



Harmony Park Developments Corp. &  
Cochrane Land Manager Inc.

# Heritage Hill of Cochrane Concept Plan

CO-2745

October 2005



Version 2.0  
Updated December 8th, 2005

**IBI**  
GROUP





Harmony Park Developments Corp.  
& Cochrane Land Manager Inc.

## HERITAGE HILL OF COCHRANE - CONCEPT PLAN

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### CONCEPT PLAN REPORT

REVISED DECEMBER 8TH, 2005

PREPARED IN SUPPORT OF APPLICATION FOR RE-DESIGNATION AND SUBDIVISION FOR  
PORTIONS OF SECT. 9-26-4-W5M IN THE TOWN OF COCHRANE

**CONCEPT PLAN APPROVED BY COCHRANE PLANNING COMMISSION OCT 19TH, 2005**

**LAND USE APPROVED BY COUNCIL DECEMBER 12TH, 2005**



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## 1. INTRODUCTION

### 1.1 Purpose of the Plan

The purpose of the Heritage Hill of Cochrane Concept Plan enclosed herein, is to facilitate the comprehensive planning and development of the subject lands through a non-statutory document. This document addresses the land use, internal road network, and infrastructure components including wastewater, water, storm water, transportation, and shallow utilities. It also addresses density, phasing and integration with the surrounding context, as well as establishes appropriate and comprehensive protocols to guide the development of the site and ensure the envisioned values, goals and objectives are achieved.

### 1.2 Plan Objectives and Principles

The objective of this plan is to illustrate and communicate the critical elements of the plan and to provide a clear guide for development that is consistent with the policies of the Town of Cochrane. The natural topography and the surrounding context of the site are features that this plan seeks to preserve and enhance. This plan considers the site's relationship and linkages to the town, while providing a diverse selection of housing products integrated into a highly desirable community within the limits of the Town of Cochrane.

## 2. BACKGROUND

### 2.1 Impetus for the Plan

Over the past decade, the Town of Cochrane has experienced substantial growth. Significant and innovative residential, commercial and industrial developments now complement the landscape and service a growing, well-educated population base. The Town's development has been centred around a unique and attractive town centre. Today, the Town of Cochrane remains a highly desirable and sought after place to live. Consequently, the demand for residential development continues to be strong and this plan serves to set a framework to accommodate additional residential development in the northwest portion of the Town that is representative of the quality and characteristics that the Town of Cochrane has come to expect.

### 2.2 Site Location and Study Area

The subject site is located in the northwest area of the Town of Cochrane that was annexed from the MD of Rocky View No. 44 in 2004. The subject site is located north of Highway 1A and approximately half a mile west of Highway 22. Horse Creek Road abuts the site on the west and Township Road 262 abuts the site on the north. Scattered country residential lots with agricultural uses reside on the lands to the east. The lands contemplated in the overall study area are known by the following legal descriptions:

- Block 1, Plan 2292JK in the NW ¼ Section 9, Twp 26, Range 4, W5M (19.68acres)
- Block 2, Plan 2292JK in the NW ¼ Section 9, Twp 26, Range 4, W5M (19.99 acres)



- Block 3, Plan 9010954 in the NW and SW ¼ Section 9, Twp 26, Range 4, W5M (106.5 acres)
- Block 4, Plan 9010954 in the NE ¼ Section 9, Twp 26, Range 4, W5M (61.61 acres)

The total area of the lands noted above is approximately 207.78 acres and this represents the privately owned land holdings in the study area. The bulk of the existing Horse Creek Road R.O.W. is also encompassed in the study area, however the area of the Horse Creek Road R.O.W. is in addition to the area noted above.

## 2.3 Concept Plan Site Area

Although the study context examines the site in a comprehensive manner and considers how the entire 207.78 acres can be developed, this Concept Plan focuses on only:

- Block 1, Plan 2292JK, and
- Block 3, Plan 9010954.

**Exhibit 2.1**, Site Context Plan, identifies the Concept Plan area in relation to the Town of Cochrane. **Exhibit 2.2** provides a more detailed site plan context along with the study area and the Town of Cochrane boundary lines. It further identifies the critical legal parcels that are the subject of this plan. The land outside the Concept Plan boundary area but within the study area will be reviewed and shadow plans provided for information purposes only.

## 2.4 Site Description

The study area is predominantly natural grassland with some portions occasionally cultivated for agricultural purposes. The site consists of several large country residential lots with existing dwellings and accessory buildings. The site is sloping and runs generally downwards in a southwesterly direction. The slope across the site is relatively consistent throughout the site. The highest point on the site is at the northeast corner and the lowest can be seen at the southeast corner. There is approximately a 47-metre elevation change between the northeast corner and the southeast corner and this equates to an approximate average slope of 5.5% across the site. A gentle to moderately sloping grassy ravine navigates a portion of the eastern edge of the site.

The site faces predominantly the southwest direction and given the consistent and moderate slope of the site, majestic views of the foothills and the Rocky Mountains are evident throughout the site. **Exhibit 2.3** identifies the Concept Plan area and study area via an air photo.

