

# **AREA STRUCTURE PLAN**

# **CANYON CREEK**

# **ESTATES**

**in**

## **The City of Medicine Hat**



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## 1.0 LOCATION AND PURPOSE

Canyon Creek Estates (**Figure 1**) is located in SE15 – 12 – 06 - W4M adjacent to Seven Persons Creek at the southwest limits of the City of Medicine Hat near the intersection of Highway 3 and the future South Boundary Road. The Plan Area, containing some 43.5 acres (17.6 hectares) is bounded by:

- large acreages on the west,
- Highway 3 (Gershaw Drive SW) and a large acreage on the north, Parcel A Plan 4571AV,
- Range Road #62 on the east, part of which is identified as the current South Boundary Road, and
- the future South Boundary Road on the south.

InterPLAN/Focus is herewith submitting, on behalf of Kingsland Developments Inc. a proposed Area Structure Plan for a single-family detached residential land use.

The following sections of this report are intended to support the application. They discuss policy framework, site characteristics, proposed development concept and land uses, municipal reserve and open space requirements, transportation and access and proposed site servicing.

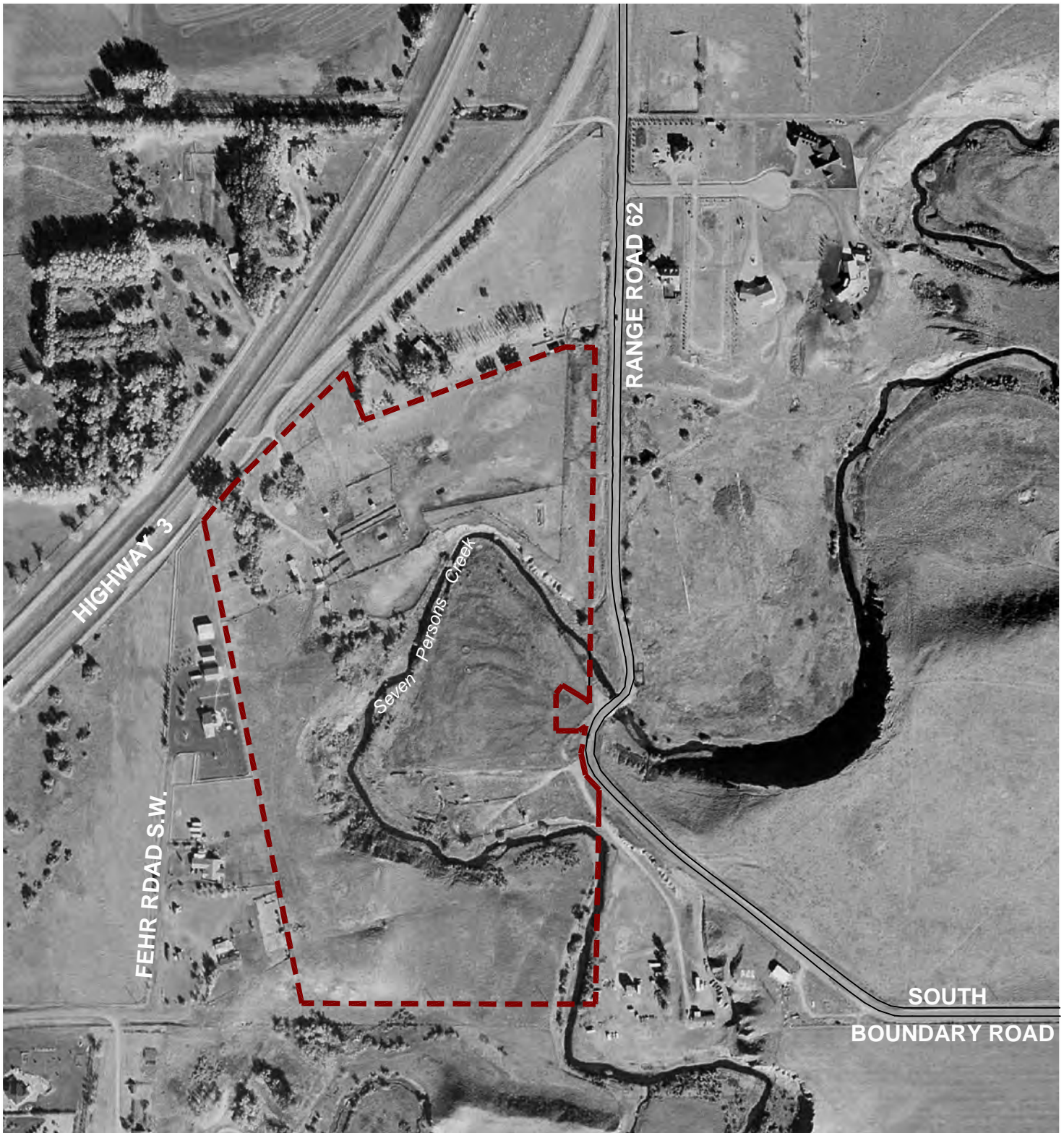
## 2.0 POLICY FRAMEWORK

On August 17<sup>th</sup>, 2004 City Council approved the City of Medicine Hat Municipal Development Plan 2004(MDP) as Bylaw #3565.

Map 1 of the MDP entitled Growth Management Strategy identifies the subject site as Agricultural. Although Policy 3.5.3 (e) of the MDP states that *"it is not intended that they (agricultural lands) be developed for urban type uses within the time horizon of this Plan (MDP),"* Residential Growth Management Policy 3.2.3 (k) states that, ***"the parcel located in SE15-12-6-W4th Meridian may be developed if serviced by private, on-site water and sewer or by municipal water and sewer services, if they are available or extended to the site by the developer, subject to appropriate engineering analysis."***

As outlined in the City of Medicine Hat Municipal Planning Process Area Structure Plans are detailed plans for the development of new areas. The Plan must

*"indicate impacts the proposed development will have on existing municipal services and facilities and how these impacts have been considered and addressed/ The ASP must show where residential, commercial, industrial, institutional and recreational uses will be located and how required municipal services such as water and sewer systems, roads, schools, parks and fire protection will be provided."*



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## Canyon Creek Development

City of Medicine Hat

### Site Context

Area Structure Plan

### Figure 1

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:5000

2006 - 04 - 01

145006-11-ASP-Rev.dwg

Aerial Photo Provided By:



### 3.0 SITE CHARACTERISTICS

#### 3.1 Legal Description and Ownership

The Plan Area is legally described as:

*Plan 0514096  
Block 1  
Lot 3*

The Plan Area is owned by Eileen Olive Felesky Warren Dean Felesky, Executors for Harry Felesky and Warren Felesky.

#### 3.2 Site Area

The Plan Area is comprised of 42.01 acres (17 hectares) more or less.

#### 3.3 Existing Land Use

The Plan Area (see **Figure 2**) is presently designated UR – Urban Reserve District by the City of Medicine Hat Land Use Bylaw No. 3181. The purpose of this district is *to protect land situated for future urban development from premature subdivision and development until such time as urban development of the land can proceed in an orderly fashion consistent with the City's Municipal Development Plan.*

The Plan Area is presently undeveloped (see **Figures 3 and 4**). There is evidence of a former abandoned farmstead/feedlot operation in the northwest portion of the Plan that, along with associated buildings will be removed. There are also some existing buildings in the south central portion of the Plan area adjacent to the north bank of Seven Persons Creek. These buildings are remnants of a former storage facility used to store trucks and equipment that was abandoned several years ago. Any infrastructure such as septic tanks or fields and water wells associated with the former uses will be appropriately decommissioned in accordance with the City of Medicine Hat requirements or appropriate Provincial regulations.

