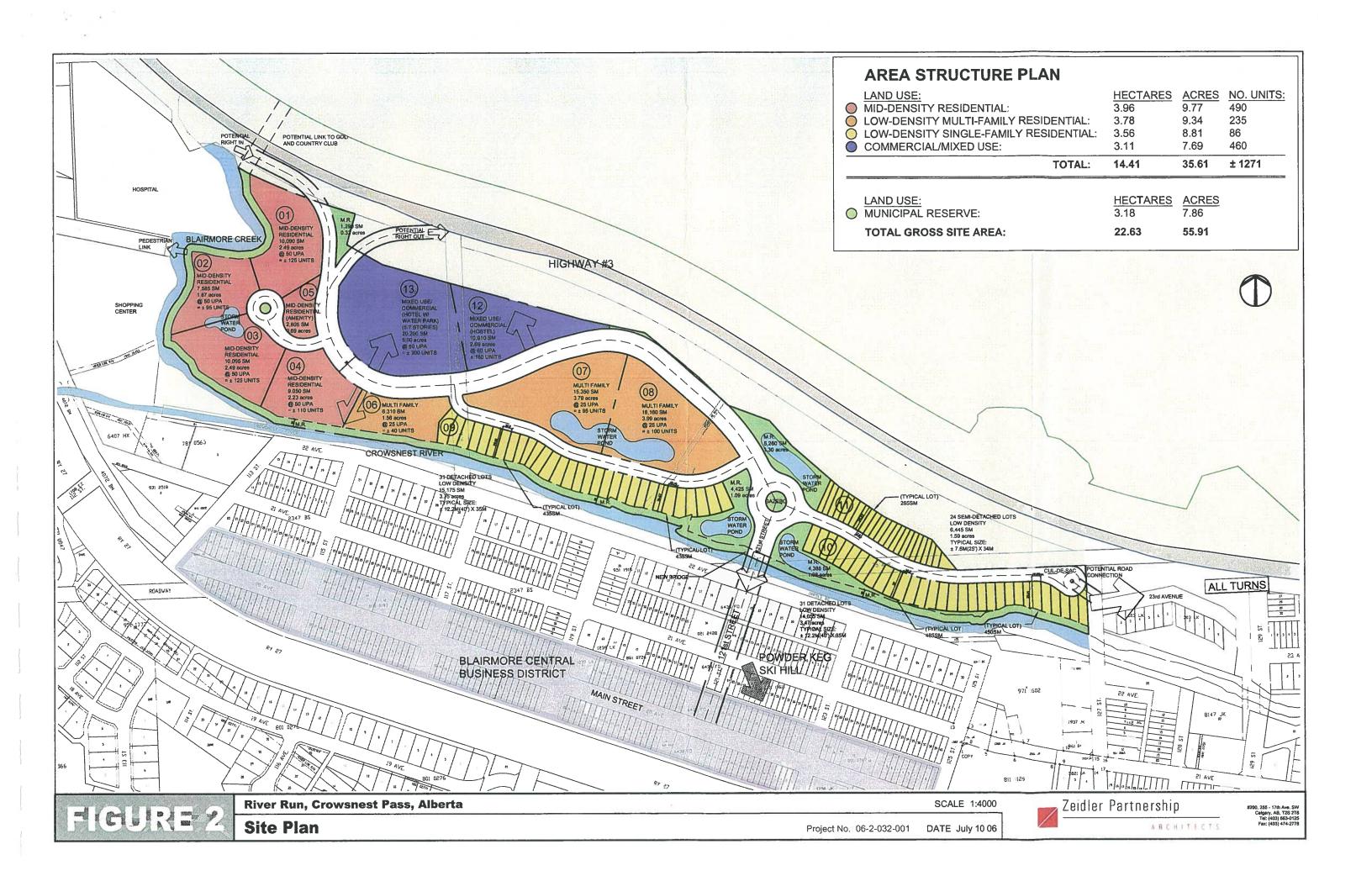
#### 6.8 Telecommunications

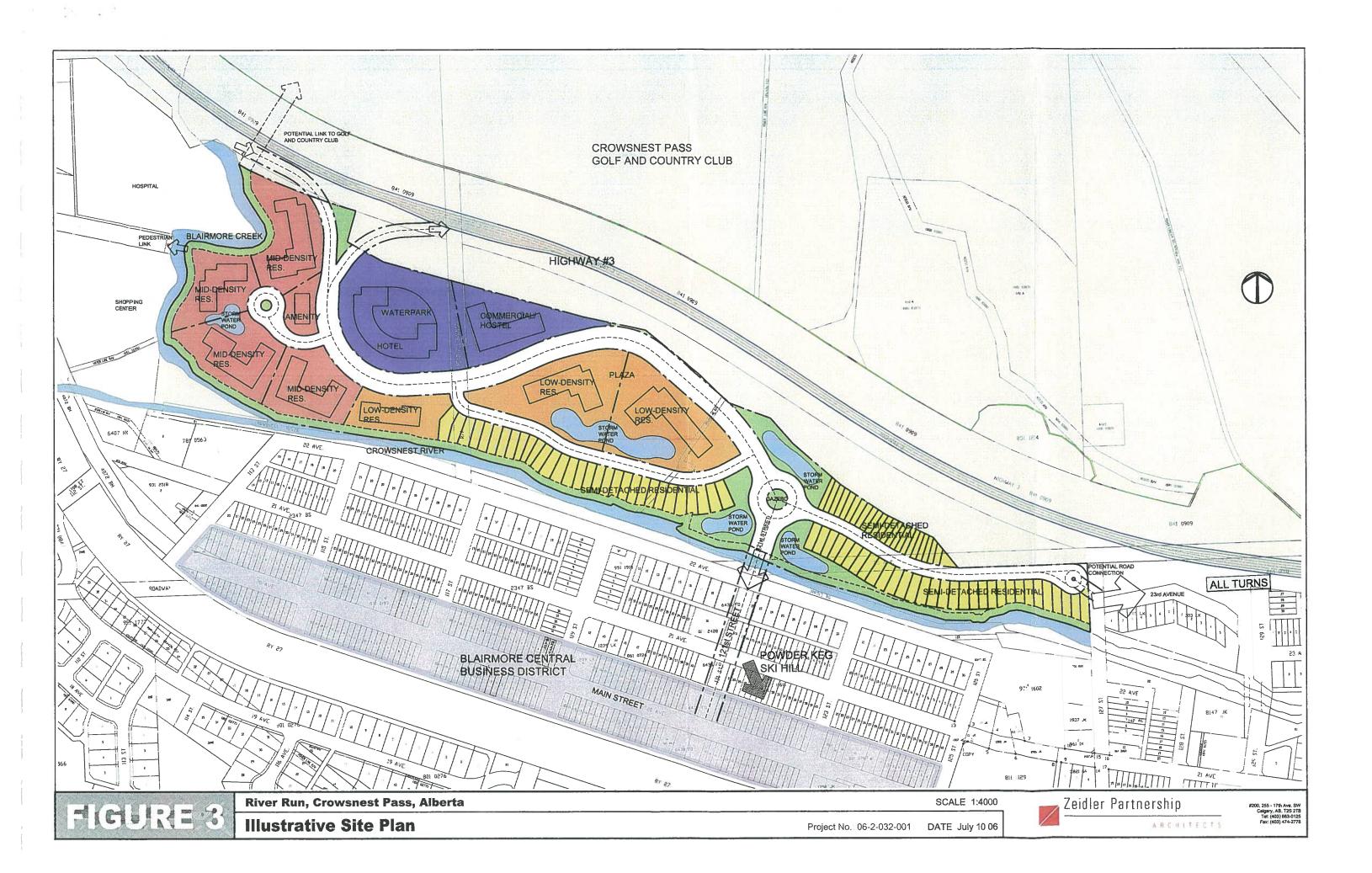
Telus provides telephone service to the Crowsnest Pass area. Shaw Cable provides cable television service in this area. High speed internet and fiber optic capabilities will be considered throughout the development. A common utility trench would likely be used to run all shallow utilities within a single easement.

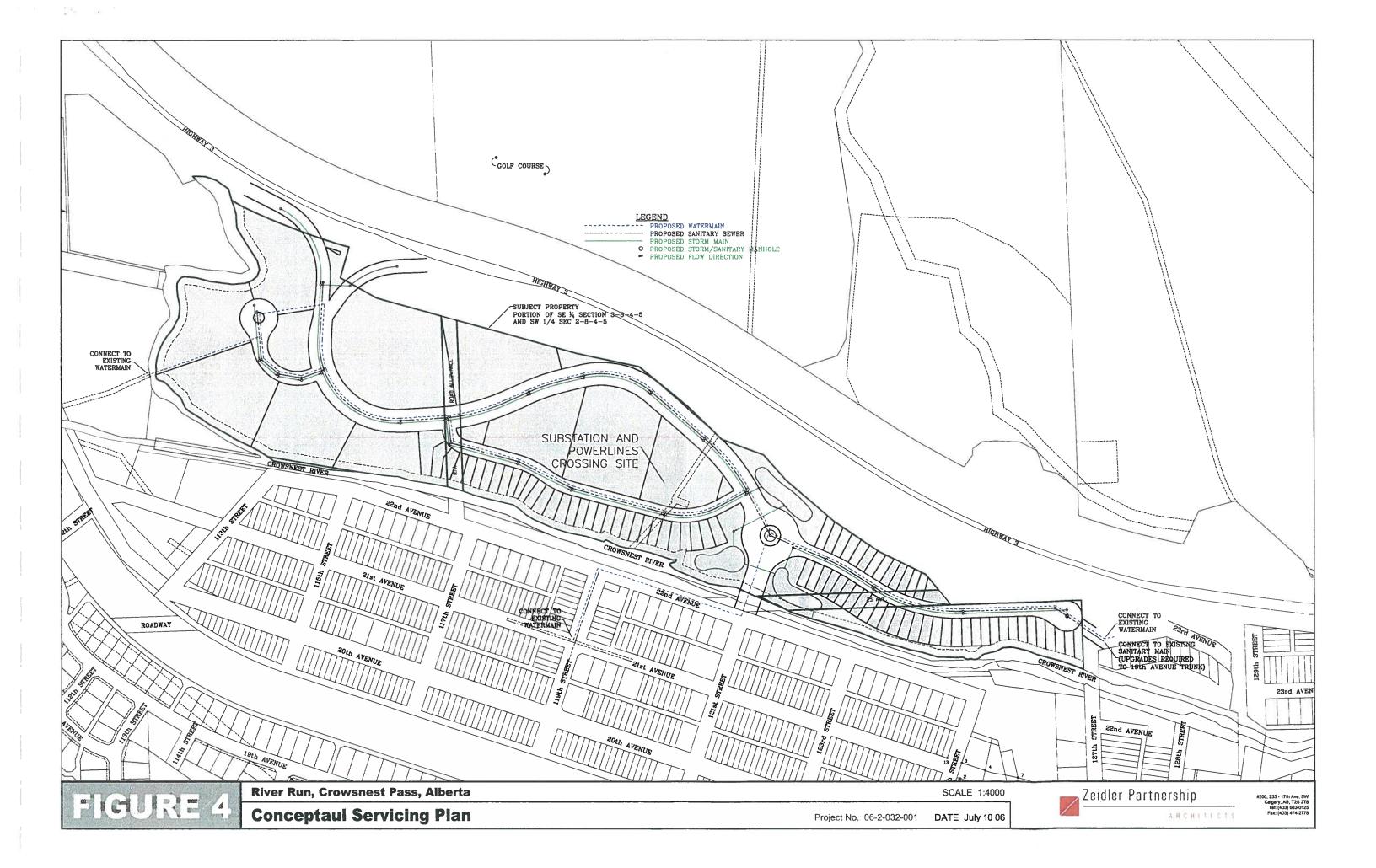


**Existing Site Plan** 

ARCHITECTS







				DENSITY			MAX. BLDG.				MIN.	BUIL	BUILDING SETBACKS	
				(UNITS PER	MAX.#	MAX. BLDG.	SITE	MIN.	<b>PARKING</b>	<b>VISITOR</b>	<b>PARKING</b>	FRONT	BACK	SIDE
PARCEL	LAND USE DISTRICTS	<b>HECTARES</b>	<b>ACRES</b>	NET ACRE)	UNITS	HEIGHT (M.)**	<b>COVERAGE %</b>	LANDSCAPE %	<b>PER UNIT</b>	<b>PARKING</b>	REQUIRED	YARD (M)	YARD (M)	YARD (N
1	Mid-Density Residential	1.01	2.49	50	125	31.5	50	25	1.25	0.25	188	3	3	1.5
2	Mid-Density Residential	0.76	1.87	50	95	31.5	50	25	1.25	0.25	143	3	3	1.5
3	Mid-Density Residential	1.01	2.49	50	125	31.5	50	25	1.25	0.25	188	3	3	1.5
4	Mid-Density Residential	0.9	2.23	50	110	21	50	25	1.25	0.25	165	3	3	1.5
5	Mid-Density Residential	0.28	0.69	50	35	7	50	25	1.25	0.25	53	3	3	1.5
6	Low-Density Multi-Family Residential	0.63	1.56	25 ·	40	14	50	30	1.25	0.25	60	3	3	1.5
7	Low-Density Multi-Family Residential	1.53	3.79	25	95	14	50	30	1.25	0.25	143	3	3	1.5
8	Low-Density Multi-Family Residential	1.62	3.99	25	100	14	50	30	1.25	0.25	150	3	3	1.5
9	Low-Density Single-Family Residential	1.52	3.75	10	31	7	60	30	2	0	62	6	4.5	0
10	Low-Density Single-Family Residential	1.4	3.47	10	31	7	60	30	2	0	62	6	4.5	0
11	Low-Density Single-Family Residential	0.64	1.59	10	24	10.5	60	30	2	0	48	6	4.5	0
12	Commercial/ Mixed Use	1.09	2.69	60	160	17.5	50	25	1+*	0	160+*	3	3	1.5
13	Commercial/ Mixed Use	2.02	5	60	300	24.5	50	25	1+*	0	300+*	3	3	1.5
LS:		14.41	35.61	_	1271						1722+*			1000

\* Commercial/ Mixed Use parking is based on the following requirements: hotel = 1 stall per unit restaurant space = 1 stall per 150 sf. + 1 stall per 2 employees commercial space = 1 stall per 500 sf

\*\* Maximum Building Height: For the purpose of this application the definition of building height is as follows: Building Height is measure from grade at all points adjacent to a building and/or from an approved landscaped deck, where such deck is adjacent to a rear wall of the building to the primary structure eave line.

PERMITTED USES: Mid-Density Residential: Apartment Building not exceeding 9 stories excluding lofts, Accessory Buildings and Structures, Condominiums, Parks and Playgrounds, Utilites, Home Occupations, Row Housing, Senior Citizen Housing, Signs, Parking Area and Structures.

> Low-Density Multi-Family Residential: Apartment Buildings not exceeding 4 stories excluding lofts, Accessory Buildings and Structures, Condominiums, Parks and Playgrounds, Utilites, Home Occupations, Row Housing, Fourplex, Senior Citizen Housing, Signs, Parking Area and Structures, Retail, Personal Service Businesses, Restaurants, Retail Stores, Beauty Salons, Coffee Shops, Laundry Mats, Post Offices, Arcades, Bakeries, Day Care Facilities

Low-Density Single-Family Residential: Single Family Dwellings, Garages, Garage Suite, Semi-Detached, Duplexes, Townhomes, Accessory Buildings and Structures, Home Occupations, Parking Space and Area, Parks and Playgrounds

Commercial/ Mixed Use: Hotel, Hostel, Essential Public Services, Home Occupations, Financial Institutions, Medical Clinics, Offices, Parks and Playgrounds, Personal Service Businesses, Restaurants, Retail Stores, Utilities, Parking Area and Structures, Accessory Building and Structures, Resorts, Rowhouses, Amenity Areas, Amphitheatres, Assembly Structures, Commercial Kiosks, Convention and Conference Facilities, Indoor and Outdoor Recreation Facilities, Motels, Parking Area and Structures, Public and Private Utilities, Real Estate Sales Offices, Rental Accommodation, Retail Stores, Spas, Signs, Visitor Accommodation, Beauty Salons, Coffee Shops, Laundromats, Liquor Stores, Personal Services, Post Offices, Theatres, Animal Care Service, Arcades, Bakeries, Bowling Alleys, Bus Depots, Cabarets, Commercial Recreation, Day Care Facilities, Medical or Dental Clinics.

Municipal Reserve: Parks and Playgrounds, Signs, Utilities, Sidewalks.



Project No.: 06-2-032-001



# P.O. BÓX 600 CROWSNEST PASS, ALBERTA TOK 0E0 PHONE (403) 562-8833 FAX (403) 563-5474

December 21<sup>st</sup>, 2006

Bridgegate Financial Corporation 300, 1333 – 8<sup>th</sup> Street S.W. CALGARY, Alberta T2R 1M6

ATTENTION: BILL BRADLEY

Dear Mr. Bradley:

#### RE: REZONING OF PART OF S.E. 1/4 9-8-5-W5M & N.E. 1/4 9-8-5-W5M

With reference to the above I would like to thank you for your attendance at the Council meeting of Tuesday, December 5<sup>th</sup>, 2006 during which you addressed Council's concerns relative to the proposed land classifications.

This will confirm that the Bylaws to approve the two new land classifications of Comprehensive Multi Use Development (CMUD-1) and Comprehensive Multi Use Development (CMUD-2) and your application to rezone the above noted property from Direct Control (DC-1) to the new classifications received 2<sup>nd</sup> and 3<sup>rd</sup> readings and therefore passed.

Should you have any questions regarding this matter, please do not hesitate to contact our office.

OMPLET

Yours truly,

Gordon O. Lundy

Chief Administrative Officer

cc: Bev Cole, Development Officer

GOL/lo



#### P.O. BOX 600 CROWSNEST PASS, ALBERTA TOK 0E0 PHONE (403) 562-8833 FAX (403) 563-5474

October 26<sup>th</sup>, 2006

Bridgegate Financial Corporation 300, 1333 – 8<sup>th</sup> Street S.W. **CALGARY**, Alberta T2R 1M6

Dear Mr. Bradley:

#### RE: REZONING OF PART OF S.E. 1/4 9-8-5-W5M & N.E. 1/4 9-8-5-W5M

Council at their regular meeting of Tuesday, October 17<sup>th</sup>, 2006 reviewed your request to approve two new land classifications of Comprehensive Multi Use Development (CMUD-1) and Comprehensive Multi Use Development (CMUD-2) and your application to rezone the above noted property from Direct Control (DC-1) to the new classifications.

Please be advised that the appropriate Bylaw received First Reading at that meeting. The proposed land classifications and rezoning must now be advertised and the required Public Hearing held. This has been scheduled for Tuesday, November 21<sup>st</sup>, 2006 however a formal notice will be provided to you.

Should you have any questions regarding this matter, please do not hesitate to contact our office.

Yours truly,

Gordon O. Lundy

Chief Administrative Officer

cc: Bev Cole, Development Officer

GOL/lo

# MUNICIPALITY OF CROWSNEST PASS APPLICATION FOR A LAND USE BYLAW AMENDMENT

#### SCHEDULE 13

Form G APPLICATION NO	
APPLICANT: Bridge act Financial Corporation  ADDRESS: 300, 1333 - 8 St S.W Coljan, AB Tar 1,  REGISTERED OWNER: Bridge acte Financial Corporation  ADDRESS: 300, 1333 - 8 St S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 300, 1333 - 8 ST S.W. Coljan, AB Tar 1,  ADDRESS: 3000, AB Tar 1,  ADDRESS: 3000, AB Tar 1	
ADDRESS: 300, 1333 - 8 St S.W Collary, AB T2R 1,	M6
REGISTERED OWNER: Bridge Gate Financial Corporation	
ADDRESS: 300, 1333-8 St. Sw. Collary, AB TOR IN	16
LEGAL DESCRIPTION: Lot(s) Block Plan	
LEGAL DESCRIPTION: Lot(s) Block Plan  Quarter NE Section 9 Township 8 Range 5	
PROPOSED AMENDMENT: FROM: Direct Control	
TO: CMVD2	
APPLICANT'S SUBMISSION:  Please state your reasons for applying for this amendment. Attach a separate sheet if	
necessary by A. and I. I.	
To accompdate development and adhere to A.S.P.	
REGISTERED OWNER OR PERSON ACTING ON BEHALF OF:	
I certify that I am the registered owner or that the registered owner(s) of the land described above is aware of this application.	
Fees Submitted \$	
PATE: OCT 11, 2006 SIGNED: Applicant	

# MUNICIPALITY OF CROWSNEST PASS APPLICATION FOR A LAND USE BYLAW AMENDMENT

# **SCHEDULE 13** Form G APPLICATION NO. APPLICANT: Bridge Cretz Financial Corporation ADDRESS: 300, 1333-8 St S.W. Calgan, AB T2R 1M6 REGISTERED OWNER: Bridge acte Financial corporation LEGAL DESCRIPTION: Lot(s)\_\_\_\_ \_\_\_\_ Block\_ Plan Q\_\_\_\_\_Township\_ Quarter SE Section PROPOSED AMENDMENT: TO: CMUD1 **APPLICANT'S SUBMISSION:** Please state your reasons for applying for this amendment. Attach a separate sheet if necessary. REGISTERED OWNER OR PERSON ACTING ON BEHALF OF: I certify that I am the registered owner or that the registered owner(s) of the land described above is aware of this application. Fees Submitted \$\_\_ Receipt No. SIGNED:

#### MUNICIPALITY OF CROWSNEST PASS

#### **BY-LAW NO. 710, 2006**

A BY-LAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, TO AMEND THE LAND USE BY-LAW NO. 632, 2004 OF THE MUNICIPALITY OF CROWSNEST PASS IN THE PROVINCE OF ALBERTA.

THE COUNCIL OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, in accordance with the power conferred on it by the Municipal Government Act, being Sections (606)(6) with amendments thereto, do hereby enact as follows:

That the Land Use By-Law #632, 2004 be amended as follows:

- 1. That Schedule 1 of Bylaw 632, 2004 be amended to include the land use district "Comprehensive Multi Use Development CMUD-1" as attached.
- 2. That Schedule 1 of Bylaw 632, 2004 be amended to include the land use district "Comprehensive Multi Use Development CMUD-2" as attached.
- 3. By deleting part of the S.E. Section 9, Township 8, Range 5, W5M from Direct Control (DC-1) and Land District Map #7 and reclassifying part of the S.E. Section 9, Township 8, Range 5, W5M, as provided on the attached map to Comprehensive Multi Use Development (CMUD-1), and amend Land District Map #7 accordingly.
- 4. By deleting part of the N.E. Section 9, Township 8, Range 5, W5M from Direct Control (DC-1) and Land District Map #7 and reclassifying part of the N.E. Section 9, Township 8, Range 5, W5M, as provided on the attached map to Comprehensive Multi Use Development (CMUD-2), and amend Land District Map #7 accordingly.

Read a first time this, 2006.
CARRIED UNANIMOUSLY
Mayor
Chief Administrative Officer
Read a second time this5th day of, 2006.  CARRIED
Read a third time and finally passed this5thday of
Mayor
Chief Administrative Officer

#### COMPREHENSIVE MULTI USE DEVELOPMENT - CMUD-1



**PURPOSE:** To accommodate site-specific subdivision and development, within a designated area of the municipality, of comprehensively pre-planned multi-uses which are consistent with an approved Area Structure Plan (ASP) for the same site.

#### 1. PERMITTED USES

Accessory Buildings and Uses

**Apartment Dwelling** 

Commercial Recreation

Fitness Centre

Gaming or Gambling Establishment

Institutional

Kiosk

Liquor Store

Lodge

Multi-family Dwellings

Office

Parks, Playgrounds or Recreation Area

Personal Service

Public and Private Roadway

Public and Private Utilities and Service

Railway

Residence Secondary to Approved-Use

Resort

Retail

Row-house & Townhouse

Semi-detached Dwelling

Senior Citizen Housing

Signs

Single Family Dwellings

Surveillance Suite

Workshop Accessory to an Approved-Use

Use Ancillary to an Approved Use

Similar Use to any Permitted-Use

#### **PROHIBITED USES**

**Shipping Containers** 

#### **DISCRETIONARY USES**

Animal Care Service, Small

Moved-In Dwelling

Place of Worship or Church

Outdoor Athletic & Recreational Facility

Wind Energy Conversion Systems-(WECS)

#### 2. MINUMUM LOT SIZE

Single-Family & Semi-detached dwellings:

300m2

Multi-Family & Row-house dwellings:

600m2

All other permitted uses requiring a building:

1000m2

### COMPREHENSIVE MULTI USE DEVELOPMENT – CMUD-1 Page 2



#### 3. MINIMUM BUILDING SETBACKS

Parking structures (below ground) and Basements:

Front Yard: 0m

Side Yard: 0m

Rear Yard: 0m

Single-Family & Semi-detached dwellings:

Front Yard: 3.0m

Side Yard: 1.2m

Rear Yard: 6.0m

All other permitted uses:

Front Yard: 3.0m

Side Yard: 3.0m

Rear Yard: 3.0m

Any uses or buildings adjacent to, or near, CPR property:

At discretion of developer and/or applicant

#### 4. MAXIMUM DENSITY

Buildings containing mixed-uses, Highrise Multi-family, Hotel & Visitor Accommodation:

5.0 Floor Area Ratio (FAR) excluding any parking

Public and Private Utilities and Service:

1.0 Floor Area Ratio (FAR) excluding any parking

#### 5. MAXIMUM BUILDING HEIGHT

Single-family, Semi-detached, and Row-house Dwellings

12m

Mixed-use, Buildings:

75m

Public and Private Utilities and Service:

12m

#### 6. MAXIMUM LOT COVERAGE

Total of Principal buildings and Accessory buildings: 60%

## COMPREHENSIVE MULTI USE DEVELOPMENT – CMUD-1 Page 3



#### 7. OFF-STREET PARKING

Below-listed parking requirements are specific to CMUD-1 land use and supersede the minimum parking spaces outlined in Table 1 of Schedule 6, 'Municipality of Crowsnest Pass Land Use Bylaw No. 632-2004'. All other off-street parking requirements & standards apply.

Unless otherwise noted below, permitted uses have O (zero) parking requirements:

#### RESIDENTIAL:

Single-Family & Semi-detached Residential: 1 parking space per dwelling unit Multi-family Residential: 1 parking space per dwelling unit

#### COMMERCIAL:

Restaurants & Drinking: 1 parking space per 25 seats or 1 per 60m2 NFA\* All other permitted commercial uses: 1 parking space per 100m2 of NFA

#### **VISITOR ACCOMMODATIONS:**

Hotel & Visitor Accommodation: 1 parking space per 3 guest rooms (As per Municipality of Crowsnest Land Use Bylaw, Schedule 6, Table 1.)

#### **INSTITUTIONAL:**

Theatre, Place of Worship or Church: 1 parking space per 15 fixed seats\*
All other permitted institutional uses: 1 parking space per 100m2 of NFA

\*Required parking need only be provided at peak operating hours. Parking spaces may be shared among different uses which have different operating hours.

Required parking spaces for tour buses & staff need NOT be located on the same lot as the building or use they are serving.

The total number of parking spaces required may be reduced by 35 spaces for each commercial tour bus or shuttle parking space provided. Bus parking spaces need not be located on the same lot as the building they are serving, and may be located elsewhere within the Crowsnest Municipality. Bus parking spaces need not be enclosed, but should be located inconspicuously, and should be screened.

It is intended that all non-residential and non-accommodation uses will be utilized by 80% on-site residents & guests. 80% of the parking spaces normally associated with these uses will therefore be carried by the parking space requirements for dwelling & accommodation uses.

# COMPREHENSIVE MULTI USE DEVELOPMENT – CMUD-1 Page 4



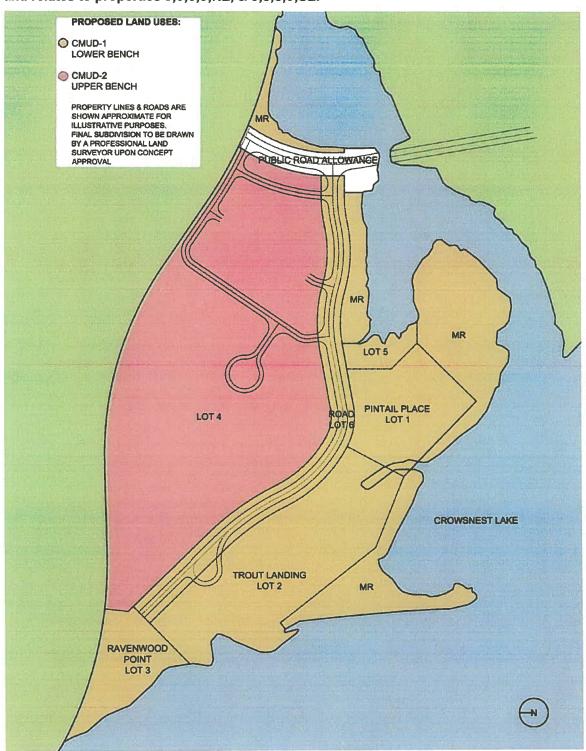
# 8. AREA STRUCTURE PLAN

This CMUD-1 land use district refers to the area delineated in the Bridgegate Resort Village Area Structure Plan as approved by Crowsnest Municipal Council, September 2005.



# APPENDIX A TO CMUD-1 & CMUD-2: REGULATING PLAN

This regulating plan is appended to land use districts CMUD-1 & CMUD-2, and relates to properties 5;5;8;9;NE, & 5;5;8;9;SE.



# COMPREHENSIVE MULTI USE DEVELOPMENT - CMUD-2



**PURPOSE:** To accommodate site-specific subdivision and development, within a designated area of the municipality, of comprehensively pre-planned multi-uses which are consistent with an approved Area Structure Plan (ASP) for the same site.

#### 1. PERMITTED USES

Accessory Buildings and Uses

**Apartment Dwelling** 

Commercial Recreation

Fitness Centre

Gaming or Gambling Establishment

Institutional

Kiosk

Liquor Store

Lodge

Multi-family Dwellings

Office

Parks, Playgrounds or Recreation Area

Personal Service

Public and Private Roadway

Public and Private Utilities and Service

Railway

Residence Secondary to Approved-Use

Resort

Retail

Row-house & Townhouse

Semi-detached Dwelling

Senior Citizen Housing

Signs

Single Family Dwellings

Surveillance Suite

Workshop Accessory to an Approved-Use

Use Ancillary to an Approved Use

Similar Use to any Permitted-Use

#### **PROHIBITED USES**

**Shipping Containers** 

#### **DISCRETIONARY USES**

Animal Care Service, Small

Moved-In Dwelling

Place of Worship or Church

Outdoor Athletic & Recreational Facility

Wind Energy Conversion Systems-(WECS)

## 2. MINUMUM LOT SIZE

Single-Family & Semi-detached dwellings:

300m2

Multi-Family & Row-house dwellings:

600m2

All other permitted uses requiring a building:

1000m2

# COMPREHENSIVE MULTI USE DEVELOPMENT — CMUD-2 Page 2



# 3. MINIMUM BUILDING SETBACKS

Parking structures (below ground) and Basements:

Front Yard: 0m Side Yard: 0m Rear Yard: 0m

Single-Family & Semi-detached dwellings:

Front Yard: 3.0m Side Yard: 1.2m Rear Yard: 6.0m

All other permitted uses:

Front Yard: 3.0m Side Yard: 3.0m Rear Yard: 3.0m

Any uses or buildings adjacent to, or near, CPR property:

At discretion of developer and/or applicant

#### 4. MAXIMUM DENSITY

Buildings containing mixed-uses, Highrise Multi-family, Hotel & Visitor Accommodation:

5.0 Floor Area Ratio (FAR) excluding any parking

Public and Private Utilities and Service:

1.0 Floor Area Ratio (FAR) excluding any parking

# 5. MAXIMUM BUILDING HEIGHT

Single-family, Semi-detached, and Row-house Dwellings 12m

Mixed-use, Buildings:

145m

Public and Private Utilities and Service:

12m

# 6. MAXIMUM LOT COVERAGE

Total of Principal buildings and Accessory buildings: 50%

# COMPREHENSIVE MULTI USE DEVELOPMENT – CMUD-2 Page 3



#### 7. OFF-STREET PARKING

Below-listed parking requirements are specific to CMUD-2 land use and supersede the minimum parking spaces outlined in Table 1 of Schedule 6, 'Municipality of Crowsnest Pass Land Use Bylaw No. 632-2004'. All other off-street parking requirements & standards apply.

Unless otherwise noted below, permitted uses have O (zero) parking requirements:

#### RESIDENTIAL:

Single-Family & Semi-detached Residential: 1 parking space per dwelling unit Multi-family Residential: 1 parking space per dwelling unit

#### COMMERCIAL:

Restaurants & Drinking: 1 parking space per 25 seats or 1 per 60m2 NFA\* All other permitted commercial uses: 1 parking space per 100m2 of NFA

#### VISITOR ACCOMMODATIONS:

Hotel & Visitor Accommodation: 1 parking space per 3 guest rooms (As per Municipality of Crowsnest Land Use Bylaw, Schedule 6, Table 1.)

# **INSTITUTIONAL:**

Theatre, Place of Worship or Church: 1 parking space per 15 fixed seats\* All other permitted institutional uses: 1 parking space per 100m2 of NFA

\*Required parking need only be provided at peak operating hours. Parking spaces may be shared among different uses which have different operating hours.

Required parking spaces for tour buses & staff need NOT be located on the same lot as the building or use they are serving.

The total number of parking spaces required may be reduced by 35 spaces for each commercial tour bus or shuttle parking space provided. Bus parking spaces need not be located on the same lot as the building they are serving, and may be located elsewhere within the Crowsnest Municipality. Bus parking spaces need not be enclosed, but should be located inconspicuously, and should be screened.

It is intended that all non-residential and non-accommodation uses will be utilized by 80% on-site residents & guests. 80% of the parking spaces normally associated with these uses will therefore be carried by the parking space requirements for dwelling & accommodation uses.

# COMPREHENSIVE MULTI USE DEVELOPMENT - CMUD-2 Page 4



# 8. AREA STRUCTURE PLAN

This CMUD-2 land use district refers to the area delineated in the Bridgegate Resort Village Area Structure Plan as approved by Crowsnest Municipal Council, September 2005.

# **MUNICIPALITY OF CROWSNEST PASS**

# **BY-LAW NO. 656, 2005**

A BY-LAW OF THE MUNICIPALITY OF CROWSNEST PASS, IN THE PROVINCE OF ALBERTA, TO ADOPT THE <u>BRIDGEGATE RESORT VILLAGE</u> AREA STRUCTURE PLAN.

WHEREAS the Municipal Council is in receipt of a development proposal for designated lands with the Municipality;

AND WHEREAS the Council wishes to adopt a detailed plan which governs land use for the said development proposal;

AND WHEREAS the purpose of Bylaw No. 656, 2005 is to adopt an area structure plan which will provide a framework for the subsequent subdivision and development of an area of land within the Municipality as illustrated on Figure 1.1 in attached Schedule "A";

NOW THEREFORE, under the authority and subject to the provisions of the Municipal Government Act, Statues of Alberta 1994, Chapter M-26.1, as amended, the Council of the Municipality of Crowsnest Pass in the Province of Alberta duly assembled does hereby enact the following:

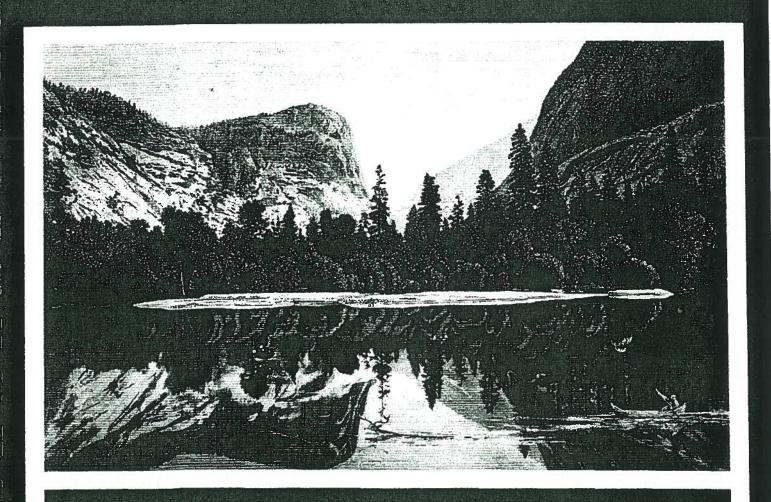
- 1. Council shall adopt the area structure plan for lands outlined on Figure 1.1 in Schedule "A" attached hereto.
- 2. Council shall adopt the Area Structure Plan attached as Schedule "A".
- 3. This plan, upon adoption, shall be known as the <u>Bridgegate Resort Village</u> Area Structure Plan.
- 4. This Bylaw comes into effect upon third and final reading hereof.

Read a first	time this	27011	_day of	September	, 2005.		
CARRIED UN	NANIMOUSLY					Lan	$\mathcal{N}$
				Mayor			
				(7): (1)	13		
			2	Chief Ag	ministrative Offi	cer	
	ond time this	25th	day of	October	, 2005.		
			21	5+b	October		
	d time and fin	ally passed	this	day o	fOctober		_, 2005.
					Blu S	Zun	2
				Mayor			

Chief Administrative Officer

Municipality of Crowsnest Pass Bylaw 656, 2005 – Crowsnest Lake Area Structure Plan COPY

Flanning + Ier.



# BRIDGEGATE

on CROWSNEST LAKE



# BRIDGEGATE RESORT VILLAGE on Crowsnest Lake

# AREA STRUCTURE PLAN

Municipality of Crowsnest Pass, Alberta

on behalf of Bridgecreek Development Corp. Developer

> Civic Design Group Inc. Town Planners and Urban Design

Glamin & Associates Survey and Environmental

**Veritas Development Solutions** Engineers

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6.3	SEQUENCE OF DEVELOPMENT
6.4	SEQUENCE OF DEVELOPMENT

FIGURE 1.1 LOCATION PLAN

FIGURE 1.2 EXISTING LAND USE MAP

FIGURE 1.3 SITE PHOTOS

FIGURE 1.4 TOPOGRAPHIC AREAS

FIGURE 1.5 TOPOGRAPHIC AND LEGAL

FIGURE 1.6 LANDCOVER

FIGURE 2.1 DESCRIPTIVE PLAN

FIGURE 2.2 ILLUSTRATIONS

FIGURE 3.1 GENERAL LAND USE PLAN

FIGURE 4.1 TRANSPORTATION PLAN

FIGURE 5.1 SCHEMATIC SERVICING

FIGURE 6.1 TENTATIVE SEQUENCE OF DEVELOPMENT

# 1.0 BACKGROUND

# 1.1 INTRODUCTION

On behalf of Bridgecreek Development Corporation, Civic Design Group has prepared this Area Structure Plan for the future development of a mixed use, bareland condominium recreational resort development on Crowsnest Lake within the Municipality of Crowsnest Pass.

# 1.2 SITE AREA

The subject lands are located within the municipality of Crowsnest Pass in an area known as the Sentinel. Gross Lands covered within the ASP boundary total approximately 55 acres with an additional 38 acres of Lake area. The ASP boundary includes lands directly adjacent to Highway No. 3 and Crowsnest Lake. The most northern property line runs parallel to the Canadian Pacific Railway line right of way, which was established in the late 1800's. The mouth of the Crowsnest River starts at the southeast portion of the site.

# Legal description

Lands within the ASP boundary are located within the following quarter sections:

Portion of NE ¼ Sec. 9-8-5-5 Portion of SE ¼ Sec. 9-8-5-5

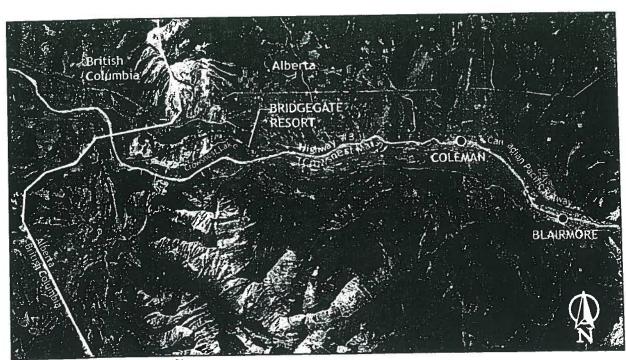


Figure 1.1, Location Plan

# 1.3 EXISTING LAND USES

# **Zoning Districts**

Lands to the north of crowsnest lake are currently zoned Direct Control (DC-1) which defers specific elements of land use to the discretion of council. Lands to the south of the lake are zoned as Non-Urban Area (NUA-1).

**Existing Uses** 

The northerly portion of the site currently accommodates 7 rental houses and 8 rental cabins. An abandoned electrical generation plant is located on the western shore of the subject site. An abandoned community dance hall built in 1930 by Mr. Alec Moreney which occupies land owned by Alberta Forestry is located on the southeast portion of the site. This structure functioned as a community hall until the 1960's and has since fallen to disrepair. An existing public boat launch area lies just east of the dance hall. The southeast portion of the site currently accommodates 5 privately owned residential acreage lots ranging in size from 1 to 5 acres. Lands directly south of the acreage lots have been set aside for highway maintenance purposes.

Adjacent Uses.

Lands to the north, south, and west of the subject site are currently designated as Non Urban Aréa (NUA-1). A smaller portion of land east of the site and south of the Crowsnest River has been designated as Grouped Country Residential (GCR-1).

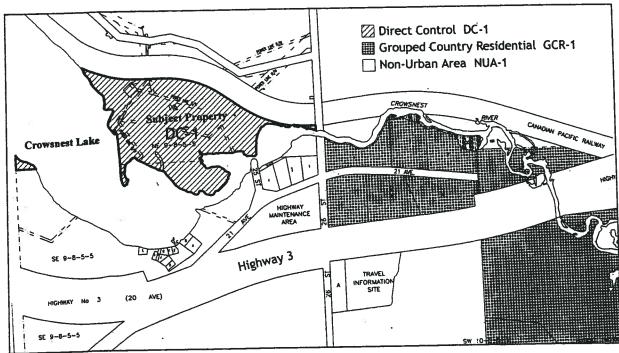
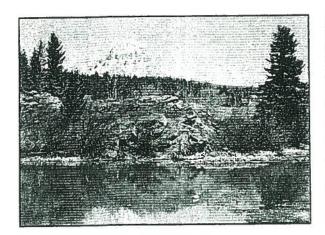
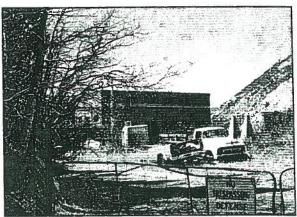
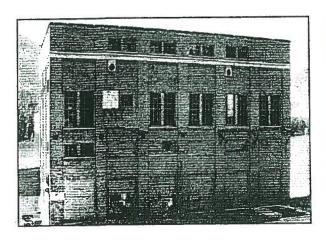
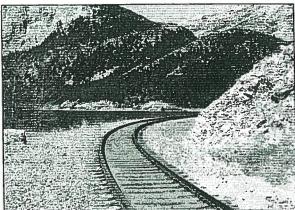


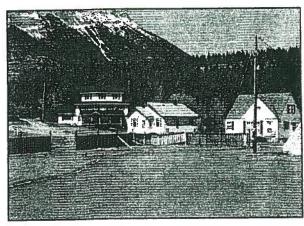
Figure 1.2, existing land use map

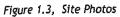


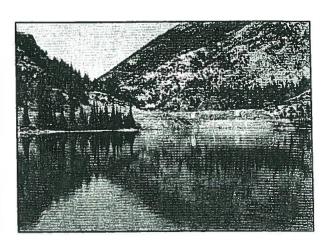












# 1.4 TOPOGRAPHY AND LAND COVER

Carved out of the Crowsnest River system, the subject site has significant topographical features and a diversity of foliage and land cover. The site can be divided into three general topographical areas. An east-west ridgeline bisects the northern portion of the subject landsforming an upper bench and lower bench. A third area, referred to as the "south shore" takes in the remaining lands between the lake and Highway 3 (Crowsnest Trail). The overall elevation of the site ranges from 1347.5m to 1369.5m.

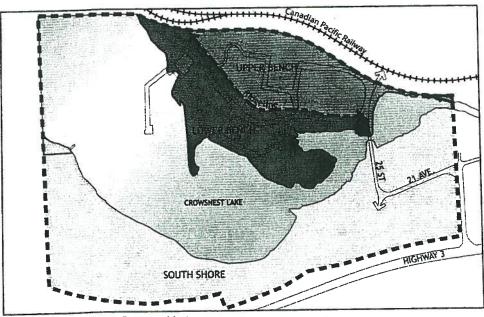


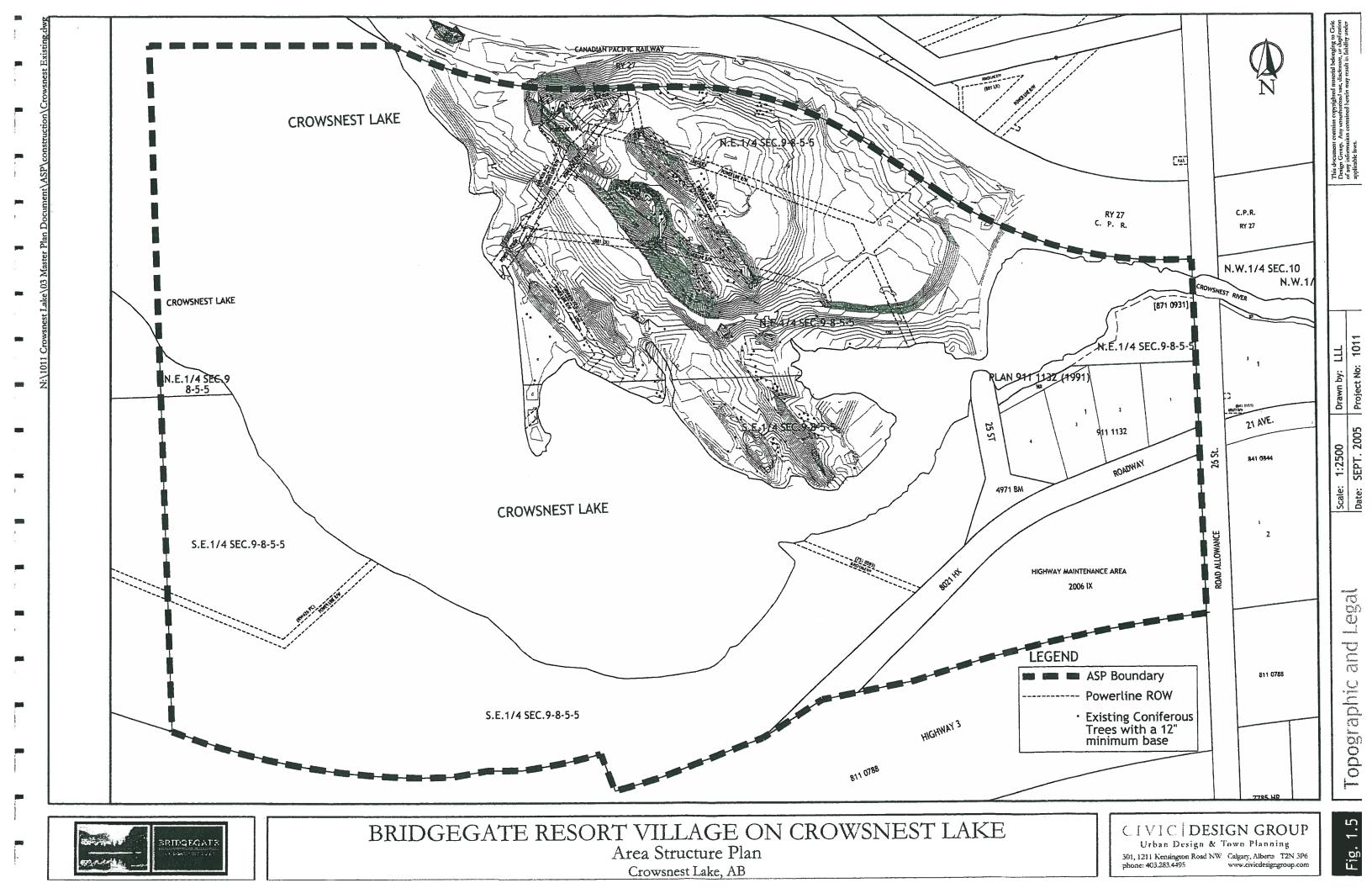
Figure 1.4, Topographic Areas

Upper Bench

The "upper bench" will house the proposed "Upper Village" and falls between the CPR right of way to the north and the major east-west ridgeline to the south. This area has rolling topography set atop a surrounding ridgeline. This site is generally more than 5 meters above the surrounding area. The majority of the land cover has been significantly altered by development and is largely defined by grasses and planted trees. Undisturbed areas feature a variety of coniferous and deciduous trees intensifying on the ridge to the south. A number of bedrock outcroppings are visible throughout the site.