## 2.5 Comprehensive Development & Integrated Land Uses

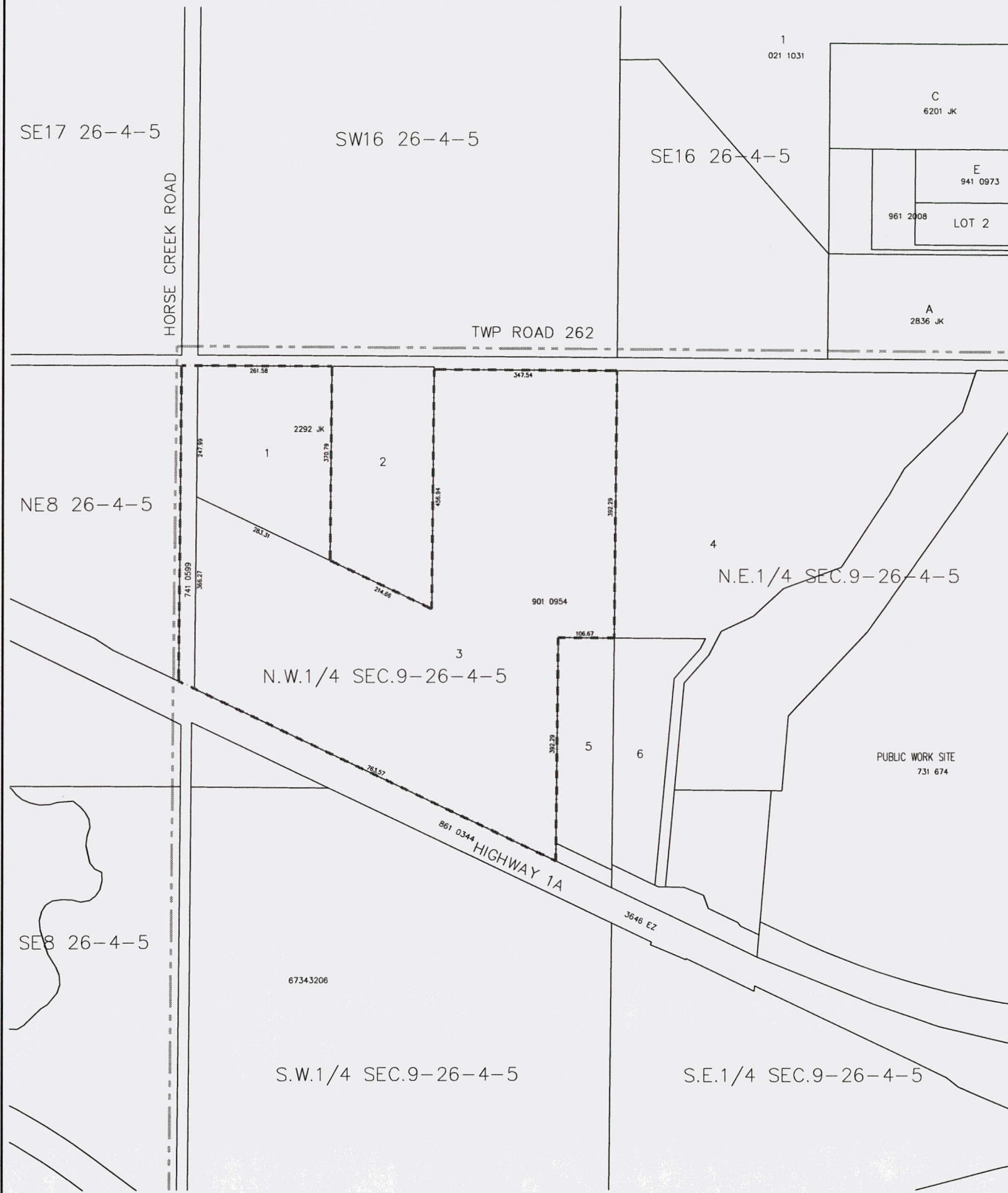
Development in the plan area will be predominantly residential. A variety of residential products will be utilized in order to offer a diverse set of housing choices. In addition, complementary uses that support and enhance the development will also be strategically located throughout the development in varying sizes. This may include, but is not limited to, open space and naturalized areas, pathways and pedestrian networks, public utility lots (i.e. storm ponds), and institutional and commercial sites. The development will be a logical extension of the Town and be consistent with their overall development objectives.







 CONCEPT PLAN AREA  
 TOWN OF COCHRANE BOUNDARY







HERITAGE HILL  
AIRPHOTO

EXHIBIT 2.3

HARMONY PARK DEVELOPMENTS CORP.  
COCHRANE LAND MANAGER INC.

SCALE: n.t.s.  
JUNE 8, 2005

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## 2.6 Consideration for "Area B"

As part of the 2004 annexation agreement between the Town of Cochrane and the MD of Rocky View No. 44, non-residential uses were suggested as a potential land use option for a portion of the subject site. Noted as "Area B" in the annexation agreement, industrial, commercial and institutional uses were contemplated on the northern segment of this site. It is important to note that the boundary for "Area B" that is reflected in the annexation agreement is conceptual and is able to migrate based on logical planning rationale. This plan, in examining the overall site in a comprehensive manner within the context of the natural topography, the surrounding infrastructure and market conditions, suggests that non-residential uses, especially industrial uses, at the north end of this site would be very challenging. This item is addressed in more detail in the following section.

The southern boundary of "Area B" will be defined as the northern limit of Street B. The land use and conceptual scheme reflect the "Area B" boundary agreed to by both the Town of Cochrane and the M.D. of Rocky View No. 44. The revised area for the proposed land use is 94.12 ac (38.09 ha).

As per the annexation agreement, a joint taskforce will be formed to identify appropriate land uses within "Area B". Relevant to this application the joint task force will review and identify a recommended land use for the lands immediately north of Street B. Notwithstanding, the lands within "Area B" north of/and adjacent to Street B shall be considered for residential and open space and is anticipated to be utilized as a buffer between the residential and non residential uses.



### 3. CONCEPT PLAN

#### 3.1 Existing Development Context

The subject site is situated on the northwest edge of the Town of Cochrane on the lands annexed in 2004. The Concept Plan area abuts the north side of Highway 1A, approximately a half mile west of Highway 22. The site is predominantly undeveloped with a few large country residential lots. The extent of existing residential development in the Town reaches to the south of the site across Highway 1A and is less than 800m away. The existing developments, West Valley and West Terrace, lie immediately south of the Canadian Pacific Railway (CPR) tracks. Comprehensive residential development is anticipated for the area south of the subject plan area in between Highway 1A and the CPR Tracks. Horse Creek Road abuts the west side of the site and Township Road 262 abuts the site to the north. Together these roads represent the current northwest Town boundary. Undeveloped agricultural land lies to the east along with some country residential lots and the Cochrane Agricultural Society facility.

The site is sloped gently towards the southwest and offers excellent views of the Rocky Mountains. It site is steadily sloped averaging approximately 5.5%. The slope is not extreme, but lends itself to development that requires smaller floor plates that can be readily "stepped" versus uses that require larger, level floor plates. Larger floor plates may require substantial cut and fills that may be impractical and more obtrusive.

The Concept Plan area encompasses two development stages: Stage 1 is approximately 94.12 acres and represents the bulk of the Concept Plan presented. Stage 2 is approximately 37.11 acres and represents the northern portion of the Concept Plan area. Stage 2 has been left open pending the finalization of discussions between the Town of Cochrane and the MD of Rockyview No. 44 with respect to "Area B".