#### 3.4 Land Form

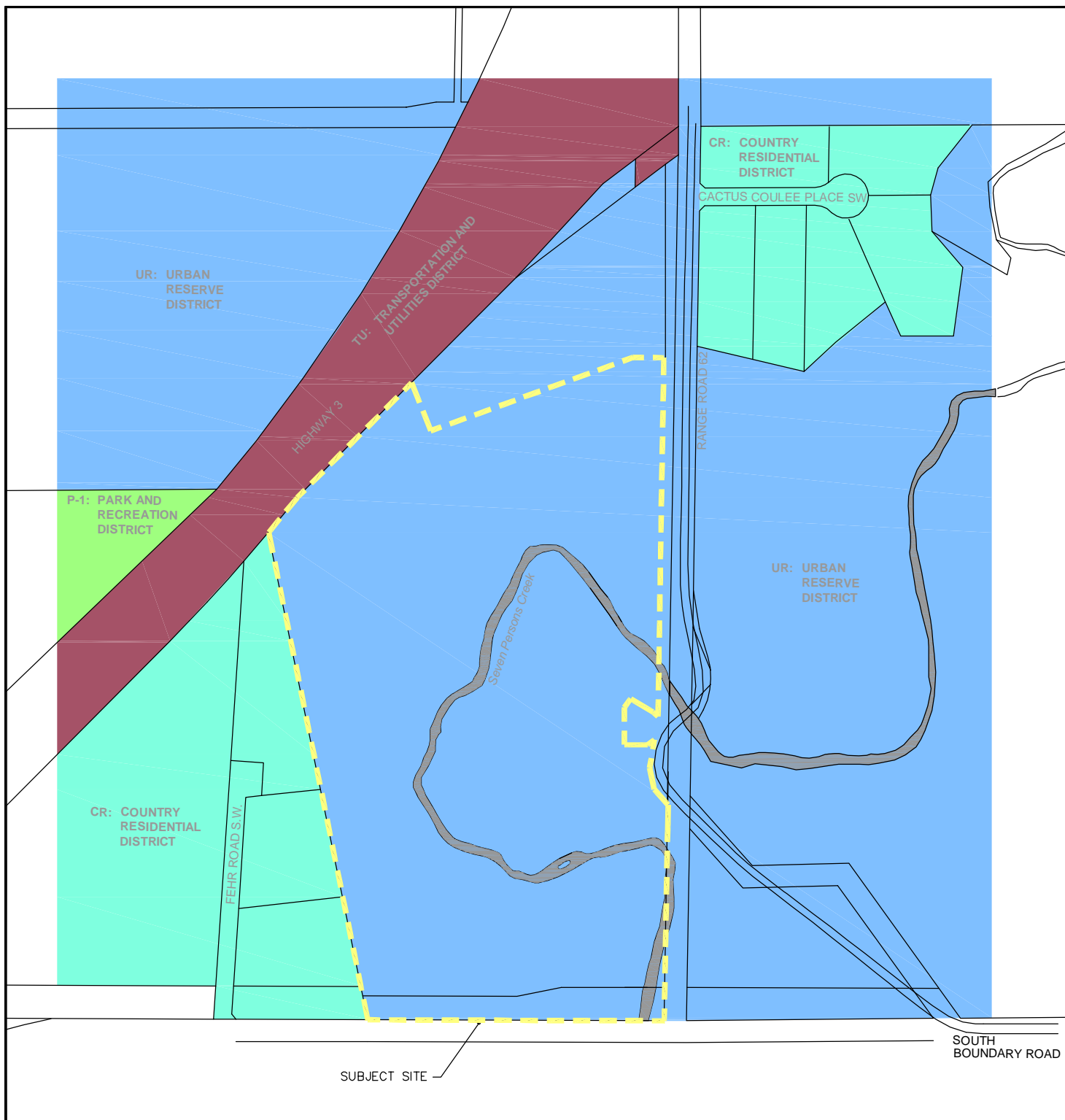
Seven Persons Creek is an irregularly “u-shaped” meandering tributary of the South Saskatchewan River divides the Plan area into four distinct topographic units, namely,

- an undulating upland area along the north, west and southwesterly portion of the site,
- an escarpment along the u-shaped west bank of Seven Persons Creek,
- Seven Persons Creek, and
- relatively flat lowland in the east central and southeasterly portion of the site.

The lands adjacent to the top of the escarpment are affords panoramic views in various directions.

The Plan Area varies from an elevation of 714.0m along the west boundary to 689.0m in the area adjacent to the Seven Persons Creek.





## Canyon Creek Development

City of Medicine Hat

### Existing Land Use

Area Structure Plan

## Figure 2

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:5000

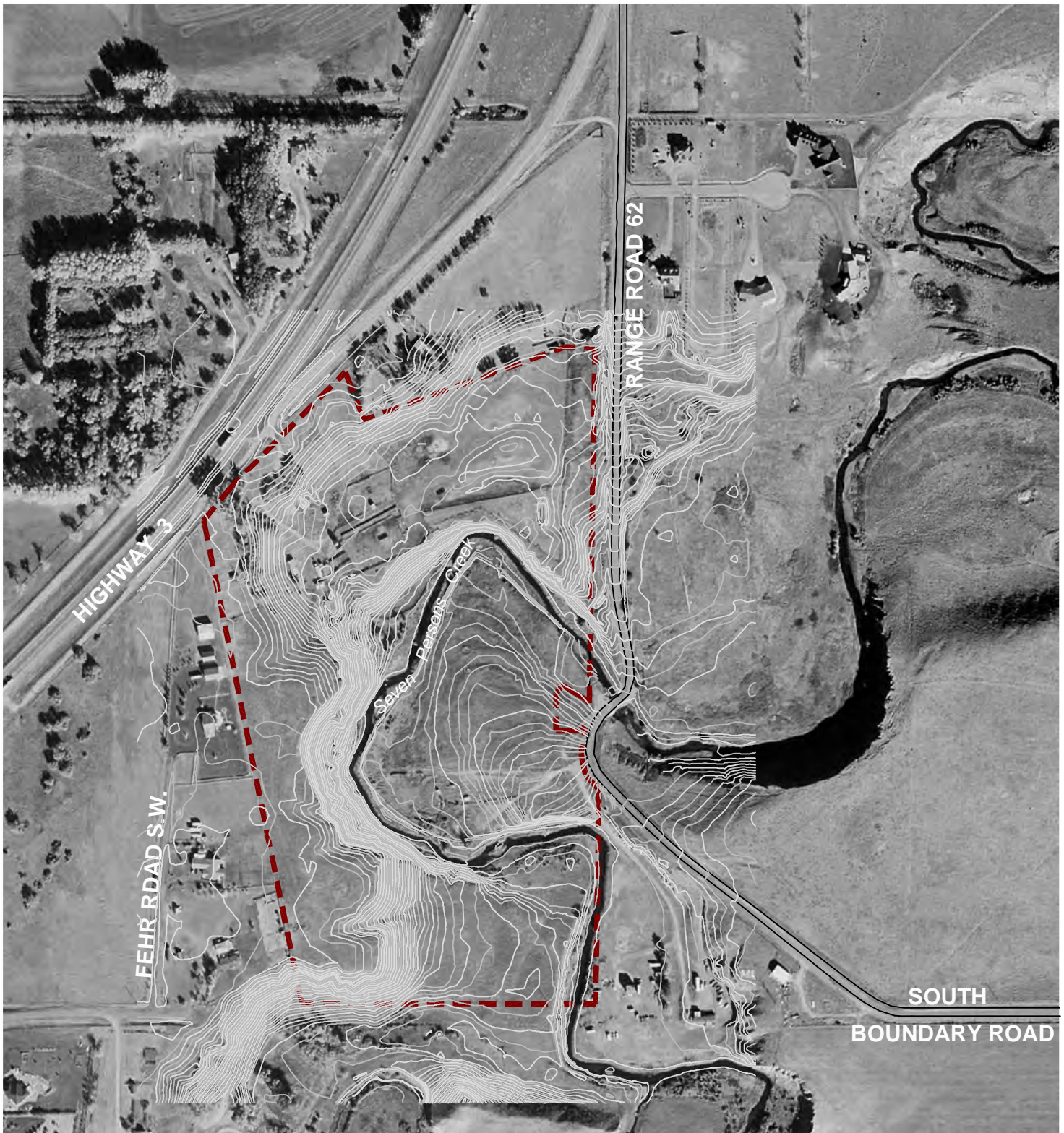
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Figure 2 - Land Use.dwg