# Lower Bench

The "lower bench" will house the proposed "Lower Village" and is positioned to the south of the east-west ridge line and the shoreline. A small portion borders the CPR right of way on the northwest. The lower bench has historically been used for the power plant operations and is characterized by long ridges and valleys generally stretching east-west. The major east-west ridgeline on the southern side exhib-









# BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE Area Structure Plan Crowsnest Lake, AB

its significant exposed rock outcropings and is bolstered by a number of mature deciduous and coniferous trees. Two points extend south into the lake and are characterized by mature tree stands and a rugged terrain of small valleys and exposed rock outcroppings.

To the northwest, the site levels to a gentle slope consisting of grassy meadows and clusters of deciduous trees. These lands allow for easy access to the water and powerhouse. The shoreline has been altered near the power house, and may require enhancement elsewhere.

#### South Shore

The "south shore" lands lie between Highway No. 3 and the south shore of the Crowsnest Lake. The south shore lands are primarily characterized as gently sloping lands including the forested area to the southwest adjacent to the abandoned dance hall. Dense stands of largely undisturbed forest exist on the western portion of the site.

# 1.5 HISTORICAL CONTEXT

The history of the subject lands are significant in that they are located in an area knows as the Sentinel. The book "Crowsnest and its People" published by the CRowsnest Pass Historical Society in1979 best describes the history of the Sentinel and the area. The following is a brief excerpt as it relates the subject lands.

"The history of the Sentinel was originally called Sentry Siding. The siding was set up in 1909 so clay could be loaded into railway cars and shipped to Medicine Hat to be used in the manufacture of sewer pipe. The name Sentry was later changed to Sentinel and a flag station was erected east of the railway crossing on Crowsnest 3 near Ferguson Supply of 1977.

The first boom period at Sentinel was the building and operating of the East Kootenay Power Plant on the shore of Crowsnest Lake. They adopted the name of Sentinel. Since then practically all the area west of Coleman to the Lake is referred to as Sentinel.

The siding at Sentinel grew over the years to its present size mainly to accommodate coal trains. Stock chutes and facilities were installed and for years were in use for loading and unloading live stock. (cattle horses and sheep.)

Early attempts were made to attract tourists to the Sentinel and lake areas. As early as 1915 Mr. Wes Johnston operated a passenger boat for Sunday visitors.

In 1930 Mr. A. Morency had a dancing pavilion and cabins constructed at the lake. He took passengers cruising while other boats were rented to fishing enthusiasts.

Another attempt was made to "trap" the tourist trade when Mr. Regner began construction of three log cabins, near the base of Sentry Mountain in 1935. He also set up gasoline pumps. The cabins were never completed and the gas tanks were never operated.

In the late 1940's Mr. and Mrs. C. Huffman set up Glacier Cabins (now called Kozy Knest) on the west shore of Crowsnest Lake. They offered travelers comfortable accommodation.

In 1951 Mr. and Mrs. Jim Kerr opened Chinook Motel, "a home away from home", on Allison Creek where the scenic grandeur was not surpassed anywhere in Alberta. In recent years industry has taken over Sentinel Valley.

East Kootenay Power Plant, Sentinel

In June 1922, East Kootenay Power had first supplied power to the Crowsnest Pass from a hydroelectric plant at Bull River, B.C. In March, 1924 a hydro plant at Elko, B.C. increased the company's generating capacity but demand for more power warranted the building of a steam generating plant at Sentinel, on the shore of Crowsnest Lake. The plant was to serve as an auxiliary source of power to the hydro plants. It was not long until the increased power load of the area justified the plant being run constantly.

The area at the east end of Crowsnest Lake had been officially designated a recreation area, jointly controlled by the towns of Coleman and Blairmore. Negotiations for realease of land on which East Kootenay Power Company would construct a steam generating plant began in March, 1924. Coleman Council minutes of July 18, 1926 indicate 2.9 acres was released and construction of the plant began that year.

Sentinel was the ideal site as a centre for distribution of power, adequate water supply from Crowsnest Lake and proximity to coal mines. It was to be the first plant in the far west which would use pulverized coal as fuel.

The method of firing was by powdered fuel being blown into the fire boxes by pressure and burned in suspension, 90% of the residue being carried off by a smokestack 200 ft. high and 11 ft. in diameter at the base. This would be the most complete supersteam plant in Alberta. It would require 200 tons of coal daily and take 10,000 gallons of water from the lake.

In 1929 and in 1946 equipment was replaced to keep abreast of progress.

Seven fine homes were built at the site for married employees and a three storey staff house for single men and visiting executive.

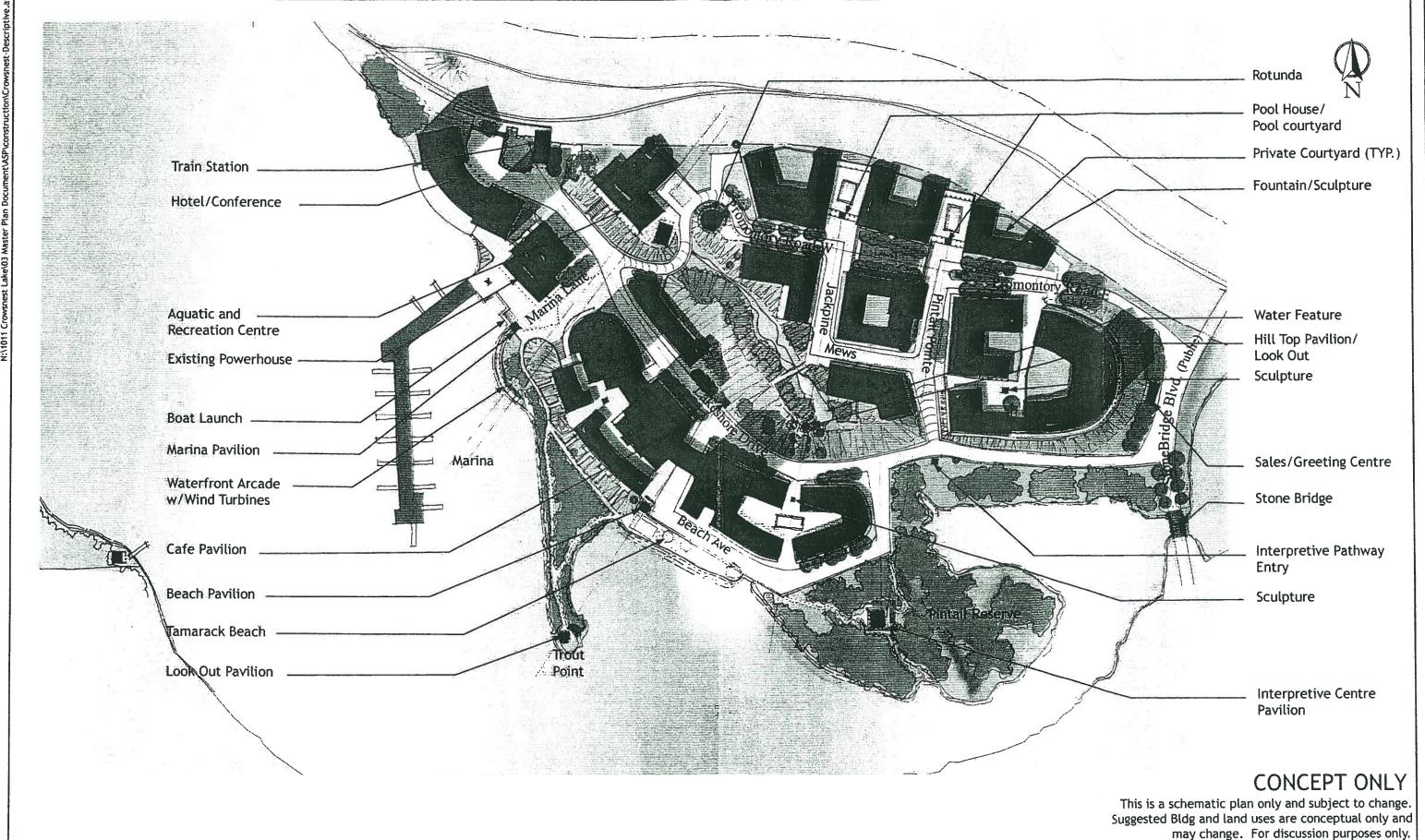
The chief engineer when the plant went into operation in 1927 was Mr. John T. Watson who left in 1928 to become city manager at Lethbridge. He was followed by Mr. Arthur Reid who left in 1929. Mr. Hugh Craig Sr. was chief for a time and Mr. Jack Penn, of a pioneering family from Hillcrest, was chief engineer for a number of years, followed Mr. Tinge.

Names recalled as earliest employees at the Power Plant are Dan Ross, Alb May, Nick Driver, Bill Driver, Adamson, Tommy Baker, Ken Blain, Fred Greenwood, Billie Archer, Billie Burns, Cliff Uphill, Neidig, and Billie Meier as line-man.

Eventually B.C. Hydro took over East Kootenay Power Plants in B.C. The plant at Sentinel, Alberta was taken over Calgary Power. Mr. Dave Koop was chief engineer when operations ceased in February 1969."

# 1.6 CORE PRINCIPLES

The core principles of the design approach for this ASP is focused on the creation of humanly scaled cities, towns, hamlets and neighbourhoods through an imaginative and integrative approach to town planning. This approach is based on time-tested principles of town planning found in the most treasured places in the world. This will allow for the development and implementation of an environmentally, economically, and socially sustainable plan for future generations to enjoy.





BRIDGEGATE

# BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE

# 2.0 DEVELOPMENT PLAN

#### 2.1 VISION

Bridgegate Resort Village on Crowsnest Lake is envisioned to become Crowsnest Pass's premier resort village destination. For centuries the site has been a draw for living, working, and recreating along the Crowsnest lake shore at the mouth of the Crowsnest River. It is appropriate then, that the site embraces the historical use of this land with a resort village that once again brings people to enjoy its serene shoreline, picturesque setting, and intimate natural features as a playground and a home.

# The Resort

As a resort, Bridgate will offer a diversity of homes and accomodations in a range of settings. This will attract a broad cross section of residents to the village. Shopping and restaurants centred around the redeveloped power house will offer residents and visitors an active village life with cafes, main-street style shopping, and a range of eating establishments. Other amenities will include an aquatics centre, a beach, a boat launch and dock facilites, a number of indoor and outdoor pools, a multi-use lawn, and several amenities buildings that will serve as bandshells, lookouts, picnic areas, and other uses. A system of natural pathways leading to a number of smaller amenity buildings will offer a quiet setting away from village life.

#### The Village

As a village, Bridgegate will take its form from the time-tested village character celebrated in the world's most loved places. Narrow tree lined streets, intimate public spaces, attractive humanly scaled architecture, a dense network of sidewalks and pathways, and carfeully crafted streetscapes will invoke visitors and residents the charm and character of a place that they will soon come to love. Visitors and residents will arrive by car, bus, water, helicopter, floatplane, or at the Village's train station on the CPR line. Once in the village, they will be able to access the village by foot along comfortable, attractive streets and pathways.

From the outside, the village will display a compact, contained urban environment surrounded by natural forests and parkland. This distinct duality of urban and natural is characteristic of the picturesque villages of Europe. Along with attractive architecture, the village will enhance rather than detract from the viewshed as seen from Crowsnest Trail and elsewhere.

# The Environment

Environmental integration and a link to nature are a primary focus of the Village. Preserved natural areas will be enhanced and protected for the enjoyment of visitors, residents, and wildlife. The village displays the walkable, human scaled urban form time tested throughout the world. Human systems such as stormwater will be integrated symbiotically with natural ones. Heating technologies utilizing geothermal energy and alternative energy systems harnessing the wind and the sun will be pursued. LEEDS qualified projects will be preferred.

#### 2.2 CONCEPT

Responding to the natural form of the subject site, three general areas are formed. An 'upper village' is found at the upper bench, a 'lower village' at the lower bench, and an additional development area within the 'south shore'.

The village is envisioned to have a distinct edge from the surrounding natural areas. To conserve land, concentrate village activity, and reduce the overall environmental footprint for the the village, development is envisioned to "go up" rather than spreading out. Separating the lower and upper village is a significant ridgeline with a number of unique rock outcroppings and mature tree stands. This ridgeline forms a natural seam between the two village areas. A system of pedestrian pathways and sidewalks link the two villages and tie in surrounding natural areas. Pedestrian movement will take precedent over vehicular movement.

# Lower Village

The lower village will be the first to begin construction following a main east-west 'spine' street. Following a crescent formed between the ridgeline and the shoreline, a number of blocks are formed that will include street oriented row houses, a low rise mixed use building on the north, and towers supported by mid rise bases. Tower blocks will include street accessible town-houses, single and double level flats, tower units, and penthouses at the top of the towers. Rooflines and units are articulated to maximize views. Parking is provided underground.

A narrow street wraps around the eastern-most block allowing a lively public edge to a beach and a significant preserved natural area that protects the mouth of the Crowsnest River. The second block is bordered on the south by a pathway and a preserved natural point into the river. Terminating the view of the spine road is a railway station and platform. The station forms the gateway to a plaza fronted by a resort hotel and conference centre anchoring the western edge of the site.

The existing power house is redeveloped providing a number of restaraunt and entertainment uses. Ground floor, street-oriented commercial uses surronde a plaza and the main east-west spine. The plaza surrounds three sides of the power house and leads into a boat ramp, marina access, and a lakeside restaraunt patio. A marina extends into the lake allowing for boat slips and water access to the village.

# **Upper Village**

Three narrow roadways rise into the upper village. The upper village is largely mid-rise with street and courtyard oriented units and courtyard apartments. A single tower rises on the eastern edge with views down the crowsnest river corridor. The buildings are organized on a central east-west spine. The spine accomodates a formal street, a multi-use lawn at the centre of the village, and terminates at a multi-use civic building at the western end.

Buildings form private courtyards internally, and semi-public courts in between. These courts host pool areas, plazas, and other recreational uses. To mitigate train noise, buildings on the north end are oriented to form a high wall extending through the back of private courtyards and semi-private courts. An aquatic/recreational centre anchors the western edge of the upper village and forms a formal link to the lower village.

The entire upper village is elevated to accomodate underground parking and enhance views. Additional underground parking on the northern edge may accommodate the lower village as well. A natural water feature may be formed at the small valley formed at the southwestern edge of the site.

#### **South Shore**

The south shore will allow for additional resort village uses significant areas of natural forested area. Hotel, institutional, commercial, and residential uses may be accommodated near the access road. The existing dance hall will be reconstructed to address its historical significance and the existing public boat lauch will be enhanced. A potential heliport will provide helicopter access to the site.

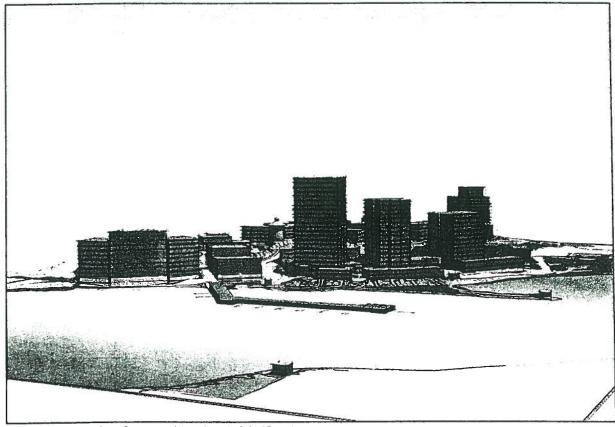


Figure 2.1, Conceptual Massing Model - View A

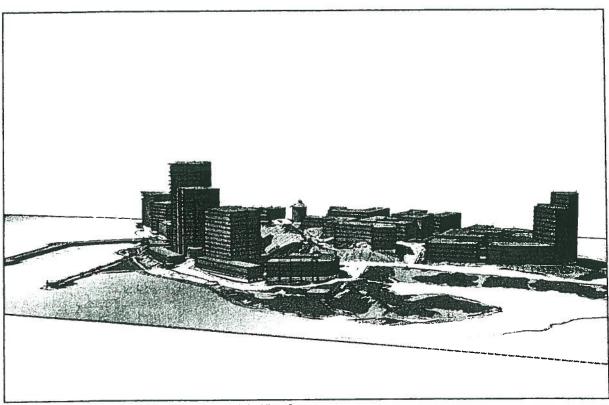


Figure 2.2, Conceptual Massing Model - View B

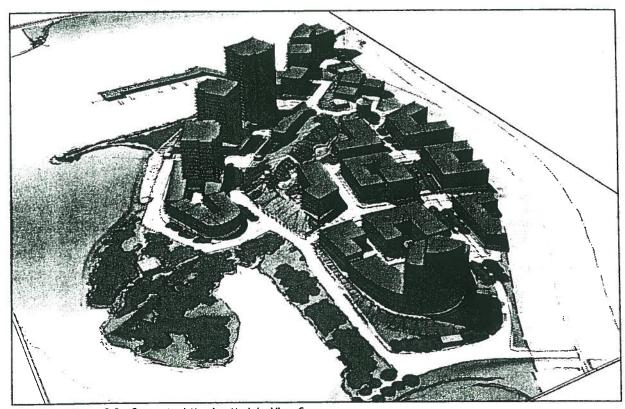


Figure 2.3, Conceptual Massing Model - View C

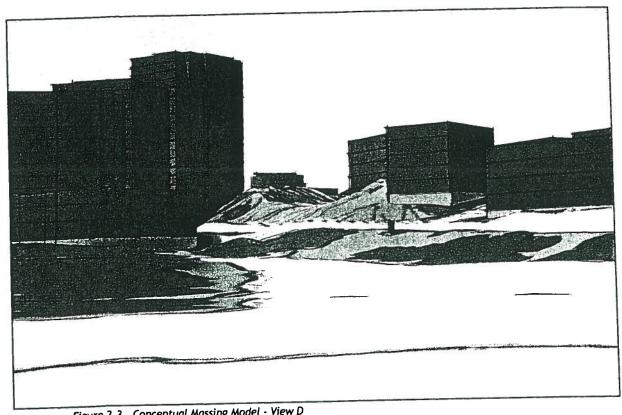


Figure 2.3, Conceptual Massing Model - View D

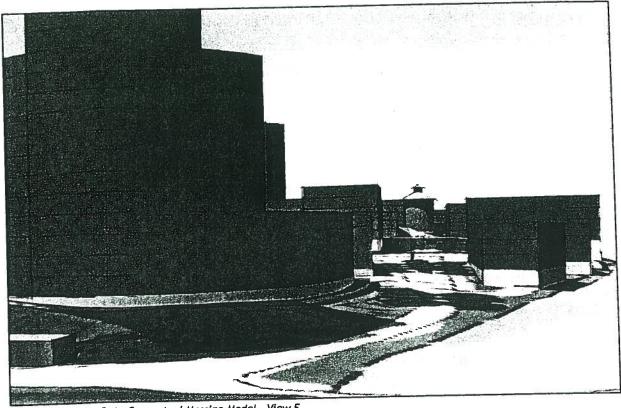


Figure 2.4, Conceptual Massing Model - View E

# 3.0 LAND USE

#### 3.1 OVERVIEW

This section describes the general land uses proposed for the subject site. A more comprehensive and detailed "Comprehensive Resort Village" land use district in conjunction with detailed development standards will be submitted after ASP approval. This process is further outlined in Section 6.0. It will be the intention of the proposed CRV district to respect the natural setting while accommodating a comprehensive master plan tied to detailed development standards.

#### 3.2 GENERAL LAND USES

All lands within the planning area are under either Direct Control (DC-1) or Non Urban Area (NUA) and currently defer land uses to the discretion of council. Specific land uses and parameters will be identified within the forthcoming land use district. The general land uses proposed within the planning area include, but are not limited to the following:

- Commercial including retail, entertainment, restaurants, drinking establishments, office, outdoor cafes, services, casino
- Residential
- Accomodations and related services
- Institutional
- Civic Spaces and municipal reserves
- Recreational Uses

# 3.3 NATURAL AREAS

In accordance to the Municipal Government Act, a minimum 10% of the gross developable land is to be either dedicated as municipal reserve or cash-in-lieu will be provided to the local Municipality. As illustrated within the proposed plan the retention of significant natural site features and vegetation is of primary importance. The proposed plan will meet and likely exceed the Municipal Reserve (MR) requirement. A detailed analysis of proposed Municipal Reserve Lands will be provided at future subdivision stages to the satisfaction of the Approving Authority.

#### 3.4 DENSITY

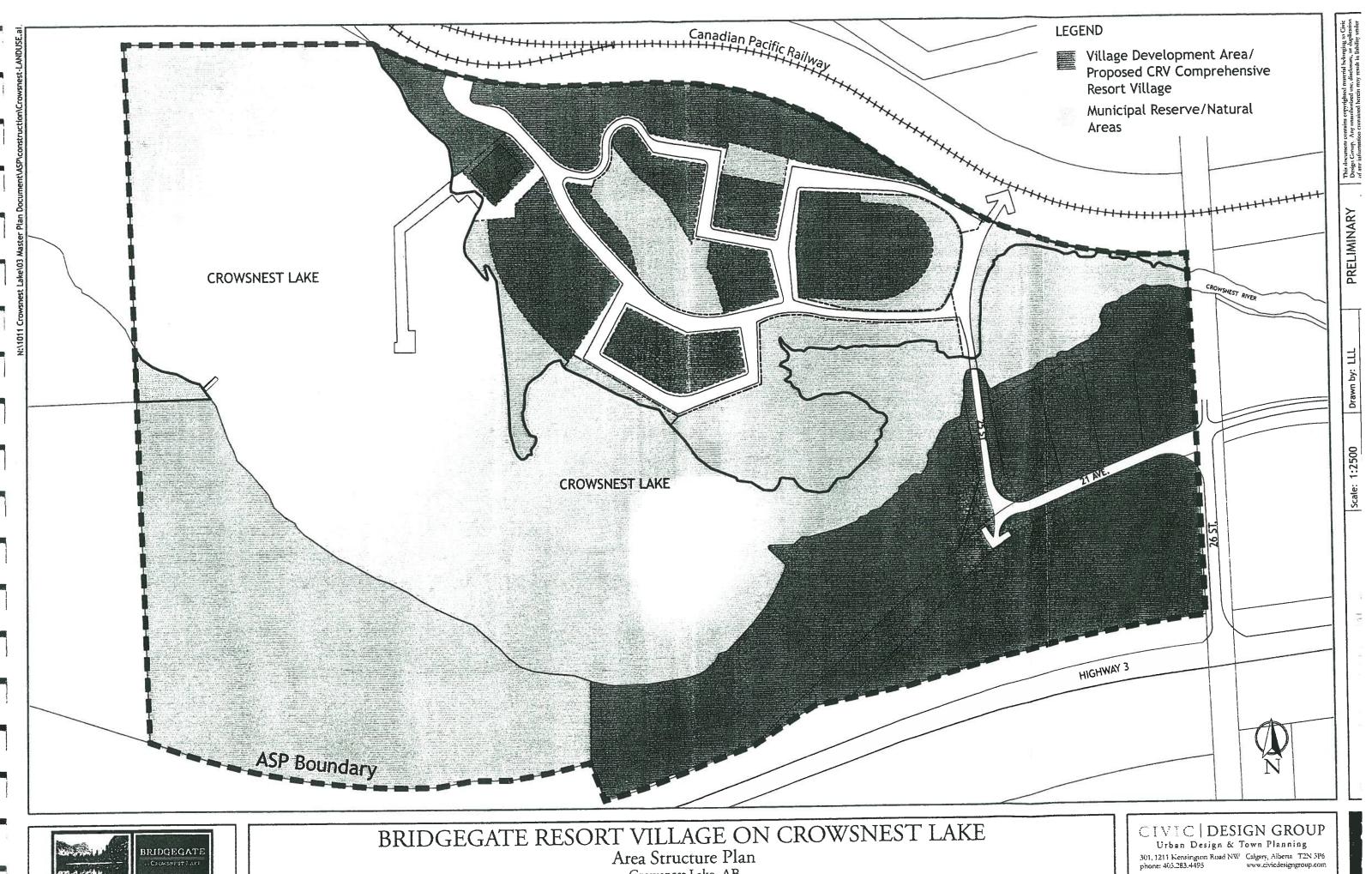
The anticipated density within the ASP boundary is to be up to 2000 residential dwelling and/or accommodation units of various sizes. Primary residential densities will occur in both the upper and lower village lands with the bulk of the densities to occur within the lower village lands.

## 3.5 BUILDING HEIGHT AND PLACEMENT

In order to ensure the greatest amount of flexibility in the design and implementation of the proposed plan, the maximum building height within the ASP boundary shall not exceed 25 stories. Building Placement will be in accordance to architectural, environmental, and urban design standards. The primary façade and entry to each building shall be oriented to the street, where possible.

# 3.6 PARKING AND LOADING

Parking and Loading will be provided as necessary, and will be designed to accommodate adequate access and servicing requirements. Throughout the Upper and Lower Village lands parking will generally be accommodated in either underground parking garages and or above ground parkade structures both visually screened from the street face. Above ground parking lots will be accommodated at the rear of the building. On street parking will be accommodated where possible to enhance commercial viability and provide the pedestrian with a sense of security. Parking for individual buildings may be accommodated offsite, or by shared parking standards, within the ASP boundaries and to the satisfaction of the approving authority.





Crowsnest Lake, AB

# 4.0 TRANSPORTATION

#### 4.1 OVERVIEW

The urban form of the village is traditionally characterized by a fine grained network of humanly scaled thoroughfares. The network allows multiple and direct routes to destinations and forms a block structure that is fundamental to sound urban form. A heirarchy differentiates local routes and more intense regional routes.

### 4.2 THOROUGHFARE STANDARDS

The pedestrian serves as the primary mode of transportation within the village. All thoroughfares should be designed to adequately accomodate vehicular movements, but shall avoid oversized street dimensions that reduce pedestrian safety, encourage speed, and detract significantly from the character of the village. Minimum carriageway widths are strongly encouraged. Alternate means of accomodating emergency vehicles and service vehicles should be pursued rather than typical methods of oversized streets and cul-de-sac bulbs, to the satisfaction of the approving authpority.

For character and for alternate means of slowing and controlling traffic, alternative street standards may be employed. These may include alternative surface treatments, non-aligned curbs resulting in the contraction and expansion of the street, squared corners and reduced corner radii, and unique sidewalk and edge treatments. On-street parking, street trees, and lighting are allowable on all thoroughfares and shall be integrated as part of the comprehensive design of the village. All street standards shall be designed to the satisfaction of the approving authority.

#### 4.3 SITE ACCESS

The site is currently accessed from the south at the intersection of 26th Street and Crowsnest Trail (Highway 3). The village is then accessed through a series of municipal roadways, east along 21st Avenue and then north along 25th street. While not ideal, this provides an adequate access to the site.

Crowsnest trail is a major thoroughfare serving the east-west traffic through the pass and is currently under review for improvements and possible realignment. Future access may be provided onto 25th allowing direct access into the village. The future intersection design will take into consideration the densities proposed for the subject site, and will minimize impacts on existing residential uses.

#### 4.4 PEDESTRIAN NETWORK

A range of pedestrian pathways will form a permeable network throughout the site and will range from more urban sidewalks, plazas, and midblock passages to more natural pathways. Pathway and sidewalk connections outside of the site will be encouraged when possible.

#### 4.5 VEHICULAR NETWORK

Access to the village is on the eastern edge along 25th street. As an entry road, 25th Street will serve as an important entry feature and should be improved to reflect the character of the village while adequately accomodating vehicular traffic. Street design should be kept narrow and should be equipped with adequate sidewalks and/or pathways. The existing bridge over the mouth of the Crowsnest River should remain as a narrow two lane bridge with the addition of sidewalks on both sides. The bridge will be rebuilt to reflect the character of the village and will act as the primary entry feature.

Internal village circulation is accommodated by a small network of public and private streets. Figure 4.1 demonstrates the proposed circulation network. An east-west public roadway will form a spine through the village from 25th street terminating at the proposed hotel site and train station.

#### 4.6 RAIL

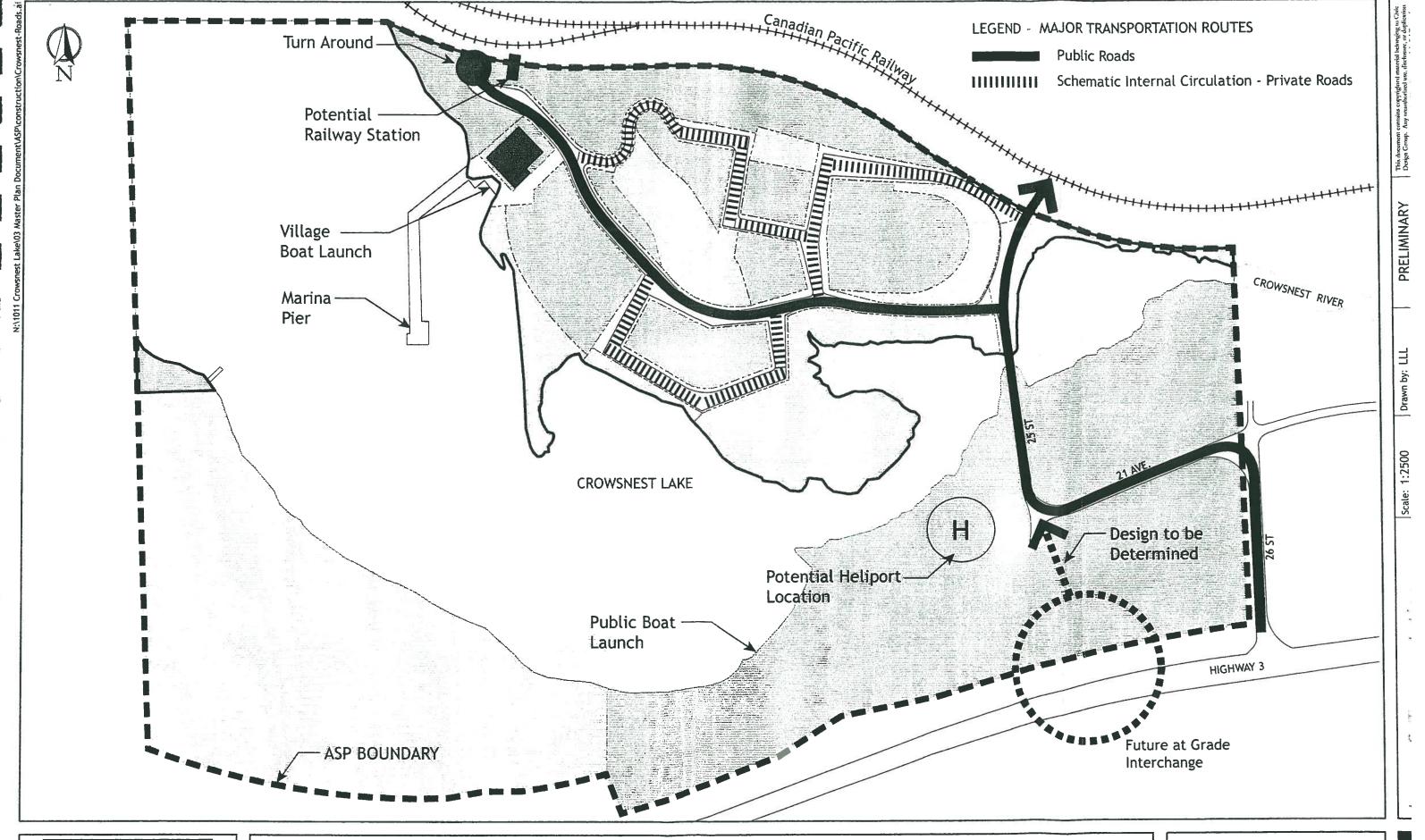
An active Canadian Pacific Railway line borders the village to the north. A recently built spur line provides the potential for a passenger rail connection with Canada wide connections including the immediate local connection to Fernie and Banff. The feasibility of this connection will be considered as part of a separate agreement with Canadian Pacific Railway.

# 4.7 WATERWAYS

A proposed dock will provide access to and from the village site by private watercraft. Regulations concering the use of private watercraft will be provided as part of the approved land use district, or by seperate agreement to the satisfaction of the approving authority. An existing public boat launch in the south shore area will be enhanced and integrated into future development schemes.

#### 4.8 AIRCRAFT

A heliport may be provided in the south shore area and will be positioned and designed to minimize impacts on surrounding uses. Additional air access may be provided by floatplanes.





# BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE Area Structure Plan

Crowsnest Lake, AB

# CIVIC | DESIGN GROUP Urban Design & Town Planning

501, 1211 Kensington Road NW Calgary, Alberta T2N 5P6 phone: 403.283,4495 www.civicdesigngroup.com

# 5.0 SERVICING OVERVIEW

# 5.1 SERVICING OBJECTIVES

Servicing of the lands defined within the ASP boundary will be designed and constructed in accordance with the guidelines from the Municipal District of the Crowsnest Pass, as well as Alberta Environment and related standards and practices in effect at the time of the development.

The objectives for the servicing strategy are as follows:

- Making effective use of the existing topographic conditions to service the subject property in the most effective and efficient manner,
- Connect to the off-site servicing connections provided by the MD,
- Extend the services into the property allowing for phased construction,
- The initial costs for on-site roads, sidewalks, water, sanitary and storm sewer, shallow utilities, etc. shall be borne by the Developer,
- Provide a comprehensive design that minimizes the impacts to the environment and in particular the Crowsnest Lake.
- Design a stormwater management system that meets or exceeds the Alberta Environment guidelines.

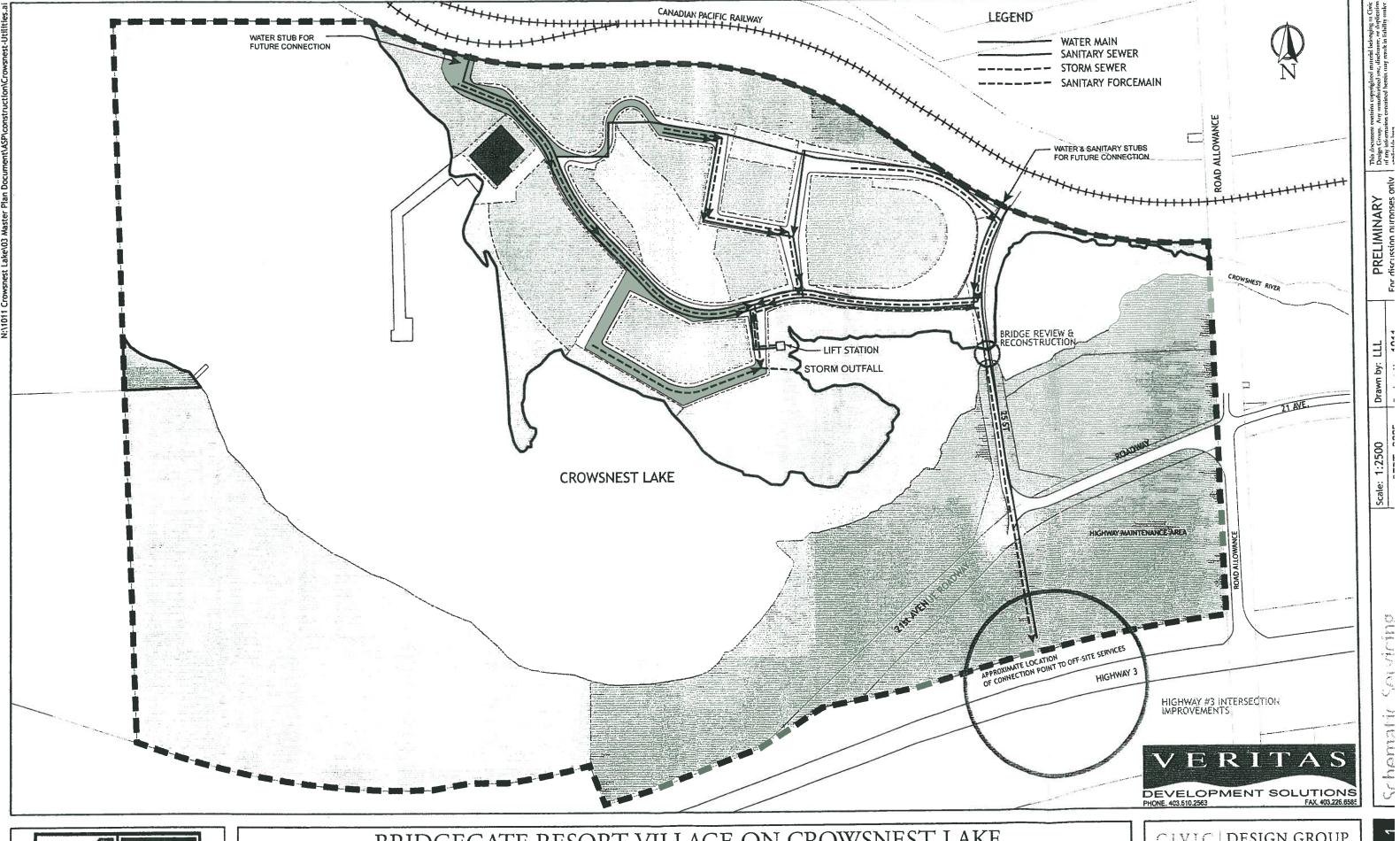
# 5.2 PROPOSED WATER SUPPLY AND DISTRIBUTION

The water supply system for the subject lands is proposed to connect to the MD's domestic supply system. Off site upgrades will be required to extend the water servicing from its current location to the subject property. The details concerning the location of the connection point will be identified in the servicing review to be completed by Stantec Consulting of Lethbridge. This report will also identify the trunk size of the main entering the site.

In general, the watermains within the resort core will be looped, and the use of 'dead end' lines will be minimized. The water supply system will serve both domestic usage and fire fighting capability. A complete detailed Water Network Analysis will be provided at the time of detailed design in order to accurately size the mains. Stubs for future development areas will be provided in the areas identified in Figure 5.1. The need for a balancing tank/reservoir will be assessed once the Stantec report is available.

# 5.3 PROPOSED SANITARY SERVICING & WASTEWATER COLLECTION

A sanitary sewer system within the property is proposed to collect wastewater via gravity sewer connections to each development parcel. Figure 5.1 shows the preliminary collection system within the road allowance and also identifies a lift station at the low end of the site, near the intersection of Crowsnest Lake and Crowsnest River. The lift station will likely be required to connect into the proposed off-site tie-in point, based on a preliminary review of the topogra-





BRIDGEGATE RESORT VILLAGE ON CROWSNEST LAKE

Area Structure Plan Crowsnest Lake, AB

CIVIC DESIGN GROUP
Urban Design & Town Planning

301, 1211 Kensington Road NW Calgary, Alberta T2N 5P6 phone: 405,283,4495 www.civicdesigngroup.com

phy. The invert elevation on the north side of Crowsnest River near the existing bridge appears to be below the assumed elevation of the gravity connection to be provided by the MD of Crowsnest Pass. The off-site servicing review by Stantec will identify the proposed connection point, at which time we could confirm whether or not a lift station is required.

Development areas on the south side of Crowsnest Lake will also make connection to the gravity main to be installed by the MD along Highway #3. Stubs for future connection will also be included for developments areas to the north of the existing railway right-of-way.

The gravity sewer system to be installed by the MD connects to the existing sewage treatment plant located in Frank. Again, the off-site servicing review by Stantec will identify if the existing plant has sufficient capacity and make recommendations for any upgrades required.

#### 5.4 STORM WATER MANAGEMENT

An on-site storm water collection system is proposed to service the entire resort core area. Storm water runoff will be discharged into the Crowsnest Lake, since it is the lowest point in the development area. Therefore the discharge of storm water shall be managed in accordance with the required quantity and quality guidelines established by the MD of Crowsnest Pass and Alberta Environment. Storm water will be collected through catch basins and a collection system within the roadway allowances. Storm water management may include buried treatment facilities to ensure that the quality of the water entering the lake has been treated for oil and grit removal.

A storm water master drainage plan will be required in order to guide all subsequent storm water design. This document will identify treatment options, estimated flow volumes and provide recommendations for the detailed design process. To our knowledge, there has not been a comprehensive stormwater analysis completed for the subject lands.

# 5.5 SHALLOW UTILITIES

# **Electrical System**

Fortis is currently responsible to maintain the transmission lines that cross the property. The East Kootenay Power Plant was once present on-site (building still remains). Given the history of the site, a large amount of electrical infrastructure still remains. Therefore, the existing transmission lines will be used to service this site development.

An internal power distribution system will be designed to service the individual development parcels. All new electrical lines within the site will be buried underground and protected with utility easements.

#### **Natural Gas**

ATCO Gas currently has service to the subject lands via an underground pipeline. Therefore the future development area will be serviced through this existing system. ATCO Gas will be contacted directly to discuss the availability of gas and the need for off-site upgrades, should they be required.

#### **Telecommunications**

Telus provides telephone service to the to the Crowsnest Pass area. In the case of the subject property, Telus has a submarine line at the bottom of Crowsnest Lake. Service would be made to the site through the closest connection point and run underground throughout the development. High speed internet and fiber optic capabilities will be considered throughout the development. A common utility trench would likely be used to run all shallow utilities within the same easement.

# 6.0 IMPLEMENTATION

# 6.1 MASTER PLAN

Following approval of the Area Structure Plan, a subdivision plan, detailed engineering, and a comprehensive land use district will be submitted for approval. A comprehensive Master Plan will be produced for the village providing all the necessary documents to implement the plan including detailed design concepts, subdivision, outline plan, the implementation process, and a summary of engineering.

# 6.2 LAND USE: COMPREHENSIVE RESORT DISTRICT

The area structure plan establishes general land uses as described in section 3.0. Following ASP approval, a "Comprehensive Resort Village" land use district will be submitted for approval and will include the following:

# Regulating Plan

A plan indicating thoroughfare locations and types, the form and location of public spaces, building or lot types, build-to lines for buildings, primary frontages, and other design elements as necessary.

#### Urban Standards

A matrix of graphics and text regulating the configuration of buildings and development parcels and how the affet the public realm. Parameters may include height, frontage types, frontage treatments, building functions, building entries, parking and parking access, and other design elements as necessary.

# Architectural Standards

To establish a harmonious architectural character and a high standard for architectural quality and construction, the Architectural Standards will set out minimum standards and will communicate the intentions for the desired style and character of architectural expression.

# Thoroughfare Standards

To establish thoroughfares that serve both capacity and character, the Thoroughfare Standards will establish specifications and parameters for all vehicular and pedestrian ways specialized for their context and use. Specifications will include roadways, sidewalks, planters, street trees, and street lights.

#### Landscape Standards

To establish coherent landscaping and street tree planting throughout the village, and to provide for a healthy natural-urban landscape in harmony with the crowsnest region, Landscape Standards will set out sepcifications for plant species, their location, and planting pattern. Crowsnest Pass, Alberta

### Environmental Standards

In pursuit of long term environmental viability and an urban pattern that is integrated with the surrounding environment, the Environmental Standards will provide requirements, recommendations, and best practices regarding both the public realm and private development lots. Standards may include building materials, construction techniques, natural areas protection, and other parameters as needed. Standards will be reflective of LEED Canada standards as maintained by the Canadian Green Building Council.

### 6.3 OUTLINE PLAN

The information presented under Section 5.0 Servicing Overview is preliminary in nature and based on the information available to date. Through a more detailed Outline Plan process, additional engineering reviews, reports, and studies will provide a greater level of detail and serve as guiding documents for the balance of the design process. A number of supporting documents to the Outline Plan have been identified and are noted in the following list along with a description of the corresponding scope of work. The preliminary review presented herein is subject to a more thorough review contained in these reports. These engineering reports will be summarized within the Master Plan.

### Storm Water Master Plan

A Storm Water Master Plan identifies the manner in which the runoff from the site will be addressed with respect to quality and quantity before being discharged into the receiving water course. This document will provide the framework for all subsequent design associated with how runoff is collected and managed. This report would be subject to the review of the MD of Crowsnest Pass, as well as Alberta Environment.

### Transportation Impact Study

This report will address items related to the access requirements from Highway #3, laning requirements on the private bridge crossing the Crowsnest River and the alignment and preliminary design of the internal roadway system. This report will form as the backbone for all the subsequent road designs associated with this development.

### ■ Environmental Site Assessment (ESA) Level 1.

An ESA provides a general overview of the history and past uses of a site to highlight potential environmental liabilities, non-compliance with current regulations, possible chemical use or waste management issues.

## Off-site Servicing Review.

Stantec Consulting of Lethbridge has been retained to conduct a servicing review and preliminary design for water and sanitary sewer servicing to the subject lands. The outcome of this report is critical to the design of the related on-site servicing concept and therefore direct communication with Stantec will be required. The Stantec report

Crowsnest Pass, Alberta

must be reviewed in consort with the servicing concept presented in subsequent engineering designs for the Crowsnest Lake Resort. The servicing strategies presented are therefore very broad in nature since the details cannot be established until such time as the Stantec report is complete.

Geotechnical Investigation.

A drilling program and field review of the existing conditions is required to provide the necessary background on subsurface conditions. Water table elevations, depth of bedrock, pavement structure designs, footing recommendations, etc. will be included in this document.

### 6.3 SUBDIVISION

The village will be organized as a bareland condo with a number of subdivided development parcels. A subdivision plan will be provided following approval of the ASP, and will be submitted as part of the Outline Plan process.

## 6.4 SEQUENCE OF DEVELOPMENT

The staging of development within the village will be guided primarily by servicing and market constraints. Some degree of flexibility will be required as the project progresses. Early phases will be concentrated of the lower village moving from the eastern edge to the west, as well as the redevelopment of the existing power house. The public east-west street through the village site will be the first thoroughfare constructed and will serve as a central spine for phasing. Figure 6.1 illustrates tentative phasing of the village.

