

# **SOUTH RIDGE Area Structure Plan**

**City of Medicine Hat**

**April 1986**



## BY-LAW NO : 2473

Being a By-law of the City of Medicine Hat to adopt the South Ridge Area Structure Plan and to amend

- (a) By-law No. 1942 being the General Municipal Plan By-law of the City of Medicine Hat; and
- (b) By-law No. 1989 being the "City of Medicine Hat Land Use By-law".

WHEREAS Section 64 of the Planning Act R.S.A. 1980, c.P-9, as amended, empowers the council of a municipality to pass by-laws adopting area structure plans to control the subsequent development and subdivision of lands within areas of the municipality;

AND WHEREAS By-law No. 1942 of the City of Medicine Hat designates the South Ridge Lands as an area suitable for an area structure plan;

AND WHEREAS it is deemed desirable to allow further expansion of the South Ridge neighbourhood by implementing an appropriate framework for development and subdivision of area;

AND WHEREAS it is deemed necessary to amend By-laws Nos. 1942 and 1989 by reclassifying the South Ridge Lands from their various existing classifications to those new classifications as indicated in the South Ridge Area Structure Plan;

NOW THEREFORE THE MUNICIPAL COUNCIL OF THE CITY OF MEDICINE HAT IN COUNCIL ASSEMBLED ENACTS AS FOLLOWS:

- 1. This By-law may be cited as the South Ridge Area Structure Plan By-law.
- 2. The document marked Schedule "A", attached to and forming a part of this By-law, entitled the South Ridge Area Structure Plan, is hereby adopted as an area structure plan pursuant to Section 64 of the Planning Act R.S.A. 1980, c.P-9, as amended;

3. By-law No. 1942 is hereby amended by reclassifying the South Ridge Area Structure Plan Lands from their existing land use classifications to those various land use classifications as shown in Figure 1.2 on page 4 of the said Plan and further to permit the staging of development of the South Ridge Lands as shown in Figure 1.3 on page 9 of the said Plan;

4. By-law No. 1989 is hereby amended by reclassifying, where necessary, the South Ridge Area Structure Plan Lands from their existing land use classifications to those land use classifications as shown in Figure 1.6 on page 18 of the said Plan;

5. This By-law shall take effect as of the date of the final reading thereof.



READ A FIRST TIME IN OPEN COUNCIL this 17<sup>th</sup> day of March A.D., 1986

 MAYOR  CITY CLERK

READ A SECOND TIME IN OPEN COUNCIL this 21<sup>st</sup> day of April A.D., 1986

 MAYOR  CITY CLERK

READ A THIRD TIME AND FINALLY PASSED IN OPEN COUNCIL this 21<sup>st</sup> day of April A.D., 1986

 MAYOR  CITY CLERK





**SOUTH RIDGE  
AREA STRUCTURE PLAN**

**SCHEDULE "A"**

**Prepared for  
City of Medicine Hat  
by  
Southeast Alberta Regional Planning Commission  
April 1986**



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## **1.0 PURPOSE**

As part of the growth strategy of the Medicine Hat General Municipal Plan, this area structure plan provides for the orderly expansion of residential development in the South Ridge vicinity. The objectives of this area structure plan are:

- (1) to provide a transportation and utility system which can accommodate adjacent development and increases in population density;
- (2) to develop neighbourhoods which will support the existing regional commercial areas of Medicine Hat, including downtown;
- (3) to develop a highway commercial centre at the 13th Avenue interchange;
- (4) to develop relatively self-sufficient neighbourhood units in terms of services and amenity features; and
- (5) to coordinate the development of compatible neighbourhoods in areas adjacent to South Ridge.

## **2.0 LOCATION**

This plan includes all lands adjacent to the existing South Ridge subdivision and includes Stages 2A and 3A of the Growth Strategy of the Medicine Hat General Municipal Plan (1979) as well as other lands to the west. The lands in the plan area, identified by legal description, are shown in Figure 1.1.

## **3.0 SITE ANALYSIS**

Currently, the primary use of land in the area is farming, with only minor developments in terms of one gas well and an electrical sub-station.

The topography of the area is generally flat, except in the west, where the plan area borders the coulee of the Seven Persons Creek. In this area, development setbacks from the

escarpment are required. Based on recommendations made in the Hardy Associates geotechnical study, these setback distances have been calculated and are indicated in Figure 1.2.

Soils in this area have been tested (Golder and Associates, 1975) and are suitable for most development purposes. Presently, the water table is considerably lower than conventional foundation depths. However, it is probable that the water table will be altered significantly after the area is developed. Domestic irrigation may raise the water table to the extent that weeping tile is required. It is therefore recommended that a projection of the future water table be calculated.

## **4.0 TRANSPORTATION CONCEPT**

With the eventual twinning and re-alignment of the Trans-Canada Highway between Kin Coulee and the eastern city limit, both South Ridge Drive and 13th Avenue will become arterials for the South Ridge Area Structure Plan (Figure 1.2). Initially these two arterials will operate as two-lane roadways. However, sufficient right-of-way should be established for these arterials to accommodate four-lane divided roadways in the future.