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## Canyon Creek Development

City of Medicine Hat

### Existing Site Conditions

Area Structure Plan

## Figure 3

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:5000

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### **3.5 Access**

Access to the site is presently available from the service road that is situated parallel to Highway 3 (Gershaw Drive) and from Range Road #62.

### **3.6 Servicing**

Municipal servicing is currently being installed to the site by the City of Medicine Hat and the Desert Blume development. A new sanitary sewer lift station is being constructed adjacent to the subject site which has been sized to accommodate this development. A new water supply main is being constructed in the Range Road #62 right of way past the subject site which will bring municipal water service to the site. Once completed, this infrastructure will support the development of the Canyon Creek Estates development.

### **3.7 Environmental Considerations**

EnviroGeo Testing conducted a Phase I and Phase II Environmental Site Assessment (ESA) for the Plan Area in June 2002, copies of which are submitted under separate cover to the Planning and Building Services (PBS).

The Phase II Assessment identified a potential environmental concern for salt and nutrient contamination in the top one (1) meter of the abandoned feedlot area in the northwest portion of the Plan. Remedial action is recommended, however, the final plan is to be established through the Preliminary Engineering Report and detail design.

### **3.8 Geo-technical Considerations**

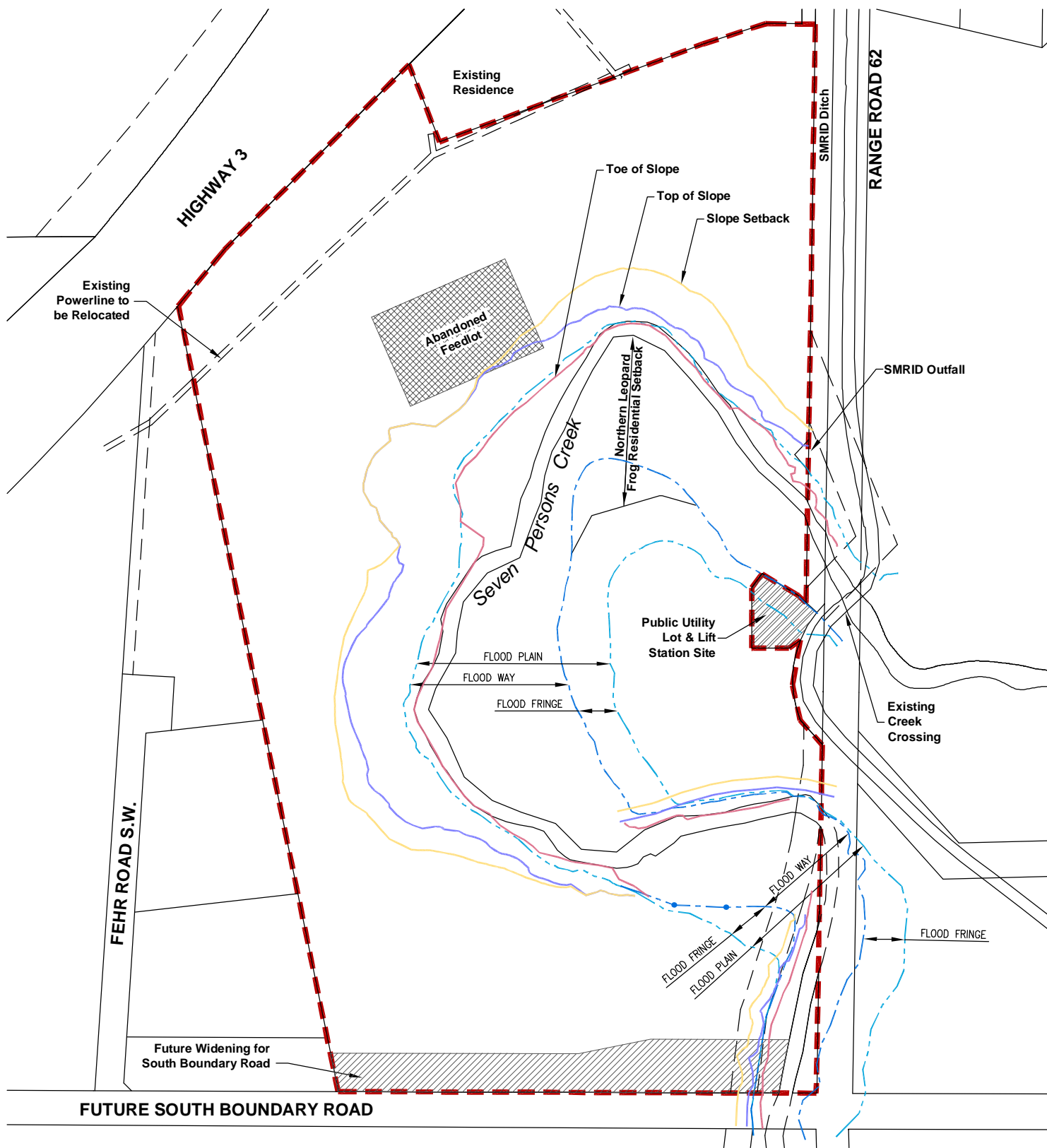
EnviroGeo Testing prepared an initial Geotechnical Investigation and Slope Stability Report in June 2002 with additional analysis in September 2004 and 2005. The individual findings have been consolidated in one complete report, a copy of which has been submitted under separate cover.