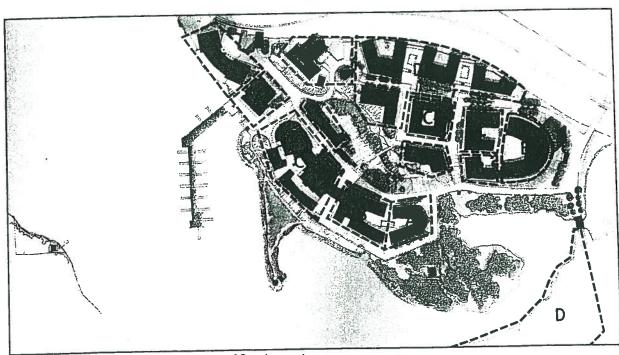
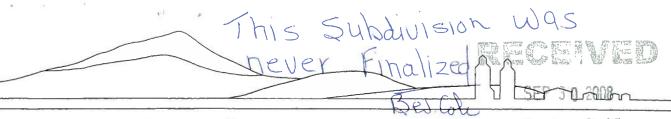


Figure 6.1, Tentative Sequence of Development



# OLDMAN RIVER REGIONAL SERVICES COMMISSION

## SUBDIVISION APPLICATION DECISION

Our File: 2008-0-260 Your File: 08-1476

NOTICE DATE: September 25, 2008

TO: River Run Corporation, Aziz Dharamshi, A.L.S., Municipality of Crowsnest Pass, Livingstone School Division, TELUS (Leth), FortisAlberta, AltaLink, ATCO Gas (Leth), Chinook Health, Alberta Transportation, Historical Resources Administrator, Area Wildlife Biologist

RE: Lot 120, Block 1, Plan 071 4930 in SW1/4 2-8-4-W5M / Municipality of Crowsnest Pass

**DECISION:** APPROVED ON CONDITION DECISION DATE: September 24, 2008 (See attached resolution for conditions)

The subdivision may be finalized for registration by the applicant or a person acting on their behalf following the required **19-day appeal** period (see following page for appeal details).

Prior to the submission of any final documents, it is the applicant's responsibility to:

- 1. pay any applicable municipal reserve and ensure that all conditions of approval have been met,
- 2. ensure that this office receives documented evidence to this effect.
- 3. complete the above within ONE YEAR of the approval date. (If you are unable to finalize the subdivision within this time frame you may contact the Municipality of Crowsnest Pass in order to request a possible time extension.)

**Final Documents:** In order to finalize the subdivision approval you will be required to complete all the conditions on the **attached resolution**. Contact the municipality and provide the Oldman River Regional Services Commission (ORRSC) verification of the following:

- **Municipal reserve** if the attached resolution has a requirement of providing municipal reserve, you must pay the requested amount to the municipality and then provide a copy of a receipt or letter from the municipality to verify the payment of the reserve. ORRSC will be responsible for preparing any deferred reserve caveats or discharges if needed.
- **Taxes** provide a tax receipt or letter from the municipality to indicate that there are no outstanding property taxes owing on the property for the current year.
- Development agreement provide a copy of a signed development agreement with the
  municipality (for servicing), or letter from the municipality that indicates no development
  agreement is required. You must send the original signed development agreement to the
  surveyor so that it may be registered concurrently at Land Titles Office with your subdivision.

- Easements if any easements are required by the municipality or utility agencies (see the conditions on the resolution), the applicant must contact the applicable utility company and then provide this office a copy of the signed easement agreement. You must send the original signed easement agreement to the surveyor so that it may be registered concurrently at Land Titles Office with your subdivision.
- Finalization fee pay to ORRSC the finalization fee of \$150.00 for each new lot to be created by the subdivision.
- Submit your plan of subdivision (as prepared by your surveyor) or your separation of title or transfer document (as prepared by your lawyer or surveyor).

In addition to the above, you must meet all the conditions as outlined in the attached Resolution and provide verification of such to ORRSC before finalization of the subdivision. You may wish to contact your surveyor to help coordinate the completion of any of the above.

Please contact the municipality and/or agency referred to in the conditions for further details on their requirements. Should you require any further clarification on meeting these conditions please contact ORRSC staff at (403) 329-1344.

Please note: When ORRSC has endorsed the final documents they are returned to your surveyor to be forwarded to Land Titles Office for registration.

Yours truly,

Steve Hater For Mike Burla Senior Planner

MB/ak Attachment

### Right to Appeal

Pursuant to the Municipal Government Act, the applicant, government departments, and local authorities have a right to appeal the decision or any conditions of the subdivision within 19 days of the notice date to the appropriate appeal board.

You may also appeal any reserve requirement (land or money) established by the subdivision authority. The appeal may be commenced by providing a written statement of the grounds of appeal to:

> Municipality of Crowsnest Pass Subdivision and Development Appeal Board Gordon Lundy, Chief Administrative Officer Box 600, Blairmore AB T0K 0E0

The appeal board must receive your notice of appeal within 19 days of the date of this letter informing you of the subdivision authority's decision. (Please contact the municipality to determine any applicable fees.)

## RESOLUTION

2008-0-260

Municipality of Crowsnest Pass - Comprehensive Multi-Use subdivision of Lot 120, Block 1, Plan 0714903

THAT the residential subdivision applied for of Lot 120, Block 1, Plan 071 4930 to create 4 lots ranging in size from 0.455 to 2.47 acres from a titled area comprising 6.42 acres (C of T 081 125 290+1); <u>BE APPROVED subject to the following:</u>

### **CONDITIONS:**

- 1. THAT, pursuant to Section 654(1)(d) of the Municipal Government Act, all outstanding property taxes shall be paid to the Municipality of Crowsnest Pass.
- 2. THAT, pursuant to Section 655(1)(b) of the Municipal Government Act, the applicant or owner or both enter into a Development Agreement with the Municipality of Crowsnest Pass which shall be registered concurrently with the final plan against the title(s) being created.
- 3. THAT the easement as required by ATCO Gas shall be established prior to finalization of the application and is to be registered simultaneously with the legal plan of subdivision.

### **REASONS:**

- 1. The Subdivision Authority is satisfied that the proposed subdivision is suitable for the purpose for which the subdivision is intended pursuant to Section 7 of the Subdivision and Development Regulation.
- 2. The proposed subdivision complies with both the Municipal Development Plan and Land Use Bylaw.

### **INFORMATIVE:**

- (a) Since the proposed subdivision complies with Section 663(d) of the Municipal Government Act, Reserve is not required.
- (b) That a legal description for the proposed parcel be approved by the Surveys Branch, Land Titles Office, Calgary.
- (c) FortisAlberta has no objection.
- (d) ATCO Gas requires a Utility Right of Way as shown hi-lighted on the attached plan. The Utility Right of Way should be **3.0** meters in width if they are solely for the use of ATCO Gas and **3.5** meters in width if the easement is to be shared with other utilities. All easements are to be registered as a general Utility Right of Way granted to the **Municipality of Crowsnest Pass** and are to be registered concurrently with the legal plan of subdivision. No structures or portions thereof may be erected within the Right of Way without prior written consent from the company.
- (e) Alberta Transportation advises that the proposal is contrary to Section 14 and subject to the requirements of Section 15(2) of the Subdivision and Development Regulation, being Alberta Regulation 43/2002 ("the regulation").

The department's primary objective is to allow subdivision and development of adjacent properties in a manner that will not compromise the integrity and associated safe operational use of the future expansion of the provincial highway system.

To that end, currently and as proposed, the parcels to be created and the remnant land will gain indirect access to the provincial highway solely by way of the municipalities' internal street system. As such, strictly from Alberta Infrastructure and Transportation's point of view we do not anticipate that the creation of the commercial/residential parcels as proposed would have any appreciable impact on the highway.

Therefore, in this instance the department grants an unconditional variance of said Sections 14 & 15(2).

Notwithstanding that the waiver of Section 15(2) has been granted the applicant is advised that no direct access to highway will be allowed as a result of this application.

Section 16 of the regulation only states that the requirements of Sections 14 and 15 may be varied. Although the waiver of these sections has been granted for this application, it has been granted under site specific circumstance (indirect access by the internal street system) and it should not be construed that this variance would set precedent or be granted as a matter of course.

The applicant would also be advised that any development within 300 metres of the limit of a controlled highway (3) or within 800 metres from the centre point of an intersection of a controlled highway (3) and a public road would require the benefit of a permit from our department. This requirement is outlined in the Public Highways Development Act and the corresponding Highway Development Control Regulation, being Alberta Regulation 242/90.

The subject property is within the noted parameters, however given that development setbacks will be maintained by default and all access to the highway is indirect by way of the municipalities' internal street system, in this instance a permit from the department will not be required and development of the commercial/residential parcels could proceed under the direction, control and management of the municipality. The applicant could contact the department through John Thomas at Lethbridge 403/381-5426, in this regard.

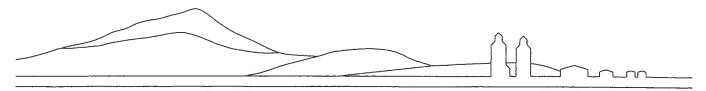
The department accepts no responsibility for the noise impact of highway traffic upon any development or occupants thereof. Noise impact and the need for attenuation should be thoroughly assessed. The applicant is advised that provisions for noise attenuation are the sole responsibility of the developer and should be incorporated as required into the subdivision/development design.

Any peripheral lighting (yard lights/area lighting) that may be considered a distraction to the motoring public or deemed to create a traffic hazard will not be permitted.

Further, should the approval authority receive any appeals in regard to this application and as per Section 678(2.1) of the Municipal Government Act and Section 5(5)(d)(ii) of the regulation, Alberta Transportation (AT) agrees to waive the referral distance for this particular subdivision application. As far as AT is concerned an appeal of this subdivision application may be heard by the local Subdivision and Development Appeal Board provided that no other provincial agency is involved in the application.

- (f) Chinook Health recommends connection to municipal water and sewer.
- (g) Telus has no objections but recommended "That the developer contact Telus when plans on behalf of Fortis are finalized, or six weeks prior to start (whichever is longer), and provide Telus if required, with the following:
  - 1. Buried facilities would be placed in a 2 or 3 party joint use trench which is normally within a Utility Right of Way, at front of property. It is the Developer's responsibility to supply the trenching and all joint use pedestals, as well as the placement of Telus supplied cable. Telus will produce the Telecommunications Work Plans, and provide inspections and acceptance testing during construction at no charge.
  - 2. Provide 3.5m easements and place all conduits for road crossings, driveway crossings, if required.
  - 3. The developer be aware they will be billed 100% of costs incurred for any redesign which is a result of changes that occur after Telus' initial design has been completed and/or relocation of Telus' existing Network Facilities.
  - 4. For design purposes, a copy of Subdivision plans, a 3.5 inch floppy disc, DXF format, or E-mail with <a href="mailto:.dgn">.dgn</a> file would be appreciated.
  - 5. If a bareland situation, the developer is responsible for trenching, supplying and installing all pedestals, conduit and cabinets.

Should you require further information, please contact Brian Symborski at 403-382-2518 in Lethbridge or by direct correspondence."



# OLDMAN RIVER REGIONAL SERVICES COMMISSION

## NOTICE OF APPLICATION FOR SUBDIVISION OF LAND

**DATE:** August 21, 2008

TO: Landowner: River Run Corporation

Agent: Aziz Dharamshi, A.L.S.

**Referral Agencies:** Municipality of Crowsnest Pass, Ian Macleod, Gary Taje, Bev Cole - Administration, Ray Mahiex - Public Works, Livingstone School Division, TELUS

(Leth), FortisAlberta, AltaLink, ATCO Gas (Leth), Chinook Health, Alberta

Transportation, Historical Resources Administrator, ERCB (via email), Area Wildlife

**Biologist** 

Adjacent Landowners: Notified Via Ads in the Pass Herald and the Pass Promoter

The Oldman River Regional Services Commission (ORRSC) is in receipt of the following subdivision application which is being processed on behalf of the Municipality of Crowsnest Pass. In accordance with the Subdivision and Development Regulation, if you wish to make comments respecting the proposed subdivision, please submit them via email, fax or mail no later than **September 16,2008**. (Please quote our File No. **2008-0-260** in any correspondence with this office).

File No.: 2008-0-260

Date of Receipt: August 12, 2008

Legal Description: Lot 120, Block 1, Plan 071 4930 in SW1/4 2-8-4-W5M

Municipality: Municipality of Crowsnest Pass

Existing Use: Vacant

Proposed Use: Commercial/Residential

Number of Lots: 3

Certificate of Title: 081 125 290+1

Proposal: To resubdivide Lot 120, Block 1, Plan 071 4930 comprising 6.42

acres to create 4 lots ranging in size from 0.455 acres to 2.47 acres

and a corresponding roadway for access purposes.

Phone: (403) 329-1344 • 3105 - 16<sup>th</sup> Avenue North, Lethbridge, Alberta T1H 5E8 • Fax: (403) 327-6847 E-mail: orrsc@telus.net • Website: www.orrsc.com

### **Planner's Preliminary Comments:**

Proposal would resubdivide Lot 120, Block 1, Plan 071 4930 comprising 6.42 acres to create 4 lots ranging in size from 0.455 acres to 2.47 acres and a corresponding roadway for access purposes. This proposal represents the interior commercial core of the River Run proposal in Blairmore and complies with the previously adopted area structure plan.

The Subdivision Authority is requested to consider the following when rendering a decision on this application:

- 1) Payment of any outstanding property taxes.
- 2) Provision of a development agreement with the municipality for future servicing to the proposed new titles.
- 3) Pertinent comments and information provided by adjacent landowners and by referral agencies.

### **MUNICIPAL RESERVE:**

N/A Previously satisfied.

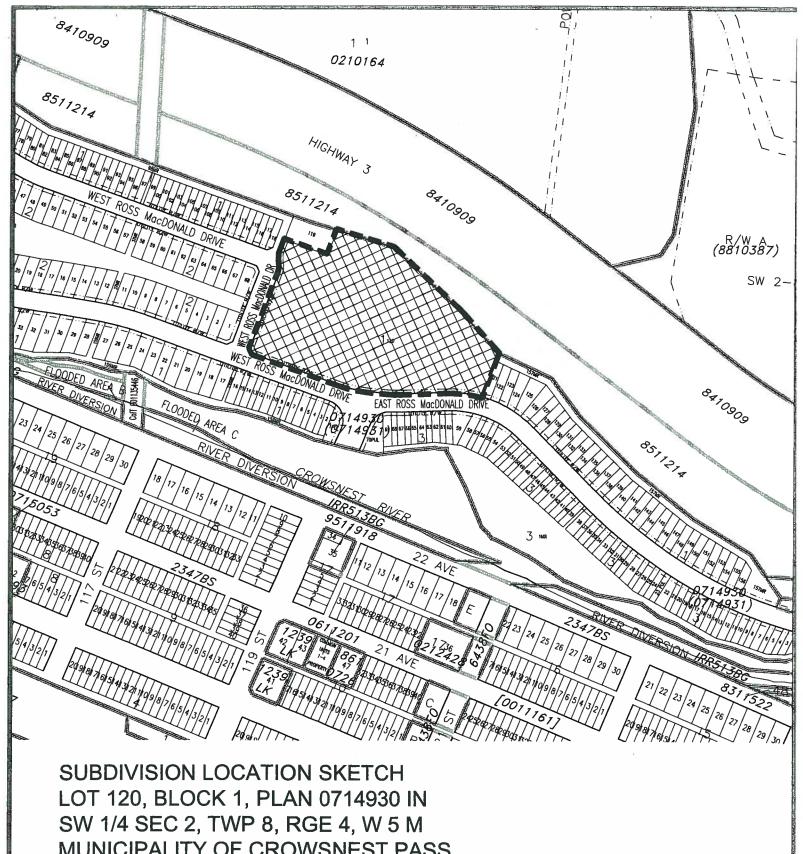
If you wish to make a presentation at the subdivision authority meeting, please notify the Municipality of Crowsnest Pass Municipal Administrator as soon as possible.

Submissions received become part of the subdivision file which is available to the applicant and will be considered by the subdivision authority at a public meeting.

# APPLICATION FOR SUBDIVISION

11	FOR OFFICE USE ONLY						
C	ATE of receipt of completed Form 1: FEES submitted (non-refundable): FILE No.						
Ш	Cilly 12/00 1000.						
S	THIS FORM IS TO BE COMPLETED IN FULL WHEREVER APPLICABLE BY THE REGISTERED OWNER OF THE LAND THE SUBJECT OF THE APPLICATION OR BY AN AUTHORIZED PERSON ACTING ON HIS BEHALF.						
1	1. Name of registered owner of land to be subdivided Address and phone no.  RIVER RUN PLAZA CORPORATION # 300, 1333 - 8" STREET S.IAI.  Name in block capitals CALGARY ALGORATA. T22 IM6						
- 2							
۷.	2. Name of agent (person authorized to act on behalf of registered owner), if any  TRONNES SURVEYS LTP  ALRENTA T2A6TT						
	Name in block capitals Confact: A212 DHARAMSHI A.L.S.						
3.	LEGAL DESCRIPTION AND AREA OF LAND TO BE SURDIVIDED						
	All / part of the SW //sec 2 twp 8 range 4 west of 5 meridian						
	Being all / parts of let 120 block Reg. Plan No. 031 4930 C.O.T. No. 081 125 290 +						
	Area of the above parcel of land to be subdivided						
4							
4.	a. The land is situated in the municipality ofMUNICIPALITY OF COMEMENT PASS						
	b. Is the land situated immediately adjacent to the municipal boundary?  Yes						
	c. Is the land situated within 0.8 kilometres of the right of way of a highway? Yes						
	d. Does the proposed parcel contain or is it bounded by a river, stream, lake or other body of water or by a drainage ditch or canal?						
	If "yes", state its name						
	e. Is the proposed parcel within 1.5 kilometres of a sour gas facility?						
5.	EXISTING AND PROPOSED USE OF LAND TO BE SUBDIVIDED						
٠.	Describe:						
	VACANT						
	b. Proposed use of the land MULTI USE COMMERCIAL RESIDENTIAL						
	c. The designated use of the land as classified under a land use bylaw						
_							
υ.	PHYSICAL CHARACTERISTICS OF LAND TO BE SUBDIVIDED (where appropriate)  a. Describe the nature of the topography of the land (flat, rolling, steep, mixed)						
	a. Describe the nature of the condition of the land (flat, rolling, steep, mixed)						
	b. Describe the nature of the vegetation and water on the land (brush, shrubs, tree stands, woodlots, etc sloughs, creeks, etc.)						
	c. Describe the kind of soil on the land (sandy, loam, clay, etc.)						
7.	EXISTING BUILDINGS ON THE LAND TO BE SUBDIVIDED						
	Describe any buildings and any structures on the land and whether they are to be demolished or moved						
8.	WATER AND SEWER SERVICES						
	If the proposed subdivision is to be served by other than a water distribution system and a wastewater collection system, describe the manner of providing water and sewage disposal						
	N/h·						
9.	REGISTERED OWNER OR PERSON ACTING ON THE REGISTERED OWNER'S BEHÄLF  I						
	(Full Name)  I am the agent authorized to act on behalf of the registered owner						
	and that the information given on this form is full and complete and is, to the best of my knowledge a true statement of the facts relating to this application for subdivision.  Address # 110 3030 - 319 KNAME NE CALANY (Signed) (Signed)						
	Phone No. 403 - 207 - 0303 Date 5 Avous 2008						
ĺΜF	PORTANT: > Please fill out the right of entry authorization on the reverse.						
	> Further information may be provided by the applicant on the reverse.						
	Information on this application form will become part of the subdivision file which will be considered by a subdivision authority at a public meeting.						

Mail or deliver the completed application form, detailed sketch and required fee to:

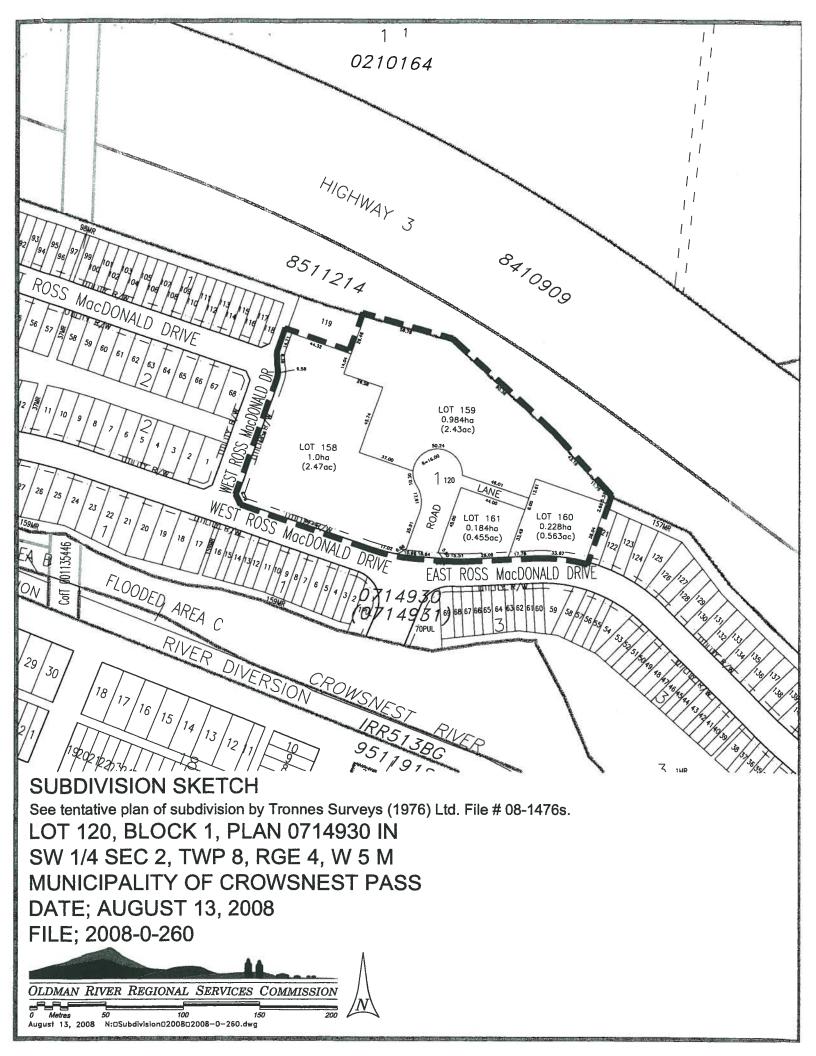


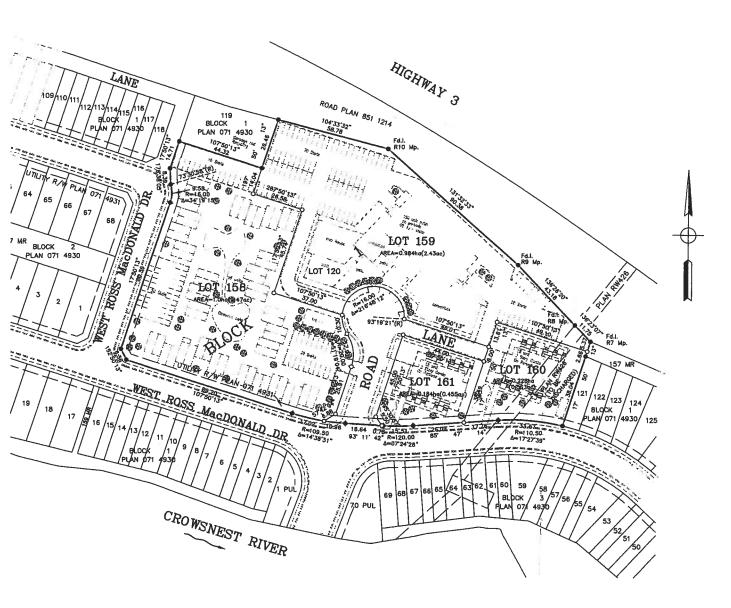
MUNICIPALITY OF CROWSNEST PASS

**DATE; AUGUST 13, 2008** 

FILE; 2008-0-260







TEN MUNI

PLAN SUBE 0F

Lot '
WITHIN
S.W.1

SCALE:

BY:

LEGEND Distances : Statutory is

Distances : Statutary in Area referr Oistances : Bearings ar

ABBREVIAT S.W.-South Fd.I.-Found

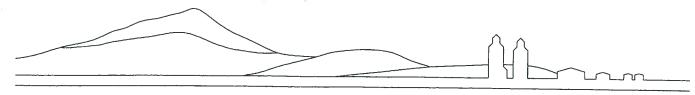
SURVEYO NAME: AZ SURVEYED

IN ACCORD

REGISTERI RIVER RUN

SUBDIVISH NAME: A FILE NO. DATE APPR

TRONNES SU



# OLDMAN RIVER REGIONAL SERVICES COMMISSION

## SUBDIVISION - FINAL APPROVAL

Our File:

2007-0-118

Your File:

September 19, 2007

Aziz Dharamshi, A.L.S. Tronnes Surveys (1976) Ltd. 110, 3030 – 3 Ave. N.E. Calgary AB T2A 6T7

Dear Mr. Dharamshi:

RE: Blocks 1, 2 & 3, Plan 871 1401 / Municipality of Crowsnest Pass (Blairmore)

Please be advised that your application for subdivision of the above-noted property was approved on September 19, 2007.

Please see attached Subdivision Registration document, duly endorsed.

In trust we would appreciate a photocopy of the Certificate of Title when the Subdivision Registration documents have been registered. This is in order to keep our files up-to-date.

If you require assistance, please do not hesitate to contact this office.

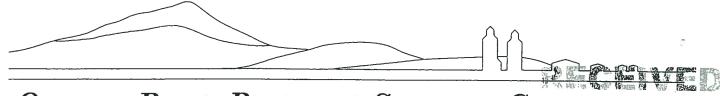
Xours truly,

Lenze Kulper

Director

LK/gk Enc.

CC: River Run Corporation, Municipality of Crowsnest Pass (Blairmore)



# OLDMAN RIVER REGIONAL SERVICES COMM

MUNICIPALITY OF CROWSNEST PASS

SUBDIVISION APPLICATION DECISION

Our File: Your File: 2007-0-118

NOTICE DATE: May 3, 2007

TO: River Run Corporation, William Bradley, Municipality of Crowsnest Pass, Livingstone Range School Division, Telus, FortisAlberta, AltaLink, ATCO Gas, Chinook Health, Alberta Transportation, Public Lands, B. Thresher, Alberta Environment, Historic Resources, AEUB, Area Wildlife Biologist

RE: Blocks 1, 2 & 3, Plan 871 1401 / Municipality of Crowsnest Pass (Blairmore)

**DECISION:** APPROVED ON CONDITION

**DECISION DATE:** May 2, 2007

(See attached resolution for conditions)

The subdivision may be finalized for registration by the applicant or a person acting on their behalf following the required 19-day appeal period (see following page for appeal details).

Prior to the submission of any final documents, it is the applicant's responsibility to:

- pay any applicable municipal reserve and ensure that all conditions of approval have been met,
- ensure that this office receives documented evidence to this effect,
- complete the above within ONE YEAR of the approval date. (If you are unable to finalize the subdivision within this time frame you may contact the Municipality of Crowsnest Pass (Blairmore) in order to request a possible time extension.)

Final Documents: In order to finalize the subdivision approval you will be required to complete all the conditions on the attached resolution. Contact the municipality and provide the Oldman River Regional Services Commission (ORRSC) verification of the following:

- Municipal reserve if the attached resolution has a requirement of providing municipal reserve, you must pay the requested amount to the municipality and then provide a copy of a receipt or letter from the municipality to verify the payment of the reserve. ORRSC will be responsible for preparing any deferred reserve caveats or discharges if needed.
- Taxes provide a tax receipt or letter from the municipality to indicate that there are no outstanding property taxes owing on the property for the current year.
- Development agreement provide a copy of a signed development agreement with the municipality (for servicing), or letter from the municipality that indicates no development

3105 - 16th Avenue North, Lethbridge, Alberta T1H 5E8 Phone: (403) 329-1344 • Fax: (403) 327-6847 E-mail: orrsc@telus.net • Website: www.orrsc.com

agreement is required. You must send the **original signed development agreement** to the surveyor so that it may be registered concurrently at Land Titles Office with your subdivision.

- **Easements** if any easements are required by the municipality or utility agencies (see the conditions on the resolution), the applicant must contact the applicable utility company and then provide this office a copy of the signed easement agreement. You must send the original signed easement agreement to the surveyor so that it may be registered concurrently at Land Titles Office with your subdivision.
- Finalization fee pay to ORRSC the finalization fee of \$150.00 for each new lot to be created by the subdivision.
- Submit your plan of subdivision (as prepared by your surveyor) or your separation of title or transfer document (as prepared by your lawyer or surveyor).

In addition to the above, you must meet all the conditions as outlined in the attached Resolution and provide verification of such to ORRSC before finalization of the subdivision. You may wish to contact your surveyor to help coordinate the completion of any of the above.

Please contact the municipality and/or agency referred to in the conditions for further details on their requirements. Should you require any further clarification on meeting these conditions please contact ORRSC staff at (403) 329-1344.

**Please note:** When ORRSC has endorsed the final documents they are returned to your surveyor to be forwarded to Land Titles Office for registration.

Yours truly,

Mike Burla
Senior Planner

MB/kai Attachment

### Right to Appeal

Pursuant to the Municipal Government Act, the applicant, government departments, and local authorities have a right to appeal the decision or any conditions of the subdivision within 19 days of the notice date to the appropriate appeal board.

You may also appeal any reserve requirement (land or money) established by the subdivision authority. The appeal may be commenced by providing a written statement of the grounds of appeal to:

Municipality of Crowsnest Pass (Blairmore) Subdivision and Development Appeal Board,
Gordon Lundy, Chief Administrative Officer
Box 600, Blairmore, Alberta T0K 0E0

The appeal board must receive your notice of appeal within 19 days of the date of this letter informing you of the subdivision authority's decision. (Please contact the municipality to determine any applicable fees.)

### RESOLUTION

### 2007-0-118

Municipality of Crowsnest Pass (Blairmore): Multi-Use subdivision of Blocks 1, 2 & 3, Plan 871 1401 lying within the SE½-3-8-4-W5M, SW½-2-8-4-W5M and NW½-35-7-4-W5M

THAT the Multi-Use subdivision of Blocks 1, 2 & 3, Plan 871 1401 (Certificate of Title No. 061 442 892, 001 135 446, 981 330 899 +1), to create 287 multi-use parcels of various sizes from a titled area containing 52.19 acres; <u>BE APPROVED subject to the following:</u>

**RESERVE:** 

The 10% reserve requirement, pursuant to Sections 661 and 666 of the Municipal Government Act, be provided as land on the area of \_\_\_\_\_ acres with the actual acreage to be dedicated being determined at the final stage, for Municipal Reserve purposes.

#### **CONDITIONS:**

- 1. That, pursuant to Section 654(1)(d) of the Municipal Government Act, all outstanding property taxes shall be paid to the Municipality of Crowsnest Pass.
- 2. That, pursuant to Section 655(1)(b) of the Municipal Government Act, the applicant or owner or both enter into a Development Agreement with the Municipality of Crowsnest Pass which shall be registered concurrently with the final plan against the title(s) being created.
- 3. That the easements as required by ATCO Gas shall be established prior to finalization of the subdivision.
- 4. That any conditions of Alberta Transportation shall be met prior to finalization of the subdivision.
- 5. That a Traffic Impact Assessment be undertaken to evaluate the proposed development's impact on the downtown Blairmore core.

### **REASONS:**

- 1. The Subdivision Authority is satisfied that the proposed subdivision is suitable for the purpose for which the subdivision is intended pursuant to Section 7 of the Subdivision and Development Regulation.
- 2. The proposed subdivision complies with both the Municipal Development Plan and Land Use Bylaw.

### **INFORMATIVE:**

- (a) The 10% Reserve requirement shall be provided as land as shown on the tentative plan of subdivision.
- (b) That a legal description for the proposed parcel be approved by the Surveys Branch, Land Titles Office, Calgary.
- (c) Telus has no objections but recommended "That the developer contact Telus when plans on behalf of FORTIS are finalized, or six weeks prior to start (whichever is longer), and provide Telus if required, with the following:
  - 1. Buried facilities would be placed in a 2 or 3 party joint use trench which is normally within a Utility Right of Way, at front of property. It is the Developer's responsibility to supply the trenching and all joint use pedestals, as well as the placement of Telus supplied cable. Telus will produce the Telecommunications Work Plans, and provide inspections and acceptance testing during construction at no charge.
  - 2. Provide easements and place all conduits for road crossings, driveway crossings, if required.

- The developer be aware they will be billed 100% of costs incurred for any redesign which is a
  result of changes that occur after Telus' initial design has been completed and/or relocation of
  Telus' existing Network Facilities.
- 4. For design purposes, a copy of Subdivision plans, on 3.5 inch floppy disc, DXF format, or E-mail with .dgn file would be appreciated.
- 5. If a bareland situation, the developer is responsible for trenching, supplying and installing all pedestals, conduit and cabinets.

Should you require further information, please contact Kelly Hendrick at 530-5179 in Calgary or by direct correspondence to Access Engineering, 1, 715 – 41 Ave. N.E., Calgary, Alberta T2E 3P8."

- (d) FortisAlberta has no objections but advised "It would be a FortisAlberta preference, that the Developer is responsible to electrically pre service the lots."
- (e) ATCO Gas stated, "The enclosed plan shows the location of required easements in orange (see subdivision file for plan). Easements should be 3.0 meters in width if they are provided solely for the use of ATCO Gas and 3.5 meters in width if the easement is to be shared with other shallow utilities.

All easements are to be registered as a general utility right-of-way granted to the Municipality of Crowsnest Pass and are to be registered simultaneously with the legal plan of the subdivision. No structure or portions there of may be erected in the right-of-way without prior written consent from this company.

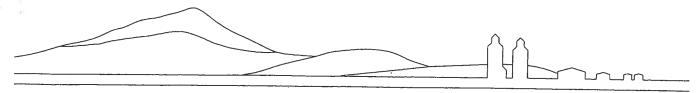
Providing that the above conditions are met, ATCO Gas has no objections to the proposal."

- (f) Chinook Health Region has the following comments:
  - "1. Each lot must be connected to municipal water and municipal sewer.
  - 2. Garbage must be collected on a regular basis."
- (g) AEUB advised "Although the EUB strives to maintain updated sour gas data related to the sour gas infrastructure, the conditions are not static and changes in level designation often occur and the EUB may not be aware of these changes. We **strongly encourage** municipalities to undertake due diligence by confirming the most current sour gas data with the licencee.

The EUB has reviewed and completed a search of EUB regulated wells and pipelines in the vicinity of your referred subdivision or development application and our records indicate the following:

Other pipelines may exist within the area of your referred application. However, the EUB has determined that these pipelines licensed as sweet or have an EUB Level 1 sour designation. For these types of pipelines, there is no regulated setback distance however, the right of way must be observed.

Questions concerning this reply may be directed to Britney Music at (403)297-8796."



# OLDMAN RIVER REGIONAL SERVICES COMMISSION

# APPLICATION FOR SUBDIVISION OF LAND

**DATE:** March 29, 2007

TO: Landowner: River Run Corporation

Agent: William Bradley

**Referral Agencies:** Municipality of Crowsnest Pass (Blairmore), Nestor Chorney, Gary Taje, Bev Cole, Livingstone Range School Division, Telus, FortisAlberta, AltaLink, ATCO Gas, Chinook Health, Alberta Transportation, Public Lands, B. Thresher, Alberta Environment, Historic Resources, AEUB, Area Wildlife Biologist

Adjacent Landowners: Advertised in The Pass Herald and Pass Promoter

The Oldman River Regional Services Commission (ORRSC) is in receipt of the following subdivision application which is being processed on behalf of the Municipality of Crowsnest Pass (Blairmore). In accordance with the Subdivision and Development Regulation, if you wish to make comments respecting the proposed subdivision, please submit them via email, fax or mail no later than **April 24, 2007**. (Please quote our File No. **2007-0-118** in any correspondence with this office).

File No.:

2007-0-118

Date of Receipt:

March 16, 2007

Legal Description:

Blocks 1, 2 & 3, Plan 871 1401

Municipality:

Municipality of Crowsnest Pass (Blairmore)

**Existing Use:** 

Vacant

**Proposed Use:** 

Multi-Use

Number of Lots:

287

**Certificate of Title:** 

061 442 892+1, +2, +3

Proposal:

To create 287 multi-use parcels of various sizes from a titled area

containing 52.19 acres.

### **Planner's Preliminary Comments:**

Proposal would resubdivide Blocks 1, 2 and 3 of Plan 871 1401 to create 287 lots in compliance with the recently adopted River Run Area Structure Plan. The CMUD-3 land use district would accommodate the proposed land use envisioned at this location either as permitted or discretionary uses.

The Subdivision Authority is requested to consider the following when rendering a decision on this proposal:

- (a) payment of any outstanding property taxes
- (b) provision of a detailed development agreement for future servicing and security for the proposed development
- (c) closure and transfer of various closed roads into the final plan of subdivision
- (d) provision of land for Municipal Reserve purposes
- (e) pertinent comments from adjacent landowners and/or referral agencies especially Alberta Environment, Public Lands, Alberta Culture and Alberta Transportation

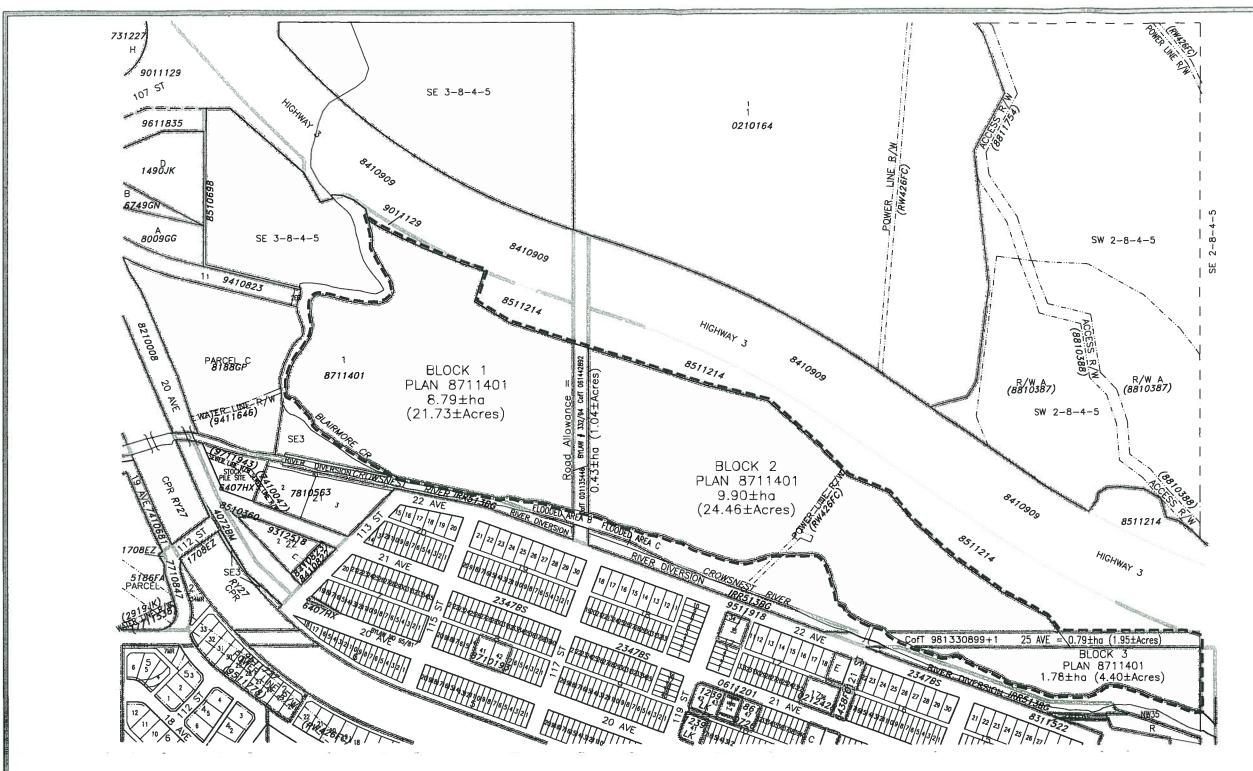
If you wish to make a presentation at the subdivision authority meeting, please notify the Municipality of Crowsnest Pass (Blairmore) Municipal Administrator as soon as possible.

Submissions received become part of the subdivision file which is available to the applicant and will be considered by the subdivision authority at a public meeting.

## APPLICATION FOR SUBDIVISION

88	FOR OFFICE USE ONLY					
D	ATE of receipt of completed Form 1: FEES submitted (non-refundable): FILE No. 2007 - 0 - 1/8					
	IIS FORM IS TO BE COMPLETED IN FULL WHEREVER APPLICABLE BY THE REGISTERED OWNER OF THE LAND THE IBJECT OF THE APPLICATION OR BY AN AUTHORIZED PERSON ACTING ON HIS BEHALF.					
1.	Name of registered owner of land to be subdivided Address and phone no.  RIVER RUN CORPORATION #300, 1333 - 8** STREET S.W. CALGAR.					
	Name in block capitals T2R IM 6					
2.	Name of agent (person authorized to act on behalf of registered owner), if any  Address and phone no.					
_	Name in block capitals					
3.	LEGAL DESCRIPTION AND AREA OF LAND TO BE SUBDIVIDED  All / part of the SM //sec. 2 twp. 8 range 4 west of 5 meridian  Being all / parts of lot block 1.2.3 Reg. Plan No. 8711401 C.O.T. No. 061 442 992+  Area of the above parcel of land to be subdivided 20.16 hectares  Municipal address (if applicable).					
4	LOCATION OF LAND TO BE SUBDIVIDED					
,	a. The land is situated in the municipality of MUNICIPALITY OF CECHSINEST L'ASS  b. Is the land situated immediately adjacent to the municipal boundary?  If "yes", the adjoining municipality is  c. Is the land situated within 0.8 kilometres of the right of way of a highway? Yes No					
	If "yes", the highway is No					
	e. Is the proposed parcel within 1.5 kilometres of a sour gas facility?					
5.	EXISTING AND PROPOSED USE OF LAND TO BE SUBDIVIDED  Describe:  a. Existing use of the land MULTI USE LAND DEVELOPMENT (AS PER APPROVED LAND USE)  b. Proposed use of the land MULTI USE LAND DEVELOPMENT (AS PER APPROVED LAND USE)					
	c. The designated use of the land as classified under a land use bylaw					
6.	PHYSICAL CHARACTERISTICS OF LAND TO BE SUBDIVIDED (where appropriate)  a. Describe the nature of the topography of the land (flat, rolling, steep, mixed)					
	SHRUBS TREE STANDS  Describe the kind of real on the land (ready learn size at )  [CAM   CVAY.					
	c. Describe the kind of soil on the land (sandy, loam, ciay, etc.)					
7.	EXISTING BUILDINGS ON THE LAND TO BE SUBDIVIDED  Describe any buildings and any structures on the land and whether they are to be demolished or moved  Ho					
8.	WATER AND SEWER SERVICES If the proposed subdivision is to be served by other than a water distribution system and a wastewater collection system, describe the manner of providing water and sewage disposal					
9.	REGISTERED OWNER OR RERSON ACTING ON THE REGISTERED OWNER'S BEHALF  1. WILL A.M					
	relating to this application for subdivision.  Address Suff. 300 - 1333 - 85 f. SW. (Signed) Tull  Phone No. 463)24-2900 Culgary, AB Date WINKING 0, 2007					
HMI	IMPORTANT: ➤ Please fill out the right of entry authorization on the reverse.					
	> Further information may be provided by the applicant on the reverse.					
	Information on this application form will become part of the subdivision file which will be considered by a subdivision authority at a public meeting.					

Mail or deliver the completed application form, detailed sketch and required fee to:



# **SUBDIVISION SKETCH - EXISTING TITLES**

See tentative plan of survey by Tronnes Surveys (1976) Ltd. File # 06-2052S-T11. BLOCKS 1,2 & 3, PLAN 871 1401 & ROAD ALLOWANCE WITHIN SE 1/4 SEC 3, TWP 8, RGE 4, W 5 M, SW 1/4 SEC 2, TWP 8, RGE 4, W 5 M, NW 1/4 SEC 35, TWP 7, RGE 4, W 5 M MUNICIPALITY OF CROWSNEST PASS

DATE; MARCH 15, 2007 FILE No; 2007-0-118





Historic Resources Management Branch

Old St. Stephen's College 8820 – 112 Street Edmonton, Alberta T6G 2P8

Tel: (780) 431-2300 Fax (780) 422-3106

Our File(s): 4835-07-084

May 11, 2007

Mr. William Bradley River Run Corporation #300, 1333 – 8<sup>th</sup> Street SW Calgary, Alberta T2R 1M6

Dear Mr. Bradley:

SUBJECT:

RIVER RUN CORPORATION

PROPOSED SUBDIVISION

SW 2-8-4-W5M, BLOCK 1, 2, 3, PLAN 8711401 <u>HISTORICAL RESOURCES ACT REQUIREMENTS</u>

Ministry staff have received a copy of the subdivision application for the captioned project from the Oldman River Regional Services Commission.

# Historic Resources Potential Evaluation

The proposed subdivision development is located in Blairmore just to the south of the Greenhill Mine and just north of the Crowsnest River. The project area was once part of the Greenhill Mine complex, however the area was previously reclaimed and almost all evidence of former mining activities is gone. The planning area may also have contained precontact archaeological sites which would also have been removed either by the former mine related activities or by reclamation. Given the level of previous disturbance in this area staff of the Historic Resources Management Branch have recommended that *Historical Resources Act* clearance should be granted for this project.

# HISTORICAL RESOURCES ACT REQUIREMENTS/CLEARANCE

The River Run Corporation is granted *Historical Resources Act* clearance to proceed with the development of this project as outlined in the subdivision application. However, pursuant to Section 31 of the *Historical Resources Act*, should any historic resources be encountered during construction activities staff of the Historic Resources Management Branch are to be contacted immediately. It may then be necessary to issue further instructions regarding the documentation of these resources.

Mr. William Bradley May 11, 2007 Page 2

Should you require additional information or have any questions regarding our Department's review of this project, please contact Barry Newton of the Historic Resources Management Branch, (780-431-2330, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8; or Fax 780-422-3106).

On behalf of Alberta Tourism, Parks, Recreation and Culture, I would like to thank you and your client for your co-operation in our endeavour to conserve Alberta's past.

Sincerely,

David Link, PhD

Director

cc: Mike Burla, Senior Planner, Oldman River Regional Planning Services Commission Bev Cole, Development Officer, Municipality of Crowsnest Pass

# DEPARTMENTAL CONTACTS

Dan Spivak Resource Management Program Royal Tyrrell Museum of Palaeontology Box 7500 Drumheller, Alberta T0J 0Y0	Tel. 403-823-7707 Fax. 403-823-7131
Eric Damkjar Eastern Slopes Archaeologist Historic Resources Management Branch 8820 - 112 Street Edmonton, Alberta T6G 2P8	Tel. 780-431-2348 Fax. 780-427-3956
Barry Newton Resource Management Planner Historic Resource Management Branch 8820 - 112 Street	Tel. 780-431-2330 Fax. 780-422-3106

Edmonton, Alberta

T6G 2P8

#2, 2616 - 16 Street NE Calgary AB T2E 7J8

Tel: (403) 291-4633 Fax: (403) 291-1291

e-mail: susan.biddle@eagleengineering.ca

June 25, 2007

BRIDGECREEK DEVELOPMENT CORP.

Suite 300, 1333 – 8<sup>th</sup> Street S.W. Calgary, AB, T2R 1M6

Attention: Mr. Bruce Yorga

RE: RIVERRUN DEVELOPMENT – TRAFFIC IMPACT OVERVIEW

BLAIRMORE, CROWNSEST PASS MUNICIPALITY, AB

This letter has been prepared as support for the land-use redesignation and subdivision of the River Run lands in the Village of Blairmore. The RiverRun property consists of approximately 52 acres of undeveloped land east of 129 Street (Blairmore Centre Access) and north of the Blairmore Central Business District. The irregularly shaped parcel of property is bounded by Highway 3 on the north side, Crowsnest River on the south side, Blairmore Creek on the west side and a small residential area consisting of approximately 12 manufactured homes on the east side.