##### 3.1.1 EXISTING LAND USE DESIGNATIONS AND MDP POLICIES

The subject site is currently designated Residential-Urban Reserve District (UR-R). This designation was created to address newly annexed lands from the MD of Rocky View No. 44 in 2004. The purpose and intent of this district is to provide for the continuation of existing uses and to accommodate single-detached dwellings and limited-term minor agricultural pursuits until urbanization of the lands occurs.

The Municipal Development Plan identifies the site for comprehensively planned future residential development in the density range of 6 to 8 units per acre. The purpose of this Concept Plan is to establish an integrated development vision for the site. The proposed Concept Plan is consistent with the above noted policies and overall policy parameters as established by the Town of Cochrane Municipal Development Plan (MDP).

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## 3.2 Transportation

There are several regional transportation infrastructure requirements that govern the layout and access of this development. This section identifies these elements and summarizes them on **Exhibit 3.1**.

### 3.2.1 HIGHWAY 1A RIGHT-OF-WAY

As part of the draft Access Management and Functional Planning Study, completed by McElhanney Consulting Services Ltd. for Alberta Transportation (2004), a narrow strip of land will be required along the south end of the property abutting Highway 1A. The study suggests a right-of-way of approximately 100m near the interchange with Highway 22 and tapering down to approximately 80m for the stretch along the south edge of the property. The area of the additional right-of-way required on the north side of Highway 1A along the south property line is approximately 1.5 acres (0.6 ha). At the time of the production of this report, the McElhanney Access Management and Functional Study was still in the draft stages. However, this configuration is considered applicable until Alberta Transportation indicates otherwise.

### 3.2.2 HIGHWAY 1A - SETBACKS

Typically, Alberta Transportation requires a 'no-development' setback of 40m adjacent to provincial highways. Historically, 30m of this is intended for a service road where required, to protect the flow of traffic on the main highway from slower moving rural traffic. An additional 10m building setback comprises the remaining 40m. Although this setback area needs to be accounted for where applicable, the proposed Concept Plan removes the need for the service road west of the proposed main access off of Highway 1A, as all future lots will be accessed safely off an internal road system. The 40m setback will no longer apply west of the proposed main access road to Horse Creek Road and building envelopes are no longer subject to the 40m setback. However, Alberta Transportation still recommends a 10 to 20m setback to building structures. A utility R.O.W. setback (10m) from the Highway is required for the proposed deep utilities. This R.O.W. setback, in conjunction with rear yards, would serve as the recommended building envelope setback.

### 3.2.3 HIGHWAY 1A ACCESS (GAS PLANT ROAD & SEPARATION FROM HIGHWAY 22 & HORSE CREEK ROAD)

Alberta Transportation has identified an acceptable access point location from Highway 1A, between Horse Creek Road and Highway 22, to service the subject development as well as the anticipated development to the south. The current access location is at the existing Range Road 43, or Gas Plant Road Connector R.O.W., which primarily serves the two country residential lots to the east of the Concept Plan area, as well as the seasonal access to the campground further east. Alberta Transportation will not support moving the access eastwards, but there is flexibility to move the final access location westward - within a limited threshold. A staggered access from the north and south within this stretch of Highway 1A would be problematic from Alberta Transportation's standpoint and aligning the access point is in everyone's best interest. The Concept Plan assumes one matching access point to the developments on the north and south of Highway 1A, and that the approximate location will be slightly west of the existing location. The Concept Plan is laid out in such a manner so that it can address the movement of this intersection and its ultimate access location. This flexibility helps ensure that this plan can be fine tuned without adverse effects and logically integrate with the development to the south.





TWP ROAD 262

HORSE CREEK ROAD

Horse Creek Road R.O.W.  
expansion and intersection  
realignment with Highway 1A

N.W.1/4 SEC.9-26-4-5

Building Setback  
(Recommended)

Service Road  
Requirement

HIGHWAY 1A

Highway 1A  
R.O.W. expansion

- Concept Plan Boundary
- Town of Cochrane Boundary



#### 3.2.4 HORSE CREEK ROAD RIGHT-OF-WAY

Discussions with the Town indicate that Horse Creek road will be a collector road (23.5m R.O.W.) Therefore, the appropriate right-of-way dedication for the Town Collector road has been reflected in the Concept Plan.

#### 3.2.5 HORSE CREEK ROAD ALIGNMENT AT HIGHWAY 1A

Horse Creek road will remain and its access to Hwy. 1A will be temporarily maintained. In the future, the alignment of Horse Creek Road at Highway 1A will need to be realigned so that it may provide perpendicular access to Hwy 1A, as per the McElhanney Access Management Functional Study (2004). Alberta Transportation is requesting a deceleration and acceleration lane on Horse Creek Road into the subject site. The area required to accommodate this configuration is also reflected in **Exhibit 3.1** and the Concept Plan. The remnant parcel created by the reconfiguration and closing of the lower section of Horse Creek Road will be consolidated with the Concept Plan area.

The roadway configuration shown on the Concept Plan uses the minimum required curve radii and intersection tapers indicated on Alberta Transportation and the Town of Cochrane roadway guidelines.

#### 3.2.6 TRAFFIC IMPACT ASSESSMENT

Bunt & Associates Engineering Ltd. completed a Traffic Impact Assessment (TIA) for the site. The study was based on the projected build out population of the entire community, as well as consideration for surrounding areas that may impact the traffic through the Concept Plan area. This report concluded that the proposed development configuration could be accommodated by the existing and future improvements as set out in the TIA. For more information, please refer to *Lackey Lands Residential Development Traffic Impact Assessment*, prepared by Bunt & Associates Engineering (Alberta) Ltd., File #: 1042-02, 2005. **Please note: A revised TIA for the subject area is currently being prepared by Bunt and Associates and will be submitted as a separate item.**

### 3.3 Environmental Considerations

An Ecological Assessment of the site was completed by URSUS Ecosystem Management Ltd. in February 2005. URSUS's study concluded that the development area is not significant habitat for species at risk. Habitat fragmentation already exists due to the existing surrounding development and although development on the subject site will increase fragmentation locally, it will not have any significant effect regionally. In addition, the site has low rare plant potential and development of the site will not significantly increase impairment of regional wildlife movement. Please refer to the URSUS Report for additional details.