The geotechnical investigation and slope stability report has found the site suitable for development and the development plan can be accommodated within the established slope setbacks. It is proposed that the property line be no closer to the edge of the slope than the established setback and in places may be set back further. The setback limit will be established in the field at the time of the tentative plan and preparation of the Preliminary Engineering Reports. The setback limit will be shown on the proposed plan of subdivision.

### **3.9 Floodplain Considerations**

Northwest Hydraulic Consultants conducted a floodplain analysis for Seven Persons Creek in the Plan Area in August, 2002. The study submitted under separate cover, delineates the 100-year floodplain boundaries along the creek and establishes the corresponding flood way and flood fringe in the Plan Area as illustrated in **Figure 4**. As noted in Section 4.9.3 of the MDP, development of land within the 1:100 flood fringe may be allowed *"provided the City's Guidelines for Flood Proofing and other requirements of the land Use Bylaw are met."*

The Development concept proposes to fill small portions of land within the flood fringe. Northwest Hydraulic Consultants' analysis indicated this fill would have an insignificant impact on the floodway and the creek capacity. The final development lot and road grading plan will take into account any changes to the 1:100 year flood level created by



- ASP Boundary
- Slope Setback Line
- Toe of Slope
- Top of Slope
- Flood Plain
- Flood Way

## Canyon Creek Development

City of Medicine Hat

### Opportunities & Constraints

Area Structure Plan

**Figure 4**

S.E. 1/4 Sec. 15 - 12 - 06 - W4M  
 Scale: 1:3000  
 2006 - 04 - 01  
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filling within the flood fridge as well as any backwater increases caused by the proposed creek crossings on Range Road 62 and the internal road loop. These will be defined within the Preliminary Design Report.

### **3.10 Historical Resources Considerations**

Bison Historical Services Ltd completed a Historical Resources Overview in September 2005 recommending that a Historical Resources Impact Assessment (HRIA) be carried out in association with development of parts of the Plan in SE 15-12-6-W4M. The HRIA report and subsequent amendment are submitted under separate cover. Additional analysis was again recommended and this work will be completed prior to the commencement of any construction on the affected area.

### **3.11 Wildlife and Botanical Resource Considerations**

AquaTerres Environmental Inc. completed a Wildlife Resource Surveys and a supplemental report on the Ord's Kangaroo Rat and Eastern Short Horn Lizard for the Plan area in October 2005. The report identified potential breeding habitat for Northern Leopard Frog, Plains Spadefoot Toad and Canadian Toad in the study area. The reports made the following recommendations:

- Establish a development setback from breeding sites.
- Timing of construction to minimize impact on wildlife.
- Riparian areas should be left in a 'natural state'.
- Riparian areas should not be developed with pathways.
- A chain link fence should be constructed between the development and riparian zones.
- Environmentally sensitive areas be posted.

The development concept was prepared taking the report's requirements into account by ensuring the development areas are outside the riparian zones and designating these areas as Environmental Reserve. The location of the park in the lower area increases the setback between the residences and the identified wildlife habitats. Finally, to help maintain the riparian areas in their natural state, the back of lots should be demarked with bollard and chain and the riparian areas will be signed.

AquaTerres Environmental Inc contacted the Alberta Natural Heritage Information Centre to determine the botanical occurrences known within the proposed development area. The botanical occurrences, known to NHIC within the development area, are not currently covered under provincial or federal legislation.

### **3.12 Sound Attenuation Considerations**

A sound attenuation study was completed by Bunt and Associates Ltd. The study analyzed the ultimate traffic on Highway 3 and the future South Boundary Road and its impact on the adjacent residential development. The study indicated that limited sound attenuation measures maybe required. The report is submitted under separate cover. The recommendations of the report will be adhered to in the preliminary and detail designs.

## 4.0 DEVELOPMENT PROPOSAL

Based upon the owner's *VISION* for Canyon Creek, City Policy, market considerations and site characteristics, an Area Structure Plan has been prepared for the area. The components of the Area Structure Plan proposal are development concept, density and population, open space, transportation and servicing.

### 4.1 Development Concept

The vision for the Plan Area is a comprehensively planned combination of standard and large lot single-family development that optimizes the location and natural attributes of the Plan Area. The proposed development (**Figure 5**) provides for a large lot estate area with a variety of single-family detached architectural styles that reflect the estate nature of Canyon Creek area will be encouraged.

The emphasis upon landscaping and architectural controls are all intended to enhance the quality and livability of the site and provide a more appealing environment that is in keeping with the vision intended for Canyon Creek.

### 4.2 Land Use and Density

The development concept is for a comprehensively planned and articulated single-family detached residential cluster. The Area Structure Plan statistics are illustrated in **Table 1**.