Information relating to the development plan was acquired during our project discussions and taken from the Illustrative Master Plan of February 28, 2007. Accordingly, the development will be constructed in two phases with Phase 1 consisting of approximately 197 single family homes and duplex units and 80 townhouse style homes. Phase 2 will tentatively include 88 condominium units a 300-room all-suites hotel and a small amount of commercial development. The Bridge Creek Development Corp. is hoping to commence construction on Phase 1 as soon as all necessary approvals are in place and is tentatively preparing to begin construction on Phase 2 as early as 2008. The developers expect both RiverRun phases to be built-out by 2011, subject to actual sales.

The intent of this letter is to assure the Crowsnest Pass Municipality that the traffic impacts associated with the RiverRun development will be carefully assessed and practical solutions to minimize or mitigate potential traffic concerns will be recommended. Significant revisions to the site layout, land-use, development density, or build-out schedule will be reviewed throughout the planning process, to ensure traffic-related issues are identified and pro-actively addressed. The Traffic Study for Phase 1 will be completed and submitted with the Phase 1 development application late this summer. The traffic study for Phase 2 will be completed and submitted as part of the Phase 2 development permit application process.

The remaining pages in this document describe some of the key transportation-related issues and traffic assessment considerations that will be examined in detail as part of the Phase 1 and Phase 2 traffic studies.

### **Traffic Data Collection**

A traffic data collection strategy will be implemented as part of the Phase 1 traffic study. The data will be used to determine the background traffic conditions on 119<sup>th</sup> Street, 20<sup>th</sup> Avenue, 21<sup>st</sup> Avenue, 23<sup>rd</sup> Avenue and other key areas. The data will also be used to help develop trip generation, trip distribution and traffic assignment assumptions for Phase 1 of the RiverRun development.

## Site Trip Generation and Trip Distribution

The trip generation and distribution rates for the RiverRun Phase 1 lands will be based on the trip rates recommended by the Institute of Transportation Engineers for single-family homes, residential condominiums, and recreation homes. At this point it is difficult to know what percentage of the homes will be used as primary residences and how many will be recreation properties. The development may also attract a higher-than-average number of seniors. These factors will be significant as senior housing and recreation homes typically generate lower volumes of traffic and, more importantly, contribute very little to the average weekday peak hour traffic flows thereby reducing operational impacts on intersections in the study area.

The following table is a preliminary trip generation estimate for the RiverRun development. It is important to note that the preliminary estimates are based on assumed values for roadway capacity and background traffic volumes and assumptions relating to non-vehicle trip percentage, internal trip proportions, and access configuration scenarios. All of the data and assumptions will have to be verified and/or discussed with the approving authority as part of the traffic study process.

Land Use Description	No. of Units		Trips/Day
Phase 1			
Single Family	197	i	1885
Townhouse	80		469
		Total Phase 1 Trips	2354
Phase 2		·	
Condo	88		516
Hotel Rooms	300		1470
		Total Phase 2 Trips	1986
	4340		
pedestrian & cyclist trips (10% of Total Site Trips)			434
internal trips(10% of Total Site Trips)			434
	3472		
(Extern	P		
Assumed Ro	5000		
Background Volume (119 St)			500
	3472		
	1028		

Ideally, if development of the Phase 1 lands is nearing completion before development of the Phase 2 lands commences, the actual trip generation and distribution rates for the Phase 1 lands can be determined and used to more accurately estimate the impacts of Phase 2.

### Site Traffic Assignment

The traffic impact assessment will be based on the assumption that there will be one vehicular access point to the RiverRun subdivision via a new bridge that will be constructed at the north end of 119 Street. There will also be a connection to 129 Street via 23 Avenue however this connection may be used exclusively as an emergency access route. The impacts of having this access open or closed will be studied as part of future traffic studies for Phase 1 or 2.

There are multiple vehicular route choices available from 119 Street depending on the motorists intended destination. Drivers destined for the shopping mall, hospital, convenience stores, and west Blairmore Access can choose to use  $21^{st}$  Avenue or  $20^{th}$  Avenue west of 119 Street and drivers destined for the central business district, community pool, and Central or East Blairmore Accesses can choose to use either  $21^{st}$  or  $20^{th}$  Avenues east of 119 Street. Drivers destined for the school or ski hill will probably remain on 119 Street until they are south of the railway tracks. Based on very cursory trip generation estimates and a rough estimate of the background traffic volumes, it seems very likely that all of the above noted streets and respective intersections will be able to physically accommodate the additional traffic generated by the RiverRun development at build-out.

### **Community Traffic Issues**

Concerns relating to shortcutting traffic on local residential streets may eventually arise as the population in the RiverRun development increases. In such cases it is generally advisable to develop a traffic calming strategy in consultation with representatives from the affected residents and businesses. In this case it will be particularly difficult to determine with certainty which routes will attract the most traffic therefore it is recommended that any traffic calming issues be addressed if and when a situation arises to ensure that the traffic calming solutions are necessary and that there is no undue impact on the existing neighbourhood.

### **Pedestrians and Cyclists**

The RiverRun Illustrative Master Plan incorporates the existing timber bridge at the north end of 121 Street for use as a pedestrian/cyclist bridge. There will be pathways through the River Run site connecting to the pedestrian/cyclist bridge. The RiverRun pathways will be connected via the pedestrian/cyclist bridge to the existing asphalt pathway on the south side of the Crowsnest River. The amount of actual pedestrian traffic generated by the development is difficult to predict and will depend to a large extent on the services and attractions in the central part of Blairmore. If the pedestrian volume becomes significant the Municipality may consider construction of a sidewalk along 119<sup>th</sup> Street between 22<sup>nd</sup> Avenue and 20<sup>th</sup> Avenue to be warranted. For the purpose of producing a preliminary trip generation estimate it was assumed that 10% of the overall trips generated would be pedestrian and/or cyclist trips. Given that the development is being marketed toward buyers

that are interested in a more wholesome and healthful lifestyle it is possible that the non-motorized trip percentage may in fact be higher than 10%. The assumptions will be discussed with the Municipality as part of the traffic study process.

In conclusion, the above paragraphs are intended to provide some insight into the traffic study process that Eagle Engineering proposes to follow on behalf of the Developer for Phase 1 and Phase 2 of the RiverRun project. Based on the preliminary overview it appears that the existing transportation network will generally be adequate for accommodating traffic to and from the RiverRun development. Any modifications that may be required to improve overall traffic operations and safety will be identified and recommended as part of the Phase 1 and Phase 2 traffic studies along with an implementation strategy to optimize the benefit of any revisions. At this point there is no reason to believe that any development-related transportation issues cannot be easily and satisfactorily resolved.

If you require additional information regarding this preliminary traffic overview, please contact the undersigned at your convenience.

Sincerely,



Susan Biddle, P.Eng., Transportation Engineering Manager

## PAGE 6 OF 13 COUNCIL – Tuesday, April 3, 2007

### BUSINESS ARISING FROM THE MINUTES - cont'd

### **RETURN TO CHAMBERS**

Councillor G. Sygutek returned to Chambers.

## Transfer of Closed Road to River Run Corporation

M#2719-07: Councillor G. Taje moved that the portion of road allowance adjoining the South Boundary of the South West Quarter of Section 2, Township 8, Range 4, W5M which lies West of the production Southeasterly of the Northeast boundary of Block 2 on Plan 871 1401 and East of the left bank of the Crowsnest River be transferred to River Run Corporation to facilitate their subdivision application in exchange for other roads created in the subdivision when complete.

**CARRIED UNANIMOUSLY** 

### Climbing Wall/Skateboard Park

M#2720-07: Councillor J. Stolarik moved to close the Climbing Wall facility until safety issues and back rent have been dealt with.

**CARRIED** 

Councillor G. Sygutek requested a recorded vote.

IN FAVOUR: Councillors: N. Chorney, D. Ward, J. Stolarik, J. Woodman

OPPOSED: Mayor J. Irwin

Councillors: G. Sygutek, G. Taje

Councillor G. Sygutek requested copies of the minutes from the Culture and Recreation Board dealing with the Climbing Wall matter.

River Run Corporation 300, 1333 – 8<sup>th</sup> Street S.W. CALGARY, Alberta T2R 1M6

## ATTENTION: MR. BILL BRADLEY

Dear Mr. Bradley:

RE: TRANSFER OF CLOSED ROAD RIVER RUN PROPERTY

Your request for the transfer of a closed road in the River Run subdivision was reviewed by Council at their regular meeting of Tuesday, April 3<sup>rd</sup>, 2007.

Please be advised that the following resolution was unanimously passed by Council at said meeting:

"that the portion of road allowance adjoining the South Boundary of the South West Quarter of Section 2, Township 8, Range 4, W5M which lies West of the production Southeasterly of the Northeast boundary of Block 2 on Plan 871 1401 and East of the left bank of the Crowsnest River be transferred to River Run Corporation to facilitate their subdivision application in exchange for other roads created in the subdivision when complete."

The required exchange of roads and other details will be incorporated into a Development Agreement for your review. Please contact our solicitor Mr. Doug Young at (403) 562-2900 to proceed with the transfer.

Should you have any questions regarding this matter, please do not hesitate to contact this office.

Yours truly,

Gordon O. Lundy Chief Administrative Officer

cc: Doug Young

GOL/lo

## Leslie Orleni

Gordon Lundy From:

Friday, March 02, 2007 11:06 AM Sent:

Leslie Orleni To:

Subject: FW: 25 Avenue Blairmore

### Leslie;

Please put this request on the next Council meeting. Also attach a copy of a map of the area with a report. Bev has a copy of the map.

### Gordon

From: Bill Bradley [mailto:bbradley@bighorncanmore.com]

Sent: Friday, March 02, 2007 10:46 AM

To: Gordon Lundy Cc: Bruce Yorga

Subject: 25 Avenue Blairmore

### Hi Gord,

Further to our meeting on February 14<sup>th</sup>, 2007 and subsequent discussions with Bev Cole this is to officially request that the lands within the 25<sup>th</sup> Avenue closed road allowance within our River Run property be transferred to River Run Corporation to facilitate our subdivision application.

Thanks, Bill Bradley y know when

# 007

school board an access inforcom our Central or the Alberta oards Associa3A), which proealth of informa-

its website >a.ab.ca).

lition, ASBA is in information or potential cantethbridge on 7 p.m. at Erikvily Restaurant dge.

the years we served well by ho were deeply d to representueds of their ies and all stunin those com-

ave candidates bre in the 2007 Livingstone hool Division ue to be recogschool system ogressive and in embracing



Crowsnest Pass Symphony Orchestra, where she was concert mistress.

Laurie attended the University of Alberta and graduated with a Bachelor of Music (with distinction) and a Master's Degree in Piano Performance. She taught at Grant McKewan College where she received the prestigious Elizabeth Sterling Award for Musical Theatre.

She received her law degree from the University of Alberta and was admitted to the Alberta Bar by a former pass resident, Peter Costigan, Justice of the Court of Appeal of Alberta.

At present, she is employed with the firm of Ackroyd, L.L.P. of Edmonton.

Continued success, your family, Mom, Dad and Tony

# - NOTICE

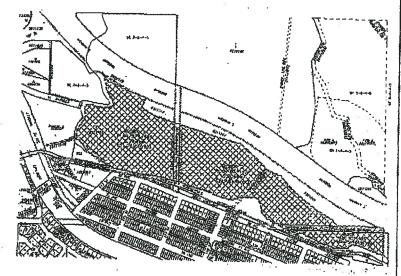
# PURSUANT TO THE MUNICIPAL GOVERNMENT ACT

The Oldman River Regional Services Commission is in receipt of a subdivision application in the Municipality of Crowsnest Pass (Blairmore).

FILE: 2007-0-118

LOCATION: Slack Pile Property, lying between and north of 113 and 125 Streets

APPLICATION SUMMARY: William Bradley, Suite 300, 1333 – 8<sup>th</sup> Street SW, Calgary, Alberta T2R 1M6 on behalf of River Run Corporation. To create 287 lots of various sizes in compliance with the recently adopted River Run Area Structure Plan being Blocks 1, 2 and 3, Plan 871 1401 and the road allowance lying within portions of the SE¼-3-8-4-W5M, SW¼-2-8-4-W5M and NW¼-35-7-4-W5M for Multi-use purposes.



Adjacent land owners may make comments in writing to: Oldman River Regional Services Commission, 3105 – 16<sup>th</sup> Avenue North, Lethbridge, Alberta T1H 5E8. Submissions must be received within 14 days of the date of this publication and include the file number and your name and address. Submissions received become part of the subdivision file which is available to the applicant and will be considered by the approval authority at a public meeting. Direct further inquiries to the Oldman River Regional Services Commission at 329-1344.



# OLDMAN RIVER REGIONAL SERVICES COMMISSION

### SUBDIVISION - APPROVAL ON CONDITION

RECEIVED

APR 2 3 2006

MUNICIPALITY OF CROWSNEST PASS

Our File:

2006-0-073

Your File:

06-8464

April 21, 2006



Dear Mr. Baker:

RE: Ptn. of the NE¼-9-8-5-W5M / Municipality of Crowsenst Pass

On April 20, 2006 the Municipality of Crowsenst Pass subdivision authority approved your application for subdivision of the above noted property subject to your fulfilling the conditions of final approval outlined on the attached Resolution.

As required by the Municipal Government Act, the Regional Services Commission will be conveying this decision to the applicant, government departments, persons and local authorities to which the subdivision authority is required by the Subdivision and Development Regulation to give notice of the decision. This notification ensures that appropriate individuals and agencies are made aware of the approval and are notified of their right to appeal the decision of the subdivision within 19 days of this notice to either the local Subdivision and Development Appeal Board or the Municipal Government Board. Following the 19 day appeal period the subdivision may be finalized by either yourself or a person acting on your behalf.

In order to finalize the subdivision approval you will be required to:

- (1) Meet the conditions of final approval as outlined in the attached Resolution. Please contact the municipality and/or agency referred to in the conditions for further details on their requirements. Should you require any further clarification on meeting these conditions please contact the Regional Services Commission staff.
- (2) Submit your plan of subdivision (as prepared by your surveyor) or your separation or transfer document (as prepared by your lawyer or surveyor) to the Oldman River Regional Services Commission. The Regional Services Commission will charge a finalization fee of \$150.00 for each new lot to be created by the subdivision.

Phone: (403) 329-1344 • 3105 - 16<sup>th</sup> Avenue North, Lethbridge, Alberta T1H 5E8 • Fax: (403) 327-6847 E-mail: orrsc@telus.net • Website: www.orrsc.com Pursuant to the Municipal Government Act you may appeal the conditions of the decision to the appropriate appeal board. You may also appeal any reserve requirement (land or money) established by the subdivision authority. The appeal may be commenced by providing a written statement of the grounds of appeal to:

Municipal Government Board, Alberta Municipal Affairs, Commerce Place, Room 1801, 10155-102 Street, Edmonton, Alberta T5J 4L4

The appropriate appeal board must receive your notice of appeal within 19 days of the date of this letter informing you of the subdivision authority's decision.

Please note that if you are unable to finalize the subdivision within one year of the date of approval you will have to contact the Municipality of Crowsenst Pass in order to extend the validity of the subdivision authority's decision beyond the one year time limit.

Again if you require clarification on meeting the conditions of final approval or need further information regarding any aspect of your application please do not hesitate to contact the Regional Services Commission staff at 329-1344.

Yours truly

Mike Burla Senior Planner

MB/kai

Enc.

CC: Bridgegate Financial Corp., Municipality of Crowsnest Pass, Livingstone Range School Division, Telus, FortisAlberta, AltaLink, ATCO Gas, Chinook Health, Corp. Off., Alberta Transportation, Public Lands, N. Hawkes, Alberta Environment, Historic Resources, AEUB, Natural Res. Ser. CPR

### RESOLUTION

#### 2006-0-073

Municipality of Crowsenst Pass: Direct Control subdivision of a portion of the NE¼-9-8-5-W5M.

THAT the Direct Control subdivision of a portion of the NE¼-9-8-5-W5M (Certificate of Title No. 061 035 771), to create two parcels of 12.70 and 12.74 acres (5.13 and 5.15 ha) from a titled area comprising 25.44 acres; BE APPROVED subject to the following:

RESERVE:

The 10% reserve requirement, pursuant to Sections 669(2) and (3) of the Municipal Government Act, on the 25.44 acres be deferred by caveat for municipal reserve purposes.

### CONDITIONS:

- 1. That, pursuant to Section 654(1)(d) of the Municipal Government Act, all outstanding property taxes shall be paid to the Municipality of Crowsenst Pass.
- 2. That, pursuant to Section 655(1)(b) of the Municipal Government Act, the applicant or owner or both enter into a Development Agreement with the Municipality of Crowsenst Pass which shall be registered concurrently with the final plan against the title(s) being created.
- 3. That any easements required by the utility referrals be provided prior to finalization of the application.
- 4. That any conditions of Alberta Transportation shall be satisfied prior to finalization of the application.
- 5. That any conditions of Alberta Community Development, Historic Resources shall be satisfied prior to finalization of the application.
- 6. That a legal means of access be provided to the parcels being created pursuant to Section 9 of the Subdivision and Development Regulations.

### **REASONS:**

- 1. The Subdivision Authority is satisfied that the proposed subdivision is suitable for the purpose for which the subdivision is intended pursuant to Section 7 of the Subdivision and Development Regulation.
- 2. The proposed subdivision complies with both the Municipal Development Plan and Land Use Bylaw.

### INFORMATIVE:

- (a) The 10% Reserve requirement shall be deferred by caveat on the 25.44 acre parcel being subdivided.
- (b) That a legal description for the proposed parcel be approved by the Surveys Branch, Land Titles office, Calgary.
- (c) ATCO Gas has no objections to this proposal as they are covered by easement.
- (d) AltaLink has no facilities in the area.
- (e) Public Lands advised "The Crown owns the naturally occurring bed and shore of Crowsnest Lake by exception from the original grant and current titles. To protect the water body from encroaching development and to allow for pubic access, the department recommends the creation of an Environmental Reserve. Pursuant to Section 664 and 671(1) of the Municipal Government Act, an Environmental Reserve must be left in its natural state or used as a public park.

Please advise the applicant that no development, alteration or disturbance to Crown owned water bodies is permitted without prior written authorization from the Public Lands Officer, Mr. Norm Hawkes, in Blairmore. Mr. Hakes may be contact at (403)562-3128"

- (f) Chinook Health Region provided the following comments:
  - 1. The Subdivision will be serviced my municipal water and municipal sewer.
  - 2. All drainage from this development must be contained on the property or be distributed into an approved waste disposal system. An engineer approved storm water management plan should be formulated for this development.
  - 3. We recommend that a routine (i.e. weekly) garbage collection be considered to prevent accumulation of garbage and other nuisance conditions. Wind screens may also be necessary to minimize waste being blown away.
- (g) Canadian Pacific Railway advised that should a proposed residential or commercial subdivision application adjacent to the railway right of way receive approval, the development should meet CPR recommended conditions and guidelines. A listing of these guidelines are available in the ORRSC subdivision master file should copies be requested.



# OLDMAN RIVER REGIONAL SERVICES COMMISSION

#### APPLICATION FOR SUBDIVISION OF LAND

Our File:

2006-0-073

Mr. Gordon Lundy,
Chief Administrative Officer
Municipality of Crowsnest Pass
Bo. 60

Blairmore, Alberta
TOK OEO

March 31, 2006

RECEIVED

APR 0 1 Sta

MUNICIPALITY OF CROWSNEST PASS

Dear Mr. Lundy:

RE: Ptn. of the NE1/4-9-8-5-W5M / Municipality of Crowsenst Pass

The Oldman River Regional Services Commission is in receipt of an application to subdivide the above noted property to create a 12.70 acre parcel for commercial/residential use from a titled area containing 25.44 acres. Existing use, vacant. Please see enclosed application form and diagrams for further details.

Regional Services Commission staff have circulated this application to the agencies shown on the attached sheet. Please review this correspondence and inform our staff if additional information is required from the applicant.

When agency comments are available, they will be summarized and submitted to you in the form of a draft resolution, for a decision of your subdivision authority.

Please contact this office if you require any further information.

Yours truly,

Karen Iwaasa

Subdivision Technician

/kai

Enc.

CC: Nestor Chorney, Gary Taje, Bev Cole

Phone: (403) 329-1344 • 3105 - 16<sup>th</sup> Avenue North, Lethbridge, Alberta T1H 5E8 • Fax: (403) 327-6847 E-mail: orrsc@telus.net • Website: www.orrsc.com

# AGENCIES CONTACTED: (regarding Subdivision File No. 2006-0-073, affecting Ptn. of the NE½-9-8-5-W5M / Municipality of Crowsenst Pass)

Municipality of Crowsnest Pass, Livingstone Range School Division, Telus, FortisAlberta, AltaLink, ATCO Gas, Chinook Health, Corp. Off., Alberta Transportation, Public Lands, N. Hawkes, Alberta Environment, Historical Resources, AEUB, Natural Res. Ser. CPR

#### **PLANNER'S COMMENTS:**

This proposal would subdivide a titled area comprising 25.44 acres into two smaller parcels of 12.70 and 12.74 acres respectively. This application represents the first phase of the recently announced Bridgegate development at Crowsnest Lake. As the area structure plan for this proposal has been accepted by Council, the subdivision is recommended for approval.

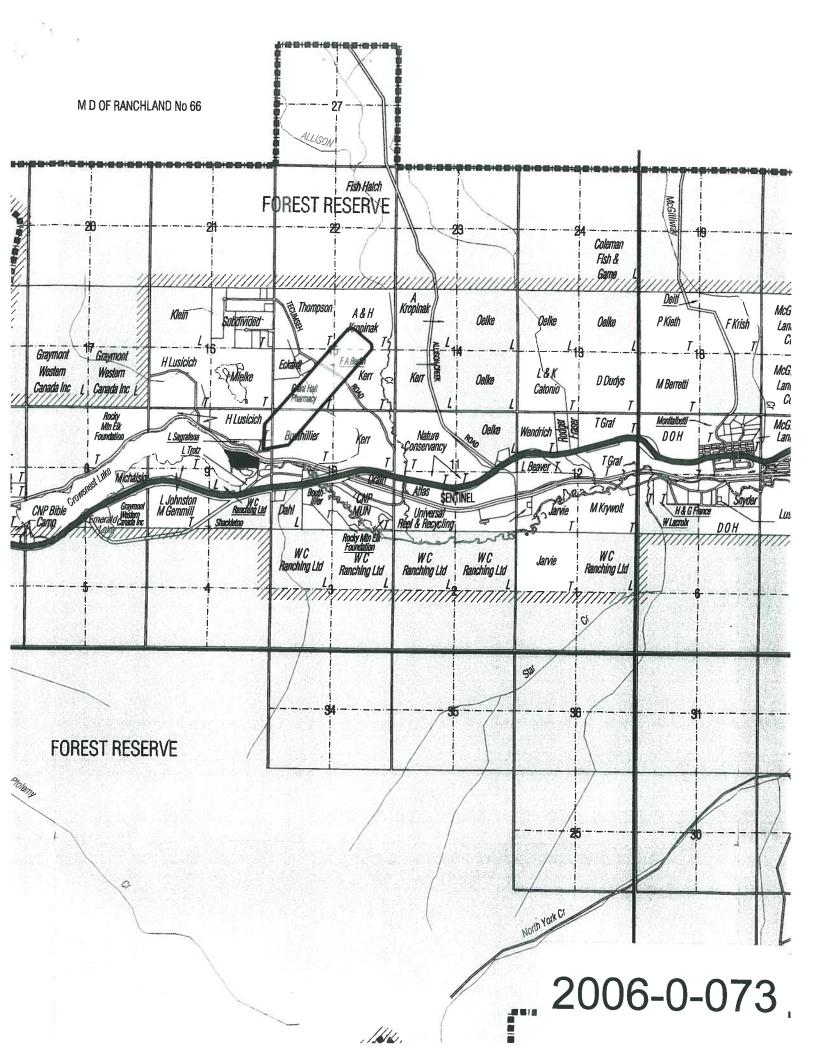
The Subdivision Authority, in considering their decision is requested to consider the following matters:

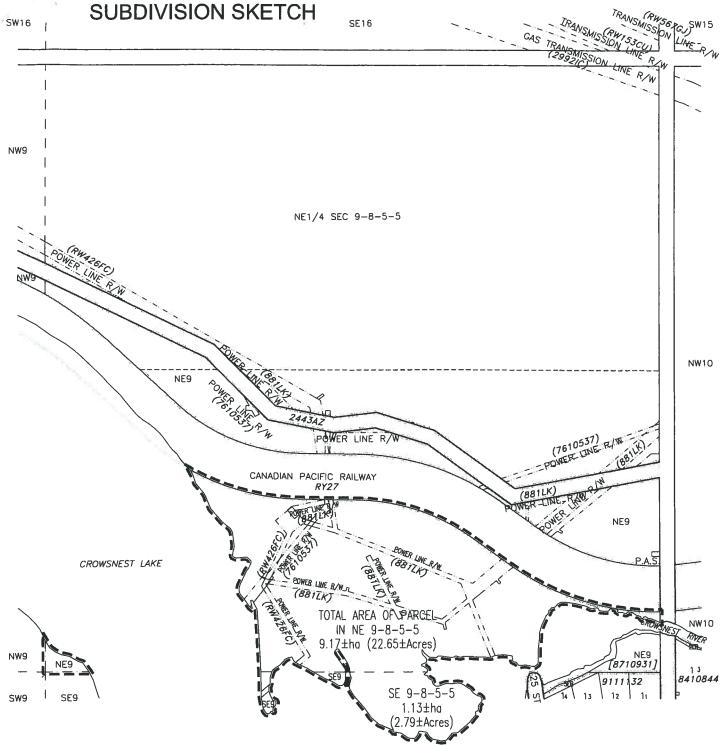
- (a) payment of any outstanding property taxes
- (b) deferral by caveat of the Municipal Reserve requirement at this time
- (c) provision of a detailed development agreement for future servicing, infrastructure and access issues
- (d) provision of legal access to the proposed parcel being created by this application
- (e) pertinent comments from referral agencies and/or adjacent landowners especially Alberta Transportation, Alberta Environment, CPR, Historic Resources, Department of Fisheries & Oceans, etc.

#### SUBDIVISION AND DEVELOPMENT FORMS REGULATION - FORM 1 $\,$

#### APPLICATION FOR SUBDIVISION

FOR OFFICIAL USE ONLY						
DATE of receipt of completed Form 1:	FEES submitted:	FILE No. 2006-0-073				
THIS FORM IS TO BE COMPLETED IN FULL WHEREVER APPLICATION OR BY AN AUTHORIZED PERSO	THIS FORM IS TO BE COMPLETED IN FULL WHEREVER APPLICABLE BY THE REGISTERED OWNER OF THE LAND THE SUBJECT OF THE APPLICATION OR BY AN AUTHORIZED PERSON ACTING ON HIS BEHALF.					
Name of registered owner of land to be subdivided     BRIDGEGATE FINANCIAL CORP. c/o VERITAS DEVELOPMENT SOLUTIONS (Ryan Bird)	Address and phone No. #105, 2763 SUNRIDGE WAY 403 291-3008	N.E., CALGARY AB TIY 7K7				
Name in block capitals						
Name of agent (person authorized to act on behalf of registered owner, if any R. F. BAKER     Name in block capitals	Address and Phone No. Box 655, Lethbridge, Alberta	T1J 3Z4 329-4688				
3. LEGAL DESCRIPTION AND AREA OF LAND TO BE SUB	DIVIDED					
Part of the E ½ sec. 9 twp. 8 range 5 west of 5 r C.O.T.No. 061 035 771	neridian					
	ARES (12.68 ACRES)					
Municipal address (if applicable) N/A						
4. LOCATION OF LAND TO BE SUBDIVIDED						
a. The land is situated in the municipality of CROWSNEST PA	ASS					
b. Is the land situated immediately adjacent to the municipal box						
If "yes", the adjoining municipality is	•					
c. Is the land situated within 0.8 kilometres of the right-of-way	of a Highway? Yes X No					
If "yes", the Highway is No. 3						
d. Does the proposed parcel contain or is it bounded by a river,	stream,					
lake or other body or by a drainage ditch or canal?	Yes No 2	ζ				
If "yes", state its name						
e. Is the proposed parcel within 1.5 kilometres of a sour gas fac	ility? Yes No Y	ζ				
5. EXISTING AND PROPOSED USE OF LAND TO BE SUBDI	VIDED					
Describe:						
a. Existing use of the land COMMERCIAL						
b. Proposed use of the land RECREATIONAL						
c. The designated use of the land as classified under a land use b	ylaw DIRECT CONTROL					
6. PHYSICAL CHARACTERISTICS OF LAND TO BE SUBDIV	VIDED (where appropriate)					
<ul> <li>a. Describe the nature of the topography of the land (flat, rolling, steep, mixed) MIXED</li> <li>b. Describe the nature of the vegetation and water on the land (brush, shrubs, tree stands, woodlots, etc sloughs, creeks, etc. TREES / SHRUBS</li> <li>c. Describe the kind of soil on the land (sandy, loam, clay, etc.) CLAY /COCKY</li> </ul>						
7. EXISTING BUILDINGS ON THE LAND PROPOSED TO BE	SUBDIVIDED					
Describe any buildings and any structures on the land and whether they are to be demolished or removed or moved MAJOR STRUCTURES ON SITE WILL REMAIN, OTHERS WILL BE MOVED OR DEMOLISHED OVER TIME						
8. WATER AND SEWER SERVICES  If the proposed subdivision is to be served to other than a water distribution system and a wastewater collection system, describe the manner of providing water and sewage disposal MUNICIPAL SERVICES TO BE INSTALLED						
9. REGISTERED OWNER OR PERSON ACTING ON HIS BEHALF						
I, R. F. BAKER hereby certify that						
and that the information given on this form is full and complete as relating to this application for subdivision.	the agent authorized to act on be	chair of the registered owner ge, a true statement of the facts				
Address Box 655, Lethbridge, Alberta, T1J 3Z4 (Signed).	Jakur J Jak					
Phone No. 329-4688 Date March	120, 2006					





For Proposed Subdivision Details See Tentative Plan Of Survey By Brown Okamura & Associates Ltd. File # 06-8464T.

NE 1/4 SEC 9, TWP 8, RGE 5, W 5 M MUNICIPALITY OF CROWSNEST PASS

DATE; MARCH 23, 2006 FILE No; 2006-0-073



LEGEND:

1/4 Section Line

Ownership

Roads

Soil Class



NAV 0 7 2036

Old St. Stephen's College 8820 - 112 Street MUNICIPALITY OF Edmonton, Alberta, Canada T6G 2P8 CROWSLEST PASS Telephone 780/431-2300 Fax 780/427-5598 www.cd.gov.ab.ca

November 1, 2006

Our File(s): 4835-06-047

Bill Bradley
Bridgecreek Development Corporation
#300, 1333 – 8<sup>th</sup> Street SW
Calgary, Alberta.
T2R 1M6

Dear Mr. Bradley:

SUBJECT:

BRIDGEGATE FINANCIAL CORPORATION

PROPOSED COMMERCIAL/RESIDENTIAL SUBDIVISION

PT. NE 9-8-5-W5M, CROWSNEST LAKE - HISTORIC POWER PLANT

HISTORICAL RESOURCES ACT REQUIREMENTS

Staff of the Cultural Facilities and Historical Resources Division (CFHRD) of Alberta Community Development have received a copy of the plans for the captioned project from the Oldman River Regional Services Commission.

# **Historical Resources Potential Evaluation**

The East Kootenay Power Plant is located on the railway line in the proposed development area. The Plant was built in the 1920s to supply power to the Alberta side of the Crowsnest Pass. It used powdered coal to fire the boilers, and soon moved from being an auxiliary supplier to providing power full time. The plant remained in operation until 1969. Its operations were integral to the business and community life of the Pass. On this basis staff of the Heritage Resource Management Branch have recommended that an Historical Resources Impact Assessment be required for this project prior to any development/demolition occurring. I agree with this recommendation.

# HISTORICAL RESOURCES ACT REQUIREMENTS

It has been determined that pursuant to Section 37(2) of the *Historical Resources Act*, the Bridgegate Financial Corporation is required to conduct an Historical Resources Impact Assessment on the historic Power Plant prior to development/demolition proceeding. The Historical Resources Impact Assessment and mitigative studies are to be prepared in accordance with the instructions outlined in Schedule A (attached).

#### SCHEDULE A

# HISTORICAL RESOURCES ACT REQUIREMENTS BRIDGEGATE FINANCIAL CORPORATION PROPOSED COMMERCIAL/RESIDENTIAL SUBDIVISION PT. NE 9-8-5-W5M, CROWSNEST LAKE – HISTORIC POWER PLANT (PROJECT FILE 4835-2006-047)

# 1. HISTORICAL RESOURCES IMPACT ASSESSMENT

Pursuant to Section 37(2) of the *Historical Resources Act*, an Historical Resources Impact Assessment and any work resulting from this assessment is to be conducted on the historic Crowsnest Lake Power Plant structure. This assessment is to be conducted on behalf of the Bridgegate Financial Corporation by an historian/architect qualified to conduct such studies within the Province of Alberta (consultants list attached).

Timing: The Historical Resources Impact Assessment shall consist of the conduct of a preconstruction/demolition impact assessment.

#### Site Assessment Procedures

- (a) The consultant is to assess the historical significance of the Power Plant using Provincial criteria and determine and document its current condition. This study should include:
  - (1) An examination of the role the power plant played in the development of the municipality.
  - (2) An examination of the impact the power plant operation had on the economy of the municipality.
  - (3) A determination of whether any significant individuals were directly connected with the structure and whether any significant events occurred in and around the structure.
  - (4) A determination of the uniqueness or representative value of the structure architecturally.
  - (5) An examination of what role the structure, if restored and preserved, could play in the Municipality of the Crowsnest Pass today.
  - (6) Based on the results of this study, additional work/structural studies may be required, or the structure may be considered for designation as a Provincial Historic Resource.

#### 3. FINAL REPORT

A copy of the Historical Resources Impact Assessment final report for the historic Crowsnest Lake Power Plant structure and any Interim reports are to be submitted directly to Martina Purdon, Archaeological Permits & Records Coordinator, Heritage Resource Management Branch, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8.

## **DEPARTMENTAL CONTACTS**

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Old St. Stephen's College 8820 - 112 Street Edmonton, Alberta, Canada T6G 2P8 Telephone (780) 431 2300 Fax (780) 427 5598 www.tprc.gov.ab.ca/hrm

August 28, 2007

Mr. Bruce Yorga
Bridgecreek Development Corporation
#300, 1333 – 8<sup>th</sup> Street SW
Calgary, Alberta.
T2R 1M6

Our File(s): 4835-06-047

Acceptions

CROWSNEST PASS

Dear Mr. Yorga:

SUBJECT:

BRIDGECREEK DEVELOPMENT CORPORATION

PROPOSED COMMERCIAL/RESIDENTIAL SUBDIVISION

PT. NE 9-8-5-W5M, CROWSNEST LAKE - EAST KOOTENAY POWER PLANT

HISTORIC RESOURCES IMPACT ASSESSMENT - FINAL REPORT

Ministry staff have received a copy of the Final Report prepared by SIMPSON ROBERTS Architecture Interior Design Inc. detailing the results of the required Historic Resources Impact Assessment that they completed for the historic East Kootenay Power Plant which is located in the captioned project area.

# HISTORIC RESOURCES IMPACT ASSESSMENT

#### Terms of Reference

As required pursuant to Section 37(2) of the *Historical Resources Act*, SIMPSON ROBERTS Architecture Interior Design Inc. conducted an Historic Resources Impact Assessment on the East Kootenay Power Plant structure in advance of the development of a commercial/residential subdivision. Staff of the Historic Places Stewardship Section have reviewed this report and have recommended that additional studies should be completed at the Power Plant prior to its demolition.

# HISTORICAL RESOURCES ACT REQUIREMENTS

Based on the information provided in SIMPSON ROBERTS Architecture Interior Design Inc. report it has been determined that pursuant to Section 37(2) of the *Historical Resources Act*, the Bridgecreek Development Corporation is required to complete additional studies on the East Kootenay Power Plant prior to the demolition of the structure. The additional studies are to be prepared in accordance with the instructions outlined in Schedule B (attached).

# HISTORICAL RESOURCES ACT CLEARANCE

The Bridgecreek Development Corporation is granted *Historical Resources Act* clearance to proceed with the demolition of the East Kootenay Power Plant conditional upon the completion of the required additional studies as outlined in Schedule B, prior to demolition proceeding.

Mr. Bruce Yorga August 28, 2007 Page 2

Should you require additional information or have any questions regarding our Department's review of this project, please contact Larry Pearson of the Historic Resources Management Branch, (780-431-2341, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8; or Fax 780-422-3106).

On behalf of Alberta Tourism, Parks, Recreation and Culture, I would like to thank you and officials of the Bridgecreek Development Corporation for your co-operation in our endeavour to conserve Alberta's

Sincerely,

David Link, PhD

Director

Lorne G. Simpson, SIMPSON ROBERTS Architecture Interior Design Inc. cc:

Mike Burla, Oldman River Regional Services Commission

Bev Cole, Municipality of Crowsnest Pass

Neil Mirau, Arrow Archaeology Ltd.

Larry Pearson, Historic Resources Management Branch

Bill Tracy, Historic Resources Management Branch

#### SCHEDULE B

# HISTORICAL RESOURCES ACT REQUIREMENTS BRIDGECREEK DEVELOPMENT CORPORATION PROPOSED COMMERCIAL/RESIDENTIAL SUBDIVISION PT. NE 9-8-5-W5M, CROWSNEST LAKE EAST KOOTENAY POWER PLANT (PROJECT FILE 4835-2006-047)

#### 1. EAST KOOTENAY POWER PLANT - ADDITIONAL STUDIES

Pursuant to Section 37(2) of the *Historical Resources Act*, the Bridgecreek Development Corporation is required to conduct additional studies on the East Kootenay Power Plant structure as outlined below. These studies are to be completed prior to the removal of this structure. Should you have any questions regarding these requirements please contact Mr. Larry Pearson of the Historic Resource Management Branch, (780-431-2341).

#### (a) Alberta Heritage Survey Site Forms:

- 1. Complete a Heritage Survey site form for the structure. In keeping with Canadian Register requirements, lat/longs in decimal degrees, NAD83, are necessary.
  - (a) Photographs are to be original black & white photographs developed using black & white processing, along with the original negatives.
- 2. Include a CD that contains all the black & white images.

#### (b) Photographic Documentation

1. A detailed photo report of the exterior, interior and workings of the East Kootenay Power Plant must be compiled using both color and black and white film. The black and white film is to be development using black and white processing and all original negatives are to be submitted with the photo report.

#### (c) Equipment, Materials and Artifacts

1. The Crowsnest Museum in Coalman (403-563-5434) may be interested in acquiring equipment, materials and artifacts from the Power Plant. Alberta Tourism, Parks, Recreation and Culture would encourage the Bridgecreek Development Corporation to consider such an arrangement.

#### 3. FINAL REPORT

The Final Report for the documentation of the East Kootenay Power Plant is to be submitted directly to Martina Purdon, Archaeological Permits & Records Coordinator, Historic Resources Management Branch, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8.

# DEPARTMENTAL CONTACTS

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October 23, 2007

Our File(s): 4835-06-047

Mr. Bruce Yorga
Bridgecreek Development Corporation
#300, 1333 – 8<sup>th</sup> Street SW
Calgary, Alberta.
T2R 1M6

Dear Mr. Yorga:

SUBJECT:

BRIDGECREEK DEVELOPMENT CORPORATION

PROPOSED COMMERCIAL/RESIDENTIAL SUBDIVISION

PT. NE 9-8-5-W5M, CROWSNEST LAKE

EAST KOOTENAY POWER PLANT - ADDITIONAL DOCUMENTATION

Ministry staff have received have received the required additional documentation for the East Kootenay Power Plant structure located within the captioned development area as follows:

- 1. The completed Heritage Survey site survey form for the structure.
- 2. The detailed photo report of the exterior, interior and workings of the East Kootenay Power Plant using both color and black and white film.

This information was reviewed and found to be acceptable.

#### HISTORICAL RESOURCES ACT CLEARANCE

The Bridgecreek Development Corporation has *Historical Resources Act* clearance to proceed with the development of this project in the area occupied by the East Kootenay Power Plant. However, please be advised that pursuant to Section 37(2) of the *Historical Resources Act*, the previously required Historic Resources Impact Assessment for archaeological resources must be completed prior to any development occurring in the remainder of the project area.

Should you require additional information or have any questions regarding our Department's review of this project, please contact Larry Pearson of the Historic Resources Management Branch, (780-431-2341, 8820 - 112 Street, Edmonton, Alberta, T6G 2P8; or Fax 780-422-3106).

Mr. Bruce Yorga October 23, 2007 Page 2

On behalf of Alberta Tourism, Parks, Recreation and Culture, I would like to thank you and officials of the Bridgecreek Development Corporation for your co-operation in our endeavour to conserve Alberta's past.

Sincerely,

David Cink, PhD

Director

ce: Neil Mirau, Arrow Archaeology Ltd.

Mike Burla, Oldman River Regional Services Commission Bev Cole, Municipality of Crowsnest Pass

Larry Pearson, Historic Resources Management Branch

Bill Tracy, Historic Resources Management Branch

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#### **DEPARTMENTAL CONTACTS**

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September 18th, 2006

File: 030-01

## **Oldman River Regional Services Commission**

3105 – 16<sup>th</sup> Avenue North Lethbridge, Alberta T1H 5E8

Mike Burla, Senior Planner

RE: CROWSNEST LAKE RESORT

**Traffic Impact Assessment** 

Please find attached two copies of a Traffic Impact Assessment for the Bridgegate Resort at Crowsnest Lake. This report was prepared in conformance with the guidelines set out by Alberta Infrastructure and Transportation to address subdivision condition noted in the April 21st, 2006, Subdivision - Approval on Condition. Condition #4 of the approval letter mandated that conditions from Alberta Transportation be met. In discussion with Alberta Infrastructure and Transportation (AIT), they defined the need for a Traffic Impact Study along with their terms of reference for this report.

We ask that you forward a copy of this report to AIT to address subdivision comment #4. If you require any additional information or copies of this report, please contact the undersigned.

Rvan Bird, P. Eng.

Veritas Development Solutions Ltd.

cc: Bill Bradley, Bridgegate Development Corporation (with copy of report)





# BRIDGEGATE RESORT AT CROWSNEST LAKE

**Traffic Impact Study** 

# BRIDGEGATE RESORT AT CROWSNEST LAKE

Traffic Impact Study



PERMIT TO PRACTICE
D. A. WATT CONSULTING GROUP LTD.
Signature
Date
September 13, 2006
PERMIT NUMBER: P 3818
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

Prepared for: Bridgecreek Developments Corp.

Prepared by: D.A. Watt Consulting – Transportation Division

File: **2264.T01** 

Date: September 13, 2006



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#### 1.0 INTRODUCTION & CONCLUSIONS

#### 1.1 Background to this Study

D.A. Watt Consulting (DAW) was retained by Bridgecreek Developments Corp. to undertake a traffic impact study in support of the proposed resort development in Sentinel, within the Municipality of Crowsnest Pass. The subject site is located on the east side of Crowsnest Lake between the CP Rail line and the Crowsnest River. The approximately 26-acre land (shown in **Figure 1**) is proposed to consist of residential condos, hotels, shopping centres, and a casino.

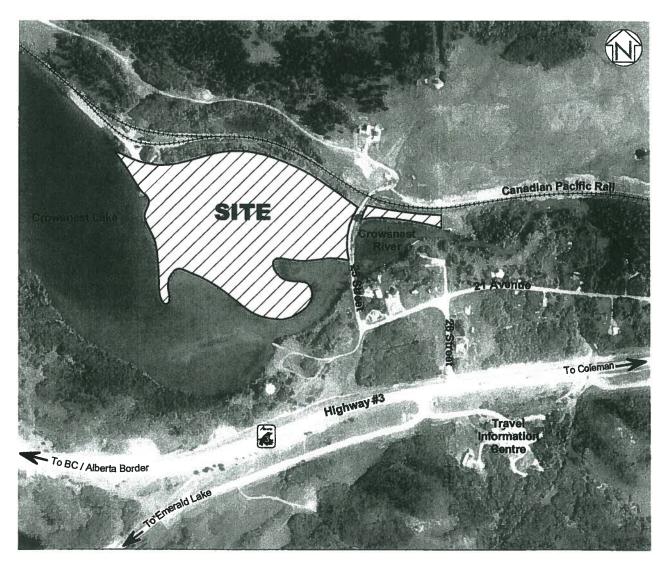


FIGURE 1: SITE CONTEXT



Existing access to the site from the highway is via an all-turns intersection on Highway 3 at 26th Street. The site is to the northwest of the intersection and can be reached by travelling west on 21<sup>st</sup> Avenue and then north on the 25<sup>th</sup> Street bridge that crosses Crowsnest River. It is the developer's intent to have the future access to the site via 25<sup>th</sup> Street at Highway 3. The existing intersection of Highway 3/26<sup>th</sup> Street will be closed and all traffic north of the highway will be routed through the new Highway 3/25<sup>th</sup> Street intersection via 21<sup>st</sup> Street. The purpose of introducing a new intersection is to provide a more direct access to the proposed site from the highway and also avoid routing the proposed site-related traffic in front of the four residential lots along 21<sup>st</sup> Avenue between 25<sup>th</sup> and 26<sup>th</sup> Street. The plan also calls for the relocation of the access to the Travel Information Site to form a south leg of the intersection at Highway 3/25<sup>th</sup> Street, in order to eliminate the two existing, closely spaced offset T-intersections along Highway 3.

#### 1.2 Study Scope

After an initial phone conversation with Alberta Infrastructure and Transportation (AIT) staff on November 30, 2005, we established the following scope of work for the traffic impact study (confirmed by an e-mail from AIT on December 8, 2005, see **Appendix A**):

- 1. Review and document the existing conditions within the study area in the field.
- Provide the existing traffic volumes for the existing Highway 3/26 Street intersection by conducting manual traffic counts at the study location. Background traffic volumes in future scenarios will be based on the projection of existing traffic volumes using annual traffic growth rates for Highway 3 in the area.
- 3. Establish appropriate a.m. and p.m. peak hour trip generation rates for the proposed resort development based on the latest ITE Trip Generation publication.
- 4. Determine appropriate direction-distribution patterns for the proposed development based on market information provided by the developer. Site-generated traffic volumes will be manually assigned to the internal and external area road network.
- 5. Assess the following scenarios using the Synchro/SimTraffic software package and also AIT's Left- and Right-turn warrants:
  - o Existing
  - Short-term Background and Post-development
  - Long-term Background and Post-development
- 6. Recommend appropriate intersection improvements for each time horizon based on the capacity analyses and AIT warrant calculations.



#### 1.3 Conclusions

The following are DAW's conclusions drawn from this study:

#### Site Traffic Generation

- The site is divided into the two parts: the lower bench and upper bench. The lower bench will be developed first followed by the upper bench. In this study, we have identified the development of the lower bench as Phase 1 and the development of the upper bench as Phase 2 of the proposed development.
- Phase 1 of the development is expected to generate approximately 100 vehicles per hour (vph) in the a.m. peak hour and 160 vph in the p.m. peak hour. When fully developed (after Phases 1 & 2), the proposed resort development is expected to generate approximately 550 vph during the a.m. peak hour. Similarly, the p.m. peak hour generation is expected to be about 900 vph.