### 3.4 Subsurface & Geotechnical

Geotechnical and Slope Stability Assessments were undertaken and prepared by Almor Engineering Associates Ltd. and Geo-Engineering Ltd. respectively. The reports indicate that the majority of the site is stable and meets minimum Factors of Safety or conventionally accepted slope stability standards. No development restrictions would apply to these areas, which represent the bulk of the site. **Exhibit 3.2** provides a simple slope analysis summary of the pre-development conditions and highlights areas of the site that are greater than 15% in slope. This diagram helps



illustrate how the areas with slopes greater than 15% are confined to limited areas and account for less than 5% of the site.

The reports referred to above highlight a small, limited area that has steeper slopes where the Factors of Safety will be less than desired under the highest anticipated groundwater conditions. Under normal groundwater conditions, the Factors of Safety would be met, however, in order to account for extreme conditions, the report provides several recommendations for development on this steeper area of the site. This includes an acceptable terrain-grading scheme approved by a qualified Engineer.

The subsurface analysis has taken into account the proposed development layout, lot configuration and road alignment, and has concluded that there are no slope concerns across the majority of the site. The small isolated pocket of land containing steeper slopes is developable and will be subject to a professionally planned grading scheme that needs to be approved by a qualified Engineer. Please refer to the aforementioned reports for more information.

### 3.5 Historical Resources

Lifeways of Canada Ltd completed a Historical Resource Impact Assessment (HRIA) in January 2005. The study concluded that there were no significant historical or archaeological artefacts relevant to the site that requires management prior to development of the property. For further information, please refer to the study completed by Lifeways of Canada Ltd.

The HRIA report was submitted to Alberta Community Development as part of the Historical Resources Act requirements and clearance to proceed with development has been granted by the province via their letter dated February 14<sup>th</sup>, 2005.

### 3.6 Land Use Concept

The proposed development will become a logical continuation and complement to the urban fringe of the Town of Cochrane. It will offer a variety of residential housing products, complete with open space networks and commercial amenities. This development will serve the continuing demand for residential housing throughout the Town of Cochrane.

The Concept Plan identifies the proposed land uses, any major transportation connections and networks, the utility systems, anticipated density and phasing of the development based on sound planning principles, market considerations and utility infrastructure provision.

The underlying design philosophy is to create a high quality residential community in a form that is suited to the land. The slope of the site will be carefully considered and enhanced to protect the natural topography as much as possible. The design focuses on minimizing cut and fills. The slopes and natural features of the site will be enhanced to facilitate the creation of many extremely highly attractive view lots and open space linkages that connect the entire site and beyond.

#### 3.6.1 RESIDENTIAL COMPONENT

A variety of residential products will be included in the fabric of the proposed community. The proposed residential uses include a combination of single detached residential units offering a broad range of house sizes and lot widths, semi-detached units, townhouses, and low-rise multi-family apartments. Proposed land uses include R-1, R-2 and R-M. Several (R-M) multi-family sites are proposed to offer a diverse set of housing choices while still being able to adapt to changing



market conditions over time. The anticipated overall density is anticipated to be between 6 to 8 units per acre, which is consistent with the MDP policies for the development area. A portion of the site in the southeast corner will be maintained as UR-R to accommodate the interim service road connection. In the future, when the land to the east is connected through internal road systems, it is anticipated that this piece will be re-designated to residential uses such as R-M.

### 3.6.2 COMMERCIAL COMPONENT

A commercial site is featured in southwestern area of the Concept Plan. The commercial site will be located at the intersection between Highway 1A and Horse Creek Road. Strategically located, the commercial site will service primarily the local community and will be easily accessible to community residents. In addition, the commercial site will have a highway profile and potentially service regional commuters. The proposed location can facilitate this with minimal disruption to the internal community traffic.

### 3.6.3 MUNICIPAL AND SCHOOL RESERVE

Municipal Reserve (MR) has been dedicated across the Concept Plan area in a series of connecting pathways and open space systems. **Pocket parks and tot lots have been integrated into this pathway system at strategic locations to provide amenity features accessible to all residents within a short walk.** Longer recreational walks or pedestrian commutes are also facilitated across the site, tying into sidewalks at key locations. Numerous locations on the open space system will feature views of the majestic Rocky Mountains. The open space areas also help address slope considerations and offer additional spacing between residential cells, helping to make each cell highly desirable.

The school authorities and the Town of Cochrane will continue to work together to determine, on a town wide basis, the number and locations of future school sites to ensure an effective allocation of reserve lands for schools, and to see that active recreational and passive park uses are adequately and practically achieved.

### 3.6.4 PUBLIC SERVICE & UTILITY

Several sites have been allocated in the Concept Plan area to accommodate infrastructure requirements. At the southeast edge of the site, a public utility lot (P.U.L.) is proposed to house a storm water pond. This pond will be integral to storm water management on the site, addressing water quality and quantity. A second P.U.L. has been considered at the northeast corner of the site for a potential future water reservoir and distribution system. However, the second P.U.L. is not part of the Concept Plan.

### 3.6.5 'AREA B' & NON-RESIDENTIAL USES

The Concept Plan has been critically divided into two stages. The second stage sets aside an area that reflects the notional area identified in the annexation agreement, referred to as "Area B". The final details of the eventual layout and land use distribution are still subject to review, as per the annexation agreement. Therefore, in an effort to facilitate and accommodate the variable outcomes that may arise from that process, a second stage has been added to the Concept Plan evolution. Land use amendments for Stage 2 will not be sought at this time and will be deferred to allow the MD of Rocky View No. 44 and the Town of Cochrane sufficient time to engage in detailed discussions to resolve how to best manage and allocate land uses in the Stage 2 or "Area B" area.



Please note that the Stage 2 area boundary was carefully determined. The applicant was informed that the boundary of "Area B" provided in the annexation agreement was notional and still subject to change based on planning rationale. Therefore, the Concept Plan exercise sought to determine a logical boundary. Town staff expressed a desire for an east-west road spine to enhance the transportation network. This was also supported by the traffic consultant. This east-west road was seen to provide an logical boundary for Area B. The location of this road is dictated by safe separation distances from Hwy. 1A and Twp. Rd. 262, along the west side. Along the east side, a thin ER strip desired by the Town determined a northerly location in an effort to minimize encroachment or crossing of the ER strip. This coupled with minimum road radii and minimizing the severity of the road grade, the road alignment shown on the Concept Plan was logically determined. The back property line of the lots that front onto this road alignment serves as the approximate Stage 2 boundary.