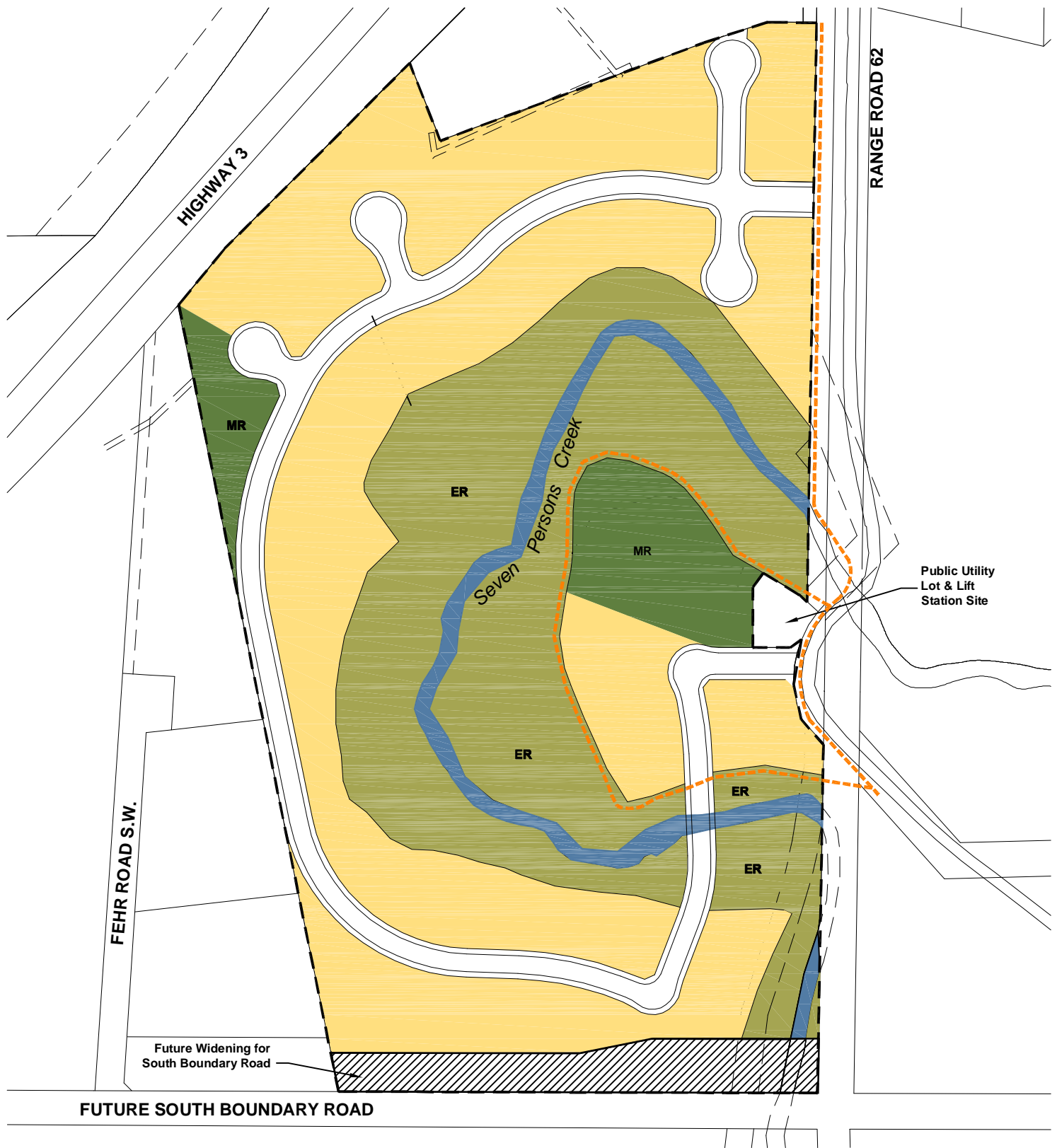
**Table 1 Development Statistics**

	Acres (±)	Hectares (±)	Percent (±)
<b>Total Area</b>	<b>42.01</b>	<b>17.0</b>	
Environmental Reserve	12 - 14	5 - 6	
Road Widening - South Boundary	1.5 – 1.7	0.6 – 0.7	
<hr/>			
Total Developable	26 - 28	10 – 11	100
R-1 Single Family Residential	17 - 20	7 – 8	70
P-1 Parks and Recreation (MR)*	2.6 - 2.8	1.0 – 1.1	10
Cash in Lieu of Deferred MR	0.86	0.35	
Roads	5.0 - 6.2	2.0 – 2.5	20

*Note: Municipal Reserve dedication will be 10% of the developable area, established at subdivision stage.*

A land use amendment application will propose to re-designate the Plan Area from UR Urban Reserve to R-1 Residential Single-Detached District and P-1 Park and Recreation District. With the exception of three lots that require special consideration, the proposed residential lots will comply with the standard interpretation of the lot dimension requirements contained in the R-1 Single Family Residential District of Land Use Bylaw No. 3181. Three proposed lots, two in the west central portion of the Plan and the third in the south easterly portion of the Plan, do not comply with the typical lot depth interpretation for lots fronting onto the street. However, given the larger sizes of these lots and the fact that all other R1 requirements may be met, it is proposed that these





## Canyon Creek Development

City of Medicine Hat

## Development Concept

Area Structure Plan

**Figure 5**

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:3000

2006 - 04 - 01

figure 4.dwg



three lots be considered in the same manner as corner lots with special house requirements which the Developer has agreed to consider.

The Plan addresses all of the geotechnical, floodway, wildlife and sound attenuation setbacks recommended by the various background analysis and reports.

The Plan area is intended to include approximately 26 to 28 acres (10 to 11 hectares) of net single family low density residential with approximately eighty-one (81) single detached residences, resulting in an average density of approximately 3.0 dwelling units per developable acre (7.7 units per developable hectare).

### 4.3 Open Space

The Open Space in Canyon Creek is comprised of both municipal reserve and environmental reserve.

#### Municipal Reserve

Based upon Policy 4.10.3(c) of the MDP which states that *“the dedication of municipal and school reserve land at the time of subdivision shall be ten percent of the land remaining after any environmental reserve land has been dedicated,”* the amount of municipal reserve (MR) required from the Plan area is 2.6–2.8 acres (1.0–1.1 hectares).

There is a deferred reserve caveat - document 851129566 – registered on the subject title that deferred approximately 0.86 acres (.35 hectares) of municipal reserve to the subject site at the time the Fehr Road subdivision to the west was subdivided. It is proposed that cash in lieu of reserves be taken for the deferred municipal reserve.

#### Environmental Reserve

Based upon the requirements of the Municipal Government Act and the City of Medicine Hat MDP the Plan proposes to dedicate approx. 13 acres (5.5 hectares) of the Plan area as environmental reserve. The proposed environmental reserve is a combination of

- a.* Lands that are unstable as identified in the Geo-technical and Slope Investigation Report completed by EnviroGeo Testing and
- b.* Most lands subject to flooding as identified in the Seven Persons Creek Floodplain Analysis carried out by Northwest Hydraulic Consultants.

## 5.0 TRANSPORTATION

### 5.1 Plan Access

Access to the Plan area will be available from the east by Range Road 62.

The Canyon Creek Area Structure Plan has been prepared in accordance with the following non- statutory plans:

- South Boundary Road Functional Planning Study (update 2005)
- City of Medicine Hat 2005 Road System Master Plan

The existing and proposed transportation system is shown in **Figure 6**.

## **5.2 South Boundary Road**

The current South Boundary Road alignment, comes from the east, merges with Range Road 62, southeast of the Plan area. The South Boundary Road Functional Planning Study proposes that South Boundary Road be extended straight west, from the location where it merges with Range Road 62, following the existing road allowance across Seven Person's Creek and connecting to Highway 3 with a new signalized intersection, when confirmed by Alberta Transportation and Infrastructure. The proposed alignment, once it crosses Seven Person's Creek, borders the Canyon Creek development on the south side. The alignment and profile presented in the South Boundary Road Functional Planning Study will require extensive fill placement across the Seven Person's Creek valley and significant cuts as the profile moves up the west slope. Additional right of way will be required along the north side to provide adequate right of way to construct the fill section. Additional Right of way requirements of between 20 and 30 m. are expected. Final right of way requires are to be determined in the Preliminary Engineering Report.

Development of the new South Boundary Road alignment is not anticipated until traffic volumes warrant the upgrade.