#### Existing (2006) and Future (2010, 2015 & 2027) Background Operating Conditions

- The existing pair of offset T-intersections of Highway 3/26<sup>th</sup> Street and Highway 3/Travel Information Site Driveway operate at good levels-of-service with minimal delays.
- In 2010 and 2027, the proposed intersection at Highway 3/25<sup>th</sup> Street is expected
  adequately accommodates the estimated increases in background traffic at the future
  planning horizons. We have determined that a Type IIIc intersection treatment will be
  warranted in 2010 and 2015, and a Type IVb intersection treatment will be warranted in
  the 2027 background scenarios.

#### Future (2010, 2015 & 2027) Post-Development Operating Conditions

- In 2010, the proposed intersection at Highway 3/25<sup>th</sup> Street will also be able to satisfactorily accommodate the site-generated traffic volumes in the future with some spare capacity to accommodate other development in the area. A Type IIIc intersection treatment is warranted for the 2010 post-development scenario.
- In 2015 and 2027, a Type IVc intersection treatment and a westbound right-turn lane are warranted on Highway 3. According to our analysis results, the southbound left-turn/through movement will operate poorly and require signalization. Alberta Infrastructure and Transportation does not generally allow signalization along its highways in rural areas. Therefore, grade separation is the only option other than signalization to address the problem. The issue of signalization versus grade separation should be reviewed carefully by AIT as this site develops. The intersection should be examined once the development is in place and actual traffic volumes available, to determine signalization or grade separation is required.



In summary, the future road system, with some upgrades (either signalization or grade separation), can satisfactorily accommodate the site-generated traffic volumes, in addition to the background traffic growth on Highway 3.



#### 2.0 EXISTING CONDITIONS

#### 2.1 Existing Road Network

In the immediate area of the proposed site, Highway 3 will be the only roadway moving site traffic to the surrounding area. The speed limit is posted at 100 km/h on Highway 3 in the vicinity of the site. The existing area road network is illustrated in Figure 1. The site access is gained from a narrow bridge across the Crowsnest River at 25<sup>th</sup> Street. Access to Highway 3 is currently via the 26<sup>th</sup> Street intersection. 25<sup>th</sup> and 26<sup>th</sup> Street are connected by 21<sup>st</sup> Avenue. The old Highway 3 went through the 21<sup>st</sup> Avenue alignment and currently there are four residences fronting onto 21<sup>st</sup> Avenue between 25<sup>th</sup> and 26<sup>th</sup> Street.

**Figure 2** is a schematic of the existing configuration of the pair of T-intersections. The existing design is a variation of AIT's Type IVb intersection treatment, implemented over two intersections.

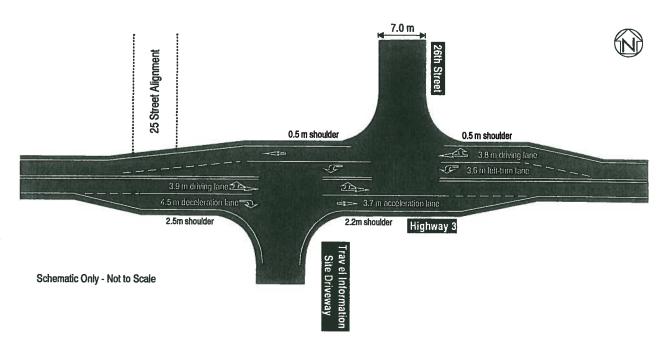


FIGURE 2: EXISTING INTERSECTION CONFIGURATION

#### 2.2 Existing Traffic Volumes

DAW carried out turning movement surveys on Tuesday January 10, 2006 at the intersections of Highway 3/26<sup>th</sup> Street and Highway 3/Travel Information Site driveway. The traffic surveys were conducted during the peak periods of 7:00 a.m. to 9:30 a.m., 11:30 a.m. to 1:30 p.m., and



4:00 p.m. to 6:30 p.m. The peak hour traffic volumes are summarized in **Figure 3**. The existing morning and afternoon street peak hours for the intersections are identified as follows:

- Afternoon street peak hour...... 4:15 p.m. 5:15 p.m.

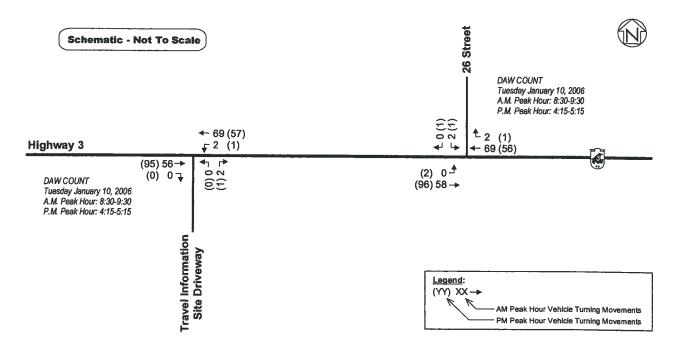


FIGURE 3: EXISTING TRAFFIC VOLUMES

Since our traffic survey was carried out in January, during winter traffic patterns, we have adjusted the traffic volumes to account for a nominal design condition. For the purpose of this intersection, we have used the 100<sup>th</sup> highest hourly volume as the design condition in accordance with AIT design guidelines. McElhanney Consulting Services Ltd. provided us with 2003 a.m. and p.m. 100<sup>th</sup> highest hour traffic volumes for the intersections of Highway 3/9<sup>th</sup> Street (Hazell Access) and Highway 3/37<sup>th</sup> Street (Sentinel Access). The Hazell Access and Sentinel Access are the next major intersections to the west and east of the 26<sup>th</sup> Street intersection. We believe that data from the two intersections would reflect similar design traffic volumes and could therefore be applied to the Highway 3/26<sup>th</sup> Street intersection. All relevant traffic information provided by McElhanney is included in **Appendix B**.

Since the data was from the Year 2003, we had to adjust the traffic volumes to 2006 levels. In order to estimate an appropriate annual growth rate, we reviewed historical data from AIT for a traffic counter located on Highway 3 at the Alberta-BC border (the closest counter with 9 years of data). The historical data revealed an average annual linear growth rate of approximately



2.2% per year over the past nine years (from 1995 to 2004). This growth rate was applied to the 2003 100<sup>th</sup> highest traffic volumes in order to project the 2006 - 100<sup>th</sup> highest traffic volumes eastbound and westbound on Highway 3. Using DAW counts as a guide, we were able to formulate intersection turning movement volumes at the intersections of Highway 3/26<sup>th</sup> Street and Highway 3/Travel Information Site Driveway for the 100<sup>th</sup> highest hour in 2006, as shown in **Figure 4**.

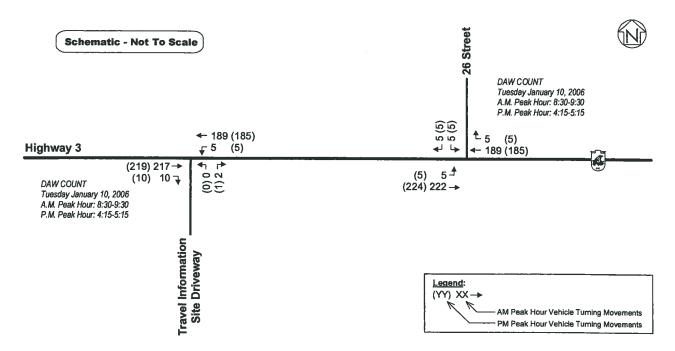


FIGURE 4: PROJECTED 2006 - 100<sup>TH</sup> HIGHEST HOUR TRAFFIC VOLUMES

#### 2.3 Existing Operating Conditions

We assessed existing operating conditions at the intersections within the study area using the existing intersection configurations. All intersections reviewed in this study were evaluated using the Synchro/SimTraffic 6.0 software package (based on methodology outlined in the Highway Capacity Manual<sup>1</sup>).

<sup>&</sup>lt;sup>1</sup> Transportation Research Board, <u>Highway Capacity Manual 2000</u>, Washington, DC, 2000.



For stop-controlled intersections, the level-of-service (LOS) is based on the computed delays on the minor movement. LOS 'A' represents minimal delays for traffic movements on the minor street, and LOS 'F' represents an insufficient number of gaps on the major street for the minor street motorists to complete their movement without significant delays. LOS 'E' is still considered acceptable, however it is approaching the point at which intersection improvements may need to be considered. A summary of the LOS criteria for unsignalized intersections is included in **Table 1**.

TABLE 1: LEVEL OF SERVICE CRITERIA

Level of Service (LOS)	Average Delay for UNSIGNALIZED Intersection Movements		
А	0 – 10 seconds per vehicle		
В	> 10 – 15 seconds per vehicle		
С	> 15 – 25 seconds per vehicle		
D	> 25 – 35 seconds per vehicle		
Е	> 35 – 50 seconds per vehicle		
F	> 50 seconds per vehicle		

Our analysis indicates that the intersections of Highway 3/26<sup>th</sup> Street and Highway 3/Travel Information Site Driveway are operating at acceptable overall level of service during the a.m. and p.m. peak hours with individual movements operating at LOS B or better. The Synchro results are summarized in **Table 2** (outputs are appended in **Appendix C**).

TABLE 2: EXISTING OPERATING CONDITIONS

INTERSECTION / MOVEMENT			AM PEA	KHOUR	PM PEAK HOUR	
			CTION / MOVEMENT LOS Delay (s/veh)		Los	Delay (s/veh)
	EB	Left/Through	Α	0.5	Α	0.5
Highway 3/ 26 Street	SB	Left B		10.5	В	10.5
		Right	Α	9.4	Α	9.4
	Intersection Summary		Α	0.3	Α	0.3
	WB	Left	Α	8.3	Α	8.3
Highway 3/ Travel Information Site Driveway	NB -	Left	В	11.4	В	11.4
		Right	В	10.2	В	10.3
	Intersection Summary		Α	0.5	Α	0.5



#### 3.0 FUTURE BACKGROUND CONDITIONS

#### 3.1 Proposed Road Network

From discussion with McElhaney Consulting Services Ltd., who has been retained by AIT to conduct a Functional Planning Study of Highway 3, we learned that Highway 3, in the vicinity of the proposed development site, will be upgraded to a 4-lane divided highway along its current alignment in the long-term. There is no immediate plan to implement the recommendations in the functional planning study. Logically, the implementation of the plan would occur when there is the need to upgrade the highway and when adequate funding is available. McElhaney does not foresee the implementation of the plan within the next 20 years. Therefore, we have assumed Highway 3 will remain a two-lane highway in the vicinity of the development for all planning horizons presented in this study.

Existing access to the site from the highway is via an all-turns intersection on Highway 3 at 26th Street. Future access to the site and area north of the highway is proposed to be via an intersection at 25<sup>th</sup> Street. The existing single-lane bridge on 25<sup>th</sup> Street leading to the site over the Crowsnest River will be reconstructed to accommodate two-way travel when the proposed resort development opens. The access of the Travel Information Site will be relocated to form a south leg of the intersection at Highway 3/25<sup>th</sup> Street. **Figure 5** illustrates the future road network in the vicinity of the site.

We have reviewed the intersection sight distances at the proposed intersection location. Using the standard eye height for passenger vehicle of 1.05 m and object heights of 1.3 m, we have measured the sight distance looking west along Highway 3 to be in excess of 500 m and looking east to be approximately 390 m. The available intersection sight distances exceeds the required sight distance of 215 m required for passenger vehicles and even exceed the 320 m required for single unit truck and buses. It was not possible to measure the sight distance for combination semi-trailers in the field, but we expect that the available sight distances will be greater than for passenger cars because of the higher eye height. Therefore, the proposed intersection location will meet AIT intersection sight distance requirements.



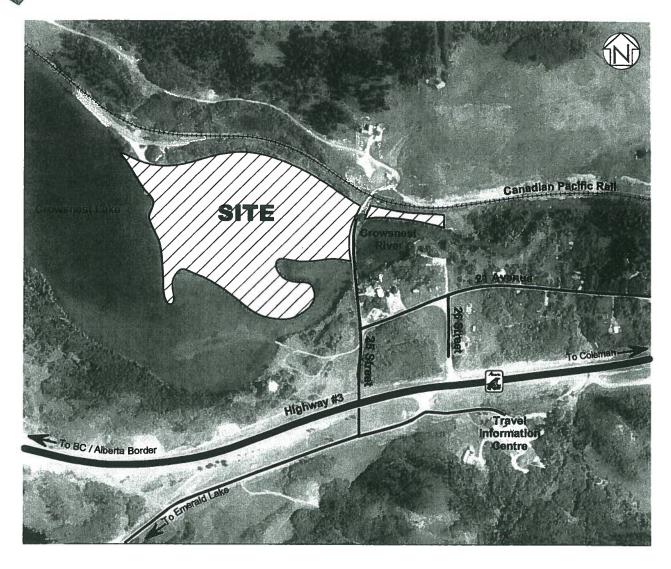


FIGURE 5: PROPOSED ROAD NETWORK

#### 3.2 Future (2010, 2015 & 2027) Background Traffic Volumes

In order to estimate future background (non-site related) traffic, we used the same average annual linear growth rate of 2.2% per year used when estimating the 2006 - 100<sup>th</sup> highest hour volumes. This growth rate was applied to the Year 2006 (100<sup>th</sup> highest hour) through traffic volumes on Highway 3 and traffic volumes related to the Travel Information Site. The resulting 2010, 2015, and 2027 background traffic volumes are shown in **Figure 6**. We reviewed the 2010 and 2015 horizons because the development will likely be constructed in two phases, with the first phase finish around 2010,and full-buildout at 2015. The 2027 horizon represents 20 years from predicted start of construction.



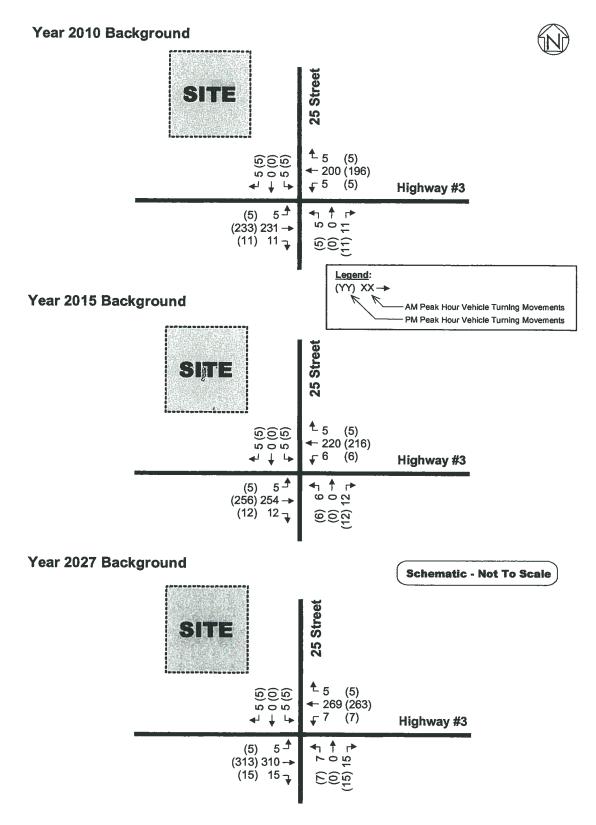


FIGURE 6: **FUTURE BACKGROUND TRAFFIC VOLUMES** 



#### 3.3 Future (2010, 2015 & 2027) Background Operating Conditions

Before assessing the intersections operationally using Synchro/SimTraffic, we reviewed the Highway 3/25<sup>th</sup> Street intersection based on the methodology outlined in the Highway Geometric Design Guide<sup>2</sup>. Although the volumes of traffic going to 25<sup>th</sup> Street may be minimal, we note that such vehicles may delay, or be delayed by, non-site related vehicles on Highway 3. For example, eastbound through vehicles following an eastbound left-turning vehicle may be delayed by, or exposed to collision with the left-turning vehicle. The interference caused by standing left-turning vehicles in the through lane can reduce capacity and create a potential safety hazard. The amount of interference is dependent on the opposing traffic volumes, the advancing traffic volumes and the number of left-turning vehicles. The addition of a left-turn lane would eliminate this interference.

Similarly, the warrant for a separate right-turn lane was assessed based on the methodology outlined in the AIT Design Guide. If the volume of right-turning vehicles is sufficient to create hazards and reduce capacity at an intersection, consideration should be given to providing a deceleration lane in the form of a taper and parallel lane. The standard right-turn lane design provides for vehicle deceleration and limited storage space, which aids in keeping the through travel lane clear of turning traffic.

We have evaluated the future intersection of Highway 3/25th Street with the future background traffic volumes using the Left Turn Lane Analysis and Right Turn Lane Warrant Analysis to determine the warranted type of intersection treatment. Based on the results of the warrant analyses (included in **Appendix D**), we have the following findings:

- At 2010, assuming no development on the proposed site:
  - A Type IIIc intersection treatment is warranted on Highway 3.
  - No right-turn lanes are warranted.
- At 2015, assuming no development on the proposed site:
  - A Type IIIc intersection treatment is warranted on Highway 3.
  - o No right-turn lanes are warranted.
- At 2027, assuming no development on the proposed site:
  - A Type IVb intersection treatment is warranted on Highway 3.
  - o No right-turn lanes are warranted.

Schematics of the intersection treatments are shown in Figure 7 and Figure 8. Detailed dimensions and pavement marking for the intersection treatment types are included in Appendix E.

<sup>&</sup>lt;sup>2</sup> Alberta Transportation, <u>Highway Geometric Design Guide</u>, 1995 (updated 1999).



Based on the above intersection treatments, we assessed the future background operating conditions at the intersection using Synchro/SimTraffic. Our analysis indicates the intersection of Highway 3/25<sup>th</sup> Street is expected to operate at acceptable overall level of service during the a.m. and p.m. peak hours in the future background scenarios. The Synchro results are summarized in **Table 3** (outputs are appended in Appendix C).

TABLE 3: FUTURE BACKGROUND OPERATING CONDITIONS

				AM PEAK HOUR		PM PEAK HOUR	
SCENARIO INTERSI		CTION / MOVEMENT		Los	Delay (s/veh)	Los	Delay (s/veh)
		EB	Left/Through	Α	0.2	Α	0.2
		WB	Left/Through	Α	0.2	Α	0.3
2010	Himburg 0/	NB	Left	В	12.6	В	12.5
Background	Highway 3/ 26 Street	IND	Right	В	10.4	В	10.4
_uong.ounu	20 011 001	SB	Left	В	12.8	В	12.8
		36	Right	Α	9.4	Α	9.4
		Intersection Summary		Α	0.8	Α	0.8
	Highway 3/ 26 Street	EB	Left/Through	Α	0.2	Α	0.2
		WB	Left/Through	Α	0.3	Α	0.3
0045		NB	Left	В	13.2	В	13.2
2015 Background			Right	В	10.6	В	10.6
Duong. June		SB	Left	В	13.4	В	13.4
ì			Right	Α	9.5	Α	9.5
		Intersection Summary		А	0.8	Α	0.8
	Highway 3/ 26 Street	EB	Left	Α	7.2	Α	7.8
		WB	Left/Through	Α	6.8	Α	0.3
2027 Background		NB	Left	В	11.3	В	14.9
			Right	В	11.2	В	11.2
_ackground		SB	Left	В	11.5	С	15.2
			Right	Α	8.3	Α	9.8
		Intersection Summary		Α	1.2	Α	0.8



#### 4.0 PROPOSED DEVELOPMENT

#### 4.1 Land Use Concept

The lands within the resort area boundary are expected to build out over a number of years. Construction is expected to begin in 2007 with the lower bench area (Phase 1) that will take approximately three years to complete (Year 2010) follow by the development of the upper bench area (Phase 2). Full-buildout of the site (Phases 1 and 2) is expected by Year 2015. The proposed development plan is shown in **Figure 9**. Note that the cell designation numbers will not necessarily match any cell number/lettering scheme that the developer may use – the numbers shown are for reference purposes only, in reviewing the trip generation tables presented later in this report. Phase 1 consists of Cells 1 to 4 and Phase 2 consists of Cell 5.

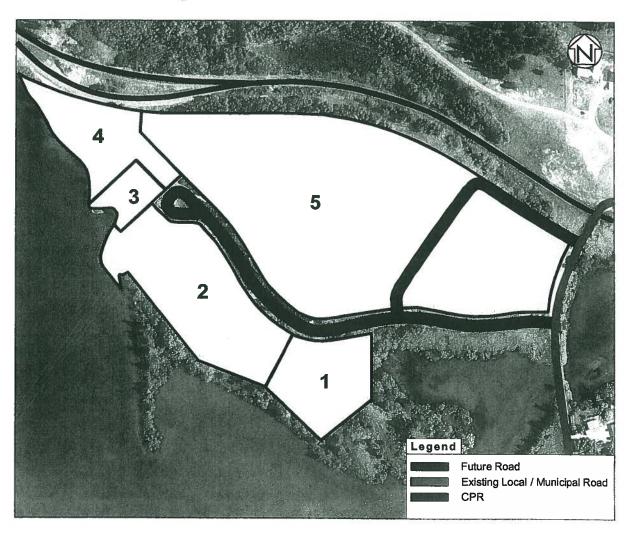


FIGURE 9: TRANSPORTATION ZONE BREAKDOWN



**Table 4** shows the types and intensities of development that the client has allowed for at this time. The intensities are conservatively high to keep the developer's plan for the resort flexible.

TABLE 4: LAND USE ASSUMPTIONS

CELL	LAND USE	a INTENSITY
1	Multi-Family Residential Condo	80 units
	Commercial Retail	15,000 ft <sup>2</sup>
2	Multi-Family Residential Condo	120 units
	Commercial Retail	30,000 ft <sup>2</sup>
3	Commercial Retail	36,000 ft <sup>2</sup>
4	Hotel	60 rooms
	Commercial Retail	15,000 ft <sup>2</sup>
	Resort Hotel	720 rooms
	Commercial Retail (Hotel Building)	71,000 ft <sup>2</sup>
5	Hotel (Podium)	90 rooms
	Casino	705
		gaming positions
	Multi-Family Residential Condo	510 units
	Commercial Retail (Condo Building)	145,000 ft <sup>2</sup>

#### 4.2 **Trip Generation**

In assessing the trip-generating potential of the land uses within the proposed resort development, we reviewed published ITE trip generation data. The widely used publication Trip Generation<sup>3</sup> provides a good database of trip generation data (based on studies of existing developments) for a wide variety of uses. We realize that ITE trip generation rates may not apply perfectly to some uses in this special development, and have adjusted our trip generation approach accordingly based on information provided to us by the developer. The following points summarize DAW's approach to establishing the trip generation of the development areas assessed in the study:

For the Multi-family Residential Condos, we have used the ITE trip rates for recreational homes of 0.3 trips per unit (49% inbound and 51% outbound) during the a.m. peak hour and 0.31 trips per unit (44% inbound and 56% outbound) during the p.m. peak hour. A daily trip generation rate of 3.16 vehicle trips per unit (50/50 split) was used to assess daily traffic. We estimate that 10% of all residential trips would be destined to other nonresidential uses within the resort (internal crossover trip). This 10% was deemed to be

<sup>&</sup>lt;sup>3</sup> Institute of Transportation Engineers., <u>Trip Generation – 7th Edition.</u>, Washington, D.C., 2003.



portions of the residential trip rates and not in addition to the rates. For simplicity, we have not attempted to reduce trip rates of non-residential components in the development to balance out the additional crossover trips.

- We have assessed the Hotels within the development area based on ITE trip generation rates for Resort Hotels with corresponding generation rates of 0.31 trips per room (72% inbound and 28% outbound) in the a.m. peak hour and 0.42 trips per room (43% inbound and 57% outbound) in the p.m. peak hour. A daily trip generation rate of 6 vehicle per room (50/50 split) was used to assess the daily traffic.
- For the proposed Commercial Retail components, we have used the Shopping Centre ITE trip rates of 1.03 trip per 1000 ft² GFA (60% inbound/40% outbound) in the morning peak hour and 3.75 trips per 1000 ft² GFA (50%/50% split) in the afternoon peak hour. A daily trip rate of 42.94 trips per 1000 ft² GFA (50%/50% split) was used. Given that the primary intent of the commercial retail component is to serve the people staying at the resort, we have asked the developer to estimate the usage of the retail components. It is estimated that at least 80% of the users of the retail components will be from inside the resort. In addition, people inside the resort are likely to walk to the facility instead of driving there since the walking distance to this facility from anywhere in the development is within 500 metres. Therefore, we have reduced the trip rates by 80% to account for expected usage patterns of the site. We have not allowed for any pass-by and diverted-linked trips for this study since the shops are intended to serve the people inside of the resort and, as such, are not uses that would attract a large number pass-by or diverted-linked trips. For simplicity, we have assessed all trips to the retail shops as primary trips.
- The ITE Trip Generation Manual provides very little useful information on **Casino** trip generation. Instead, we reviewed a paper<sup>4</sup> that was presented at the 2001 ITE Annual Meeting that reviewed trip generation for small to medium sized casinos and used its data to estimate trip generation for the Casino on the subject site. The trip generation rates used in our review are **0.50 trips gaming position** (52% inbound/48% outbound) in the p.m. peak hour 8.24 trips per gaming position per day (50%/50%). The paper did not include a.m. peak hour generation for casino, because casinos generate negligible amount of traffic in the a.m. peak hour. It should be noted that some of the casinos studied have amenities such as hotels and convention centres. The trip rates, therefore, may over-estimate traffic if applied to the casino component only, such as in our study. Similar to the retail component of the site, we have reduced the trip rates by 80% to account for the expectation that most patron of the casino will be people from inside the resort.

<sup>&</sup>lt;sup>4</sup> Trueblood, Michael T., Gude, Tara. Trip Generation Characteristics of Small to Medium Sized Casinos. 2001 Annual Meeting Compendium. 2001.



A cell-by-cell trip generation summary for the resort development is provided in **Table 5**. As shown, we estimate that at full buildout the site developments will generate a total of about **550 vehicles per hour** (vph) **in the a.m. peak hour** and **900 vph in the p.m. peak hour**. A great majority of the trips generated are associated with Phase 2 of the development.

TABLE 5: TRIP GENERATION SUMMARY

		A.M.	PEAK	10ÚR	P.M.	PEAK H	IOUR		DAILY	T WAR
CELL	USE	Total	CINESSES NO SERVICE POPOLICIO PER	COLUMN TOWNS	Total	a station of the state of	Out	Total		Out
1	Multi-Family Residential Condo	24	12	12	25	11	14	252	126	126
	Commercial Retail	3	2	1	11	5	6	128	64	64
2	Multi-Family Residential Condo	36	18	18	37	16	21	380	190	190
	Commercial Retail	6	4	2	23	11	12	258	129	129
3	Commercial Retail	8	5	3	27	13	14	310	155	155
	Hotel	18	9	9	25	11	14	360	180	180
4	Commercial Retail	3	2	1	11	5	6	128	64	64
Р	hase 1 Total	98	52	46	159	72	87	1816	908	908
	Resort Hotel	223	109	114	302	133	169	4320	2160	2160
	Commercial Retail (Hotel Building)	15	9	6	53	26	27	610	305	305
	Hotel (Podium)	28	14	14	38	17	21	540	270	270
5	Casino	0	0	0	71	37	34	1162	581	581
	Multi-Family Residential Condo	153	75	78	158	70	88	1612	806	806
	Commercial Retail (Condo Building)	30	18	12	109	52	57	1246	623	623
PI	hase 2 Total	449	224	225	731	335	396	9490	4745	4745
	TOTAL	547	276	271	890	407	483	11306	5653	5653



# 4.3 Trip Distribution and Assignment

In order to determine the directional distribution patterns for the trip generated by the proposed development, we have discussed potential market area and target demographic with the client. Based on the location of the proposed resort development, concentration of population in the area and the area road network, we have established trip distribution patterns with 80% of the external traffic going to/coming from the east and the remaining traffic going to/coming from the west along Highway 3. **Figure 10** illustrates the trip distribution patterns for the proposed development traffic.

The full build-out a.m. and p.m. peak hour traffic volumes were manually assigned to the area road network. The total site-generated traffic volumes at the Highway 3/25<sup>th</sup> Street intersection are also shown in Figure 10.

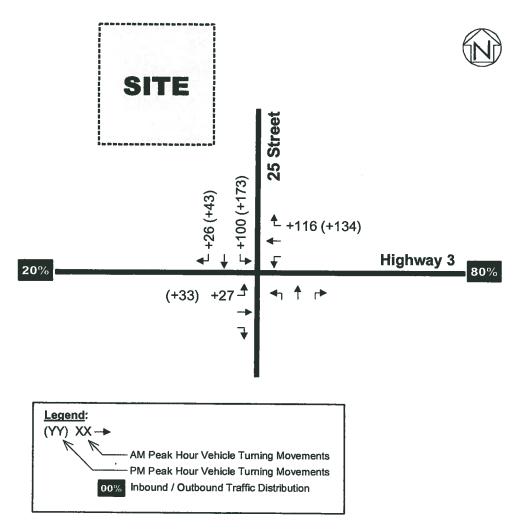


FIGURE 10: TRIP DISTRIBUTION AND ASSIGNMENT



# 4.5 Full Build-out Daily Traffic Volumes

We also manually assigned the daily traffic volumes for the full build-out scenario to the internal road network. For the proposed development, the assignment of traffic internal to the site is straightforward since there is only one way to enter/exit the development. The resulting daily traffic volumes within the Bridgegate Resort are shown in **Figure 11**.

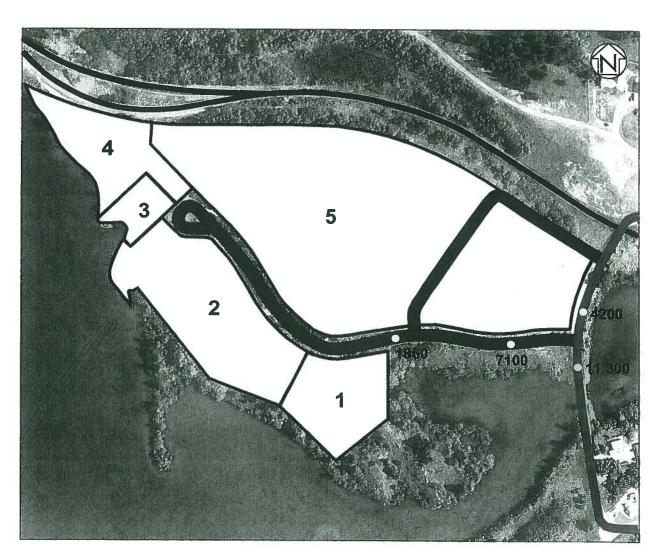


FIGURE 11: FULL BUILD-OUT DAILY TRAFFIC VOLUMES



#### 4.6 Recommended Full Build-out Road Network

The recommended internal road network system is shown in Figure 12. As per the request of the developer, road standards for this resort development will follow City of Calgary roadway standards specified in the Design Guidelines for Subdivision Servicing<sup>5</sup>. A brief summary of the City of Calgary's roadway standards that are proposed for the resort development is shown in Table 6. The internal roadways are classified based on road function and requirements of the projected daily traffic volumes.



FIGURE 12: RECOMMENDED FULL BUILD-OUT ROAD NETWORK

<sup>&</sup>lt;sup>5</sup> The City of Calgary. <u>Design Guidelines for Subdivision Servicing</u>. August 2004.



#### TABLE 6: **INTERNAL ROADWAY STANDARDS**

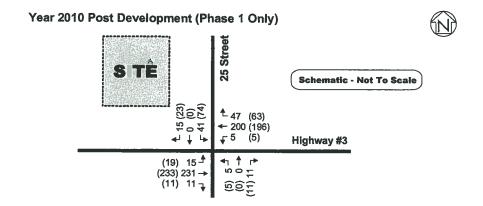
Туре	Daily Traffic Volume (veh/day)	Number of Lanes	Right-of-Way Width	Road Width
Primary Collector Street (undivided)	< 12,500	4	23.5 m	14.0 m
Collector Street (w/parking on one side)	< 5,500	2	19.0 m	9.5 m



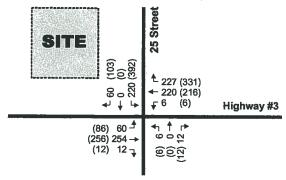
# 5.0 FUTURE POST-DEVELOPMENT OPERATING CONDITIONS

# 5.1 Future Post-Development Traffic Volumes

We superimposed the total site-generated traffic volumes onto the future (2010, 2015 and 2027) background traffic volumes in order to obtain the future post-development traffic volumes for 2010, 2015 and 2027 (summarized in **Figure 13**).



Year 2015 Post Development (Full-Buildout)



Year 2027 Post Development (Full-Buildout)

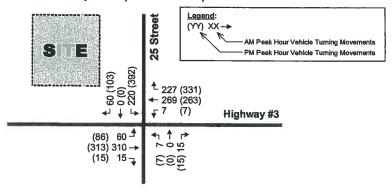


FIGURE 13: FUTURE POST-DEVELOPMENT TRAFFIC VOLUMES



# 5.2 Future 2010 Post-Development Operating Conditions (Phase 1 Only)

We have assessed the future need for separate left and/or right-turn lanes for Highway 3 at the 25<sup>th</sup> Street intersection using the warrant methodology outlined in the AIT Highway Geometric Design Guide. Based on the results of the warrant analyses, a **Type IIIc intersection treatment** is warranted on Highway 3. In addition, a **westbound right-turn lane** is also warranted. **Figure 14** illustrates the intersection treatment recommended for this post-development planning horizon. AIT design and pavement marking guidelines for Type IIIc intersection are appended in Appendix E.

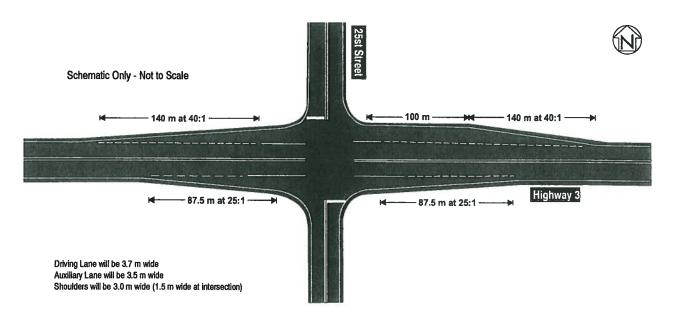


FIGURE 14: 2010 POST-DEVELOPMENT RECOMMENDED INTERSECTION TREATMENT

Based on the above intersection treatments, we assessed the 2010 post-development operating conditions at the intersection using Synchro/SimTraffic. The results, summarized in **Table 7**, indicate that the intersection will operate at acceptable overall level of service during the a.m. and p.m. peak hours with all critical movements at LOS B or better.



TABLE 7: 2010 POST-DEVELOPMENT OPERATING CONDITIONS

			AM PEA	AK HOUR	PM PEA	K HOUR
INTERSECT		VEMENT	Los	Delay (s/veh)	LOS	Delay (s/veh)
	EB	Left/Thru	А	0.6	Α	0.7
	WB	Left/Thru	Α	0.3	Α	0.3
14:	NB	Left/Thru	В	13.1	В	13.4
Highway 3/ 26 Street	I ND	Right	В	10.4	В	10.4
20 01.000	SB	Left/Thru	В	13.9	В	14.9
	36	Right	Α	9.5	Α	9.5
	Interse	ection Summary	Α	1.9	Α	2.7

# 5.3 Future 2015 Post-Development Operating Conditions

We have assessed the future need for separate left and/or right-turn lanes for Highway 3 at the 25<sup>th</sup> Street intersection using the warrant methodology outlined in the AIT Highway Geometric Design Guide. Based on the results of the warrant analyses, a **Type IVc intersection treatment** (10 m extra eastbound left-turn storage due to volume) with a **westbound right-turn lane** is warranted on Highway 3. **Figure 15** illustrates the recommended intersection treatment.

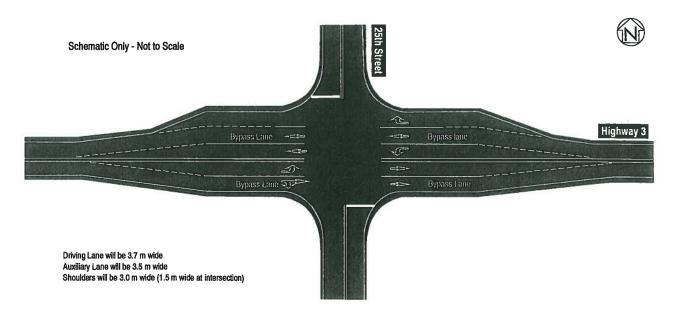


FIGURE 15: 2015 & 2027 POST-DEVELOPMENT RECOMMENDED INTERSECTION TREATMENT



Based on the above intersection treatments, we assessed the 2015 post-development operating conditions at the intersection using Synchro/SimTraffic. The results, summarized in Table 8, indicate that the intersection will operate at acceptable overall level of service during the a.m. peak hour but not in the p.m. peak hours. All critical movements at LOS C or better, except for the southbound shared left-turn/through movements in the a.m. and p.m. peak hours when the movement will operate at LOS E and LOS F, respectively. Therefore, the intersection of Highway 3/25th Street is not expected to function as an unsignalized intersection at acceptable level-of-service traffic resulting from full-buildout.

TABLE 8: 2015 POST-DEVELOPMENT OPERATING CONDITIONS

			AM PEA	AK HOUR	PM PEA	K HOUR
INTERSECT	TION / MO	VEMENT	LOS	Delay (s/veh)	LOS	Delay (s/veh)
	EB	Left	А	8.6	Α	9.1
	WB	Left	Α	8.5	Α	8.5
Himburg 9/	NB -	Left/Thru	С	17.4	С	21.0
Highway 3/ 26 Street	IND	Right	В	10.6	В	10.6
20 01.000	SB	Left/Thru	E	36.2	F	225.5
	36	Right	Α	9.9	В	10.2
	Interse	ction Summary	А	8.7	F	63.8

We evaluated the intersection using TAC's Traffic Signal Warrant Methodology. AIT uses an 80-point warrant system, which does not include collisions in the warrant. According to the signal warrant analysis (worksheet appended in Appendix F), traffic signalization is warranted (277 points). However, it is our understanding that Alberta Infrastructure and Transportation does not generally allow signalization along its highways in rural areas. The only option to improve level of service other than signalization is grade separation, which is much more expensive than signalization.

We recommend the issue of signalization versus grade separation be reviewed carefully by AIT as this site develops. Although our analysis shows that signalization is required at full-buildout. we note that the traffic volumes related to the site were estimated based on the limited information we have at the time of this report. Actual traffic volumes at the intersection could be much lower than the estimated volumes. The intersection should be reviewed once the development is in place to determine if the indicated upgrading is required based on actual traffic volumes. Periodic evaluation thereafter may be needed to assess need for further improvements.



# 5.4 Future 2027 Post-Development Operating Conditions

The future need for separate left- and/or right-turn lanes for Highway 3 at the 25<sup>th</sup> Street intersection was evaluated using the warrant methodology outlined in the AIT Highway Geometric Design Guide. Based on the results of the warrant analyses, a **Type IVc intersection treatment** (15 m extra eastbound left-turn storage due to volume) with a **westbound right-turn lane** is warranted on Highway 3. Figure 15 presented in the previous subsection illustrates the recommended intersection treatment.

Based on the above intersection treatments, we assessed the 2027 post-development operating conditions at the intersection. The Synchro results are summarized in **Table 9**, which indicate that the intersection will operate at acceptable overall level of service during the a.m. peak hour but not in the p.m. peak hours. All critical movements at LOS C or better, except for the **southbound shared left-turn/through movements in the a.m. and p.m. peak hours** when the movement **will operate at LOS F**. Therefore, the intersection of Highway 3/25<sup>th</sup> Street is not expected to function as an unsignalized intersection at acceptable level-of-service with the full-buildout traffic.

TABLE 9: 2027 POST-DEVELOPMENT OPERATING CONDITIONS

			AM PE	AK HOUR	PM PEA	K HOUR
INTERSECT	TON / MC	OVEMENT	LOS	Delay (s/veh)	LOS	Delay (s/veh)
	EB	Left	А	8.7	А	9.3
	WB	Left	Α	8.7	A	8.7
Literace of	NB -	Left/Thru	С	20.2	С	24.8
Highway 3/ 26 Street	IND	Right	В	11.2	В	11.2
20 01.000	SB	Left/Thru	F	60.8	F	359.8
	SB	Right	В	10.3	В	10.6
	Interse	ection Summary	Α	12.5	F	93.5

We evaluated the intersection using TAC's Traffic Signal Warrant Methodology. According to the signal warrant analysis (worksheet appended), **traffic signal is warranted** (313 points). As noted previously, we recommend the issue of signalization versus grade separation be reviewed carefully by AIT as this site develops.



# APPENDIX A: SCOPE OF WORK CONFIRMATION E-MAIL

## Simon Kong

From:

John.Thomas@gov.ab.ca

Sent:

Thursday, December 08, 2005 2:01 PM

To:

Simon Kong

Subject: RE: Stonebridge Resort at Crowsnest Lake Traffic Impact Assessment - Propose Study Scope

## Simon:

the project scope is fully adequate for AIT to assess the impact on the highway and any highway improvements that may be required as a result of the Stonebridge Resort development, any intersectioal improvements identified in the assessment of course would be in place prior to the development being open to the genral public and accomplished at no cost to the department.

thank you for the referral and opportunity to comment.

jt

**From:** Simon Kong [mailto:skong@dawatt.com] **Sent:** Tuesday, December 06, 2005 9:48 AM

To: John Thomas

Subject: Stonebridge Resort at Crowsnest Lake Traffic Impact Assessment - Propose Study Scope

John.

First of all, thanks for sending us AIT's latest Traffic Impact Assessment Guideline. I have reviewed the guidline and propose the following scope of work for the TIA that will be of interest to AIT:

- the study area will consist of the intersection of Highway 3 and the proposed site access road location. The proposed site access road location has not been finalized at this stage, but the idea of using the 25 Street alignment has been talked about by our client.
- Existing conditions within the study area will be reviewed in the field and documented (pavement width, pavement marking, posted speed limit, signage, other accesses, traffic control, intersection configuration, intersection sight distance at proposed assess location, etc.)
- We will provide the existing traffic volumes for the existing Highway 3/26 Street intersection by conducting manual traffic counts at the study location, if exising counts in the area are unavailable from AIT. Background traffic volumes in future scenarios will be based on the projection of existing traffic volumes using annual traffic growth rates for Highway 3 in the area.
- We will establish appropriate a.m. and p.m. peak hour trip generation rates for the proposed resort development (to contain residential condos, retail, and recreational components) based on the latest ITE Trip Generation publication.
- We will determine appropriate directional-distribution patterns for the proposed development baed on market information provided by the developer. The site-generated traffic volumes will then be manually assigned to internal and area road network.
- We will assess the following scenarios using the Synchro/SimTraffic software package and also AIT's Left- and Right-Turn warrants:
  - Existing
  - o Short-Term (Opening Day) Background and Post-Development
  - o Long-Term (20-year) Background and Post-Development
- Based on the capacity analyses and warrant calculations, we will recommend appropriate intersection improvements for each time horizon, as required.

We will document our methodology, findings, and conclusions in a formal report suitable for submission to AIT, Municipality of Crowsnest Pass, and our client. If everything is in order, please provide a reply to indicate your acceptance of this work program. Please do not hesitate to contact me if you require further information.

Sincerely,

Simon Kong, M.Sc., P.Eng. Project Engineer Transportation

D.A. Watt Consulting #310, 3016 - 5th Avenue N.E. Calgary, AB T2A 6K4

T: (403) 273-9001 F: (403) 273-3440

www.dawatt.com



# **APPENDIX B: AIT/MCELHANEY TRAFFIC INFORMATION**

## ALBERTA HIGHWAYS 1 TO 986 TRAFFIC VOLUME HISTORY 1995 - 2004

## Alberta Infrastructure and Transportation Program Management Branch Highway Asset Management Section

Produced: 15-Feb-2005 By CornerStone Solutions Inc.