Notwithstanding, in formulating this Concept Plan in a comprehensive manner, various land uses had to be considered for the Stage 2 area. Industrial uses were among those examined and were considered non-practical for the north portion of the site due to several practical limitations and concerns. Industrial or business park uses on the northern portion of this site would be inadequately serviced and offset from the major transportation corridors such as Highway 1, 1A and 22, especially compared to other areas already earmarked for industrial development in the Town. In addition, the topography presents challenges, especially for uses that require larger, level floor plates and generate a need for significant cut and fills, as well as retaining walls/engineered slopes that would be more obtrusive than desired and cost prohibitive.

The *Cochrane Industrial Land Market Analysis*, completed by IBI Group under separate cover, examined future industrial land demand and supply in Cochrane. The finding from that report is informative to the development of the portion of "Area B" within the Concept Plan area. The report identified that there would be continued demand for industrial lands in and around Cochrane, but was clear in identifying that given the existing industrial land supply and future industrial land supply already designated by other Town policy documents, the projected future demand will be sufficiently met by the anticipated and earmarked industrial land supply. The lands identified in the market analysis report offer businesses a higher "street" profile and better access to major arterials and should be the focus of future industrial expansion. Industrial development within this Concept Plan area may be premature and should only be explored when market conditions and long-term transportation infrastructure is better understood and developed. Therefore, due to transportation, topographical and market limitations, this Concept Plan exercise does not envision any industrial uses in the Stage 2 area.

### 3.6.6 INTERPIPELINE FACILITY

Due diligence investigations with the EUB (Energy & Utility Board) did not flag any onerous land use implications applicable to the Concept Plan area. The gas plant facility to the north is over a kilometre away and is a non-sour gas facility. EUB regulations for 'sweet' gas facilities of this type do not impact the Concept Plan area. Applicable EUB's recommended setback distances from sweet gas facilities are based on the highest classification of pipelines associated with the facility, and in this case it is 200m from centreline of a HVP (High Vapour Pressure) pipeline ROW known to run to and from this facility. Therefore, there is more than sufficient land separation according to the facility classification and EUB recommendations. Additional public safety issues are addressed in an ERP (Emergency Response Plan), which is the responsibility of the facility operator and establishes protocols and zones to inform and mobilize the public in case of emergencies.



### 3.7 Proposed Street Names

A list of proposed road names for the subject development have also been included. In preparing this list, a keen effort was given to maintain the heritage and ranch-like theme prevalent within developments throughout the Town of Cochrane and Southern Alberta. Attached are two tables, one outlines preferred prefixes, the other preferred suffixes.

#### Preferred Prefixes

Amesbury	Grassyhollow	Laredo	Rustic
Antequera	Gustyhollow	Mantle	Scirocco
Anterra	Cedar	Mantletown	Scout
Ashebourne	Chevrotain	Melcheburn	Terrabutte
Ashebury	Colchester	Mesa	Terranova
Balmoral	Crestridge	Mystic	Terravista
Big Hill	Eagle Bluffs	Northhampton	Tintagel
Bighorn	Eaglebutte	Norwich	Turnberry
Blackbuck	Eaglecliffe	Oasis Ranch	Upland
Blackburne	Fyncham	Okapi	Westbury
Blackpool	Hawkden	Peraira	Windhaven
Blue Bridge	Hawksden	Range	Windy Cove
Buckfield	Headland	Prairie	Windy
Cairnridge	Heritage	Radburne	Wyndridge
Cantebury	Highland	Regent	Yarmouth
Carnoustie	Hillock	Regency	
Carratraca	Ironcreek	Ridge	
Casselton	Kings Cross	Rise	
Gabion	Knoll	Rock	

#### Preferred Suffixes

Bay	Crescent	Hollow	Road
Bluffs	Drive	Landing	Ridge
Boulevard	Grove	Lane	Rise
Circle	Gate	Link	Vale
Close	Heath	Mantel	Valley
Court	Junction	Place	View
Cove	Hill	Point	Villas
Creek	Highlands	Ranch	Way



## 3.8 Proposed Land Use Amendment – Stage 1

### 3.8.1 LAND USE DESIGNATIONS

#### **Single Family Detached and Duplex Residential**

A variety of single-family residential products are envisioned for the Concept Plan area. R-1 (Residential Single Detached Dwelling) and R-2 (Residential Single and Two Dwelling District) land uses designations are proposed.

#### **Multi-family Sites**

Multi-family products are also proposed for the site and, together with the single-family detached and semi-detached units, will offer a well-rounded selection of housing choices in the plan area. Proposed multi-family residential land use includes R-M (Residential High Density District). The proposed R-M site, at the southwest corner of the site, includes a portion of land that is currently part of the Horse Creek Road R.O.W. As part of the Horse Creek Road re-alignment, a portion of the existing right-of-way will be closed and consolidated to this R-M site. The R-M designation possesses provisions for a variety of residential product types and density thresholds. This facilitates innovative residential development that is capable of adapting to market conditions over time.

#### **Commercial Site**

A commercial site is proposed in the plan area to service predominantly the local community. The commercial site is proposed to be located on the southern boundary of the site adjacent to Hwy. 1A. With its close proximity to Hwy. 1A, the commercial site may also potentially serve the travelling public. Therefore, a range of commercial uses to serve the travelling public and local community is envisioned and will be encompassed under the C (Local Commercial District) designation.

#### **Municipal Reserve**

Municipal Reserve will be represented by the pathway, park and open space system that will connect the entire site, as well as offer strategic separations between development cells. These areas are proposed to be designated PS (Public Service District-MR).

#### **Storm Pond/Water Reservoir (Public Utility Lot – P. U. L.)**

Sufficient land to accommodate storm water retention will be provided in the plan area and designated as PS (Public Service – P. U. L.). A second parcel of land will be preserved to house a future water reservoir that will facilitate servicing of future phases of the development. However, the water reservoir is within the Stage 2 area and is not part of the land use amendment for Stage 1.



### 3.8.2 STAGE 1 PROPOSED CONCEPT PLAN LAND USE STATISTICS

The proposed Concept & Land Use Plan is provided as **Exhibit 3.3**. The following table summarizes all the proposed land use districts and their respective areas.