## **5.3 Range Road 62**

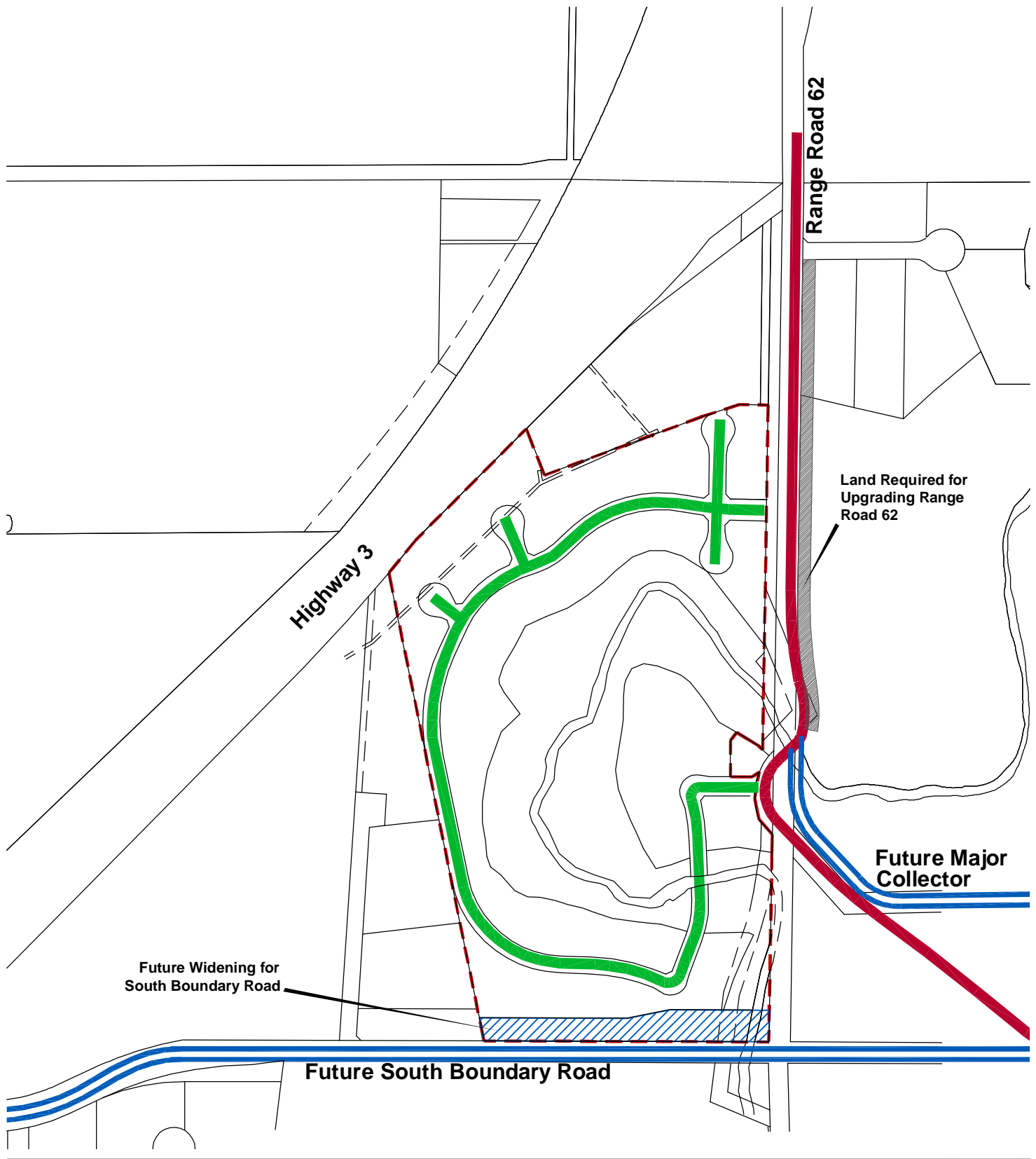
Range Road 62 borders the Plan area on the east side and will provide access to the Canyon Creek Development. The original 20.17 meter road right of way has already been widened to 30.538 meters to accommodate future deep utility alignments. The additional 10.368 m was taken on the west side of Range Road 62 from the Canyon Creek Estates developable area. An additional 2 - 5 widening may be required to accommodate the development of the final road cross section and it is proposed that this additional width be obtained from the lands along the east side of Range Road 62. The final right of way requirements for the road structure and intersections will be defined with in the Preliminary Design Report.

The current 8.0 meter wide cross section will be upgraded to a 10 m paved surface with 4:1 side slopes. The existing Seven Persons Creek crossing will be upgraded, along with the road geometrics, to current City standards. It has been agreed that the City will be responsible for funding construction of this road from South Boundary Road to the north side of the Seven Persons Creek crossing upgrade and the developer for the balance up to the north boundary of the site. The Preliminary Engineering Report will define the parameters of the upgrades and establish cost sharing between the Canyon Creek Estates development and the City of Medicine Hat.

## **5.4 Proposed Internal Circulation**

Access to the development will be accommodated at two locations from Range Road 62, the first located near the north end of the development and the second, located on the lower bench between the 2 legs of the Seven Person's Creek oxbow. Both access points will incorporate road widening and entrance feature development.

The internal roadway will comprise of one continuous local residential roadway, proposed as a standard 10.0/16.0m public residential street, looped between the two access points effectively splitting traffic flows between them. Four short cul-de-sacs will be developed off of the internal local residential roadway. A culvert creek crossing will be constructed across the south leg of the Seven Person's Creek oxbow. The crossing will be developed to allow a full urban local residential road section.



- ASP Boundary
- == Major Collector
- Minor Collector
- Local Residential

## Canyon Creek Development

City of Medicine Hat

### Transportation Network Plan

Area Structure Plan

**Figure 6**

S.E. 1/4 Sec. 15 - 12 - 06 - W4M  
 Scale: 1:5000  
 2006 - 04 - 01  
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Due to the significant grade variances within the site, road grades are proposed to be between 0.5 percent and 8.0 percent.

## 5.5 Trail System

In accordance with discussions with City Planning and Parks and Outdoor Recreation Departments a 3.0 m wide trail will be constructed adjacent to the site as part of the Range Road #62 development. A 3.0 m wide trail will also be constructed within the Seven Persons Creek valley looping around the residential and park development on the lower bench as shown on *Figure 5*. The trail will be constructed within the floodway, however its location will not be subject to frequent inundation or damage caused by minor flood events.

Detailed analysis of transportation network will be provided in the Canyon Creek Preliminary Servicing Report.

## 6.0 UTILITY SERVICE

The proposed servicing concepts for the Plan area are discussed in the following sections.

The utilities are only designed to service the lands within the development boundary. It is anticipated, however, that the minimum sized water mains and sanitary sewer pipes will provide surplus capacity to service the Cactus Coulee Place and the Fehr Road subdivisions, should the City wish to allow the connection of these areas to this system. This plan makes no provisions to extend utilities to lands outside the current City limits.

The following servicing strategy is contingent on the proposed Desert Blume water supply trunk and the sanitary lift station and force main being constructed prior to the commencement of the Canyon Creek development.

### 6.1 Water

The proposed water supply system for the Plan area is shown in *Figure 7*. The development will be supplied by the Desert Blume 300 mm water trunk main located within the Range Road 62 right of way. Environmental Utilities has identified that the 300 mm water main will have capacity for an additional 83 dwelling units until such time as the City's water system is expanded to increase the capacity in this area. Water supply to any specific development is not guaranteed, if other development occurs before Canyon Creek, the amount of water available will be reduced accordingly. The capacity limit of 83 units takes into account the existing Fehr Road (4) and Cactus Coulee Place (5) developments leaving capacity for 74 units within the Canyon Creek Estates development. Based on this, development of the last Phase (9 lots) may not be able to occur until the water distribution system in the area is upgraded.

The internal distribution system will be looped connecting to the Desert Blume trunk main at the north access point as well as the entrance to the lower bench cul-de-sac. The entire development is anticipated to incorporate one pressure zone utilizing a looped 200 mm main. The internal distribution system will require a crossing of the south section of Seven Person's Creek to complete the loop. Due to the Desert Blume supply trunk anticipated operating pressures and grade variances, the need for pressure reducing valves will need to be considered. This system could be extended to service the Fehr Road development however this has not been included within the scope of this Plan document.



- - - - ASP Boundary
- . - . Proposed Water
- \_ \_ \_ \_ Existing Water

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## Canyon Creek Development

City of Medicine Hat

## Water Service

Area Structure Plan

## Figure 7

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:3000

2006 - 04 - 01

145006-22-ASP-0.dwg

Detailed analysis and confirmation of system requirements will be provided in the Canyon Creek Preliminary Servicing Report.