Hwy	CS	TCS	Mar:	From	1995	1996	1997	1998	1999	2000	2001	2002	2003	200	4
					AADT	AADT	ASDT								
2A 2A	26 26	8	Weta	S OF LOCAL RD 33-46-24-400750000	6320	6350	6630	6790	6590	6500	6910	6810	6970	7380	7760
2A 2A	26 26	8 8	vveta	N OF LOCAL RD 33-46-24-400750000	5950	5980	6240	6400	6210	6130	6520	6420	6580	6950	7310
2A 2A	26	8		S OF LOCAL RD 9-47-24-402900000	5730	5750	6000	6150	6150	6070	6260	6170	6320	6690	7040
2A 2A	26	8		N OF LOCAL RD 9-47-24-402900000	5540	5560	5810	5960	5960	5880	6070	5980	6130	6480	6810
2A 2A	26	12		S OF 616 MILLET SJ				5830	5850	6140	6240	6080	6270	6640	6980
2A 2A	26	12		N OF 616 MILLET SJ				6350	6370	6310	6430	6270	6440	6810	7160
2A 2A	26	16		S OF 616 N OF MILLET NJ	5340	5150	5370	5510	5530	5470	5570	5430	5570	5900	6200
2A 2A	26	16		N OF 616 N OF MILLET NJ	5380	5210	5430	5570	5590	5530	5610	5470	5610	5930	6240
2A 2A	26	16		3.7 KM S OF 2 & 2A LEDUC	5840	5870	6130	6300	6310	6240	6350	6150	6590	6830	7130
2A 2A	26	16	Leac	S OF TWP RD 492, S OF LEDUC 12-49-25-412200000	5830	5860	6120	6180	6200	6240	6360	6260	6410	6780	7130
2A 2A	27	2		N OF TWP RD 492, S OF LEDUC 12-49-25-412200000	5890	5920	6180	6230	6260	6300	6420	6320	6530	6900	7260
2A 2A	36	4		E OF 2 AT LEDUC	5410	5300	5560	5600	5930	5860	6000	7920	7420	7780	8180
2A 2A	36	4		S OF 2 W OF PEACE RIVER	1330	1360	1390	1390	1080	1090	1060	1030	960	1000	1170
2A 2A	36	4		4.3 KM E OF 2 & 2A GRIMSHAW	910	940	960	1050	1010	1020	990	950	880	890	1080
2A 2A	44			E OF 2 IN GRIMSHAW										2470	2560
2A 2A	44	4		E OF 2 S OF HONDO	340	340	360	380	380	320	320	320	320	320	340
	44 54	4		S OF LOCAL RD, SMITH 23-71-1-506500805	800	820	840	900	900	600	620	620	620	620	660
2A	54 54	4		W OF 2 AT TRIANGLE	1150	1090	1190	1260	1240	1190	1330	1270	1300	1320	1370
2A	54 54	4		3.2 KM W OF 2 & 2A TRIANGLE	1110	1050	1150	1220	1280	1230	1220	1180	1220	1230	1280
2A		4		E OF 747 W OF TRIANGLE	1040	1050	1150	1210	1270	1220	1210	1180	1200	1220	1270
2A 2A	54 54	8 8		W OF 747 W OF TRIANGLE	640	680	740	780	820	790	770	760	780	800	830
		•		E OF RGE RD 200 35-74-20-500000000	760	730	790	850	800	770	780	770	790	810	840
2A	54	10		W OF RGE RD 200 35-74-20-500000000	730	710	770	810	780	750	760	750	770	790	820
→ 2A → 3	54 2	10 4		E OF 49 S OF GUY	550	550	600	650	630	630	700	690	7 <b>0</b> 0	720	750
<b>7</b> ³ 3	2	4		ALTA - BC BORDER	2840	2930	3050	3190	3420	3410	3340	3470	3430	3390	4080
3	2	4		W OF INN ON THE BORDER ACC 12-8-6-07001195								3470	3440	3390	4090
3	2	4		E OF INN ON THE BORDER ACC 12-8-6-07001195								3510	3480	3430	4140
3	2	8		W OF 40 AT M OF CROWSNEST PASS	5980	6070	6320	7160	7680	7660	7600	7920	8280	8230	9930
3	2	8		E OF 40 AT M OF CROWSNEST PASS	6480	6570	6840	7950	8530	8510	8440	8800	9240	9170	11070
3	2	10	Crow	W OF BLAIRMORE WEST ACC (007 ST) 3-8-4-504500805								4580	4810	4810	5810
3	2	10	Crow	E OF BLAIRMORE WEST ACC (107 ST) 3-8-4-504500805								4980	5220	5220	6300
3	2		Crow	W OF BLAIRMORE EAST ACC (20 AVE) 36-7-4-513800480									7680	7680	9270
3	2	12	Crow	E OF BLAIRMORE EAST ACC (20 AVE) 36-7-4-513800480									9920	9920	11970
3	2	12	Crow	W OF FRANK SLIDE INTERPRETIVE CNTRE 31-7-3-512801040								6940	7290	7290	8800
3	2	12	Crow	E OF FRANK SLIDE INTERPRETIVE CNTRE 31-7-3-512801040								6910	7270	7270	8780
3	2	16 16		W OF HILLCREST ACC 20-7-3-509751400								6040	6240	6240	7530
3	2	20		E OF HILLCREST ACC 20-7-3-509751400								4450	4560	4560	5500
3	2	20		W OF PASSBURG / ADANAC ACC 15-7-3-514551275 E OF PASSBURG / ADANAC ACC 15-7-3-514551275								4870	4850	4850	5850
3	4	2		W OF 507 E OF BURMIS	0746	0000	1005	4.44				4830	4810	4810	5810
3	4	4		E OF 507 E OF BURMIS	3740	3860	4080	4130	4150	4130	4130	4550	4530	4530	5470
•	•	7		E O. COL E OL DOLLING	3550	3660	3860	3810	3830	3810	3810	4280	4260	4260	5140

Page 19 of 146



	CUMSEH RI	5
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	142	83.53
B: RECREATION VEHICLES	3	1.76
C: EUSES	13	7.65
D: SINGLE UNIT TRUCKS	5	2.94
E: TRACTOR TRAILER COMB.	7	4.12
ASDY 210	AADT	170

INTERSECTION OF: 3 & 37 STREET SENTINEL ACCESS

2003 AADT & ASDT ESTIMATES

EAST ON

ASDY

VEH TYPE

4530

VOL

2850

125

43

87

635

AADT

%

76.20

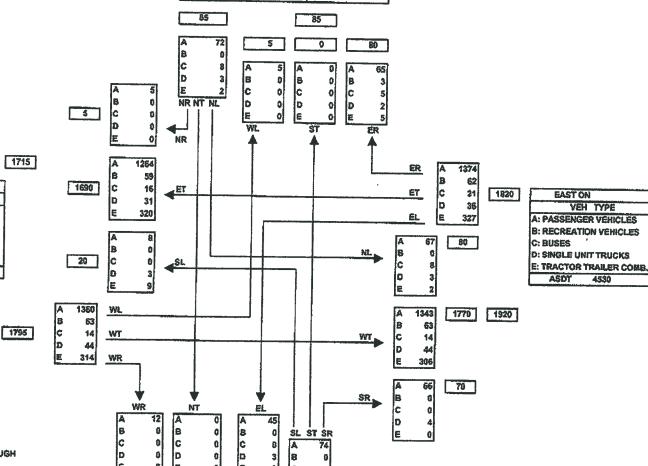
3.34

1.15

2.33

16.98

3740



SOUTH ON	37 ST	
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	131	81.88
B: RECREATION VEHICLES	0	0.00
C: BUSES	1 0 1	0.00
D: SINGLE UNIT TRUCKS	10	6.25
E: TRACTOR TRAILER COMB.	19	11.88
ASDT 190	AADT	160

0

70

50

90

20

å HWY 3 3

%

75.13

3.48

0,85

2.22

18,32

3510

YOL

2637

122

30

78

643

AADT

**TURNING MOVEMENT ABBREVIATIONS** 

WEST ON

C: BUSES

ASDT

A: PASSENGER VEHICLES

B: RECREATION VEHICLES

D: SINGLE UNIT TRUCKS

E: TRACTOR TRAILER COMB.

4250

NL: TRAFFIC FROM NORTH TURNING LEFT

NT: TRAFFIC FROM NORTH PROCEEDING YHROUGH

**NR: TRAFFIC FROM NORTH TURNING RIGHT** 

SL: TRAFFIC FROM SOUTH TURNING LEFT

ST: TRAFFIC FROM SOUTH PROCEEDING THROUGH

SR: TRAFFIC FROM SOUTH TURNING RIGHT

EL: TRAFFIC FROM EAST TURNING LEFT

ET: TRAFFIC FROM EAST PROCEEDING THROUGH

**ER: TRAFFIC FROM EAST TURNING RIGHT** 

WL: TRAFFIC FROM WEST TURNING LEFT

WT: TRAFFIC FROM WEST PROCEEDING THROUGH

WR: TRAFFIC FROM WEST TURNING RIGHT



NORTH ON TE	CUMSEH R	D
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	13	100.00
B: RECREATION VEHICLES	0	0.00
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	0	0.00
E: TRACTOR TRAILER COMB.	0	0.00
TOTAL	13	

INTERSECTON OF: 3 & 37 STREET SENTINEL ACCESS

2003 AM 100TH HIGHEST HOUR TRAFFIC VOLUMES

EAST ON

VEH TYPE

TOTAL

3

VOL

312

10

10

21

78

431

%

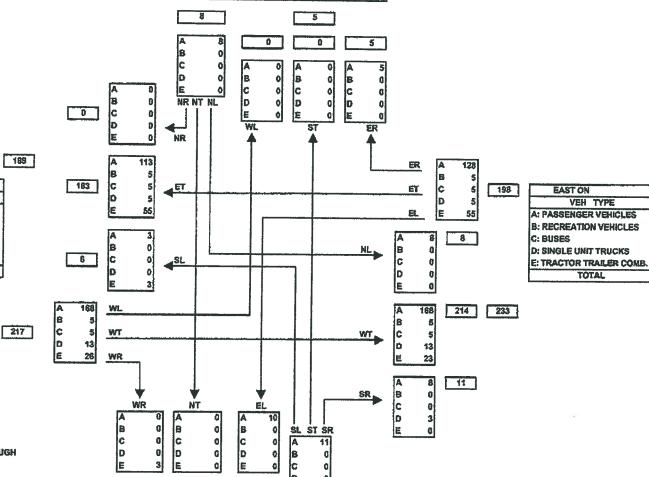
72.39

2,32

2.32

4.87

18.10



## **TURNING MOVEMENT ABBREVIATIONS**

WEST ON

C: BUSES

A: PASSENGER VEHICLES

**8: RECREATION VEHICLES** 

D: SINGLE UNIT TRUCKS

E: TRACTOR TRAILER COMB.

TOTAL

NL: TRAFFIC FROM NORTH TURNING LEFT

NT: TRAFFIC FROM NORTH PROCEEDING THROUGH

3

VOL

284

10

10

18

84

406

%

69.95

2.46

2.46

4.43

20.69

NR: TRAFFIC FROM NORTH TURNING RIGHT

SL: TRAFFIC FROM SOUTH TURNING LEFT

ST: TRAFFIC FROM SOUTH PROCEEDING THROUGH

SR: TRAFFIC FROM SOUTH TURNING RIGHT

EL: TRAFFIC FROM EAST TURNING LEFT

ET: TRAFFIC FROM EAST PROCEEDING THROUGH

ER: TRAFFIC FROM EAST YURNING RIGHT

WL: TRAFFIC FROM WEST YURNING LEFT

WT: TRAFFIC FROM WEST PROCEEDING THROUGH

**WR: TRAFFIC FROM WEST TURNING RIGHT** 

SOUTH ON	37 ST	
VEH TYPE	VOL.	%
A: PASSENGER VEHICLES	21	70,00
B: RECREATION VEHICLES	0	0.00
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	3	10.00
E: TRACTOR TRAILER COMB.	6	20.00
TOTAL	30	

0

13

10

17



NORTH ON TE	CUMSEH R	)
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	- 8	57.14
B: RECREATION VEHICLES	0	0.00
C: BUSES	4	28.57
D: SINGLE UNIT TRUCKS	0	0.00
E: TRACTOR TRAILER COMB.	2	14.29
TOTAL	14	

6

¢

ь

8

226

18

EL

180

18

WT

SR

8

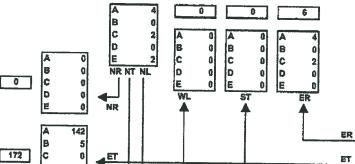
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178

252

INTERSECTON OF: 3 & 37 STREET SENTINEL ACCESS

2003 PM 100TH HIGHEST HOUR TRAFFIC VOLUMES



A 142
B 5
C 0
D D 0
E 25

A 4
B 0
C 0
D 0
SL NL

EAST ON VEH TYPE VOL % A: PASSENGER VEHICLES 348 80.93 B: RECREATION VEHICLES 12 2.79 C: BUSES 0.93 D: SINGLE UNIT TRUCKS 1.16 E: TRACTOR TRAILER COMB. 61 14.19 TOTAL 430

B: RECREATION VEHICLES	12	2.97
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	5	1.24
E: TRACTOR TRAILER COMB.	61	15.10
TOTAL	404	

3

VOL

326

%

80.69

178

226

180

WL

WT WR

WR

0

C

D

NT

0

C

D

EL

0 IE

SL ST SR

## TURNING MOVEMENT ABBREVIATIONS

WEST ON

A: PASSENGER VEHICLES

NL: TRAFFIC FROM NORTH TURNING LEFT

NT: TRAFFIC FROM NORTH PROCEEDING THROUGH

**NR: TRAFFIC FROM NORTH TURNING RIGHT** 

SL: TRAFFIC FROM SOUTH TURNING LEFT

ST: TRAFFIC FROM SOUTH PROCEEDING THROUGH

SR: TRAFFIC FROM SOUTH TURNING RIGHT

EL: TRAFFIC FROM EAST YURNING LEFT

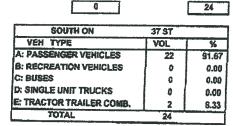
ET: TRAFFIC FROM EAST PROCEEDING THROUGH

**ER: TRAFFIC FROM EAST TURNING RIGHT** 

WL: TRAFFIC FROM WEST TURNING LEFT

WT: TRAFFIC FROM WEST PROCEEDING THROUGH

**WR: TRAFFIC FROM WEST TURNING RIGHT** 

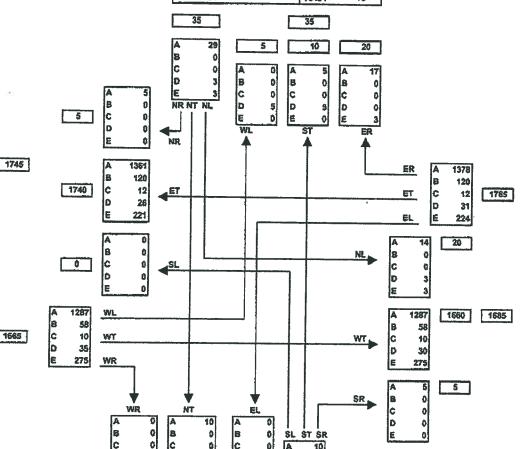




NORTH ON	9 ST	
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	51	72.86
B: RECREATION VEHICLES	0	0.00
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	13	18.57
E: TRACTOR TRAILER COMB.	6	8.57
ASDT 80	AADT	70

INTERSECTION OF: 3 & 9 STREET HAZELL ACCESS

2003 AADT & ASDT ESTIMATES



EAST ON	3	*******
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	2684	77.80
B: RECREATION VEHICLES	178	5.16
C: BUSES	22	0.64
D: SINGLE UNIT TRUCKS	64	1.86
E: TRACTOR TRAILER COMB.	502	14.55
ASDT 4110	AADT	3450

## **TURNING MOVEMENT ABBREVIATIONS**

WEST ON

C: BUSES

ASDT

A: PASSENGER VEHICLES

**B: RECREATION VEHICLES** 

D: SINGLE UNIT TRUCKS

E: TRACTOR TRAILER COMB.

4060

NL: TRAFFIC FROM NORTH TURNING LEFT

NT: TRAFFIC FROM NORTH PROCEEDING THROUGH

VOL

2653

178

22

61

496

AADT

%

77.80

5.22

0.65

1.79

14.55

3410

1665

NR: TRAFFIC FROM NORTH TURNING RIGHT

SL: TRAFFIC FROM SOUTH TURNING LEFT

ST: TRAFFIC FROM SOUTH PROCEEDING THROUGH

SR: TRAFFIC FROM SOUTH TURNING RIGHT

EL: TRAFFIC FROM EAST TURNING LEFT

ET: TRAFFIC FROM EAST PROCEEDING THROUGH

**ER: TRAFFIC FROM EAST TURNING RIGHT** 

WL: TRAFFIC FROM WEST YURNING LEFT

WT: TRAFFIC FROM WEST PROCEEDING THROUGH

**WR: TRAFFIC FROM WEST TURNING RIGHT** 

SOUTH ON	957	
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	20	66.67
B: RECREATION VEHICLES	0	0.00
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	10	33.33
E: TRACTOR TRAILER COME.	0	0.00
ASDT 40	AADT	30

10

15

5

15

0



NORTH ON	9 ST	
VEH TYPE	AOL	%
A: PASSENGER VEHICLES	6	66.67
B: RECREATION VEHICLES	0	0.00
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	0	0.00
E: TRACTOR TRAILER COMB.	3	33.33
TOTAL	9	

3

33

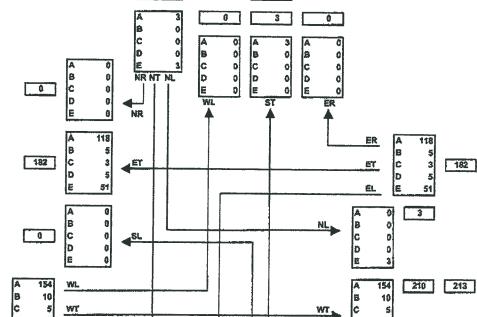
SR

0

6

INTERSECTION OF: 3 & 9 STREET HAZELL ACCESS

2003 AM 100TH HIGHEST HOUR TRAFFIC VOLUMES



EL.

ø

SL ST SR

EAST ON	3	
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	272	68.86
B: RECREATION VEHICLES	15	3.80
C: BUSES	8	2.03
D: SINGLE UNIT TRUCKS	13	3.29
E: TRACTOR TRAILER COMB.	87	22.03
TOTAL.	395	

## TURNING MOVEMENT ABBREVIATIONS

WEST ON

C: BUSES

A: PASSENGER VEHICLES

**B: RECREATION VEHICLES** 

E: TRACTOR TRAILER COMB.

TOTAL

D: SINGLE UNIT TRUCKS

NL : TRAFFIC FROM NORTH TURNING LEFT

NT : TRAFFIC FROM NORTH PROCEEDING THROUGH

182

210

33 WR

WR

NT

VOL

272

15

13

84

392

%

69.39

3.83

2.04

3.32

21.43

NR: TRAFFIC FROM NORTH TURNING RIGHT

SL: TRAFFIC FROM SOUTH TURNING LEFT

ST: TRAFFIC FROM SOUTH PROCEEDING THROUGH

SR: TRAFFIC FROM SOUTH TURNING RIGHT

EL: TRAFFIC FROM EAST TURNING LEFT

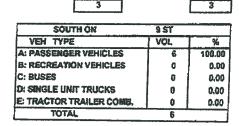
ET: TRAFFIC FROM EAST PROCEEDING THROUGH

**ER: TRAFFIC FROM EAST TURNING RIGHT** 

WL: TRAFFIC FROM WEST TURNING LEFT

WT: TRAFFIC FROM WEST PROCEEDING THROUGH

WR: TRAFFIC FROM WEST TURNING RIGHT





NORTH ON	9 ST	
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	0	0.00
B: RECREATION VEHICLES	0	0.00
C: BUSES	0	0.00
D: SINGLE UNIT TRUCKS	2	100.00
E: TRACTOR TRAILER COMB.	0	0.00
TOTAL	2	

INTERSECTON OF: 3 & 9 STREET HAZELL ACCESS

2003 PM 100TH HIGHEST HOUR TRAFFIC VOLUMES

EAST ON

VEH TYPE

TOTAL

3

VOL

324

52

393

%

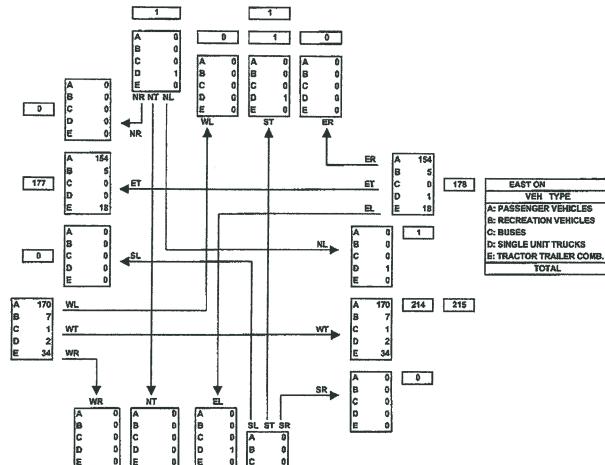
82.44

3.05

0.25

1,02

13.23



WEST ON	3					
	VOL	%				
A: PASSENGER VEHICLES	324	82.86				
B: RECREATION VEHICLES	12	3.07				
C: BUSES	1	0.26				
D: SINGLE UNIT TRUCKS	2	0.51				
E: TRACTOR TRAILER COMB.	52	13.30				

391

214

177

#### **TURNING MOVEMENT ARBREVIATIONS**

TOTAL

NL: TRAFFIC FROM NORTH YURNING LEFT

NT: TRAFFIC FROM NORTH PROCEEDING THROUGH

NR: TRAFFIC FROM NORTH TURNING RIGHT

SL: TRAFFIC FROM SOUTH TURNING LEFT

ST: TRAFFIC FROM SOUTH PROCEEDING THROUGH

SR: TRAFFIC FROM SOUTH TURNING RIGHT

**EL: TRAFFIC FROM EAST TURNING LEFT** 

ET: TRAFFIC FROM EAST PROCEEDING THROUGH

**ER: TRAFFIC FROM EAST TURNING RIGHT** 

WL: TRAFFIC FROM WEST TURNING LEFT

WT: TRAFFIC FROM WEST PROCEEDING THROUGH

**WR: TRAFFIC FROM WEST TURNING RIGHT** 

SOUTH ON	9 ST	
VEH TYPE	VOL	%
A: PASSENGER VEHICLES	0	0.00
B: RECREATION VEHICLES	0	0.00
C; BUSES	0	0.00
D: SINGLE UNIT TRUCKS	2	100.00
E: TRACTOR TRAILER COMB.	0	0.00
TOTAL	2	

1

1



# **APPENDIX C: SYNCHRO OUTPUTS**

	۶	-	+	1	1	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations Sign Control Grade		<b>4†</b> Free 0%	Free 0%		Stop 0%	74	
Volume (veh/h)	5	222	189	5	5	5	
Peak Hour Factor Hourly flow rate (vph)	1.00 5	1.00	1.00	1.00	1.00	1.00	
Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage	5	222	189	5	5	5	
Right turn flare (veh) Median type Median storage veh) Upstream signal (m) pX, platoon unblocked					None		
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	194				312	192	e e
vCu, unblocked vol	194				312	192	
tC, single (s)	4.1				6.8	6.9	
tC, 2 stage (s) tF (s)	2.2				3.5	2.2	
p0 queue free %	100				99	3.3 99	
cM capacity (veh/h)	1391				659	824	
Direction, Lane#	EB 1	EB 2	WB 1	SB 1	SB 2		
Volume Total	79	148	194	5	5		
Volume Left	5	0	0	5	0		
Volume Right cSH	0 1391	0 1700	5 1700	0	5		
Volume to Capacity	0.00	0.09	1700 0.11	659 0.01	824 0.01		
Queue Length 95th (m)	0.00	0.0	0.0	0.01	0.01		
Control Delay (s)	0.5	0.0	0.0	10.5	9.4		
Lane LOS	A		0.0	В	Α.		
Approach Delay (s)	0.2		0.0	10.0	•		*
Approach LOS				Α			
Intersection Summary							
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		0.3 20.5% 15	IC	CU Leve	of Service	ce A

	-	7	•	•		-	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations Sign Control Grade	Free 0%	Ħ	ሻ	Free 0%	Stop 0%	7	
Volume (veh/h) Peak Hour Factor Hourly flow rate (vph)	217 0.92 236	10 0.92 11	5 0.92 5	189 0.92 205	5 0.92 5	10 0.92 11	
Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)							
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked					None		
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol			247		452	236	
vCu, unblocked vol tC, single (s) tC, 2 stage (s)			247 4.6		452 6.4	236 6.7	
tF (s) p0 queue free % cM capacity (veh/h)			2.7 99 1084		3.5 99 566	3.8 98 698	
Direction, Lane#	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	
Volume Total	236	11	5	205	5	11	
Volume Left Volume Right	0	0 11	5 0	0 0	5 0	0	
cSH	1700	1700	1084	1700	566	11 698	
Volume to Capacity	0.14	0.01	0.01	0.12	0.01	0.02	
Queue Length 95th (m)	0.0	0.0	0.1	0.0	0.2	0.4	
Control Delay (s)	0.0	0.0	8.3	0.0	11.4	10.2	
Lane LOS			Α		В	В	2
Approach Delay (s) Approach LOS	0.0		0.2		10.6 B		
Intersection Summary					<del></del>	·	
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		0.5 21.7% 15	10	CU Leve	el of Servi	ice A

	۶	<b>→</b>	4	4	1	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations Sign Control Grade		<b>4†</b> Free 0%	Free 0%		দ Stop 0%	7	
Volume (veh/h)	5	224	185	5	5	5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	5	224	185	5	5	5	
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked					None		
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	190				310	188	
vCu, unblocked vol	190				310	188	
tC, single (s) tC, 2 stage (s)	4.1				6.8	6.9	
tF (s)	2.2				3.5	3.3	
p0 queue free %	100				99	99	
cM capacity (veh/h)	1396				661	829	
Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2		
Volume Total	80	149	190	5	5		
Volume Left	5	0	0	5	0		
Volume Right cSH	0 1396	0 1700	5 1700	0	5		
Volume to Capacity	0.00	0.09	1700 0.11	661 0.01	829 0.01		
Queue Length 95th (m)	0.00	0.0	0.0	0.01	0.01		
Control Delay (s)	0.5	0.0	0.0	10.5	9.4		
Lane LOS	A	0.0	0.0	В	Α		
Approach Delay (s) Approach LOS	0.2		0.0	9.9 A			
Intersection Summary							
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		0.3 20.3% 15	10	CU Leve	l of Servi	ice A

	-	7	•	<b>—</b>	4	1			
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations Sign Control Grade	Free 0%	آم آ	ň	Free 0%	Stop 0%	ř			
Volume (veh/h) Peak Hour Factor	219 0.92	10 0.92	5 0.92	185 0.92	5 0.92	10 0.92			
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	238	11	5	201	5	11			
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked					None				
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol			249		450	238			
vCu, unblocked vol			249		450	238			
tC, single (s) tC, 2 stage (s)			4.6		6.4	6.7			
tF (s)			2.7		3.5	3.8			
p0 queue free %			99		99	98			
cM capacity (veh/h)			1082		568	696			
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2			
Volume Total	238	11	5	201	5	11			
Volume Left	0	0	5	0	5	0			
Volume Right cSH	0 1700	11 1700	0 1082	1700	0	11			
Volume to Capacity	0.14	0.01	0.01	1700 0.12	568 0.01	696 0.02			
Queue Length 95th (m)	0.0	0.0	0.01	0.12	0.01	0.02			
Control Delay (s)	0.0	0.0	8.3	0.0	11.4	10.3			
Lane LOS	0.0	0.0	0.5 A	0.0	В	10.3 B			
Approach Delay (s)	0.0		0.2		10.6	Ь			
Approach LOS					В				
Intersection Summary									
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		0.5 21.8% 15	IC	CU Leve	l of Servic	e	Α	

	*		_		+	-	•	+		_	1	0/2006
Movement	EBL	EBT	₽ EBR	₩BL	WBT	WDD	ND.	) NDT	NDD	001	*	₹
Lane Configurations Sign Control Grade	LDL	र्ध Free 0%	P P	VVDL	Free 0%	WBR	NBL	NBT ♣1 Stop 0%	NBR	SBL	SBT Stop	SBR
Volume (veh/h) Peak Hour Factor Hourly flow rate (vph)	5 0.92 5	231 0.92 251	11 0.92 12	5 0.92 5	200 0.92 217	5 0.92 5	5 0.92 5	0 0.92	11 0.92	5 0.92	0% 0 0.92	5 0.92
Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	J	201	12	J	217	5	5	0	12	5	0	5
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	223			263			496	496	251	502	502	217
vCu, unblocked vol tC, single (s) tC, 2 stage (s)	223 4.1			263 4.6			496 7.1	496 6.5	251 6.7	502 7.1	502 6.5	217 6.2
tF (s) p0 queue free % cM capacity (veh/h)	2.2 100 1346			2.7 99 1068			3.5 99 481	4.0 100 471	3.8 98 684	3.5 99 468	4.0 100 467	3.3 99 822
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total Volume Left Volume Right cSH	257 5 0 1346	12 0 12 1700	223 5 0 1068	5 0 5 1700	5 5 0 481	12 0 12 684	5 5 0 468	5 0 5				
Volume to Capacity Queue Length 95th (m) Control Delay (s)	0.00 0.1 0.2	0.01 0.0 0.0	0.01 0.1 0.3	0.00	0.01 0.3	0.02 0.4	0.01 0.3	822 0.01 0.2				
Lane LOS Approach Delay (s) Approach LOS	A 0.2		0.3 A 0.2	0.0	12.6 B 11.0 B	10.4 B	12.8 B 11.1 B	9.4 A		s		
ntersection Summary							_					
Average Delay ntersection Capacity Uti Analysis Period (min)	lization		0.8 29.4% 15	IC	CU Leve	of Ser	vice		Α			

Company of the Compan	Co-property and	California - Paris			The state of the state of	A DE PROPERTY	2000000			Total Comment	,,,,	3/2000
	۶	-	•	1	4	*	4	<b>†</b>	-	-	Į.	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		<b>ी</b> Free 0%	·		Free 0%	74		र्ध Stop 0%	ř		र्दी Stop 0%	7
Volume (veh/h)	5	233	11	5	196	5	5	0	11	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	5	253	12	5	213	5	5	0	12	5	0	5
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	218			265			493	493	253	500	500	213
vCu, unblocked vol	218			265			493	493	253	500	500	213
tC, single (s) tC, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
tF (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
p0 queue free %	100			99			99	100	98	99	100	99
cM capacity (veh/h)	1351			1066			483	472	682	469	468	827
Direction, Lane#	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	259	12	218	5	5	12	5	5				
Volume Left	×5	0	5	0	5	0	5	0				
Volume Right	0	12	0	5	0	12	0	5				
cSH Volume to Conseits	1351	1700	1066	1700	483	682	469	827				
Volume to Capacity Queue Length 95th (m)	0.00 0.1	0.01	0.01	0.00	0.01	0.02	0.01	0.01				
Control Delay (s)	0.1	0.Q 0.0	0.1	0.0	0.3	0.4	0.3	0.2				
ane LOS	0.2 A	0.0	0.3 A	0.0	12.5 B	10.4	12.8	9.4				
Approach Delay (s)	0.2		0.3		11.1	В	B	Α				
Approach LOS	0.2		0.5		В		11.1 B					
ntersection Summary												
Average Delay ntersection Capacity Uti Analysis Period (min)	lization		0.8 29.5% 15	IC	CU Leve	l of Ser	vice		Α			

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	*	-	•	•	<b>←</b>	*	4	<b>†</b>	-	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		<b>र्धी</b> Free 0%	7		र्दी Free 0%	74		4 Stop 0%	ř		Stop 0%	7
Volume (veh/h)	5	254	12	6	220	5	6	0	12	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage	5	276	13	7	239	5	7	0	13	5	0	5
Right turn flare (veh) Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	245			289			545	545	276	552	552	239
Cu, unblocked vol	245			289			545	545	276	552	552	239
C, single (s) C, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
F (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
o0 queue free %	100			99			99	100	98	99	100	99
cM capacity (veh/h)	1322			1042			446	441	661	432	437	800
Direction, Lane#	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
/olume Total	282	13	246	5	7	13	5	5				
/olume Left /olume Right	5 0	0 13	7	0	7	0	5	0				
SH	1322	1700	0 1042	5 1700	0	13	0	5				
/olume to Capacity	0.00	0.01	0.01	0.00	446 0.01	661	432	800			18	
Queue Length 95th (m)	0.00	0.0	0.01	0.00	0.01	0.02 0 <i>.</i> 5	0.01	0.01				
Control Delay (s)	0.2	0.0	0.1	0.0	13.2	10.6	0.3 13.4	0.2 9.5				
ane LOS	A	0.0	A	0.0	13.2 B	10.0 B	13.4 B	9.5 A				
Approach Delay (s)	0.2		0.3		11.4	В	11.5	^				
Approach LOS					В		В					
ntersection Summary			<del>-</del>							O.		
Average Delay ntersection Capacity Uti Analysis Period (min)	lization		0.8 30.7% 15	IC	U Leve	l of Ser	vice		Α			

The second second		A THE RESERVE	territories (SA)	THE PERSON NAMED IN		and the second	-	SANCE OF THE PARTY		-		3/2000
	<i>&gt;</i>	-	-	<b>*</b>	4	*		<b>†</b>	-	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		<b>र्ध</b> Free 0%	T.		र्दी Free 0%	7		र्स Stop 0%	۴		र्दी Stop 0%	74
Volume (veh/h)	5	256	12	6	216	5	6	0	12	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	5	278	13	7	235	5	7	0	13	5	0	5
Median type Median storage veh) Upstream signal (m)								None			None	
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	240			291			542	542	278	550	550	235
/Cu, unblocked vol	240			291			542	542	278	550	550	235
C, single (s) C, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
F (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
00 queue free %	100			99			99	100	98	99	100	99
cM capacity (veh/h)	1326			1040			447	443	659	433	438	804
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
/olume Total	284	13	241	5	7	13	5	5				
/olume Left	5	0	7	0	7	0	5	0				
/olume Right ≎SH	1226	13	0	5	0	13	0	5				
/olume to Capacity	1326 0.00	1700 0.01	1040 0.01	1700 0.00	447	659	433	804				
Queue Length 95th (m)	0.00	0.01	0.01	0.00	0.01 0.3	0.02 0.5	0.01 0.3	0.01				
Control Delay (s)	0.2	0.0	0.1	0.0	13.2	10.6	13.4	0.2 9.5				
ane LOS	A	0.0	Α.	0.0	10.2 B	10.0 B	13.4 R	9.5 A				
Approach Delay (s)	0.2		0.3		11.4		11.5	7-1				0.
Approach LOS					В		В					
ntersection Summary		-										
Average Delay ntersection Capacity Uti Analysis Period (min)	lization		0.8 30.8% 15	10	CU Leve	l of Ser	vice		А			

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	۶		7	1	+	*	4	†	-	-	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade	ሻ	<b>‡</b> Free 0%			€Î Free 0%	7		र्दी Stop 0%	ř	-	र्स Stop 0%	7
Volume (veh/h)	5	310		7	2	5	7	0	15	5	0	5
Peak Hour Factor	0.92	0.92		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	5	337	16	8	2	5	8	0	16	5	0	5
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	8			353			379	379	345	382	382	2
vCu, unblocked vol	8			353			379	379	345	382	382	2
tC, single (s) tC, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
tF (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
p0 queue free %	100			99			99	100	97	99	100	99
cM capacity (veh/h)	1613			982			575	547	601	556	545	1082
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	5	353	10	5	8	16	5	5				
Volume Left	5	0	8	0	8	0	5	0				
Volume Right	0	16	0	5	0	16	0	5				
cSH	1613	1700	982	1700	575	601	556	1082				
Volume to Capacity	0.00	0.21	0.01	0.00	0.01	0.03	0.01	0.01				
Queue Length 95th (m) Control Delay (s)	0.1 7.2	0.0	0.2	0.0	0.3	0.6	0.2	0.1				
Lane LOS	7.2 A	0.0	6.8 A	0.0	11.3	11.2	11.5	8.3				
Approach Delay (s)	0.1		4.4		B 11.2	∍ B	В	Α				
Approach LOS	0.1		7.7		11.2 B		9.9 A					
Intersection Summary												
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		1.2 34.4% 15	IC	CU Leve	el of Ser	vice		Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade	*1	<b>1}</b> Free 0%			<b>€</b> Free 0%	الم		र्ध Stop 0%	7		Stop 0%	7
Volume (veh/h)	5	313		7	263	5	7	0	15	5	0	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	5	340	16	8	286	5	8	0	16	5	0	5
Median type Median storage veh) Upstream signal (m)								None			None	
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	291			357			666	666	348	668	668	286
Cu, unblocked vol	291			357			666	666	348	668	668	286
C, single (s) C, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
F (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
00 queue free %	100 1270			99			98	100	97	98	100	99
cM capacity (veh/h)				979			370	376	599	358	374	753
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
olume Left	5 5	357 0	293 8	5 0	8 8	16 0	5	5				
/olume Right	0	16	0	5	0	16	5 0	0 5				
:SH	1270	1700	979	1700	370	599	358	7 <b>5</b> 3				
olume to Capacity	0.00	0.21	0.01	0.00	0.02	0.03	0.02	0.01				
Queue Length 95th (m)	0.1	0.0	0.2	0.0	0.5	0.6	0.4	0.2				
Control Delay (s)	7.8	0.0	0.3	0.0	14.9	11.2	15.2	9.8				
ane LOS	A		Α		В	В	С	Α	69			
Approach Delay (s) Approach LOS	0.1		0.3		12.4 B		12.5 B					
ntersection Summary												
Average Delay ntersection Capacity Uti Analysis Period (min)	lization		0.8 34.5% 15	IC	CU Leve	of Ser	vice		А			

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	۶	-	7	•	<b>—</b>	*	4	†	~	1	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		<b>र्दी</b> Free 0%	ř		ર્લ Free 0%	į į		र्दी Stop 0%	٦		Stop 0%	7
Volume (veh/h)	15	231	11	5	200	47	5	0	11	41	0	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m)	16	251	12	5	217	51	5	0	12	45	0	16
Walking Speed (m/s) Percent Blockage												
Right turn flare (veh) Median type Median storage veh) Upstream signal (m)								None			None	
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol	268			263			528	563	251	524	524	217
vC2, stage 2 conf vol vCu, unblocked vol	268			263			E00	560	054	E0.4	504	
tC, single (s)	4.1			4.6			528 7.1	563 6.5	251 6.7	524 7.1	524	217
tC, 2 stage (s)	4.1			4.0			7.1	0.5	0.7	7.1	6.5	6.2
tF (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
p0 queue free %	99			99			99	100	98	90	100	98
cM capacity (veh/h)	1295			1068			449	428	684	450	450	822
Direction, Lane#	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	267	12	223	´51	5	12	45	16	· ·			
Volume Left	16	. 0	5	0	5	0	45	0				
Volume Right	0	12	0	51	0	12	0	16				
SH	1295	1700	1068	1700	449	684	450	822				
Volume to Capacity	0.01	0.01	0.01	0.03	0.01	0.02	0.10	0.02				
Queue Length 95th (m)	0.3	0.0	0.1	0.0	0.3	0.4	2.5	0.5				
Control Delay (s)	0.6	0.0	0.3	0.0	13.1	10.4	13.9	9.5				
ane LOS	Α		Α		В	В	В	Α				
Approach Delay (s) Approach LOS	0.6		0.2		11.2 B		12.7 B					
ntersection Summary							Ь					
Average Delay		-	1.0									
Average Delay ntersection Capacity Util Analysis Period (min)	lization		1.9 40.8% 15	10	CU Leve	el of Ser	vice		Α			

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	*	<b>→</b>	•	•	<b>←</b>	*	4	†	-	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade		<b>र्धी</b> Free 0%	7		Free 0%	7		<b>ર્લ</b> Stop 0%	7		Stop 0%	7
Volume (veh/h)	19	233	11	5	196	63	5	0	11	74	0	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m)	21	253	12	5	213	68	5	0	12	80	0	25
Walking Speed (m/s) Percent Blockage Right turn flare (veh)												
Median type Median storage veh) Upstream signal (m)								None			None	
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	282			265			543	587	253	530	530	213
Cu, unblocked vol	282			265			543	587	253	530	E20	040
C, single (s) C, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	530 6.5	213 6.2
:F (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
00 queue free %	98			99			99	100	98	82	100	3.3 97
cM capacity (veh/h)	1281			1066			433	413	682	444	445	827
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
√olume Total	274	12	218	68	5	12	80	25				
Volume Left	21	0	5	0	5	0	80	0				
Volume Right cSH	1201	12 1700	1066	68	0	12	0	25				
Volume to Capacity	1281 0.02	0.01	1066 0.01	1700 0.04	433	682	444	827				
Queue Length 95th (m)	0.02	0.01	0.01	0.04	0.01 0.3	0.02 0.4	0.18 5.0	0.03				
Control Delay (s)	0.7	0.0	0.3	0.0	13.4	10.4	14.9	0.7 9.5				
ane LOS	A	0.0	Α.	9.0	10.4 B	10.4 B	14.9 B	9.5 A				
Approach Delay (s)	0.7		0.2		11.3		13.6					.*.
Approach LOS					В		B :					
ntersection Summary	<del></del>											
Average Delay ntersection Capacity Uti Analysis Period (min)	ilization		2.7 45.4% 15	10	CU Leve	l of Ser	vice		Α	<u> </u>		

In ringitively of Gr 20 to	311001				-	-	-		THE DELL'S		1720	0/2000
	<b>≯</b>	-	-	1	-	*	1	<b>†</b>	-	-	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade	ሻ	Free 0%		ሻ	Free 0%	7	•	€¶ Stop 0%	ř		4 Stop 0%	7
Volume (veh/h)	60	254	12	6	220	227	6	0	12	220	0	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	. 0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	65	276	13	7	239	247	7	0	13	239	0	65
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	486			289			730	912	283	672	672	239
vCu, unblocked vol	486			289			730	912	283	672	672	239
tC, single (s) tC, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
tF (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
p0 queue free %	94			99			98	100	98	30	100	92
cM capacity (veh/h)	1077			1042			297	256	655	344	352	800
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2			
Volume Total	65	289	7	239	247	7	13	239	65			
Volume Left	65	0	7	0	0	7	0	239	0			
Volume Right	0	13	0	0	247	0	13	0	65			
CSH	1077	1700	1042	1700	1700	297	655	344	800			
Volume to Capacity	0.06	0.17	0.01	0.14	0.15	0.02	0.02	0.70	0.08			
Queue Length 95th (m) Control Delay (s)	1.5 8.6	0.0	0.1 8.5	0.0	0.0 0.0	0.5 17.4	0.5	37.7	2.0			
Lane LOS	0.0 A	U.U	0.5 A	0.0	0.0	17.4 C	10.6 B	36.2 F	9.9			
Approach Delay (s)	1.6		0.1			12.9	Ь	30.6	Α			
Approach LOS			0.1			12.3 B		D				
Intersection Summary									······································			
Average Delay	lization		8.7	1.	OLL	-1 -4 0	•					_
Intersection Capacity Uti Analysis Period (min)	ıı∠auon		47.0% 15	[1	CU Leve	ei ot Ser	vice		Α			

	۶	-	7	· •	<b>←</b>	*	1	†	-	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade	ሻ	<b>ቹ›</b> Free 0%		*1	Free 0%	ř		र्दी Stop 0%	7		Stop 0%	74
Volume (veh/h)	86	256	12	6	216	331	6	0	12	392	0	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage	93	278	13	7	235	360	7	0	13	426	0	112
Right turn flare (veh) Median type Median storage veh) Upstream signal (m)								None			None	
pX, platoon unblocked vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	595			291			832	1079	285	726	726	235
vCu, unblocked vol	595			291			832	1079	285	726	726	235
tC, single (s) tC, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
tF (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
p0 queue free %	90			99			97	100	98	0	100	86
cM capacity (veh/h)	982			1040			231	196	653	307	316	804
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2			
Volume Total	93	291	7	235	360	7	13	426	112			
Volume Left	93	0	7	0	0	7	0	426	0			
Volume Right cSH	0 982	13 1700	0 1040	0 1700	360 1700	0 231	13 653	0 207	112			
Volume to Capacity	0.10	0.17	0.01	0.14	0.21	0.03	0.02	307 1.39	804 0.14			
Queue Length 95th (m)	2.4	0.0	0.1	0.0	0.0	0.03	0.02	167.8	3.7			
Control Delay (s)	9.1	0.0	8.5	0.0	0.0	21.0	10.6	225.5	10.2			
ane LOS	Α		Α			C	В	F	В			
Approach Delay (s) Approach LOS	2.2		0.1			14.1 B		180.7 F				
ntersection Summary												
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		63.8 56.9% 15	](	CU Leve	el of Ser	vice		В			

minginitary o at 20	Otroot	Magain II . Total		- Pres							1120	0/2006
	۶	-		•	<b>←</b>	*	1	†	-	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade	ሻ	<b>f</b> Free 0%		*	Free 0%	۲		र्दी Stop 0%	الإ		Stop	7
Volume (veh/h)	60	310	15	7	269	227	7	0	15	220	0	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage Right turn flare (veh)	65	337	16	8	292	247	8	0	16	239	0	65
Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	539			353			848	1030	345	:791	791	292
vCu, unblocked vol	539			353			848	1030	345	7 31	791	292
tC, single (s) tC, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7 1	6.5	6.2
tF (s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
00 queue free %	94			99			97	100	97	15	100	91
cM capacity (veh/h)	1029			982			245	217	601	28.3	299	747
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2			
/olume Total	65	353	8	292	247	8	16	239	65			
/olume Left	65	0	8	0	0	8	0	239	0			
Volume Right	0	16	0	0	247	0	16	0	65			
SH Volume to Consoits	1029	1700	982	1700	1700	245	601	283	747			
Volume to Capacity Queue Length 95th (m)	0.06 1 <i>.</i> 5	0.21 0.0	0.01	0.17	0.15	0.03	0.03	0.85	0.09			
Control Delay (s)	8.7	0.0	0.2 8.7	0.0 0.0	0.0	0.7	0.6	54.2	2.2			
ane LOS	.A	0.0	6.7 A	0.0	0.0	20.2 C	11.2 B	60.8	10.3			
Approach Delay (s)	1.4		0.1			14.0	Þ	F 50.0	·B			
Approach LOS			0.1			14.0 B		30.0 E				
ntersection Summary												
Average Delay ntersection Capacity Uti Analysis Period (min)	lization		12.5 50.2% 15	10	CU Leve	el of Ser	vice		А			

	۶		*	1	+	*	1	†	-	-	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations Sign Control Grade	*1	Free 0%		Ť	<b>†</b> Free 0%	7		दी Stop 0%	7		Stop 0%	ř
Volume (veh/h)	86	313	15	7	263	331	7	0	15	392	0	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph) Pedestrians Lane Width (m) Walking Speed (m/s) Percent Blockage	93	340	16	8	286	360	8	0	16	426	0	112
Right turn flare (veh) Median type Median storage veh) Upstream signal (m) pX, platoon unblocked								None			None	
vC, conflicting volume vC1, stage 1 conf vol vC2, stage 2 conf vol	646			357			948	1196	348	845	845	286
vCu, unblocked vol	646			357			948	1196	348	845	845	286
tC, single (s) tC, 2 stage (s)	4.1			4.6			7.1	6.5	6.7	7.1	6.5	6.2
tF(s)	2.2			2.7			3.5	4.0	3.8	3.5	4.0	3.3
p0 queue free %	90			99			96	100	97	0	100	85
cM capacity (veh/h)	940			979			190	166	599	253	268	753
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2			
Volume Total	93	357	8	286	360	8	16	426	112			
Volume Left	93	0	8	0	0	8	0	426	0			
Volume Right	0	16	0	0	360	0	16	0	112			
CSH Valuma to Canacitu	940	1700	979	1700	1700	190	599	253	753			
Volume to Capacity	0.10 2.5	0.21	0.01	0.17	0.21	0.04	0.03	1.69	0.15			
Queue Length 95th (m) Control Delay (s)		0.0	0.2	0.0	0.0	0.9	0.6	208.9	4.0			
Lane LOS	9.3 A	0.0	8.7 A	0.0	0.0	24.8	11.2	359.8	10.6			
Approach Delay (s)	1.9		0.1		•	C 15.5	В	F	В			
Approach LOS	1.5		U. 1			15.5 C		287.1 F				
Intersection Summary												
Average Delay Intersection Capacity Uti Analysis Period (min)	lization		93.5 60.2% 15		CU Leve	el of Ser	vice		В			



## **APPENDIX D: LEFT-TURN AND RIGHT-TURN WARRANT ANALYSES**

Highway 3 Eastbound, AM Peak

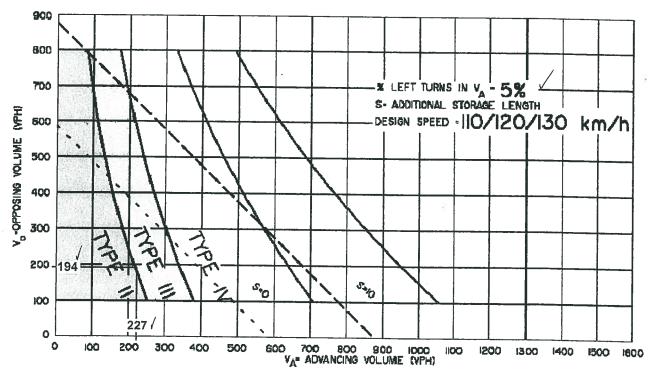
Scenario: 2006 Background Traffic Volumes /

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

∴A right turn lane is not warranted. ✓

- 2. Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph} \checkmark$ b. Advancing volume  $Va = 5 + 212 + 10 = 227 \text{ vph} \checkmark$ c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 227 = 2\% \checkmark$ d. Opposing Volume  $Vo = 5 + 184 + 5 = 194 \text{ vph} \checkmark$

 $\therefore$ A left turn lane is not warranted but a Type II intersection treatment is warranted  $^{/}$ 



Highway 3 Eastbound, PM Peak ✓

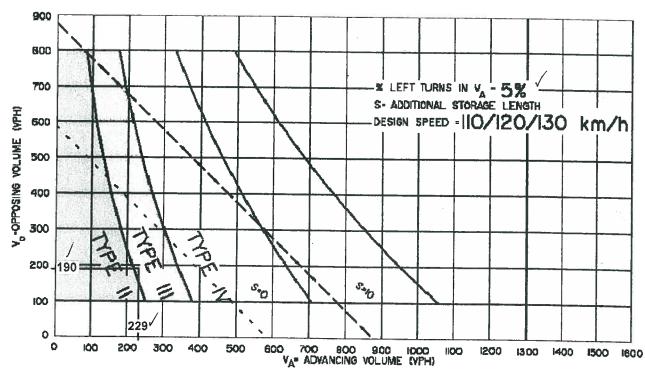
Scenario: 2006 Background Traffic Volumes /

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

 $\therefore$ A right turn lane is not warranted.  $\checkmark$ 

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph } /$  b. Advancing volume Va = 5 + 214 + 10 = 229 vph / c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 229 = 2\% /$  d. Opposing Volume Vo = 5 + 180 + 5 = 190 vph /

 $\therefore$ A left turn lane is not warranted but a type III intersection treatment is warranted.  $\checkmark$ 



Highway 3 Westbound, AM Peak

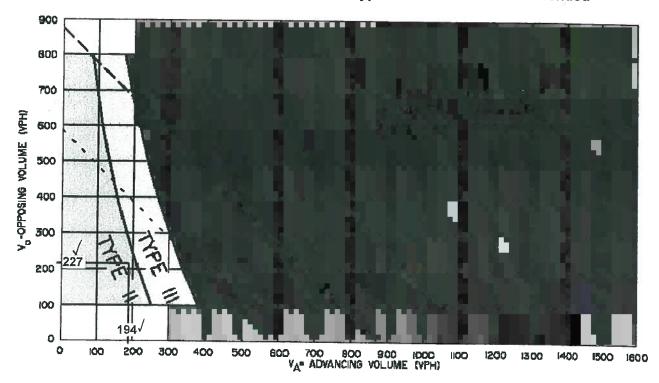
Scenario: 2006 Background Traffic Volumes

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

∴ A right turn lane is not warranted.