R-1 (Residential Single Detached Dwelling)	24.60 ac	9.96 ha
R-2 (Residential Single and Two Dwelling District)	16.79 ac	6.79 ha
R-M (Residential High Density District)	10.89 ac	4.41 ha
C (Local Commercial District)	2.76 ac	1.12 ha
PS (Public Service District-MR)	2.84 ac	1.15 ha
PS (Public Service – P. U. L.).	5.04 ac	2.04 ha
UR-R	0.58 ac	0.23 ha
Roads and Lanes	20.68 ac	8.92 ha
ER	8.49 ac	3.44 ha
Hwy 1A widening	1.50 ac	0.61 ha

<b>Total Site Area of Proposed Land Use Amendment</b>	<b>94.12 ac</b>	<b>38.09 ha</b>
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#### 3.8.2.1 Anticipated Residential Density in Stage 1

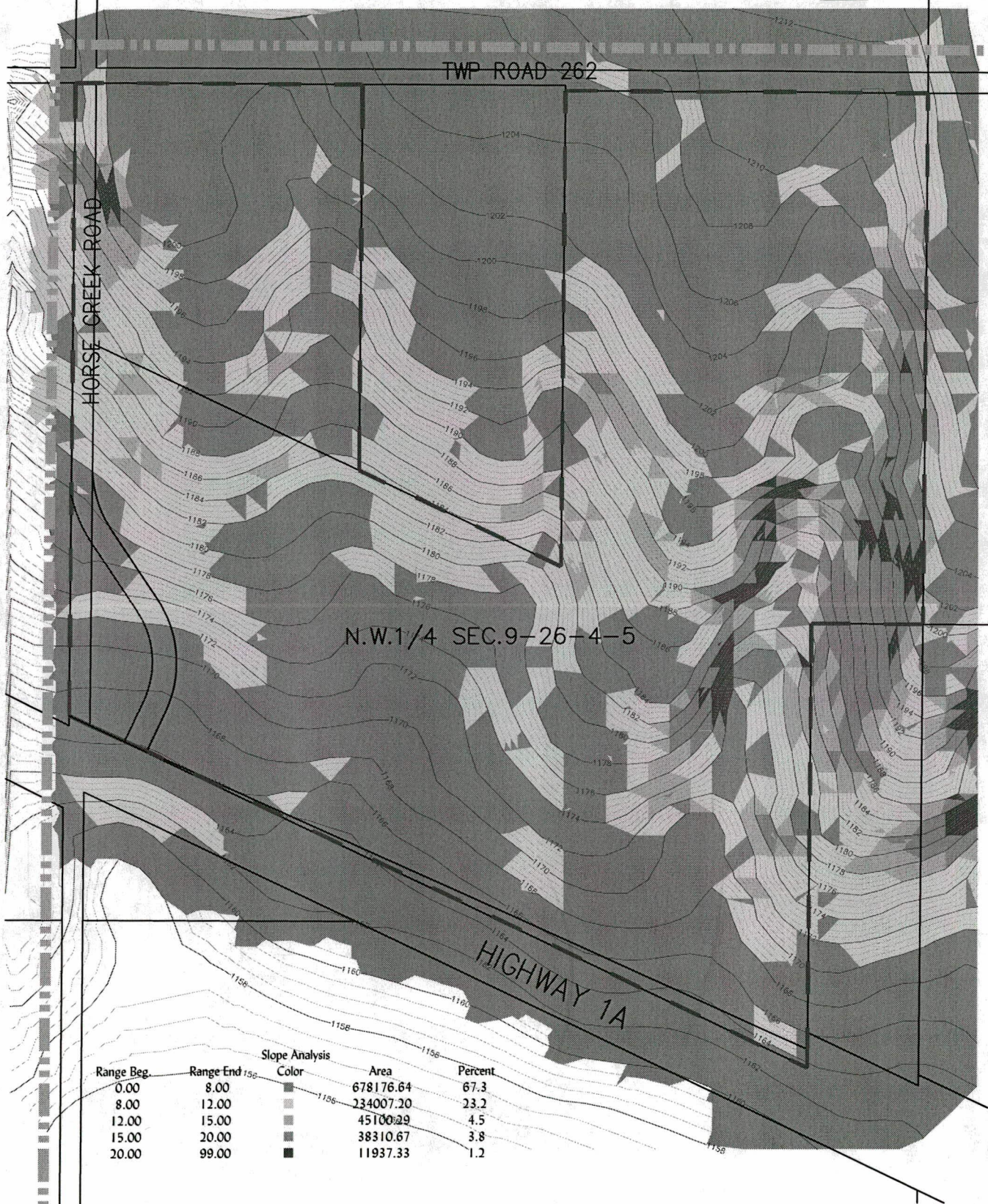
Unit projections are based on estimated marketable front footage and anticipated average lot sizes. The number of units shown reflects the anticipated density. The ultimate density may vary slightly.






<b><u>Type of Housing</u></b>	<b><u>Stage 1</u></b>
Single Family Detached	242 units
Duplexes	168 units
<u>Multi-Family Units</u>	<u>385 units</u>
<b>Total Anticipated</b>	<b>795 units</b>
<b>Developable Area</b>	<b>84.13 ac</b>
<b><u>Stage 1 Density</u></b>	<b><u>9.45 units/ac</u></b>

The anticipated overall density is slightly above the 6 to 8 units per acre range suggested in the MDP. This is attributed to the fact that a number of multi-family sites are housed on the south end of the concept plan area. Lower residential densities are expected for the northern portion of the site (Stage 2 area) and this will bring the overall density well in line with the MDP target of 6 to 8 units per acre, especially if non-residential uses prevail in Area B.