## 6.2 Sanitary Sewer

The proposed sanitary sewer system is shown in **Figure 8**. It is intended that a gravity system be constructed to collect the internal sewer and direct the flow to the SW Sanitary Lift Station. The SW Sanitary Lift Station will then discharge flows via a force main, and future trunk system, to the Southlands Lift Station system. Environmental Utilities has identified that this system will have the capacity to accommodate 332 additional dwelling units. The Canyon Creek Estates development will not exceed this amount.

The internal gravity system will split the flows based a proposed high point located approximately mid point along the west upper bench. Sanitary flows north of this point will be directed clockwise to the South Boundary Road/Range Road 62 right of way. A sewer main is proposed within the South Boundary Road/Range Road 62 right of way from the Canyon Creek Development's north access to the SW Sanitary Lift Station. A crossing under the Seven Person's Creek is required. This system could be extended to service the Fehr Road and the Cactus Coulee Place developments however this has not been included within the scope of this Plan document.

The south half of the Plan area will incorporate a gravity sanitary sewer main that will flow counter clock wise across the southern edge of the Plan area. From there it will flow north under the Seven Person's Creek, through the lower bench cul-de-sac to the SW Sanitary Lift Station. A second creek crossing will be required as well as control measures to deal with the anticipated higher flow velocities due to the proposed site grades.

It is anticipated that 200 mm mains will provide sufficient capacity for the development.

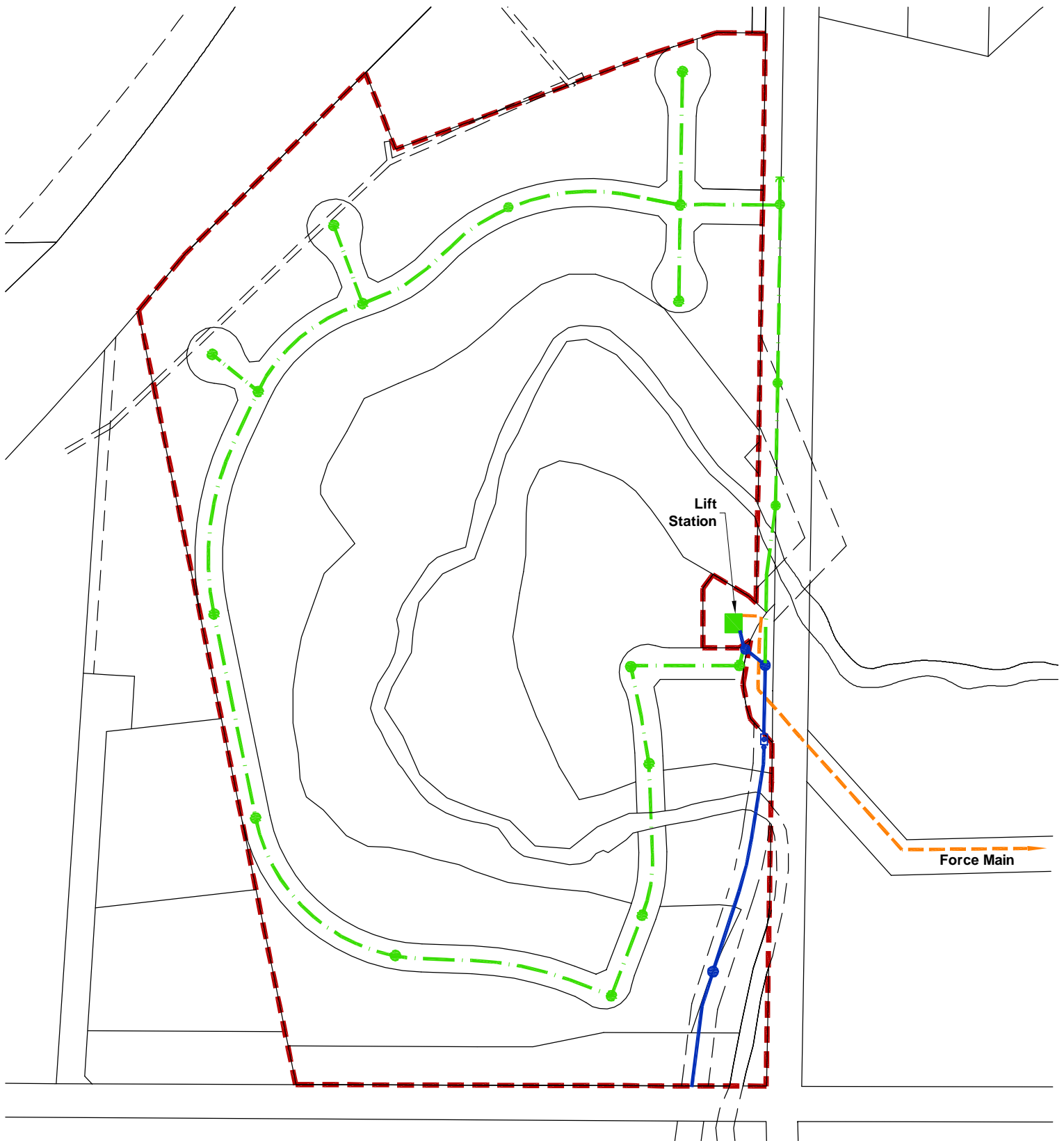
Detailed analysis and confirmation of system requirements will be provided in the Canyon Creek Preliminary Servicing Report.

## 6.3 Storm Sewer

All storm flows from the Plan area will flow to Seven Persons Creek. Since the affect of development and the resulting increased runoff is small in comparison to the ultimate Creek capacity, (i.e.; the additional flow from a 1:100 year, 10 minute event over the developable area of 10.8 ha would be less than 1% of the 1 in 100 year flood event for the creek) most of the Best Management Practices for this development will concentrate on runoff quality rather than runoff quantity.

The proposed storm water system is shown in **Figure 9**. The Plan area is proposed to be broken into three (3) catchment areas. The three catchment areas are as follows:

1. **Catchment Area No. 1** – The north half of the upper bench located west and north of the Seven Person's Creek. The southern limit is proposed to be approximately mid way along the Plan's west edge.
2. **Catchment Area No. 2** – The south half of the upper bench located west and south of the Seven Person's Creek.
3. **Catchment Area No. 3** – The lower bench located inside the Seven Person's Creek oxbow.



- ■ ■ ASP Boundary
- · - Proposed Sanitary
- Existing Sanitary
- - - Existing Force Main

## Canyon Creek Development

City of Medicine Hat

### Sanitary Sewer Area Structure Plan

## Figure 8

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:3000

2006 - 04 - 01

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**Catchment Area No. 1** will utilize the proposed roadway and minor storm water pipe system to gather and direct storm water runoff from the entire area with the exception of the rear of the walk out lots located along the creek escarpment. Flows from the piped minor system and the roadway are proposed to be directed east to the Range Road 62 right of way and then south to the Seven Person's Creek. Minor system flows will be directed through a "Stormceptre" or similar device to provide quality improvement before being discharged through an upgraded outlet structure to the Seven Person's Creek. Overland major flows will be directed to the existing road ditch and then south to the Seven Person's Creek. Surface runoff from the rear of the lots facing the Seven Person's Creek escarpment will be collected in a proposed grass/concrete swale and directed east to be collected into the minor storm sewer and the major storm system within the Range Road 62 right of way. The upgraded Seven Person's Creek outfall structure (replacing existing) will include sufficient capacity to accommodate the existing St. Mary's River Irrigation District's flows currently utilizing the Range Road 62 right of way west ditch.