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph} \checkmark$ b. Advancing volume  $Va = 5 + 184 + 5 = 194 \text{ vph} \checkmark$ c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 194 = 3\% \checkmark$ d. Opposing Volume  $Vo = 5 + 212 + 10 = 227 \text{ vph} \checkmark$

 $\therefore$ A left turn lane is not warranted but a Type II treatment is recommended  $\checkmark$ 



Highway 3 Westbound, PM Peak

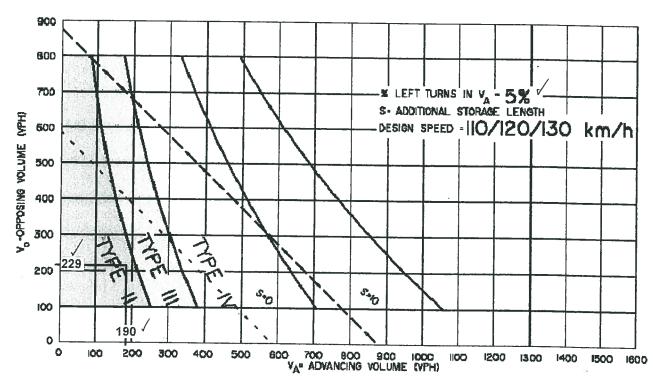
Scenario: 2006 Background Traffic Volumes /

- Warrant for Right Turn Lane. To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

∴A right turn lane is not warranted. ✓

- 2. Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph } \checkmark$ b. Advancing volume  $Va = 5 + 180 + 5 = 190 \text{ vph } \checkmark$
  - c. Proportion of left turns in Va.....  $L = V\lambda / Va = 5 / 190 = 3\% \sqrt{ }$

## $\therefore$ A left turn lane is not warranted but a Type II intersection treatment is recommended



Highway 3 Eastbound, AM Peak ✓

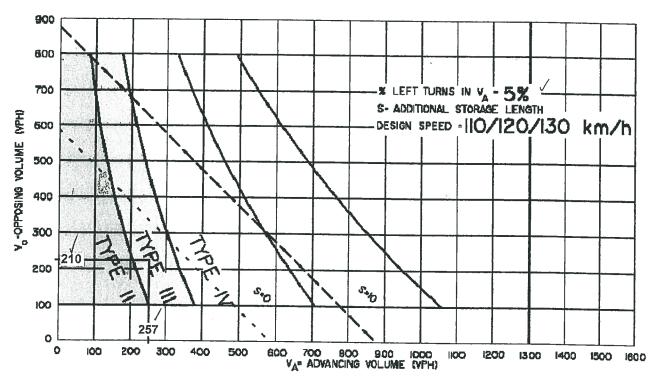
Scenario: 2010 Background Traffic Volumes /

- Warrant for Right Turn Lane. To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

### .: A right turn lane is not warranted.

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.

## ${ { ... }} \textbf{A}$ left turn lane is not warranted but a Type III intersection treatment is recommended



Highway 3 Eastbound, PM Peak

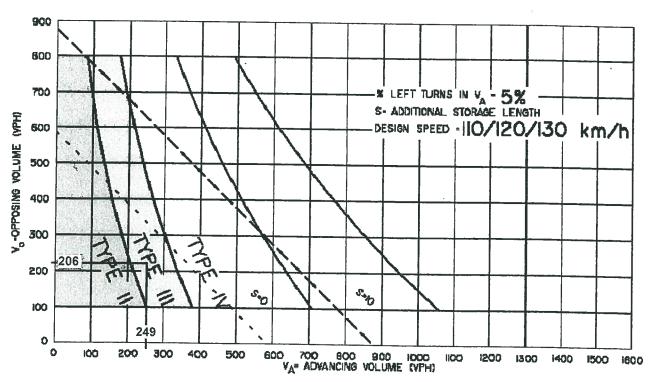
Scenario: 2010 Background Traffic Volumes

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

.: A right turn lane is not warranted.

- 2. Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph}$  b. Advancing volume Va = 5 + 233 + 11 = 249 vph c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 249 = 2\%$  d. Opposing Volume Vo = 5 + 196 + 5 = 206 vph

## $\therefore A$ left turn lane is not warranted but a Type III intersection treatment is recommended



Highway 3 Westbound, AM Peak√

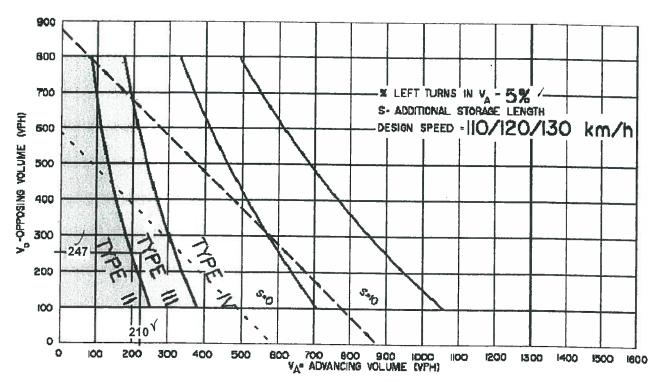
Scenario: 2010 Background Traffic Volumes /

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

∴ A right turn lane is not warranted. ✓

- Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph/}$ b. Advancing volume Va = 5 + 200 + 5 = 210 vph/c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 210 = 2\% / Va$ d. Opposing Volume Va = 5 + 231 + 11 = 247 vph/

## ∴ A left turn lane is not warranted but a Type III intersection treatment is recommended



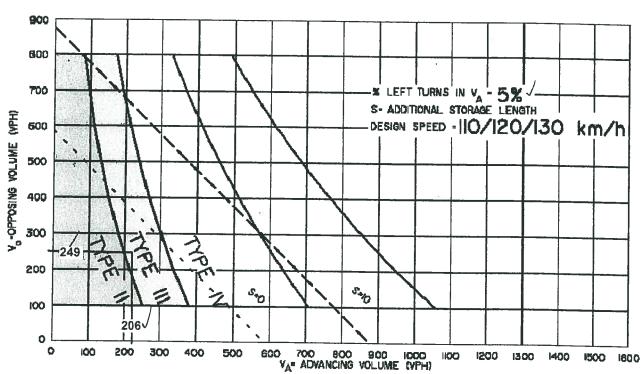
Highway 3 Westbound, PM Peak

Scenario: 2010 Background Traffic Volumes /

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

  - $\therefore$ A right turn lane is not warranted.  $\checkmark$
- 2. Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph} \checkmark$ b. Advancing volume  $Va = 5 + 196 + 5 = 206 \text{ vph} \checkmark$ c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 206 = 2\% \checkmark$ d. Opposing Volume  $Va = 5 / 206 = 2\% \checkmark$

# $\mathrel{\dot{.}\!\!.}$ A left turn lane is not warranted but a Type III intersection treatment is recommended



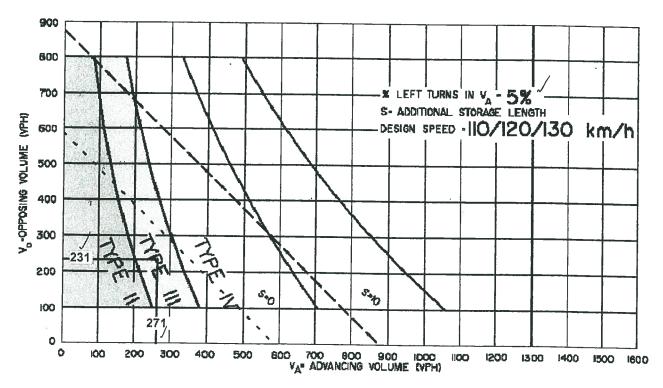
Highway 3 Eastbound, AM Peak

Scenario: 2015 Background Traffic Volumes

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

  - ∴ A right turn lane is not warranted.
- 2. Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph } \sqrt{100}$ b. Advancing volume  $Va = 5 + 254 + 12 = 271 \text{ vph} \sqrt{100}$ c. Proportion of left turns in Va.  $Va = 5 / 271 = 2\% \sqrt{100}$

  - $\therefore$  A left turn lane is not warranted but a Type III intersection treatment is  $\checkmark$  recommended



Municipality of Crawsnest Pass

19 Nov 10

09-Dec-10

Municipality of Crawsnest Pass						73 HOV 10	09-Det-10	!	
2011 Approved Capital and Operational Budget						<del>(17,0€-10</del>			
Sub-department	Tines	Reserve	Contribution Prospects LTD	Provincial Conditional Grant	Seist Frankzi (Donations) i sa nafera (Other I national	Project Cost Capilal	2011 Project Cost Operational	2016 Project Cost Cepital	Suru Project Cost Operational
Administration	(\$1,362,336)	\$0		\$0	(\$85,628)	\$0	\$1,447,964	\$20,000	\$1,244,868
Health & Safety	(\$55,942)	\$0		(\$40,000)	(\$2,000)	\$0	\$97,942		\$93,565
Telecommunications/IT	(\$117,000)	\$0		(\$120,000)	\$0	\$65,000	\$172,000	\$62,600	\$1 <del>6</del> 6,412
General-Distributions									
Seniors Rebate	(\$15,000)						\$15,000		\$26,000
Assessment Changes	(\$20,000)						\$20,000		\$40,000
Trf to Spring Clean up (Xxled 2011)	\$0						\$0		\$50,000
Interest Income Allocation	(\$4,000)						\$4,000		\$19,000
Transfer to reserve-Seniors Hsg	(\$100,000)						\$100,000		\$(
Wiscellaneous	(\$475)		•				<b>\$</b> 475		\$0
Pog Control	(\$38,699)	\$0			(\$5,726)		\$44,425		\$49,670
By-Law Officer	(\$76,282)	\$0		\$0	(\$15,600)		\$91,882		\$101,875
Weed Control	(\$72,272)	\$0		(\$113,900)	(\$45,000)		\$231,172		\$335,266
Council	(\$185,244)	80		\$0	(\$3,292)		\$188,536		\$188,235
Crowsnast Centre-see public works			***************************************				\$0		\$93,991
Bellevue Senior Club House	(\$7,323)	\$0		\$0	\$0	\$0	\$7,323		\$6,750
Centennial Bidg	(\$1,294)	\$0		\$0	\$0	\$0	\$1,294		\$1,58
Coleman Scriors Union Hall	(\$8,700)	\$0	•	\$0	(\$1,200)	\$0	\$7,900	\$58,500	\$23,04
Culture	(\$68,000)	\$0		\$0	\$0	\$0	\$68,000		\$58,500
Libraries	(\$145,959)	\$0		\$0	\$0	\$0	\$145,959		\$130,567
Elks Hall	(\$891)	\$0		SO	(\$23,539)	20	\$24,430		\$23,010
Frank Hall	(\$2,597)	\$0		\$0	\$0	\$0	\$2,597		\$2,84
Maplevue Hall-demolition in PW	(\$200)	\$0		\$0	\$0	\$0	\$200		\$25
MD McEachem	(\$128,436)	\$0		\$0	(\$94,440)	\$0	\$220,875	\$14,528	\$153,85
Blairmore Senior Club House	(\$2,314)	\$0		\$0	(\$1,200)	\$D	\$3,514		\$3,77
Rescue (Disaster) Services	(\$181,042)		\$0	\$0	(\$29,500)	\$27,000	\$169,542	\$6,000	\$151,47
Economic Development-chamber of com	(\$5,800)	\$0			\$0		\$5,800		\$21,00
Elections	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$36,50
FCSS	(\$42,157)	\$0		(\$163,586)			\$234,243		\$233,60
Town Rounder	(\$80,942)	\$0		\$0			\$90,942		\$93,91
Fire Departments'	(\$362,119)	(\$600)	\$0	\$0	(\$23,000		\$347,718		\$352,48
Marketing & Promotions	(\$110,707)	\$0			(\$42,500)	\$10,000	\$143,207		\$110,48
Planning / Land / Subdivision / Land Housing Bklg Rental	(\$142,874)	(\$12,800)			(\$218,493)	\$0	\$374,167	,	\$347,970
	ta melen di	(41200)			100.00	44	44.11.61	1	42-413214

Police Department	\$25,157	\$0		\$0	(\$40,000)	\$0	\$14,843		\$5,309
	723,127				(*10)000)		41.,510		40,000
Cemeteries	(\$14,400)	\$0	\$0	(\$4,400)	(\$8,450)	\$10,000	\$17,250		\$55,628
Electrical Dept.	\$184,130	(\$44,900)	\$0	(4-7)	(\$1,133,000)	\$30,080	\$963,770	\$50,000	\$817,135
Solid Waste	\$88,835	\$0	\$0		(\$709,500)	\$0	\$820,665		\$690,055
Public Works	(\$2,890,463)	\$0	(\$530,000)	(\$2,325,116)	(\$95,000)	\$3,017,000	\$2,823,581	\$820,000	\$2,592,815
Sanitary Sewage	(\$81,855)	(\$100,000)	\$0	(\$338,000)	(\$589,000)	\$418,000	\$695,855	\$3,202,268	\$563,655
Stormsewer	(\$19,896)	\$0	\$0	\$0	\$0	80	\$19,886		\$24,350
Water Works	\$72,585	(\$263,000)	80	(\$1,352,000)	(\$921,150)	\$1,824,500	5839,085	\$904,608	\$877,567
ASMA	(\$78,858)	\$0	\$0	\$0	(\$11,000)	S0	\$89,858	\$5,000	\$82,139
Sports Plex	(\$205,397)	\$0	\$0	\$0	(\$110,000)	\$25,000	\$290,397	\$119,267	\$281,432
Playgrounds & Parks	(\$160,462)	(\$25,000)	\$0	(\$32,000)	\$0	\$50,000	\$187,462	\$558,900	\$222,342
Pass Pool	(\$147,524)	\$0	\$0	\$0	(\$43,800)	S0	\$191,324	\$146,240	\$190,899
Recreation Board & Programming	(\$229,724)	\$0	S0	\$0	(\$35,100)	\$0	\$264,824	\$10,000	\$228,107
Sports Fields	(\$103,187)	\$0	\$0	(\$4,440)	(\$10,000)	\$15,871	\$101,756	\$0	\$94,287
Cross-Country Trails	(\$24,141)	\$0	\$0	(\$8,000)	\$0	\$0	\$32,141	\$0	\$31,345
Ski Hill	(\$175,775)	\$0	SO	(\$13,900)	(\$268,781)	\$6,500	\$451,956	\$120,000	\$469,808
Contingency	(\$120,000)						\$120,000		\$170,000
								Ι,	
	(\$7,195,586)	(\$446,300)	(\$530,000)	(\$4,515,344)	(\$4,504,399)	\$5,331,871	\$11,959,758	\$6,125,911	\$11,567,382
	_ / _								
Franchise Fees-ATCO	-	\$210,495							\$245,000
Interest Income	-	\$14,100						1	\$23,100
Grants	-	\$0							\$21,323
Other Services	- \_	\$60,650							\$54,100
Minium Tax increase from \$25 to \$500	<b>」 ∖∟</b>		2010 implement	ation				Į	\$150,000
		\$285,245							\$493,523
Property tax levy 2010	\$8,548,951								
		\$6,548,951							\$6,465,645
Total Tax revenue		\$6,834,196							\$6,959,168
Tax revenue required	-	\$7,195,586)						,	\$6,491,883
Surplus		(\$361,390)							\$487,285
				iting Contingency I	Reserve				\$450,000
		(\$985,265)	Net Surplus						\$17,285

Highway 3 Westbound, AM Peak

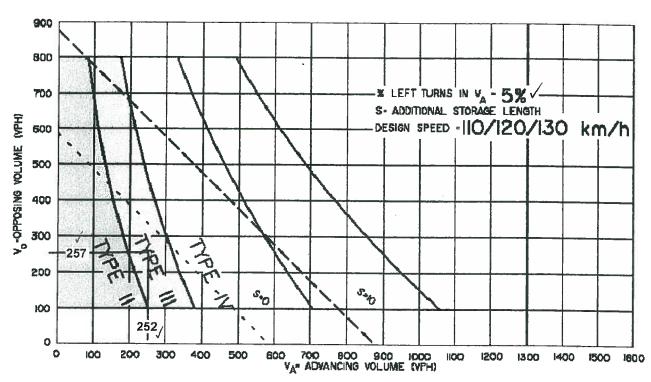
Scenario: 2010 Post Development Traffic Volumes √

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

#### ∴A right turn lane is warranted. ✓

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph} \checkmark$ b. Advancing volume  $Va = 5 + 200 + 47 = 252 \text{ vph} \checkmark$ c. Proportion of left turns in Va.  $L = V\lambda / Va = 5 / 252 = 2\% \checkmark$ d. Opposing Volume  $Vo = 15 + 231 + 11 = 257 \text{ vph} \checkmark$

## ∴A left turn lane is not warranted but a Type III intersection treatment is recommended



Highway 3 Westbound, PM Peak /

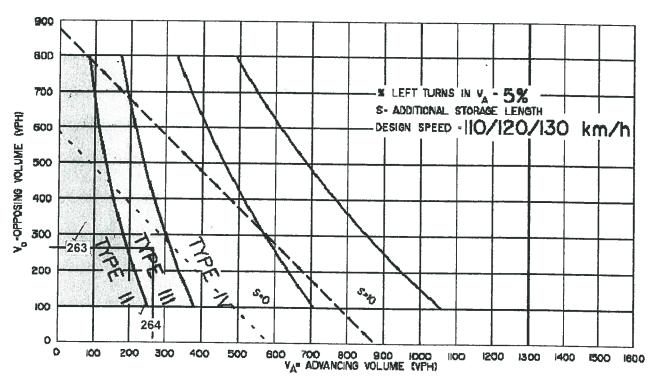
Scenario: 2010 Post Development Traffic Volumes /

- Warrant for Right Turn Lane. To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

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  - a. Number of left-turning vehicles per hour  $V\lambda = 5 \text{ vph}$  b. Advancing volume Va = 5 + 196 + 63 = 264 vph c. Proportion of left turns in Va. Va = 5 / 264 = 2% d. Opposing Volume Va = 5 / 264 = 2%

 $\therefore$  A left turn lane is not warranted but a Type III intersection treatment is  $\nearrow$  recommended



Highway 3 Eastbound, AM Peak

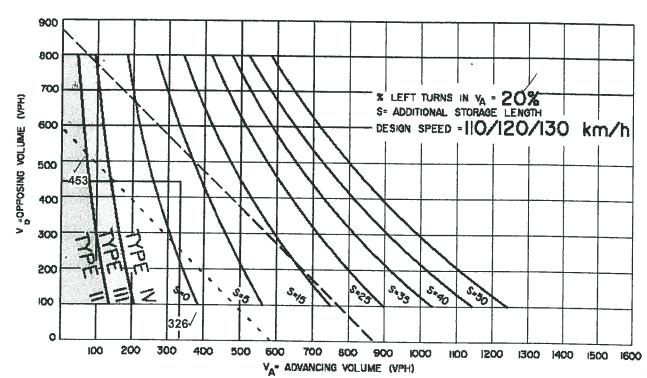
Scenario: 2015 Post Development Traffic Volumes 🗸

- Warrant for Right Turn Lane. To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

∴A right turn lane is not warranted. ✓

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 60 \text{ vph/}$ b. Advancing volume Va = 60 + 254 + 12 = 326 vph/c. Proportion of left turns in Va. Va = 60 / 326 = 18%d. Opposing Volume Va = 60 / 326 = 18%

 $\therefore$ A left turn lane is warranted and a Type IV intersection treatment is  $\nearrow$  recommended



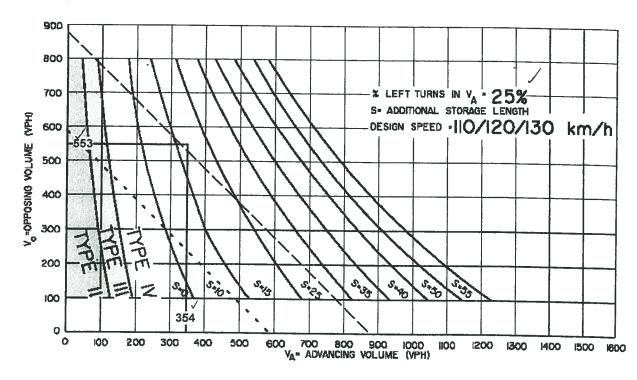
Highway 3 Eastbound, PM Peak

Scenario: 2015 Post Development Traffic Volumes 🗸

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

  - .: A right turn lane is not warranted.
- Warrant for Left Turn Lane. When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 86 \text{ vph} \checkmark$ b. Advancing volume  $Va = 86 + 256 + 12 = 354 \text{ vph} \checkmark$ c. Proportion of left turns in Va...  $L = V\lambda / Va = 86 / 354 = 24\%$

∴A left turn lane is warranted and a Type IV intersection treatment is / recommended.



Highway 3 Westbound, AM Peak

Scenario: 2015 Post Development Traffic Volumes

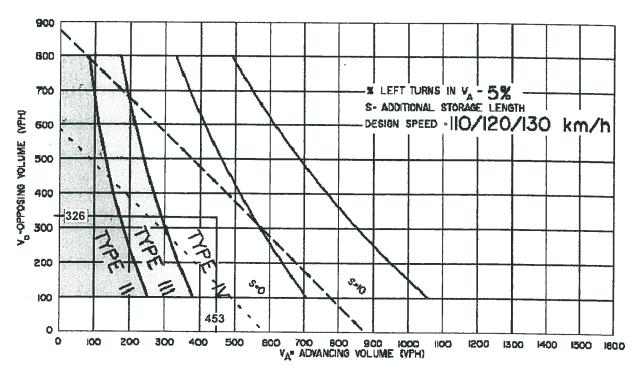
- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

#### .: A right turn lane is warranted.

2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.

a.	Number of left-turning vehicles per hour.	V $\lambda$ = 6 vph
b.	Advancing volume	
C.	Proportion of left turns in Va	$L = V\lambda / Va = 6 / 453 = 1\%$
	Opposing Volume	

## ... A left turn lane is warranted and a Type IV intersection treatment is recommended.



Highway 3 Westbound, PM Peak √

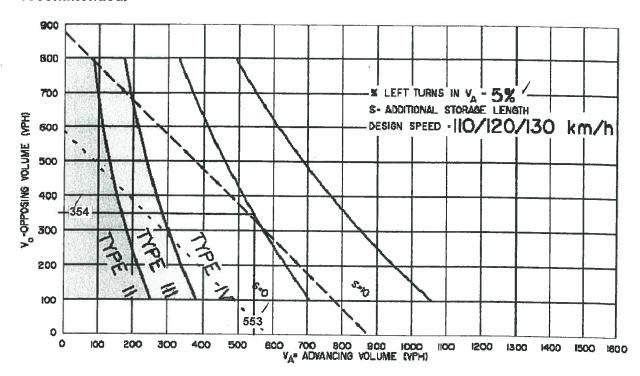
Scenario: 2015 Post Development Traffic Volumes

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

#### ∴A right turn lane is warranted.

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 6 \text{ vph}/2$ b. Advancing volume Va = 6 + 216 + 331 = 553 vph/2c. Proportion of left turns in Va. Va = 6 / 553 = 1%/2d. Opposing Volume Va = 86 + 256 + 12 = 354 vph/2

## ...A left turn lane is warranted and a Type IV intersection treatment is recommended.



Highway 3 Eastbound, AM Peak

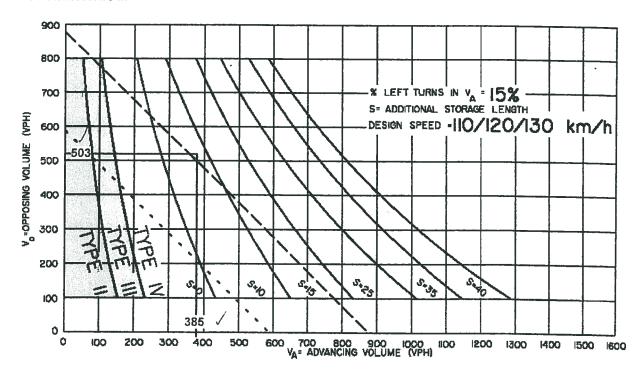
Scenario: 2027 Post Development Traffic Volumes /

- 1. **Warrant for Right Turn Lane.** To warrant an exclusive right turn lane at a two-lane highway intersection in Alberta, the following three conditions must all be met:

 $\therefore$ A right turn lane is not warranted.  $\checkmark$ 

- 2. **Warrant for Left Turn Lane.** When making a left turn into the driveway, the turning vehicle may be delayed by a vehicle or vehicles in the opposing stream. Through vehicles in the advancing stream following the left-turning vehicle may be delayed by, or exposed to collision with turning vehicle. The interference caused by standing left turning vehicles in the through advancing traffic can reduce capacity and create a safety hazard. The amount of interference is dependent on opposing volumes, advancing volumes and the number of left turning vehicles.
  - a. Number of left-turning vehicles per hour  $V\lambda = 60 \text{ vph/}$ b. Advancing volume Va = 60 + 310 + 15 = 385 vph/c. Proportion of left turns in Va  $L = V\lambda / Va = 60 / 385 = 16\% / Opposing Volume <math>Vo = 7 + 269 + 227 = 503 \text{ vph/}$

 $\therefore$ A left turn lane is warranted and a Type IV intersection treatment is  $\checkmark$  recommended.



#### MUNICIPALITY OF CROWSNEST PASS SUBDIVISION AND DEVELOPMENT AUTHORITY WEDNESDAY, February 22<sup>nd</sup>, 2006

Wayne Marty Glen French Jim Lant

Gary Taje, Council Representative Nestor Chorney, Council Representative

Garry Dawydiuk **REGRETS:** 

ADMINISTRATIVE: Glen Snelgrove, Director of Planning and Development

Mike Burla, O.R.R.S.C.

Ian Macleod, Chairman

Bev Cole, Development Officer

Karen Lonsbury, Recording Secretary

Meeting called to order at 4:00 p.m.

#### ADOPTION OF AGENDA

**MOTION** by Wayne Marty to approve the agenda of February 22<sup>nd</sup>, 2006 as presented. CARRIED UNANIMOUSLY

#### **DELEGATIONS:**

PRESENT:

Bridgegate (CN Lake Development): The Authority was provided with an update on the progress of the Bridgegate development at Crowsnest Lakes. Preliminary designs were previewed and discussed noting that the development will take place minimally interfering with existing landforms. Proposed triangular buildings will get the most sun and designs shelter pedestrian pathways. Areas along the lake will be maintained as environmental reserve. First phase is slated to begin in 2007 however offsite servicing may put the development behind schedule.

#### **ADOPTION OF MINUTES**

**MOTION** by Nestor Chorney to approve the minutes of January 25<sup>th</sup>, 2006 as **CARRIED UNANIMOUSLY** presented.

#### SUBDIVISION APPLICATIONS

1. Hajek/Carriere - Lot 10, Block 17, Plan 001 0144 (Bellevue, Ab.) Ward III. Application to subdivide the above noted property to create two country residential parcels of 3.0 and 2.36 acres from a titled area containing 5.36 acres was previously tabled for further information on the mine workings located on the property. Information was received from an Alberta Underground Mine Specialist noting that the mine workings would pose no problem and that there are no shafts at the development site.

**MOTION** by Gary Taje to approve the subdivision with the following conditions:

- a. Payment of outstanding property taxes;
- **b.** Provision of a development agreement for future servicing purposes;
- c. A waiver of the 3.0 acre minimum parcel size for Country Residential parcels of conventional sewer and water systems;

### MUNICIPALITY OF CROWSNEST PASS SUBDIVISION AND DEVELOPMENT AUTHORITY WEDNESDAY, MARCH 28, 2007

PRESENT: Wayne Marty, Chairman

Jim Lant

Susan Wagner

Gary Taje, Council Representative Nestor Chorney, Council Representative

REGRETS: lan Macleod, Glen French

ADMINISTRATIVE: Mike Burla, O.R.R.S.C.

Bev Cole, Development Officer

Karen Lonsbury, Recording Secretary

Meeting called to order at 4:05 p.m.

### **ADOPTION OF AGENDA**

**MOTION** by Nestor Chorney to approve the agenda of March 28, 2007 with the following addition:

Development Permits:

6. Halton - Garage

#### CARRIED UNANIMOUSLY

Susan Wagner requested packages be available for Authority members on the Friday before the meeting, and that there be no additions to the agenda. Discussion followed and the majority of the members felt that Friday will be package pick-up date but rather than have the public wait until the next meeting date to have their development permit application reviewed and because these applications permits are usually straight forward additions will continue to be accepted.

#### **DELEGATIONS**

**Bridgecreek Development** – Mike Burla opened the discussion by informing the Authority of the progress of the Bridgecreek development noting that the developer is taking a pro-active approach in keeping the community informed of its progress. They have filed an application with O.R.R.S.C. that will be presented to the Subdivision and Development Authority.

Representatives of Bridgecreek walked the Authority through a PowerPoint presentation and provided information on how the development is progressing. They indicated that they plan to start the residential development in the fall of 2007 and the commercial development the end of 2008. Plans include a multi-function auditorium, motel, pub, coffee shop, public pool, lower level conference centre and underground parking. A flat roof design will permit the planting of small shrubs and grasses and this design will place a reduced burden on the water management system that is proposed throughout the development. Solar and geo-thermal are being considered as an energy source as well as an R28 to R40 rating for insulation.

Mike Burla indicated that comments on the development from government agencies will be available for the next meeting.



### MUNICIPALITY OF CROWSNEST PASS SUBDIVISION AND DEVELOPMENT AUTHORITY WEDNESDAY, JUNE 27, 2007

PRESENT:

Ian Macleod, Chairman

Wayne Marty Susan Wagner

Gary Taje, Council Representative Nestor Chorney, Council Representative

**REGRETS:** 

Glen French, Jim Lant

**ADMINISTRATIVE:** 

Mike Burla, O.R.R.S.C.

Bev Cole, Development Officer

Karen Lonsbury, Recording Secretary

Meeting called to order at 4:00 p.m.

#### **ADOPTION OF AGENDA**

**MOTION** by Jim Lant to approve the agenda of June 27, 2007 with the following addition:

a. Delegation: River Run Development

#### CARRIED UNANIMOUSLY

#### **DELEGATIONS**

1. River Run Development — Cameron Gillies provided an update to the Authority on the River Run Development. A set of garage suite parking guidelines based on a sliding-scale was presented and information from the Authority on parking was requested. Mr. Gillies suggested that River Run and the CMUD-3 designation be used as a testing ground for parking for garage suites noting they are a phased development and there would be stages where revisions could be implemented. Discussion will reconvene later in the meeting.

#### **ADOPTION OF MINUTES**

**MOTION** by Nestor Chorney to approve the minutes of May 23, 2007 with the following correction:

**Development Permit #4:** Motion by Gary Taje to table the application to allow time for more discussion to take place.

#### CARRIED UNANIMOUSLY

#### SUBDIVISION APPLICATIONS

1. Wesley & Kimberley Weber – Lots 13-19, Block 42, Plan 5051 S (Hillcrest, AB) Ward III. Application for a residential subdivision to create 5 residential parcels ranging in size from 38.7' x 120' to 55' x 120' from a titled area of 213' x 120'. Four of the lots are substandard. Mike read comments into the record from Mrs. R. McNeil, Leon/Christina Drinnan and the Harvey family and provided a verbal reporting of concerns expressed by phone from Peggy Filipuzzi.

8. Calvin McLaren – Lot 27, Block 31, Plan 031 1006 (8638 – 20<sup>th</sup> Ave.) Coleman, AB. Ward I. Application for a Home Occupation to build and sell log furniture.

MOTION by Susan Wagner to approve the application for a Home Occupation to build and sell log furniture.

CARRIED UNANIMOUSLY

#### **IN/OUT OF CAMERA**

**MOTION** by Gary Taje to go in camera at 5:35 p.m.

CARRIED UNANIMOUSLY

MOTION by Nestor Chorney to go in camera at 5:55 p.m. CARRIED UNANIMOUSLY

#### RIVER RUN DEVELOPMENT

**MOTION** by Susan Wagner to recommend to Council the amendment and inclusion of the River Run proposal for parking standards for garage suites into the CMUD-3 Land Use district.

#### CARRIED UNANIMOUSLY

**MOTION** by Susan Wagner to recommend to Council the CMUD-3 Land Use designation be amended to include the following:

- a. Move garage suites from a permitted to a discretionary use:
- b. Maximum area of a garage suite is 500 ft2;
- c. Garage suites are permitted only on lots with single family and semi-detached dwelling units;
- d. A maximum of 25% of the total number of single family and semi-detached dwelling units may contain garage suites;
- e. No townhouse will be permitted to contain garage suites;
- f. Garage suites are permitted on both laned and laneless lots:
- g. Garage suites are not permitted to be consecutively located on immediately neighbouring properties. A road, or a lane, or a suite-less property must separate garage suites;
- h. Parking calculations for garage suites will be related to the size of the principle building to which the garage suite is accessory:
  - i. up to 1500 sq. ft. 1 stall for the principal building plus 1 stall for the garage suite;
  - ii. 1501 2500 sq. ft. 2 stalls for the principal building plus 1 stall for the garage suite;
  - iii. Over 2500 sq. ft. 2 stalls for the principal building plus 2 stalls for the garage suite;
- Up to 1 required parking stall for a garage suite may be permitted to be located off site in a designated and reserved surface parking lot;
- Tandem configuration is acceptable for required on-site parking.

#### CARRIED UNANIMOUSLY

Initia\_

#### MUNICIPALITY OF CROWSNEST PASS SUBDIVISION AND DEVELOPMENT AUTHORITY WEDNESDAY, JULY 18, 2007

PRESENT:

Ian Macleod, Chairman

Wayne Marty Susan Wagner

Gary Taje, Council Representative

Nestor Chorney, Council Representative

**REGRETS:** 

Glen French, Jim Lant

**ADMINISTRATIVE:** 

Mike Burla, O.R.R.S.C.

Glen Snelgrove, Municipal Tax Assessor

Bev Cole, Development Officer

Karen Lonsbury, Recording Secretary

Meeting called to order at 4:00 p.m.

#### **ADOPTION OF AGENDA**

**MOTION** by Wayne Marty to approve the agenda of June 27, 2007 with the following addition:

Development Permit #8: Kisner/Goldstein – Single family dwelling

#9: Green - Manufactured home

#### **CARRIED UNANIMOUSLY**

#### **DELEGATIONS**

- Southmore Development Leo Kyllo informed the Authority that they have had no
  interest from the public for multi-family dwellings and are considering adding more
  single-family dwellings. Moving away from the multi-family dwellings will add 11 more
  lots. The new proposal will be reviewed by the C.A.O. to see how it fits with the area
  structure plan.
- River Run Development an update was provided to the Authority on the River Run Development noting new plans to take a section of Block 4 at the east end of the property and subdivide it into 26 lots for townhouses. This land was previously identified as vacant.

Note: Gary Taje left the meeting at this time.

Buildings will be built into the side of the hill adding variety to the development. Discussion followed.

Note: Gary Taje returned to the meeting.

#### **ADOPTION OF MINUTES**

**MOTION** by Wayne Marty to approve the minutes of June 27, 2007 as presented.

CARRIED UNANIMOUSLY

Initial
DMINAL

- Suggested if the application is approved it could be conditional on receiving approval from Alberta Environment for the sewer and water system to be installed
- Grading on the site has been looked at
- Elevations and profiles of the roadway are designed for minimal disruption of the property

#### Further discussion included:

- It was noted the floor plans did not show a second floor, and Mr. Eckardt explained the units will have a loft and the total square footage for both levels will be approximately 1000 square feet
- It was questioned if the application had been put forward for public input, and if adjacent property owners had been notified of the application
- Mike Burla noted that according to the Land Use Bylaw, the Development Officer
  must be directed by the Subdivision and Development Authority to notify adjacent
  owners in advance of the Board dealing with a Development Application
- Clarification was requested on whether the Development Application was for six or twenty-five cabins, and Mr. Eckardt confirmed it was for six cabins
- The number of Aspen and Colorado models was questioned, and Mr. Eckardt explained there would be three of each model
- The number of bedrooms was questioned, and Mr. Eckardt noted the Aspen has one bedroom and the Colorado is a duplex with two bedrooms
- The maximum occupancy is 36 people for all six cabins
- Mr. Eckardt confirmed that he does not anticipate any difficulty adapting the current access to the property
- Reservations were expressed regarding the twenty-five units proposed as the application is substantially different than that for the last public hearing

**MOTION** by Glen French that a notice of meeting be sent to adjacent landowners and that a Public Hearing be held.

**WITHDRAWN** – To be dealt with later in the meeting

Mr. Ed Martin, project engineer noted that a public hearing was held approximately six months ago and felt the differences between the previous and current layout are not that great that the issues would change from the previous public hearing.

#### **DELEGATIONS**

### 2. Bridgegate Development Corporation - Update

Mr. Cameron Gillies, Bridgecreek Development Corporation, was in attendance to provide an update on the progress of the River Run project. His presentation included:

 The bridge will be phased in due to DFO constraints on when construction can proceed near waterways

Initial

- Bridge and associated services proposed to be in place in the fall of 2009
- There is a concept design for the bridge, and they will be proceeding with the full design and tendering of the bridge this summer
- Phase I of the project will begin at the east end
- Water service for Phase I, consisting of 44 lots, will be from the existing line on 129<sup>th</sup> Street
- Sanitary sewer service access from tying into an existing line off-site
- Power through an existing municipal supply
- Phase 1A is proposed to commence in the fall consisting of five townhouses and two semi-detached units as a show home parade
- Storm water will be managed with the construction of ponds 5 and 6
- Construction and sales of affordable multi-family units will begin with occupancy dates to coincide with the timing of bridge completion
- A new Sales Center, with mock up studio and two bedroom show suites, will be located one block north of the existing Sales Center
- Working with a landscape architect to hydro-seed the River Run site to help alleviate coal dust concerns
- A Phase II Environmental Report from WA Environmental Services concluded "further assessment of the potential for materials on the site to impact freshwater aguatic life is not recommended"
- The Letter of Credit with the Municipality of Crowsnest Pass will be phased in as the phases of construction and servicing are phased in

#### Further discussion included:

- Communication service was questioned, and it was explained Bridgegate is in the process of getting quotes and designs from the utility providers
- Gas supply will be entering from the east end of the property
- The recent road closure will not affect access
- Coal slack was questioned, and Mr. Gilllies explained that they are currently in discussions with Fording Coal regarding the possibility of having the coal slack hauled away
- It was questioned if there would be water in the retention ponds year round, and it was explained that there is discussion with the Crowsnest Pass Golf Course to enter into a utility and cost sharing agreement to bring excess water over to the site to keep the ponds full when needed
- Asked if people in the trailer court would be disturbed during utility installation, and it was felt disturbance would be kept to a minimum

### **BUSINESS ARISING FROM MINUTES**

 Carl Hajek – Lot 12, Block 17, plan 0710132 in NE ¼ 20-7-W5M Residential Subdivision: Mr. Hajek and the Public Works Superintendent are discussing drainage options.

Ray Mahieux, Public Works Superintendent, met with the applicant, looked at the drainage problem, and provided the following information:

|--|

### PAGE 2 of 13 COUNCIL – SEPTEMBER 27<sup>th</sup>, 2003



M#1623-05: Councillor D. Ward moved to challenge the decision of the Chair relative to the requested change in order.

**CARRIED** 

M#1624-05: Councillor D. Ward moved to adopt the agenda as amended.

**CARRIED** 

#### **ADOPTION OF MINUTES**

M#1625-05: Councillor J. Stolarik moved that the minutes of the regular Council meeting of

September 6<sup>th</sup>, 2005, be adopted as written.

CARRIED UNANIMOUSLY

#### **DELEGATIONS**

Bridgegate Development Corporation - Area Structure Plan - Crowsnest Lakes Area

Mr. Tom Sterling, representing Bridgegate Corporation, introduced the following representatives of the Corporation that were in attendance:

Bill Bradley

Jay Bolt

Colin Becker

Michael Glavin

Kelly Christopher

Ken King

Jeff Dyer

Ryan Byrd

He indicated that the proposed development by Bridgegate is a fantastic vision and that the Company had a proven track record

Mr. Bill Bradley, President, Bridgegate Development Corporation, appeared before Council to present the Bridgegate Resort Village Area Structure Plan, First Reading Draft Report. The detailed report will be maintained on file and contained the following:

#### ■ BACKGROUND:

- Introduction
- Site Area
- Existing Land Uses

- Topography and Land Cover
- Historical Context
- Core Principles



#### DELEGATIONS - cont'd

Bridgegate Development Corporation - Area Structure Plan - Crowsnest Lakes Area - cont'd

#### DEVELOPMENT PLAN:

Vision

Concept

#### **LAND USE:**

- Overview
- General Land Uses
- Natural Areas

- Density
- Building Height and Placement
- Parking and Loading

#### **■** TRANSPORTATION:

- Overview
- Thoroughfare Standards
- Site Access
- Pedestrian Network

- Vehicular Access
- Rail
- Waterways
- Aircraft

#### SERVICING OVERVIEW:

- Servicing Objectives
- Proposed Water Supply and Distribution
- Proposed Sanitary Servicing and Wastewater Collection
- Storm Water Management
- Shallow Utilities

#### ■ IMPLEMENTATION:

- Master Plan
- Land Use: Comprehensive Resort District
- Outline Plan
- Subdivision
- Sequence of Development

#### Figures:

- 1.1 Location Plan
- 1,2 Existing Land Use Map
- 1.3 Site Photos
- 2.1 Descriptive Plan
- 3.1 General Land Use Plan
- 5.1 Schematic Servicing

- 1.4 Topographic Areas
- 1.5 Topographic and Legal
- 1.6 Landcover
- 2.2 Illustrations
- 4.1 Transportation Plan
- 6.1 Tentative Sequence of Development



#### **DELEGATIONS - cont'd**

#### Bridgegate Development Corporation - Area Structure Plan - Crowsnest Lakes Area - cont'd

Mr. Bradley indicated that when he became aware that the subject property was for sale he began negotiations with the owners and a firm deal was made. Following this they proceeded with planning the project and with the assistance of a great team, comprised of planners, engineers, surveyors, marketing consultants, etc., a concept was developed and the Area Structure Plan was prepared.

With the aid of a Power Point presentation, Mr. Bradley provided information on the following:

- their vision is to create the most wonderful lake front destination resort in the Canadian Rockies
- will be environmentally responsible, with world class planning and architecture
- will have a collaboration within themselves as well as the residents of the community
- reviewed the location of the proposed development east end of Crowsnest Lake
- reviewed site plan concept, noting that approximately 30% of the area will be left in its natural state
- their approach is to create a village concentrating the development within the site rather than spreading out; rather than building single family homes they will provide multi-family complex
- phasing: service the land then build individual phases of condominiums and commercial development including a hotel
- displayed conceptual idea of the buildings noting they would be very dynamic using a lot of stone and glass; not a generic kind of resort
- reviewed the amenities of the resort village: hotel, boat launch, beach and yacht club area. If able to secure additional land around the resort they may incorporate a golf course, an equestrian centre and potential gondola for skiing
- suggested that the hotel would draw 90,000-120,000 visitors per year; would be a conference centre, 100% underground parking
- besides highway access other potential accesses to the resort include: train and float plane
- Timing: starting to raise \$12,000,000 for land development financing this fall 2006 Servicing late 2006 or early 2007 first phase of condominium construction 2008 resort hotel

continue to build amenities and future phases of the development

- commented on the economic impact for the community
  - triple commercial assessment
  - provide construction and resort employment
  - local business would benefit
  - would contribute to the convention market
  - general tourism tour busses to the resort



#### DELEGATIONS - cont'd

Bridgegate Development Corporation - Area Structure Plan - Crowsnest Lakes Area - cont'd

- Ecological Accountability:
  - preserve wildlife corridors, lake, river
  - use sustainable energy
  - mitigating against gray water
  - keep fishery habitat
  - pedestrian friendly village
- Marketing:
- 30,000 vacation owners to purchase condos, driven by fractional ownership; initially from Alberta and eventually from the U.S. and Europe
- renovate the old powerhouse to be the sales centre and hire people who would to work and live in the Crowsnest Pass
- would move a major office to the Crowsnest for construction and administration
- Recreational Activities
- Marketing Promotions:
  - Festivals
  - Arts and Culture (run Filumena Opera all summer)
  - Indoor aquatic and fitness centre
  - Tours
- Provided a Developer Profile
- Outlined the Professional Team

Mr. Bradley indicated that this was the conclusion of his presentation and was open for questions.

Following questions from Council, Mayor J. Irwin thanked Mr. Bradley for his presentation and wished them every success in this endeavour. He further noted that if the appropriate Bylaw received 1<sup>st</sup> Reading, it would be advertised and the community will have the opportunity to comment during the required Public hearing prior to 2<sup>nd</sup> and 3<sup>rd</sup> readings.



#### PUBLIC HEARINGS - cont'd

<u>Land Use Amendment – Rezoning – Lots 27-29, Block 8, Plan 2347 BS (Morris/Southmore)</u>

As required, a Public Hearing was held regarding the proposed rezoning of Lots 27-29, Block 8, Plan 2347 BS, from Residential (R-1) to Comprehensive Narrow Lot Residential (R-5).

No written comments were received.

Lowry Tombs of Royal Lepage South Country was in attendance to speak in favor of the proposed rezoning. Mr. Lowry distributed an overhead of information and a map to Council.

Mr. Lowry Toombs provided the following comments:

- Comprehensive Narrow Lot Residential was put in place primarily for allowing residents to rebuild a house if it burnt down, and also to accommodate residential infill.
- The parcel in question is 75 feet wide X 120 feet to be subdivided to 37 ½ feet X 120 feet for two single family dwellings
- Currently there is a single septic system on the property which is out of date
- Advantages noted:
  - o Addresses higher density objectives
  - o Existing infrastructure
  - o Tax revenue will approximately double
  - o R5 zoning will not allow trailers to be placed on the lots
  - o Provides alternative and more affordable housing

Deputy Mayor J. Stolarik thanked Mr. Toombs and concluded the Public Hearing.

Area Structure Plan and Land Use Amendment for Blocks 1, 2 and 3, Plan 871 1401 and a portion of the S.E. ¼ 3-8-4-W5M

Both the Area Structure Plan and the proposed rezoning dealt with the same property, being Blocks 1, 2 and 3, Plan 871 1401 and a portion of the S.E. ¼ 3-8-4-W5M and comments on both amendments were heard.