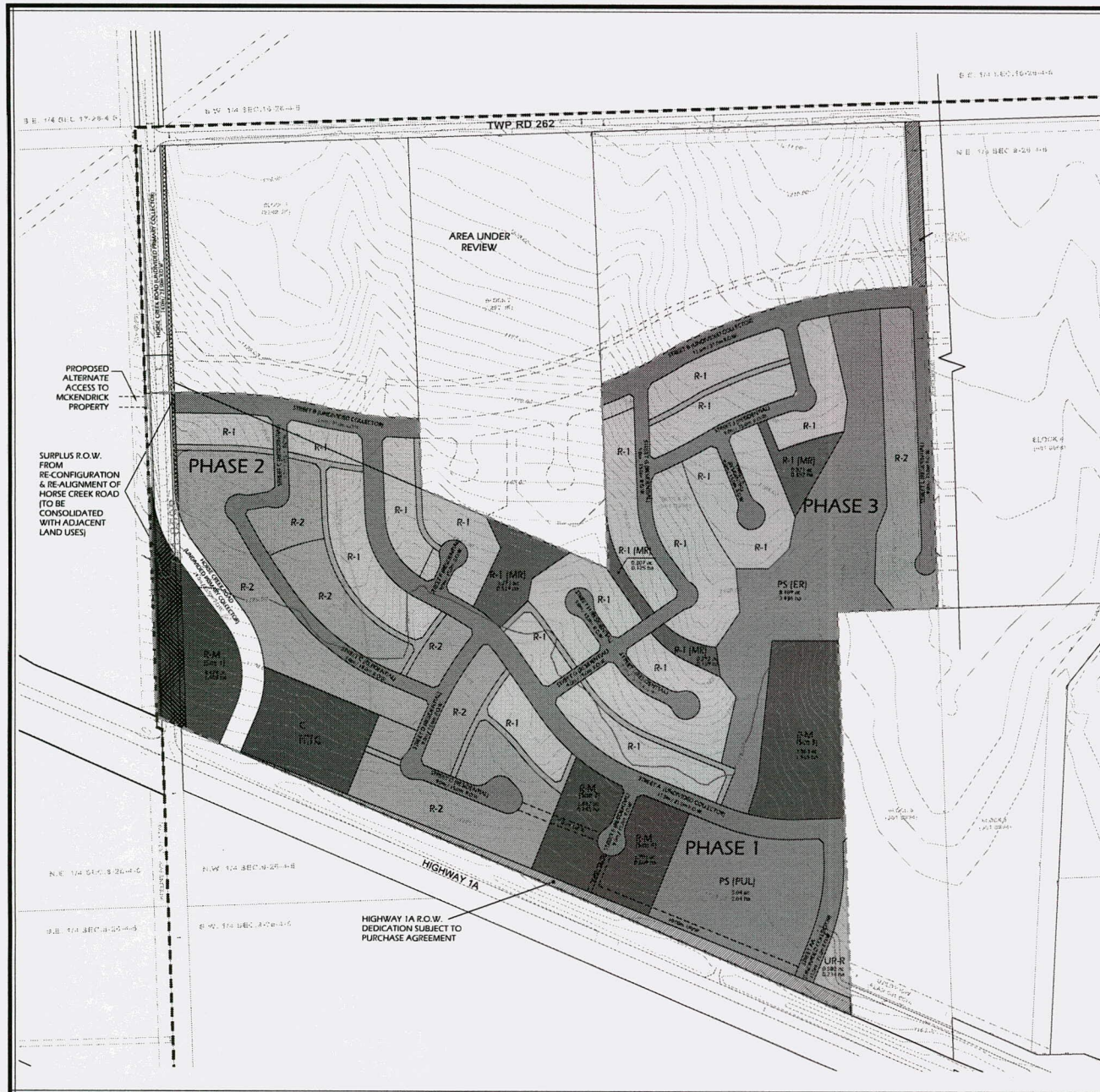


 CONCEPT PLAN AREA  
 TOWN OF COCHRANE BOUNDARY



Range Beg.	Range End	Slope Analysis	Area	Percent
0.00	8.00		678176.64	67.3
8.00	12.00		234007.20	23.2
12.00	15.00		45100.29	4.5
15.00	20.00		38310.67	3.8
20.00	99.00		11937.33	1.2





**LAND USE PLAN STATISTICS:**

AREA	38.09 ha	94.12 ac
PS (ER)	3.53 ha	8.72 ac
HWY 1A LAND PURCHASE AGREEMENT	0.61 ha	1.50 ac
NET DEVELOPABLE	33.95 ha	83.90 ac

**RESIDENTIAL**

UR-R to R-1	14.46 ha	35.74 ac
UR-R to R-2	9.15 ha	22.61 ac
UR-R to R-M (Site 1)	1.71 ha	4.23 ac
UR-R to R-M (Site 2)	0.90 ha	2.24 ac
UR-R to R-M (Site 3)	1.68 ha	4.14 ac
UR-R to R-M (Site 4)	0.83 ha	2.04 ac
TOTAL	28.73 ha	71.0 ac

**PARK / PUBLIC OPEN SPACE**

UR-R to PS-R1 (MR)	1.22 ha	3.01 ac
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**URBAN RESERVE**

UR-R (Include Service Road)	0.42 ha	1.03 ac
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**PUBLIC UTILITY LOT**

UR-R to PS (PUL)	2.36 ha	5.83 ac
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**COMMERCIAL**

UR-R to C	1.23 ha	3.03 ac
TOTAL	33.95 ha	83.90 ac

**CONCEPT PLAN STATISTICS:**

AREA	38.09 ha	94.12 ac
PS (ER)	3.44 ha	8.49 ac
HWY 1A LAND PURCHASE AGREEMENT	0.61 ha	1.50 ac
NET DEVELOPABLE	34.04 ha	84.13 ac

**RESIDENTIAL**

R-1	9.96 ha	24.60 ac
R-2	6.79 ha	16.79 ac
R-M (Site 1)	1.41 ha	3.48 ac
R-M (Site 2)	0.74 ha	1.84 ac
R-M (Site 3)	1.57 ha	3.87 ac
R-M (Site 4)	0.69 ha	1.70 ac
TOTAL RESIDENTIAL	21.16 ha	52.28 ac

**PARK / PUBLIC OPEN SPACE**

PS-R1 (MR)	1.15 ha	2.84 ac
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**URBAN RESERVE**

UR-R (Include Service Road)	0.23 ha	0.58 ac
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**PUBLIC UTILITY LOT**

PS (PUL)	2.04 ha	5.04 ac
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**COMMERCIAL**

C	1.12 ha	2.76 ac
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**ROADS & LANES**

COLLECTOR ROADS	4.15 ha	10.24 ac
LOCAL RESIDENTIAL ROADS	3.38 ha	8.36 ac
LANES	0.84 ha	2.08 ac
TOTAL ROADS & LANES	8.37 ha	20.68 ac



design by: EK/BL drawn by: KM date: SEPT. 19, 2005

revision/addition	no.	by	date
LAND USE REVISIONS	1	TM	JUNE 9, 05
LAND USE REVISIONS	2	KM	SEPT. 19, 05
LAND USE REVISIONS	3	KM	SEPT. 22, 05
LAND USE REVISIONS	4	KM	OCT. 13, 05
LAND USE/BOUNDARY REVISIONS	5	KM	DEC. 7, 05