**Catchment Area No. 2** will utilize a similar system of a minor pipe sewer, grass swale, road structure and a "Stormceptre" device to direct flows to a new outfall into the Seven Person's Creek. Surface runoff from the rear of the lots in the very SE corner will sheet flow to the Creek.

**Catchment Area No. 3** will utilize the road system to direct surface runoff from the front of the proposed lots to a minor pipe system. A "Stormceptre" or similar device will provide quality treatment before the flows are discharged to the Seven Person's Creek via a new outfall structure. Major flows will be collected on the roadways and directed overland to the Creek. Surface runoff from the rear of the proposed lots is intended to sheet flow to the creek. The thick vegetation in the environmental reserve will serve to filter the runoff from the backs of lots.

Detailed analysis and confirmation of system requirements will be provided in the Canyon Creek Preliminary Servicing Report.

## **6.4 Shallow Utilities**

Shallow utility servicing in the form of electricity, gas, cable television and telephone will follow City of Medicine Hat standards including shallow bury within easements paralleling road right of ways. Service providers are anticipated to be those currently servicing the area. The developer will provide all easements and/or right of ways as may be required.

### **6.4.1 Natural Gas**

Natural gas service will be provided by the City of Medicine Hat by extending the existing distribution network to and through the proposed Plan area.

### **6.4.2 Electricity**

Electric service for the Plan area will be provided from a buried main feeder that is planned to be installed along the west boundary of Range Road 62 from the existing service at Cactus Coulee Place to the SW Sanitary Lift Station. Feeder capacity and necessary equipment will be installed to accommodate the proposed Canyon Creek Development.

An existing over head electrical service line exists through the north portion of the site within R/W Plan No. 7410798. This line provides service to the abandoned feedlot as



- - - ASP Boundary
- Proposed Storm
- Catchment Areas

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## Canyon Creek Development

City of Medicine Hat

### Storm Sewer

Area Structure Plan

## Figure 9

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:3000

2006 - 04 - 01

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well as two customers on the north side of Highway 3. The existing line will be relocated utilizing the new underground system installed in the development and reconnected north of the development to maintain the service north of Highway 3.

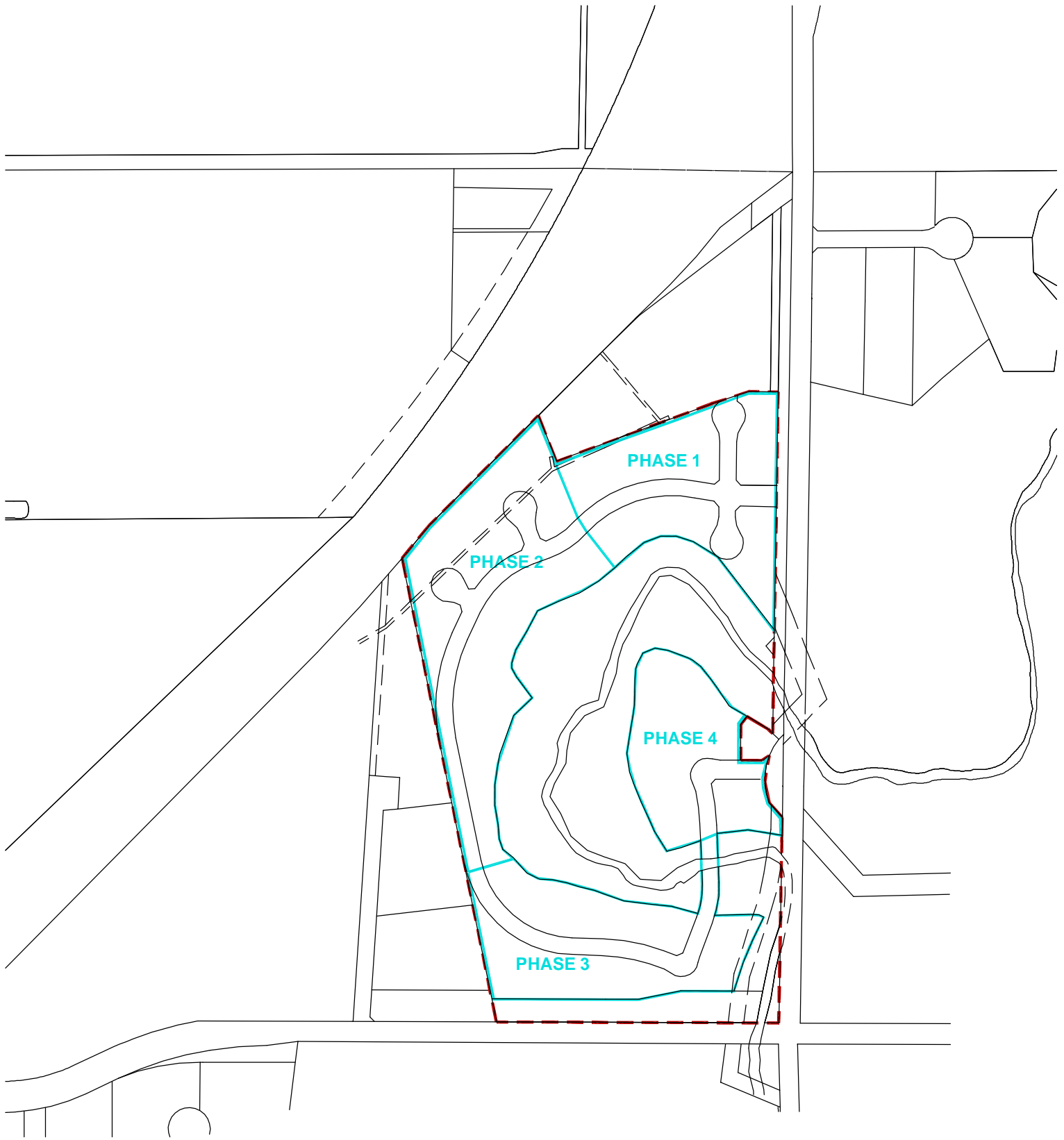
#### **6.4.2 Cable Television and Telephone**

Cable television and telephone service will be provided by Shaw and Telus respectively. Service will be extended from their existing distribution networks in the area.

A detailed evaluation of the shallow utility servicing network will be provided in the Canyon Creek Preliminary Servicing Report.

## **7.0 PHASING**

It is anticipated that the Plan area will be developed in four phases as illustrated in *Figure 10*, depending upon the availability of services.



--- ASP Boundary  
 — Phase Boundary

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## Canyon Creek Development

City of Medicine Hat

### Phasing

Area Structure Plan

## Figure 10

S.E. 1/4 Sec. 15 - 12 - 06 - W4M

Scale: 1:5000

2006 - 04 - 01

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