Bill Bradley of River Run was in attendance to speak in favor of the Area Structure Plan and Land Use Amendment. Mr. Bill Bradley provided the following comments:

- Feels the River Run development will revitalize downtown Blairmore
- The development will improve the efficiency of existing infrastructure as well as social, community, and public services within the community such as fire protection, libraries, and churches



#### PUBLIC HEARINGS - cont'd

- The investment will inject over three hundred and fifty million dollars of new investment into the Crowsnest Pass, specifically on the fifty-two acre site, and contribute to increasing the tax base of the Crowsnest Pass
- River Run held a successful Open House at the Elks Hall on August 14, 2006 with good pubic attendance. Mr. Bradley felt the general consensus was that most people in attendance favored the development as proposed
- The transportation design of the subdivision is premised on potential access from Highway 3 for right turn in and right turn out as the major access to River Run
- The secondary access would be on 25<sup>th</sup> Avenue to the east part of the site
- The third access which is a minor access point is from 121<sup>st</sup> Street and was chosen for the following reasons:
  - 1) This is an access with an existing bridge which would be rebuilt, and a natural access connecting to downtown Blairmore
  - 2) Minimal direct frontage onto 121 Street of existing properties and houses
  - 3) It is very close to the central business district of downtown Blairmore
- River Run's financing commitment is in place and they are in a position to move forward with implementing the River Run project within the next six months or less with Council's approval of the Area Structure Plan

Mr. Rudy Vanderborgh, a resident of 22<sup>nd</sup> Avenue, was in attendance to ask for clarification on the Comprehensive Resort Village – 1 zoning.

- Mr. Bill Bradley explained what CRV-1 involved as related to River Run.
- Mr. Vanderborgh asked what the intent was for the areas on the map designated as 1, 2, and 3.
- Mr. Bradley showed plans that were shown at the open house.
- Mr. Vanderborgh questioned if in the future information could be more readily available to the public either on the internet or through the Municipality
- Deputy Mayor J. Stolarik indicated information can be obtained at the Municipality at any time

One letter was received from George and Cam Kovach who own property adjacent to  $121^{st}$  Street and  $21^{st}$  Avenue expressing their concern regarding the proposed access to the area via  $121^{st}$  Street. They further noted that they are not opposed to the proposed development or to progress.

Colin Becker of Bridge Creek Development provided the following comments:

- An alternate access is the four way stop at 119<sup>th</sup> Street
- The access at 121<sup>st</sup> Street is a natural access which slows traffic, but access to the swimming pool is a safety issue that should be addressed
- The reason 121<sup>st</sup> Street was selected is try to bring all of the gray water from the 52 acres to a central location, rather than run off directly into the Crowsnest River.

#### PUBLIC HEARINGS - cont'd

- Capture Ponds have also been created at the entrance over the bridge at 121<sup>st</sup> Street
- Widening 119<sup>th</sup> Street would increase traffic flow, whereas 121<sup>st</sup> Street naturally slows traffic

Bernie Van Hooft questioned proposed changes to access to the pool. Mr. Becker explained they would like to find a way to reduce any safety issues.

Deputy Mayor J. Storalik concluded the Public Hearing.

#### **ADOPTION OF AGENDA:**

#### **ADDITIONS**

#### OTHER BUSINESS

- 3. Councillor G. Sygutek Request for Information by Councillor D. Ward
  - Council Remuneration
  - Advertising Summary
  - Budget and Actual Figures
  - Advertising Cost per Vender 2005 to Date for the Crowsnest Pass Promoter and the Pass Herald
  - Council Financial Statement to July 31, 2006
- 4. Councillor G. Sygutek TransRockies Bike Race
- 5. Councillor J.Ham CTV's Breakfast with Jeff

M#2313-06: Councillor J. Ham moved to adopt the agenda as amended.

**CARRIED** 

### **ADOPTION OF MINUTES:**

M#2314-06: Councillor G. Taje moved that the minutes of the regular Council meeting of Tuesday, August 1<sup>st</sup>, 2006, be adopted as written.

**CARRIED** 



#### **ADOPTION OF AGENDA:**

#### Additions:

#### **BUSINESS ARISING**

2. Kananaskis Wilds Electrical Servicing - Moved to In Camera

### OTHER BUSINESS

IN CAMERA:

3. Kananaskis Trailer Park

3. Personnel

4. Budget

4. Legal (Kananaskis Wilds)

M#2536-06: Councillor N. Chorney moved to adopt the agenda as amended.

CARRIED UNANIMOUSLY

#### **ADOPTION OF MINUTES**

M#2537-06: Councillor J. Stolarik moved that the minutes of the regular Council meeting of Tuesday, November 21<sup>st</sup>, 2006, be adopted as written.

CARRIED UNANIMOUSLY

M#2538-06: Councillor J. Stolarik moved that the minutes of the Special Council meeting of Wednesday, November 29<sup>th</sup>, 2006 be adopted as written.

**CARRIED** 

#### **DELEGATIONS**

Bridgegate Financial Corporation - Comprehensive Multi-Use Development-CMUD-1 & CMUD-2

Mr. Bill Bradley, President, Bridgegate Development Corporation, and Mr. Cameron Gillies, Zeidler Partnership Architects retained by Bridgegate, were in attendance to provide information relative to their proposed Land Use Classifications of Comprehensive Multi Use Development (CMUD-1) and Comprehensive Multi Use Development (CMUD-2).

## PAGE 3 OF 11 COUNCIL - Tuesday, December 5<sup>th</sup>, 2006



## **DELEGATIONS - cont'd**

## Bridgegate Financial Corporation - Comprehensive Multi-Use Development-CMUD-1 & CMUD-2-cont'd

Mr. Gillies provided the following comments:

- ▶ the CMUD-1 and CMUD-2 land designations were specific to a particular site, namely at Crowsnest Lakes
- it is designed for a resort style development with multi-uses
- they were drafted specifically for the Land Use Bylaw because existing designations did not incorporate the full scope of the proposed development
- it is Bridgegate's intention to have parking underground
- want to stay away from parking lots to avoid large paved areas
- are requesting a variance from standards in some areas
- is a resort destination and will not be a high traffic generator
- once guests arrive at the resort there would be minimal reliance of vehicles

#### Mr. Bradley commented as follows:

- noted that it will be a destination resort
- the total content of the proposal is 3.5 times larger than the Banff Springs Centre
- will draw in excess of 2 million visitors per year
- ▶ underground parkade will accommodate 800 1,000 vehicles, including buses
- most guests would come by tour bus and will use commercial amenities within the resort
- felt the required parking is met as per their proposal
- will accommodate 30 buses in the parkade
- will provide off-site tour bus parking with Council's permission
- ▶ estimates the resort will employ 3,000 4,000 employees.

In response to Council questions, the following additional information was provided:

- parking will not interfere with area residents
- the clearance for the underground parkade would be 10' to 12' high to accommodate the buses
- will have restricted employee parking and anticipate bussing employees to the site
- the extensive land use designations were prepared by Mr. Mike Burla, Oldman River Regional Planning Commission however a shorter revised list is available
- regarding proximity to CPR land, it is there intention to address this in an appendix in the Land Use Bylaw to ensure they could encroach into the 75' setback requirement by the CPR. They would use discretion in this area indicating it would be mainly used for parking. Discussion with CPR must be undertaken to determine a mutually agreeable solution.
- Some buildings were as high as 75 meters and no jurisdictions would have emergency equipment that could reach that high but Council was assured that construction would have to comply with the Alberta Building Code with all necessary safety requirements implemented

## PAGE 4 OF 11 COUNCIL - Tuesday, December 5<sup>th</sup>, 2006



## **DELEGATIONS - cont'd**

Bridgegate Financial Corporation - Comprehensive Multi-Use Development-CMUD-1 & CMUD-2-cont'd

- at a meeting, the Fire Chief indicted there were no concerns with the building heights
- any safety concerns would be addressed through the development permit and building permit stages to meet all requirements
- a preliminary traffic study determined that 80% of all users would be from those on site and the parking requirements have been adjusted accordingly by 20%, i.e. 1 parking space for every 25 seats
- have done due diligence in preparing the numbers for parking and are confident they work, noting they are minimums and not targets

Mayor J. Irwin thanked Mr. Bradley and Mr. Gillies for their presentation.

#### ADMINISTRATIVE AND AGENCY REPORTS

#### **Chief Administrative Officer**

Mr. Gordon O. Lundy, Chief Administrative Officer, provided a written report for Council's review. Said report will be maintained on file and contained information on the following:

- Community Services Department Update
- Mountain Pine Beetle Application
- ▶ Tenancy and Lease Agreements
- Website Updating

## Public Works Superintendent

Mr. Ray Mahieux, Public Works Superintendent, provided a written report for Council's review. Said report will be maintained on file and contained information on the following:

- Staff Vacancies
- Heavy Rainfall Damage
- ▶ Paved Walking Path

#### **Director of Finance and Systems**

Mr. A. Kollee, Director of Finance and Systems, provided three written reports for Council's review. Said reports will be maintained on file and contained information on the following:

- Statement of Surplus/Loss
- ▶ Code of Conduct Regulation Electrical Utilities Act
- Recycling Program

## MUNICIPALITY OF CROWSNEST PASS TUESDAY, JANUARY 23, 2007



A regular meeting of the Council of the Municipality of Crowsnest Pass was held in the Council Chambers on Tuesday, January 23, 2007.

**PRESENT** MAYOR:

Dr. John Irwin

**COUNCILLORS:** 

G. Sygutek, N. Chorney, J. Woodman, J. Stolarik, G. Taje, D. Ward,

#### Also Present:

Chief Administrative Officer: Pubic Works Superintendent Acting Community Services Director

Gordon O. Lundy Ray Mahieux Karen Lonsbury

Recording Secretary:

Carolee Ison

#### CALL TO ORDER

Mayor Irwin called the meeting to order at 7:07 pm.

#### **PUBLIC HEARINGS**

1. Land Use Amendment – Comprehensive Multi-Use Development (CMUD-3) & Rezoning
- Block 1, 2, and 3, Plan 871 1401 and part of the S.E. ¼ 3-8-4-W5M

As required, a Public Hearing was held regarding the proposed Bylaw No. 714, 2006 amending Land Use Bylaw No. 632, 2004 of the Municipality of Crowsnest Pass by:

- 1. Creating a land use district "Comprehensive Multi Use Development (CMUD-3) and deleting
- 2. Blocks 1, 2 and 3, Plan 871 1401 and a portion of the S.E. ¼ 3-8-4-W5M from Comprehensive Resort Village (CRV) and Land District Map #5 and reclassifying Blocks 1, 2, and 3, Plan 871 1401 and a portion of the S.E. ¼ 3-8-4-W5M to Comprehensive Multi-Use (CMUD-3), and amend Land District Map #5.

No one was in attendance to speak against the proposed land use amendment and no written comments were received.

Lowry Toombs, President of the Crowsnest Pass Chamber of Commerce, was in attendance to speak in favor of the proposed land use amendment, on behalf of the Crowsnest Pass Chamber of Commerce members. His comments included:

- The Crowsnest Pass Chamber of Commerce supports the project design
- The design maintains access to downtown Blairmore
- Looking forward to commencement of construction

## PAGE 2 OF 9 COUNCIL - Tuesday, January 23, 2007



#### PUBLIC HEARINGS - cont'd

Land Use Amendment – Comprehensive Multi-Use Development (CMUD-3) & Rezoning

 Block 1, 2, and 3, Plan 871 1401 and part of the S.E. <sup>1</sup>/<sub>4</sub> 3-8-4-W5M

Bill Bradley, of River Run Corporation, and Cameron Gillis, of Zeidler Partnership Architects, were in attendance to speak in favor of the proposed land use amendment.

#### The discussion included:

- The main access has been moved from 121<sup>st</sup> Street to 119<sup>th</sup> Street targeting an "urban sustainable medium density mixed use" area promoting density, efficient use of infrastructure, walkability, sustainability, connections to the existing community, and promoting a healthy lifestyle.
- They believe the development will have a beneficial relationship with the town of Blairmore.
- There will be a total of 661 residences approx 124 apartment condominiums, of which a component will be allocated for senior citizens, a 240 condominium unit hotel complex as part of the resort centre, and the balance of residential units are fee simple single family semi-detached or townhouse units.
- Rear lanes in parts of the development.
- Garage Suites optional housing type in CMUD-3 provides affordable accommodation for the tenant and helps to subsidize the homeowner's mortgage.
- There are 983 people on the waiting list, and units will be sold on a "first come, first served" basis, with "priority pick" and "priority pricing" for people who have invested in the Crowsnest venture.
- The esthetics of the ponds on the site were explained which turned an engineering liability into an asset. The ponds will be available for the entire community to enjoy.
- It has not yet been determined if the hotel on the site will be a chain hotel, or may remain unbranded.
- A feature of the Resort Centre will be the large water park, an indoor glass structure with a salt-water pool, open to all residents of the Crowsnest Pass.
- The bylaw has been amended decreasing maximum heights to 20 meterspermitted and 30 meters-discretionary.
- Setbacks for front garages have been increased to 6 meters allowing for off street parking.
- Each dwelling unit will have at least two onsite parking stalls.
- Apartment type units will have one parking unit.
- May be a rental building for seniors at market value rent.
- Commencement Dates and Development Benchmarks were questioned Bill Bradley hopes for commencement/ land development in April 2007 and to build the first show homes starting in July 2007.
- There is a Phasing Plan with development broken in to six constituent pockets.
- Development Benchmarks have not been pinned downed.
- Bill Bradley felt the whole project may be sold out in three to four years.
- Green space is estimated at 50 55%.

Mayor Irwin declared the Public Hearing concluded.

#### PUBLIC HEARINGS - cont'd

2. Area Structure Plan – Blocks 1, 2, and 3, Plan 871 1401 and part of the S.E. ¼ 3-8-4-W5M (Bridgegate – Blairmore) River Run

As required, a Public Hearing was held regarding the proposed Bylaw No. 715, 2006, being a Municipal Bylaw to adopt the River Run Area Structure Plan.

No one was in attendance to speak in opposition to the proposed Area Structure Plan and no written comments were received.

No one spoke in favor of the proposed Area Structure Plan.

Mayor Irwin declared the Public Hearing concluded.

## **ADOPTION OF AGENDA**

#### **ADDITIONS**

#### OTHER BUSINESS

- 1. Councillor G. Sygutek Devlin
- 2. Councillor J. Stolarik Budget Meeting Dates

#### **NOTICES OF MOTION**

1. Councillor D. Ward – Arena Scheduling Policy

M#2599-07: Councillor D. Ward moved to adopt the agenda as amended.

CARRIED UNANIMOUSLY

#### **ADOPTION OF MINUTES**

M#2600-07: Councillor J. Stolarik moved that the minutes of the regular Council meeting of Tuesday, January 9<sup>th</sup>, 2007 be adopted as written.

CARRIED UNANIMOUSLY

#### **DELEGATIONS**

No delegations were in attendance.

## PAGE 2 OF 4 COUNCIL COMMITTEE - Tuesday, April 17, 2007



## **DELEGATIONS - continued**

## Barbara Beckett/Christian Clapton - Webtech Inc. - Website Presentation

- Capability to track visitors and forward pertinent emails
- The importance of the Home Page was explained
  - o Phone number highly visible
  - o Will include a phone directory
  - o Pertinent links for Residents, Visitors, and Investors
- The Municipality can maintain the website by making changes, additions, editing, and uploading images and content
- Brochure Builder feature which allows visitors to print their own brochure

#### Further discussion included:

- The final price will depend on the options chosen
- Only images from the current website would likely be incorporated into the new website
- Questioned if any Provincial funds may be available for the new website

## 2. Bridgegate - Infrastructure Cost Sharing

Mr. Bill Bradley of Bridgegate Development Corporation and Mr. Tom Sterling were in attendance to follow-up on their letter dated March 30, 2007 proposing to establish a cost sharing agreement between Bridgegate Development Corporation and the Municipality of Crowsnest Pass for water and sewer infrastructure servicing of the Bridgegate project on Crowsnest Lake. Bridgegate is requesting support for the infrastructure cost sharing proposal in order for the project to proceed.

## Mr. Bradley's presentation included:

- Construction of a water reservoir is necessary for the project on Crowsnest Lake to proceed
- Bridgegate has funded a study by Stantec Engineering to estimate the cost to provide water and sewer services for the project, which was determined to be \$17,000,000.00 (seventeen million dollars).
  - O Water reservoir system \$6,000,000.00
  - o Sanitary extensions \$11,000,000.00
- Bridgegate is seeking Council's support by requesting that the Municipality pursue funding that may be available in the form of grants
- Bridgegate requested that Council finalize a cost sharing agreement by the end of April 2007

#### Further discussion included:

- The Public Works Superintendent advised the CAMRIF grant application deadline is the end of May 2007
- The amount available for the CAMRIF grant is (\$6,000,000.00) six million dollars, and is divided between federal, provincial, and municipal governments
- The first application for the CAMRIF grant was not successful
- The Chief Administration Officer has requested information on the CAMRIF grant in anticipation of reapplying

## PAGE 3 OF 4 COUNCIL COMMITTEE - Tuesday, April 17, 2007



#### **DELEGATIONS** – continued

#### Bridgegate - Infrastructure Cost Sharing

- It was noted that an agreement between Bridgegate and the Municipality may facilitate the grant process
- Bridgegate explained a second option of a tertiary waste filtration treatment system on Bridgegate property, which would require environmental approval

#### 3. Richard Reeves/Michael Taje/Fire Chief – Emergency 911 Communication System

Mr. Michael Taje of the Rescue Squad and Mr. Richard Reeves were in attendance to submit a proposal for improving the Crowsnest Pass Radio System emergency communications. Michael Taje explained there are major delays and communication gaps existing. It is difficult to transmit information and there are problems with repeater sites.

Richard Reeves provided a Crowsnest Pass Radio System Analysis information package. The package outlined analysis, recommendations, and issues.

## Richard Reeves' presentation included:

- The dispatch center is located in Black Diamond
- The EMS repeater is currently located at the Frank Slide Interpretive Centre
- Radio stations are located in Burmis, Pincher Station, and on Hartell Ridge
- Diagrams of the existing EMS radio coverage were provided, and the projected area of coverage if the repeater was relocated to Ironstone Mountain
- Recommendations include:
  - O Eliminating the link from Hartell Ridge to the Frank Slide Interpretive Center as the coverage is limited due to Goat Mountain
  - o Moving the repeater to Ironstone Mountain, which would improve pager coverage
  - o A repeater for the Rescue Squad
  - Separate radio repeaters for Fire, Rescue and EMS
  - o Future plans would include a repeater for Public Works
- Estimated costs include:
  - o \$5,000.00 \$7,000.00 per repeater
  - o New Building \$2,000.00
  - o Installation of Building \$10,000.00
  - o Back Up Power Supply \$2,000.00
  - o Yearly Lease of Land
  - o Individual radio modification
  - o Licence fees
- The issue of privacy was discussed to avoid unauthorized persons from overhearing transmissions
- Richard Reeves explained JEP grants are available federal and provincial
- First responders attending explained radio communication was very poor in the area of the recent train derailment
- Acquiring additional channels was discussed, and it was noted that the number of channels available is limited

TITLE:  Council Report				
PRESENTER: Gordon I	Lundy	AGENDA NO:		
DEPARTMENT:		DATE:		
CAO		April 24 <sup>th</sup> , 2007		
CLEARANCES:		ATTACHMENTS:		
APPROVALS:				
Department Head	Date Apr. 19, 2007	Chief Administrative Officer	Date	

#### SUMMARY OF DISCUSSIONS

#### **MISCELLANEOUS**

In reference to Council being able to set our 2007 millrate, Alberta Municipal Affairs was contacted as to when we will be receiving notification about the 2007 School Foundation provincial rate. I am informed that we should get it after the Provincial Budget on April 19<sup>th</sup> or on the 20<sup>th</sup>. Hopefully this is correct as the time frame to set our millrate is extremely tight.

On other matters follow-up was carried out on the acquisition of the Community Savings property along with the necessary subdivision of the Maplevue properties which should be completed very soon. Also on my return a couple of our developers contacted our office about a variety of issues with their development agreements, electrical supply, transfer of municipal improvements and creation of titles.

In reference to the alignment of Blairmore Coleman water connect, Jeff Drain and myself will be meeting with Mr. Darrel Camplin on April 27<sup>th</sup> to put forward our request. In addition as authorized by Municipal Council, we have submitted our application for funding of the water supply on the Sentinel project. As noted earlier our application would only cover approximately 20.4% of the total estimated cost of the water project at Sentinel with any balance to be supported by the Bridgegate developers.

On Saturday April 14<sup>th</sup>, interviews for the Bylaw position were held. References for three of the candidates will be checked and a selection determined after this time. On May 3, 2007 a tabletop exercise with Canadian Pacific is being organized with our first responders and Municipal staff.

Further to the presentation by Mr. Bill Bradley at our Committee of the Whole meeting, I have contacted our solicitor to start drafting a legal agreement with Bridgegate Corporation on the cost sharing of the Water and Sanitary Sewer Transmission System from Crowsnest Lake to West Coleman. Hopefully this agreement will be presented to Council at the May 1<sup>st</sup> regular meeting.

Respectfully submitted,

Gordon O. Lundy Chief Administrative Officer

#### **MUNICIPALITY OF CROWSNEST PASS**



#### TUESDAY, SEPTEMBER 25, 2007

A regular meeting of the Council of the Municipality of Crowsnest Pass was held in the Council Chambers on Tuesday, September 25, 2007.

PRESENT: MAYOR: Dr. J. Irwin

COUNCILLORS: N. Chorney, G. Sygutek, G. Taje, D. Ward, J. Woodman, J. Stolarik

## Also present:

Acting CAO/Director of Finance & Systems:

Public Works Superintendent:

Recording Secretary:

August Kollee
Ray Mahieux
Leslie Orleni

#### CALL TO ORDER

Mayor J. Irwin called the meeting to order at 7:05 pm.

#### **PUBLIC HEARINGS**

## Land Use Amendment - Block D, Plan 1109 GM

As required, a Public Hearing was held regarding the proposed Bylaw No. 733, 2007 amending Land Use Bylaw No. 632, 2004 by deleting Block D, Plan 1109 GM from NON-URBAN AREA (NUA-1) and Land District Map #6 and reclassifying Block D, Plan 1109 GM to RESIDENTIAL (R-1) and amend Land District Map #6 accordingly.

No one spoke either for or against the proposed amendment.

Mayor J. Irwin declared the Public Hearing concluded.

## Land Use Amendment - Block 4, Plan 071, (River Run)

(EXCUSED) Councillor G. Taje excused himself from Chambers citing a possible personal pecuniary conflict of interest.

As required, a Public Hearing was held regarding the proposed Bylaw No. 734, 2007 amending Land Use Bylaw No. 632, 2004 by deleting Block 4, Plan 071 \_\_\_\_\_, from MUNICIPAL RESERVE (MR) and Land District Map #5 and reclassifying Block 4, Plan 071 \_\_\_\_\_, to COMPREHENSIVE MULTI USE DEVELOPMENT (CMUD-3) and amend Land District Map #5 accordingly.

## **PAGE 2 OF 16** COUNCIL - Tuesday, September 25, 2007



## PUBLIC HEARINGS - cont'd

#### Land Use Amendment - Block 4, Plan 071 , (River Run) - cont'd

Mr. Dave Wrigley provided the following comments:

- was opposed to the proposed rezoning
- owns property adjacent to the property concerned
- area is currently quiet and secluded
- should remain a residential area

No other speakers were heard and no written comments were received.

Mayor J. Irwin declared the Public Hearing concluded.

Councillor G. Taje returned to Chambers. (RETURN)

## ADOPTION OF AGENDA

#### **ADDITIONS:**

#### OTHER BUSINESS

#### NOTICE OF MOTION

- 5. Cancellation of October Meeting
- 1. Hillcrest Staging Area

6. Accident Procedures

#### IN CAMERA:

1. Personnel

M#3024-07: Councillor D. Ward moved that the agenda be adopted as amended.

CARRIED UNANIMOUSLY

#### **ADOPTION OF MINUTES**

Councillor J. Woodman questioned the order of motion #3020-07 and #3021-07.

This will be reviewed.

M#3025-07: Councillor N. Chorney moved that the minutes of the Regular Council meeting of Tuesday, September 4, 2007 be adopted as written pending checking the order of M#3020-07 and M#3021-07.

CARRIED UNANIMOUSLY

## PAGE 2 OF 4 SPECIAL COUNCIL – Tuesday, July 23, 2007



#### **OTHER BUSINESS**

## Development Agreement - River Run

Excused Councillor G. Taje excused himself from Chambers for this matter citing perceived pecuniary conflict of interest.

M#2926-07: Councillor D. Ward moved to amend the River Run Development Agreement by removing "of 60% Municipality and 40% Developer" in the preamble and replacing it with "to be determined between the Municipality and the Developer".

#### CARRIED UNANIMOUSLY

M#2927-07: Councillor J. Woodman moved to amend the River Run Development Agreement, Schedule "E-Levies and Fees" by deleting the first two (2) sentences being:

"The cost of levies shall be set at the June 2007 rate and as per by-law\_\_\_\_\_. The rate shall be fixed until November 2010".

M#2928-07: Councillor D. Ward moved to amend the amendment to delete the second sentence only.

WITHDRAWN

M#2927-07: Councillor J. Woodman moved to amend the River Run Development Agreement, Schedule "E-Levies and Fees" by deleting the first two (2) sentences being:

"The cost of levies shall be set at the June 2007 rate and as per by-law\_\_\_\_\_. The rate shall be fixed until November 2010".

#### **CARRIED**

M#2929-07: Councillor J. Woodman moved to approve the River Run Development Agreement as amended.

CARRIED UNANIMOUSLY

Return Councillor G. Taje returned to Chambers.

	DGEGATE & R ERING FUNDIN	IVER RUN G AGREEMENT		
PRESENTER: Gordon Lundy DEPARTMENT:		AGENDA NO:		
		DATE: October 9, 2007		
CAO				
CLEARANCES:		ATTACHMENTS:		
APPROVALS:				
Department Head	Date Oct. 3, 2007	Chief Administrative Officer	Date	

#### **SUMMARY OF DISCUSSIONS**

Previously the Operational Services Committee had reviewed and recommended to Municipal Council to enter into the following contracts with Stantec Consulting for engineering services provided to both the Bridgegate and River Run developments. Bridgegate Financial Corporation and River Run Corporation would be responsible to fund 100% of the cost of the engineering services. The reason that it is proposed that this work take place by Stantec and not the Bridgegate/River Run Consulting Engineers is that ownership for all of the subject facilities would be assumed by the Municipality on completion.

The six engineering projects would include the following:

- 1. Bridgegate Financial Corporation
  - Bridgegate/Sentinel Bridge Survey
  - Bridgegate Bridge Crossing
  - Highway 3 Intersection & Access Road Upgrade
  - Landscape Architecture Services
- 2 River Run Corporation
  - River Run Bridge Crossing
  - River Run Offsite Deep Utilities.

Attached for Council's review and consideration is a draft funding agreement between Bridgegate Financial Corporation, River Run Corporation and the Municipality prepared by the municipal solicitor. The agreement would fund 100% of the cost of the proposed contracts with Stantec Consulting.

#### **RECOMMENDATION:**

- 1. That Municipal Council authorize entering into engineering contracts with Stantec Consulting for the following engineering projects:
  - Bridgegate/Sentinel Bridge Survey
  - Bridgegate Bridge Crossing
  - Highway 3 Intersection & Access Road Upgrade
  - Bridgegate Landscape Architecture Services
  - River Run Bridge Crossing
  - River Run Offsite Deep Utilities
  - That Municipal Council authorize entering into funding agreements for the Stantec Engineering designated projects with Bridgegate Financial Corporation and River Run Corporation funding 100% of the costs.

Respectfully submitted,

Gordon O. Lundy Chief Administrative Officer

## PAGE 10 OF 13 COUNCIL - Tuesday, October 9, 2007



#### **NOTICE OF MOTIONS**

No Notice of Motions were made.

#### **OTHER BUSINESS**

Bridgegate & River Run Engineering Funding Agreement

(EXCUSED) Councillor G. Taje excused himself from Chambers citing possible perceived pecuniary conflict of interest.

M#3087-07: Councillor J. Stolarik moved that Municipal Council authorize entering into engineering contracts with Stantec Consulting for the following engineering projects:

- Bridgegate/Sentinel Bridge Survey
- Bridgegate Bridge Crossing
- Highway 3 Intersection & Access Road Upgrade
- Bridgegate Landscape Architecture Services
- River Run Bridge Crossing
- River Run Offsite Deep Utilities

and that Municipal Council authorize entering into funding agreements for the Stantec Engineering designated projects with Bridgegate Financial Corporation and River Run Corporation funding 100% of the costs.

CARRIED UNANIMOUSLY

#### Nova Gas Transmission - Crossing Agreement

It is noted that Councillor G. Taje still remained out of Chambers.

M#3088-07: Councillor J. Stolarik moved to enter into the Facility Crossing Agreement with Nova Gas Transmission Ltd. for crossings located in the SW 12-8-5-W5M.

CARRIED UNANIMOUSLY

(**RETURN**) Councillor G. Taje returned to Chambers.

TITLE:	Council Rep	ort		
PRESENTER: Gordon Lune	dy	AGENDA NO:		
DEPARTMENT:		DATE:		
CAO		October 23 <sup>rd</sup> , 2007		
CLEARANCES:		ATTACHMENTS:		
APPROVALS:				
Department Head	Date Oct. 18, 2007	Chief Administrative Officer	Date	

#### **SUMMARY OF DISCUSSIONS**

#### **MISCELLANEOUS:**

I would like to congratulate Mayor Irwin and Councillors Taje and Ward along with the new Councillors on your election. Senior Management looks forward to working with Council to achieving Council's future objectives.

During the past couple of weeks, a majority of my time continues to be spent following up on subdivision development agreements, monitoring reports on approval and inspection services and providing consent approvals for subdivision applications. The Bridgegate/River Run engineering cost recovery agreement have been forwarded and we are awaiting for the letters of credit from the principals prior to forwarding the executed agreements to Stantec. Consents have been forwarded to the Southmore surveyors to proceed with their subdivision. Requests for Final Construction Certificates have been received with the inspections conducted for the Ironstone, Amarillo and Valley Ridge Estates. In addition a meeting was held in Lethbridge which Ray and I attended with Stantec and the principals of Kananaskis Wilds to finalize all of the remaining engineering plan approvals. It is hoped that the installation of the approved services will proceed as soon as possible.

The Municipality is proceeding with the electrical distribution system addition to supply power to Kananaskis Wilds by Silverstone Services Ltd. and Valley Ridge Estates by municipal forces. Maintenance of these two electrical distribution systems will ultimately be provided by municipal forces.

On other matters Bev Cole and myself met with representatives of Alberta Environment to review the required approvals required by the Province for any new subdivision activity. Recently Leslie and Carolee have been working on reporting to Municipal Affairs on our census as required under the determination of population amendment regulation for the Police Act purposes with regard to the police funding. The Municipality has been notified about the estimated conditional grants to be received under the Municipal Sustainability Initiative in future years for approved infrastructure projects. Attached is a copy of the estimated grants. Patch & Associates have recently conducted noise meter readings for the Municipality and this report will be tabled with Council in November. Finally I would report that the weight restrictions on the Sentinel bridge have been removed as a result of the work completed by Volker Stevin and funded totally by Alberta Infrastructure and Transportation.

Respectfully submitted,

Gordon O. Lundy Chief Administrative Officer

## PAGE 4 OF 7 COUNCIL COMMITTEE – February 12, 2008



## DELEGATIONS - Glen Snelgrove, Assessor - 2008 Assessment - cont'd

- Coefficient of Dispersions (deviation against the median) between 0-15% indicate that assessment has been applied fairly
- A Price Related Differential of .98 1.03 indicates uniform assessment for the same type of property classes throughout the community
- The average assessment is up approximately 35%, but if improvements have been made to a property such as a garage, the assessment increase will be higher for that property
- The assessments on older homes have increased more, because these homes have increased faster in value than newer properties
- Homes are divided into different building classes according to the year they were built
- Unfinished properties are assessed according to the level of completion at the assessment date of December 31st
- The tax assessor will have his final report completed by February 28, 2008

#### **TOPICS FOR DISCUSSION**

## 1. River Run - Proposed Bridge - Waiver for Fluid Carrying Utilities (Jeff Drain to Attend)

#### **EXCUSED**

Councillor G. Taje excused himself from Chambers at 7:43 pm. for the presentation and discussion of this matter citing possible conflict of interest.

- Mr. Ray Mahieux, Public Works Superintendent, explained that in order to put a fluid carrying pipe on a bridge, the Municipality must sign a waiver for approval
- AIT must also approve this fluid carrying pipe, and will also have input in this matter
- An insulated steel pipe with heat trace is proposed
- This would be the main line feeding the River Run Subdivision and it is felt there will always be water movement in this pipe
- Could drain the line after installation and testing is completed, and begin use only when capacity is needed, to alleviate any freezing issues
- Mr. Jeff Drain of Stantec Consulting Ltd., expects that once the cross tie is made over and across the bridge, even without development in River Run, there will be adequate water movement across the line going west and east, to alleviate freezing problems
- The Public Works Superintendent reviewed the proposed off sites for River Run
- It is necessary to connect the water into the 16 inch line that returns back from the reservoir
- Proposed to take the water line down 121 Street to 22 Avenue, turn west, and run to 119 Street
- Would like to avoid crossing 119<sup>th</sup> Street as it is heavily congested with utilities
- Proposed to take the sewer line down 125 Street as it is less congested
- Application has been made to CPR for crossings

## PAGE 5 OF 7 COUNCIL COMMITTEE – February 12, 2008

## TOPICS FOR DISCUSSION - River Run - Proposed Bridge - Waiver for Fluid Carrying Utilities

Further discussion included:

- Power outages were questioned regarding the heat trace on the pipe
- Mr. Drain explained the pipe and insulation is rated for 500 hours before showing signs of freezing with a water temperature of 5 degrees, and an ambient air temperature of -40 degrees, with no water movement at all
- Mr. Mahieux added that the heat trace would have to be connected to a power source, likely the water plant, which will be backed up by generators if any length of power outage occurs
- The strength of the steel pipe was questioned, and it was explained that the bridge will be a Tie Back Arch Bridge with a thin deck section, and the water pipe would be located above the bridge deck, out of the way of any ice flows
- Benefits of a water pipe over the river include:
  - o Cost savings
  - o Avoids a directional drilled pipe
  - o Accessible for repairs
- If Council approves the waiver, Stantec will keep it on file and it will be submitted with the application to D.F.O. and Alberta Environment with Council as the approving agency
- The sewer line will be a directional drill inverted siphon
- The difference in cost of a directional drill versus a pipe over the bridge was questioned, and it was estimated at approximately \$100,000.00 more for a directional drill
- Questioned if a pipe under the river breaks how it would be repaired. It was explained the pipe would be shut down, replaced, and try to determine why there was a failure.
- The life span of an underground sewer pipe versus an above ground water pipe was questioned, and it was explained that this varies on the type of pipe, but felt the life span is similar
- Other options that had been considered for the sewer line were discussed
- An underground water line would have to be within the road right of way, as the River Run property has been legally subdivided
- Council requested Mr. Jeff Drain to investigate the costs for an alternate route for the sewer line to be included as part of the third phase of the Blairmore Main Street Project, locating the sewer line on 20<sup>th</sup> Avenue
- Mr. Drain explained the developer may ask the Municipality for cost sharing if the route is changed and added to Phase Three of the Blairmore Main Street Project
- Running the water line parallel to the river was discussed, and it was explained D.F.O. may be opposed as development must stay approximately ten meters away from the river
- Mr. Drain requested Council's direction as to whether the waiver may be approved at the next council meeting allowing Stantec to move forward with the design process and application.
- Approval does not mean the pipe must go over the bridge; a directional drill is still an option.
- Technically River Run cannot take out a development permit until they have water and sewer service into the area

#### 2. Blairmore/Coleman Interconnect - Tender

The Public Works Superintendent stated on December 4<sup>th</sup>, 2007 Council made a motion to move forward with tendering the Blairmore/Coleman Interconnect and Bellevue Lagoon Upgrades as soon as possible in 2008.

## MUNICIPALITY OF CROWSNEST PASS TUESDAY, APRIL 8, 2008 COUNCIL COMMITTEE OF THE WHOLE



A meeting of the Committee of the Whole of Council of the Municipality of Crowsnest Pass was held in the Council Chambers on Tuesday, April 8, 2008.

PRESENT MAYOR:

Dr. John Irwin

**COUNCILLORS:** 

D. Cole, I. MacLeod, L. Mitchell, J. Salus, G. Taje, D. Ward

Also Present:

Gordon O. Lundy

Chief Administrative Officer

Ray Mahieux

Public Works Superintendent

Carolee Ison

Recording Secretary

#### **CALL TO ORDER**

Mayor J. Irwin called the meeting to order at 7:03 pm.

#### ADOPTION OF AGENDA

#### **ADDITIONS:**

#### **IN CAMERA**

1. Legal

C#135-08:

Councillor Ward moved to adopt the agenda as amended.

CARRIED UNANIMOUSLY

## DELEGATIONS

## 1. Bridgegate - Update of Projects - Mr. Bill Bradley & Mr. Cameron Gillies

Mr. Bill Bradley and Mr. Cameron Gillies were in attendance to update Council on the River Run and The Lake projects.

Mr. Bradley's presentation included:

- Cameron Gillies is the Project Director for River Run
- Bridge Creek has offices in Vancouver, Amsterdam, Edmonton, and Calgary primarily for raising funds for the Crowsnest Pass projects
- Bridge Creek has acquired property in Palm Springs and their Canmore project is 60 65% complete

## PAGE 2 OF 10 COUNCIL COMMITTEE – April 8, 2008

# Q)

## DELEGATIONS - Bridgegate - Update of Projects - Mr. Bill Bradley & Mr. Cameron Gillies - cont'd

• River Run has made progress, but experienced problems with environmental perception by some people regarding soil conditions

#### Mr. Cameron Gillies reported:

- An Environmental Phase I study was done on the site, and the findings showed the slack on the site was an innocuous and inert substance
- Due to lingering perceptions of environmental issues related to the coal slack, a Phase II study was done by WAA Environmental Services, at a cost of \$175,000.00, and the outcome of the report concluded "further assessment of the potential for materials on the site to impact freshwater aquatic life is not recommended"
- A copy of the Phase II Report was forwarded to the Municipal Chief Administrative Officer and to the Provincial Government

#### Mr. Bradley reported:

- Bridge Creek has been working with Highway Technical Services Engineering for the on-site services including roads, sewer, water, lighting, storm drainage and landscaping
- A full tender drawing package from Pace Engineering of California is ready for the River Run aquascaping design, which is the waterscaping storm drainage system planned to be implemented as soon as this fall
- Working in conjunction with Stantec Engineering to determine the specifics of the River Run off-site sewer and water service connections
- Potential cost sharing arrangements are pending and will be decided by Council
- Streets, roads, curb and gutter, shallow utilities, and street lights are proceeding on schedule
- The budget for servicing infrastructure at River Run is approximately 22 24 million dollars
- The new bridge, designed by Stantec, will cost approximately 5 million dollars, and is proposed to be a landmark structure
- The mounding for the bridge structure will proceed this fall, pending DFO approval, allowing the bridge to be installed in the spring
- DFO has constraints in place regarding when work can proceed on river embankments
- Approximate costs include:
  - o On-site services including sewer, water, roads and sidewalks 5 million dollars
  - O Site preparation to date 1 million dollars
  - o Off-site services 2-3 million dollars
  - On-site shallow utilities 2 million dollars
  - Lake system 3 million dollars
  - o Engineering for total work 3 million dollars

#### Financing:

- o Funded with own equity to the end of 2007
- o In January 2008, a 14.1 million dollar offering was released to raise private funding in Western Canada and has been fully subscribed
- o In mid January, Dutch financing in Holland was launched with Bridge Creek Mortgage Bonds
- o The 12.2 million dollar Canadian offering of River Run Springs was launched April 7, 2008
- o A 20 million dollars Canadian offering will be launched in September
- o Other small financings
- o Raising approximately 64 million dollars in financing for River Run this year

## PAGE 3 OF 10 COUNCIL COMMITTEE – April 8, 2008

## DELEGATIONS - Bridgegate - Update of Projects - Mr. Bill Bradley & Mr. Cameron Gillies - cont'd

 Feels there is ample investor support to build the River Run project with a total cost of approximately 200 million dollars

#### Sales:

- o Existing sales center in Blairmore
- o Not quite ready to sell their product, but do have designs
- Purchased building in Blairmore and will be converting it into a River Run Sales Centre, projected to open in July
- o Planning to construct ten show homes to show what can be purchased at River Run
- o Servicing work to start in late summer and finish in fall
- O Show homes planned to start in summer, and be open this time next year
- Servicing in two phases:
  - o Phase I Central portion and Eastern Road (Ross MacDonald Drive East)
- River Run Plaza will be located at the center of River Run, and will be a mixed use area
- A deal has been signed with Radisson Hotels
- Working on the design for one and two bedroom condominiums in the Plaza, for as low as \$175,000.00, providing an affordable housing component
- Project at Crowsnest Lake:
  - o Will be named Trout Land at Crowsnest Lake
  - o Design work has been done
  - o Have many investors
  - o Site preparation and studies have been done
  - O Working on infrastructure of the large sewer pipe and water connections
  - o Some water challenges with Alberta Infrastructure that will be sorted out
  - o First phase of 42 units will be launched this summer
  - O Projected to build a sales center and commit to construction of the first units no later than September 1<sup>st</sup>
  - o Temporary measures for sewage effluent is being investigated, until the sewer and water is completed in 2009
  - o Investigating removal of asbestos in the Powerhouse
  - O Uses for the Powerhouse are being considered as a future amenity building or temporary staff housing for construction workers
  - o Proceeding in smaller phases

#### Further discussion included:

- The dust problem for homes on the south side of the river in Blairmore was questioned
- Mr. Bradley stated there is a person in their office addressing the problem
- Hope to have a decision as to how they will proceed in the next few days
- Open to suggestions from the members of the community, Council, and administration
- Have a legal interpretation that they are not obligated to deal with the issue, but want to be good neighbors and are exploring their options

Mayor Irwin thanked Mr. Bradley and Mr. Gillies for their presentation.

## PAGE 8 OF 9 COUNCIL COMMITTEE – July 15, 2008



#### **TOPICS FOR DISCUSSION - continued**

#### <u>Crowsnest Centre – Question Bylaw (Draft)</u>

- Letter from Susan Wagner

A draft bylaw was presented regarding the ongoing operation of the Crowsnest Centre as a Learning and Community Centre.

The draft plebiscite question proposed is "That the operation of the Crowsnest Centre property located at Plan 731227, Block H, containing 3.51 hectares, be used for public and community purposes as a Community and Learning Centre and for providing other municipal services."

Correspondence was received from Susan Wagner suggesting ideas for the plebiscite on the Crowsnest Centre, to ensure understanding of the public's preferences.

Mayor Irwin asked if the question as drafted is appropriate to refer to Council for a decision at the next meeting or whether there were any concerns with the question.

#### Response included:

- Felt the bylaw does not address what the petitioners wanted
- Bylaw looks as if it reflects the wishes of the petitioners, nothing contrary to what was asked for and felt moving it to first reading at the next Council meeting should not be a problem
- Further discussion will continue in camera

#### **EXCUSED**

Councillor G. Taje excused himself from Chambers at 9:37 pm for the discussion of the following matter citing possible conflict of interest.

#### River Run Update

It was questioned if there was any new information on the River Run project. The Chief Administrative Officer reported:

- On July 15<sup>th</sup>, 2008 the Chief Administrative Officer had a meeting with Mr. Bradley of River Run, his associate, and the local engineer
- River Run has satisfied the Municipality's requests on some points and are moving ahead
- The first phase of the Engineering Drawings are with Stantec for review
- Requested in writing, for the applications on the offsite services to Fisheries and Oceans and Alberta Environment to proceed

#### **RETURN TO CHAMBERS**

Councillor G. Taje returned to Chambers at 9:40 pm.

## PAGE 7 OF 9 COUNCIL – Tuesday, September 2, 2008



### OTHER BUSINESS - cont'd

## CPR Modifications at 81st Street

Mr. Gordon O. Lundy, Chief Administrative Officer, provided Council with two notifications from Canadian Pacific Railway on the modifications proposed at the 81<sup>st</sup> Street Railway crossing. He further noted that as per Article 7 of the agreement with CPR the Municipality will not raise any objections to the improvements.

Received as information.

Council scheduled a Special Council meeting for Monday, September 8, 2008 at Noon to review the tenders received for the CPR Waterline Crossing project.

#### Highway No. 3 – Meeting with Darrell Camplin

Mr. Gordon O. Lundy, Chief Administrative Officer, confirmed the meeting with Alberta Transportation scheduled for September 8, 2008 regarding Highway No. 3. Also provided were the recommendations to improve Highway 3 alignment completed by AMEC Engineering in November 2001.

Received as information

#### Crow Snow Riders Association – Letter of Approval

M#3616-08: Councillor D. Cole moved to provide a Letter of Support to accompany their CFEP grant application for Trail Grooming and Maintenance for winter 2008/09.

CARRIED UNANIMOUSLY

## Bridgecreek Properties

**EXCUSED:** Councillor G. Taje excused himself from Chambers at 7:52 pm citing possible perceived pecuniary conflict of interest.

Concern was expressed that the black fences along Crowsnest River at both the Bridgecreek developments were falling down and should be re-established.

Administration will discuss this matter with Bridgecreek and will also discuss hydro-seeding of the property.

**RETURN:** Councillor G. Taje returned to Chambers at 7:55 pm.

March 30, 2007

Gord Lundy, CAO Municipality of Crowsnest Pass

Dear Mr. Lundy,

During the recent months we have had the opportunity to further investigate options for infrastructure/servicing Bridgegate on Crowsnest Lake. We completed several meetings with your Public Works representative (Ray Mahieux) and Stantec Engineering as consultants for the Crowsnest Municipality. Bridgegate also funded a feasibility study prepared by Stantec to ascertain the projected costs to provide a water reservoir system and sanitary sewer trunk extensions to Coleman.

Crowsnest Council is probably aware that Bridgegate is increasingly successful in marketing our investment offerings to secure the initial \$100M in capital financing for our Bridgegate venture. The later funds will be utilized to complete site preparation and infrastructure to enable our first phase of condominium development to occur as soon as possible. The first phase will comprise approximately 600 Lakefront condominium residences on the "lower bench" of our property including a world class spa, pools, restaurants and other amenities. The architectural design has evolved to the extent that we intend to apply for development permit approval by June 30th, 2007.

In order for the Bridgegate Project to move forward we need to establish a cost sharing agreement with the Crowsnest Municipality for infrastructure. Stantec have estimated the cost for the water reservoir system at \$6,000,000. Stantec also estimated the cost for the sanitary extensions at \$11,000,000. On behalf of Bridgegate, I am pleased to state that Bridgegate as developer is prepared to finance the aforementioned estimated cost of \$17,000,000 to the benefit of the Crowsnest community. I understand that intergovernmental grants may be available to assist in financing the infrastructure as explaind to us by Stantec.

In closing it is requested that Council enter into a cost sharing agreement with Bridgegate to be finalized by the end of April 2007. We are not asking that the Municipality will contribute any funds to enable the Bridgegate project to proceed. We are however requesting that the Municipality be willing to pursue inter-governmental grants.

We look forward to meeting with you and Council at the earliest possible date.

Sincerely.

Act William L Bradley