**Legend:**

- PROPOSED LAND USE AMENDMENT BOUNDARY
- TOWN OF COCHRANE BOUNDARY
- HWY 1A LAND PURCHASE AGREEMENT

**legal description:**  
PORTION OF SW¼ & NW¼ 9-26-4-5  
OUTLINE PLAN #  
LAND USE PLAN #  
BYLAW #

**location map:**



**project:**  
HERITAGE HILL

**sheet title:**  
PROPOSED  
LAND USE PLAN  
EXHIBIT 3.3

**IBI file no.:**  
CO-2745

**scale:**  
1:2000

**sheet no.:**  
1 of 1





### 3.9 Development Staging & Sub-Phasing

As previously discussed, the development will be divided into 2 stages. Stage 1 will be further divided into 4 phases. **Exhibit 3.4** illustrates the anticipated phases of Stage 1. However, depending on the ultimate market conditions at the time of development, the phasing for the development may become more refined and the development may be partitioned into more or less phases where logical.

Stage 2 comprises the area in the northern portion of the site. Stage 2 has been partitioned in order to provide a logical break in area and to facilitate the on-going discussions between the Town of Cochrane and the MD of Rocky View No.44. This stage has not been included in the first stage of land use amendment to allow time for the MD of Rocky View No. 44 and Town of Cochrane to finalize the terms of reference according to the 2004 Annexation Agreement.

## 4. UTILITY INFRASTRUCTURE & ENGINEERING

### 4.1 Water

The concept of the water main grid system, which exists in the Town of Cochrane, will be incorporated in the site water servicing design. Grid mains of 300 mm (12 inch) diameter would be located through the proposed development and allow for future developments adjacent to the site, north and east of the site boundary limits.

Initial development (Phase 1) will be serviced from the existing 300 mm (12 inch) diameter PVC water main stub, which is located at the north east end of the West Valley development, south of the CPR tracks (north of the intersection of West Aarsby Road and McDougal Road). **The water main will loop through the subdivision and service a maximum 100 units before a second water feed is required.**

*Phase 2 & beyond.*

A second connection will be made to the existing 300 mm (12 inch) diameter PVC water main stub, located at the west end of Quigley Drive where it terminates in the West Terrace development south of the CPR tracks.

The site is located within two water pressure zones. Development in the upper pressure zone will necessitate the construction of a water reservoir and distribution system. The Concept Plan has allocated a Public Utility Lot (PUL) in the northeast corner of the site for this purpose.

Fire hydrants will be installed along the water distribution system. The hydrants will be sized and spaced appropriately, to allow for an adequate supply of water for fire fighting purposes, as specified by the Town of Cochrane.

All water mains, hydrants and services shall be constructed in conformance with Alberta Environment and the Town of Cochrane's current standards and specifications.

The developer will be eligible for the recovery of an appropriate portion of the costs associated with over-sizing the utility.



- CONCEPT PLAN AREA
- TOWN OF COCHRANE BOUNDARY
- PHASE BOUNDARY





## 4.2 Wastewater

The conceptual phasing plan has been developed to utilize the nearest point of tie to the existing wastewater collection system. The development will be serviced by an existing 375 mm (15 inch) stub, which is located at the north east end of the West Valley development, south of the CPR tracks (north of the intersection of West Aarsby Road and McDougal Road).

The various phases will be serviced by the extension of wastewater mains on site, providing a gravity collection system throughout the development. Wastewater main stubs will be provided to allow for future developments adjacent to the site, north and east of the site boundary limits. The north stub provided will be for a future connection to service the Cochrane Lakes Development.

All wastewater mains and services shall be constructed in conformance with Alberta Environment and the Town of Cochrane's current standards and specifications.

The developer will be eligible for the recovery of an appropriate portion of the costs associated with over-sizing the utility.

## 4.3 Stormwater

Alberta Environment and the Town of Cochrane's Standards and Guidelines for stormwater management requires that all new developments be responsible for managing any increase in stormwater runoff and deterioration in water quality that may result.

The stormwater management plan (Komex International Ltd.) has been designed in anticipation of the 1:100 year storm event (major system). Under these circumstances, stormwater will be retained on the street, in addition to the stormwater facility located in the southeast corner of the site, on a dedicated Public Utility Lot (PUL). The runoff will then be released into the existing north drainage ditch in the Highway 1A ROW at a pre-development release rate.

Runoff in excess of the 1:100 year storm event will be conveyed overland by a designed emergency escape route, towards the stormwater facility located in the southeast corner of the site, to mitigate the risk of flooding.

Stormwater for minor events (minor system) will be conveyed to the nearest catch basin via curb and gutter and/or concrete swales where it is directed into the underground piped system. The flows will be directed to the stormwater facility and released from there at the pre-development release rate into the drainage ditch.

All stormwater management will be in accordance with the best management practices outlined within the Alberta Environment and Town of Cochrane's Standards and Guidelines. **Please note: A revised Stormwater Management Plan for the subject area is currently being prepared by BSEI Engineering and will be submitted as a separate item (June 2005).**

## 4.4 Shallow Utilities

As each phase develops, shallow utilities (power, gas, telephone and cable TV) will be installed by the appropriate utility company providing service to the area



## 4.5 Solid Waste Services

The Town of Cochrane contracts solid waste collection to a private entity. Proper disposal is the responsibility of the contracted firm.

## 4.6 Police Protection

The Royal Canadian Mounted Police (RCMP) provides police protection services from their Cochrane detachment.

## 5. SUMMARY

This Concept Plan report has addressed issues relating to land use, the internal road network, infrastructure including wastewater, water, storm water, transportation and shallow utilities, as well as density, phasing, and integration into the surrounding context. It has established appropriate and comprehensive protocols to guide the development of the site and will ensure that the envisioned values, goals and objectives are achieved. This Concept Plan report represents a comprehensive development plan for the subject lands.

The critical elements of the plan have been illustrated and communicated within the statements and drawings contained in this document. The Plan provides a clear guide for development that is consistent with the policies of the Town of Cochrane. This Plan has considered the site's relationship and link to the town, while providing a diverse selection of housing choices and land uses, all strategically integrated to facilitate the development of a highly desirable community within the Town of Cochrane.