The spacing of intersecting roads along the arterials is not less than the 400 metres required by Alberta Transportation with the exception of the intersection of the east-west collector from South Ridge and 13th Avenue. This exception is required to provide good access to the commercial area.

The major east-west collector will be constructed south of South Ridge Drive which will reduce the existing east-west portion of South Ridge Drive to a local road, primarily serving the public facilities which will be located in the immediate area. More detailed analysis of the function and alignment of

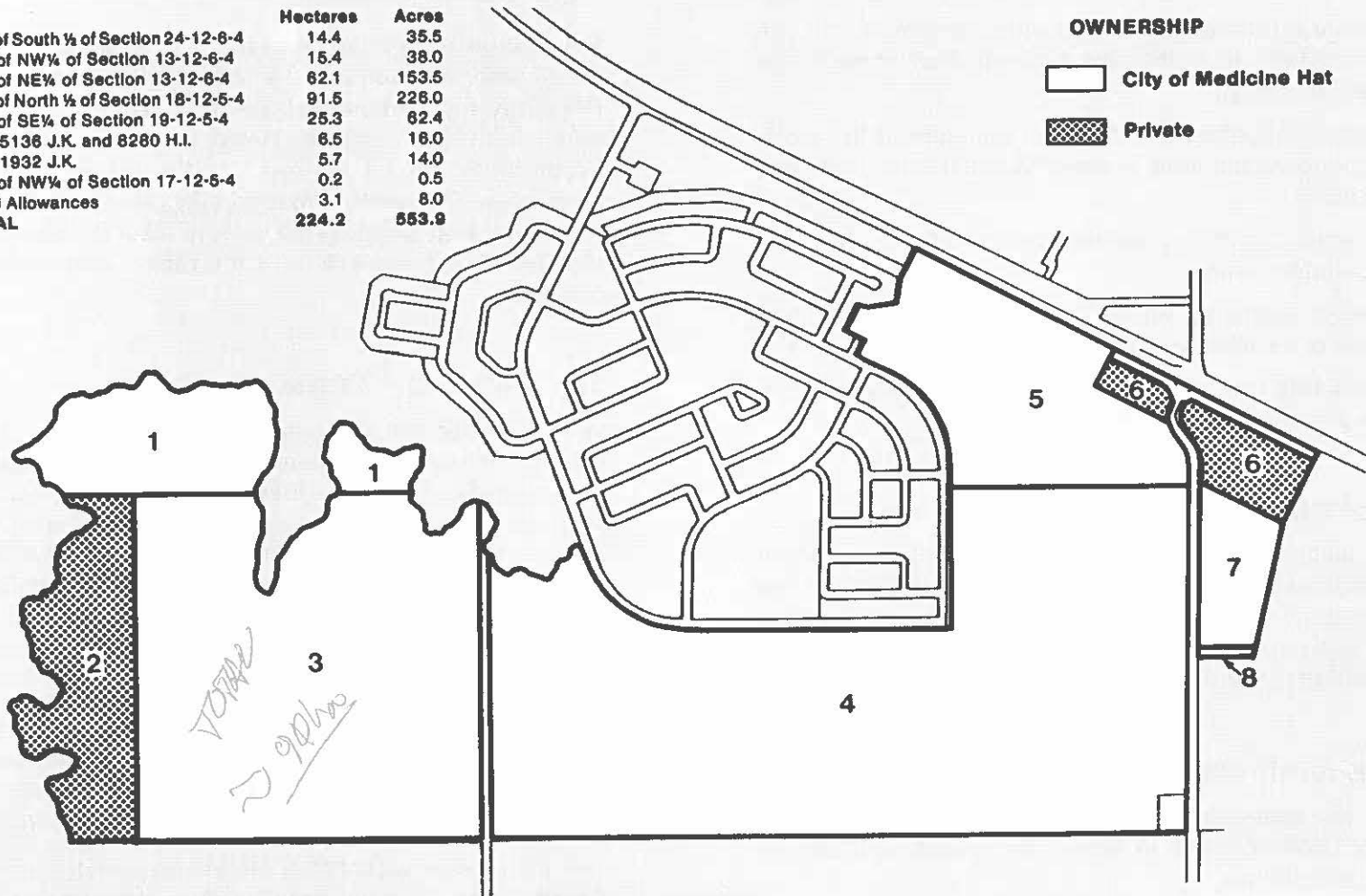
# Figure 1.1 PLAN AREA AND OWNERSHIP

	Hectares	Acres
1 Part of South 1/4 of Section 24-12-6-4	14.4	35.5
2 Part of NW1/4 of Section 13-12-6-4	15.4	38.0
3 Part of NE1/4 of Section 13-12-6-4	62.1	153.5
4 Part of North 1/4 of Section 18-12-5-4	91.5	226.0
5 Part of SE1/4 of Section 19-12-5-4	25.3	62.4
6 Plan 5136 J.K. and 8280 H.I.	6.5	16.0
7 Plan 1932 J.K.	5.7	14.0
8 Part of NW1/4 of Section 17-12-5-4	0.2	0.5
Road Allowances	3.1	8.0
<b>TOTAL</b>	<b>224.2</b>	<b>553.9</b>

## OWNERSHIP

 City of Medicine Hat

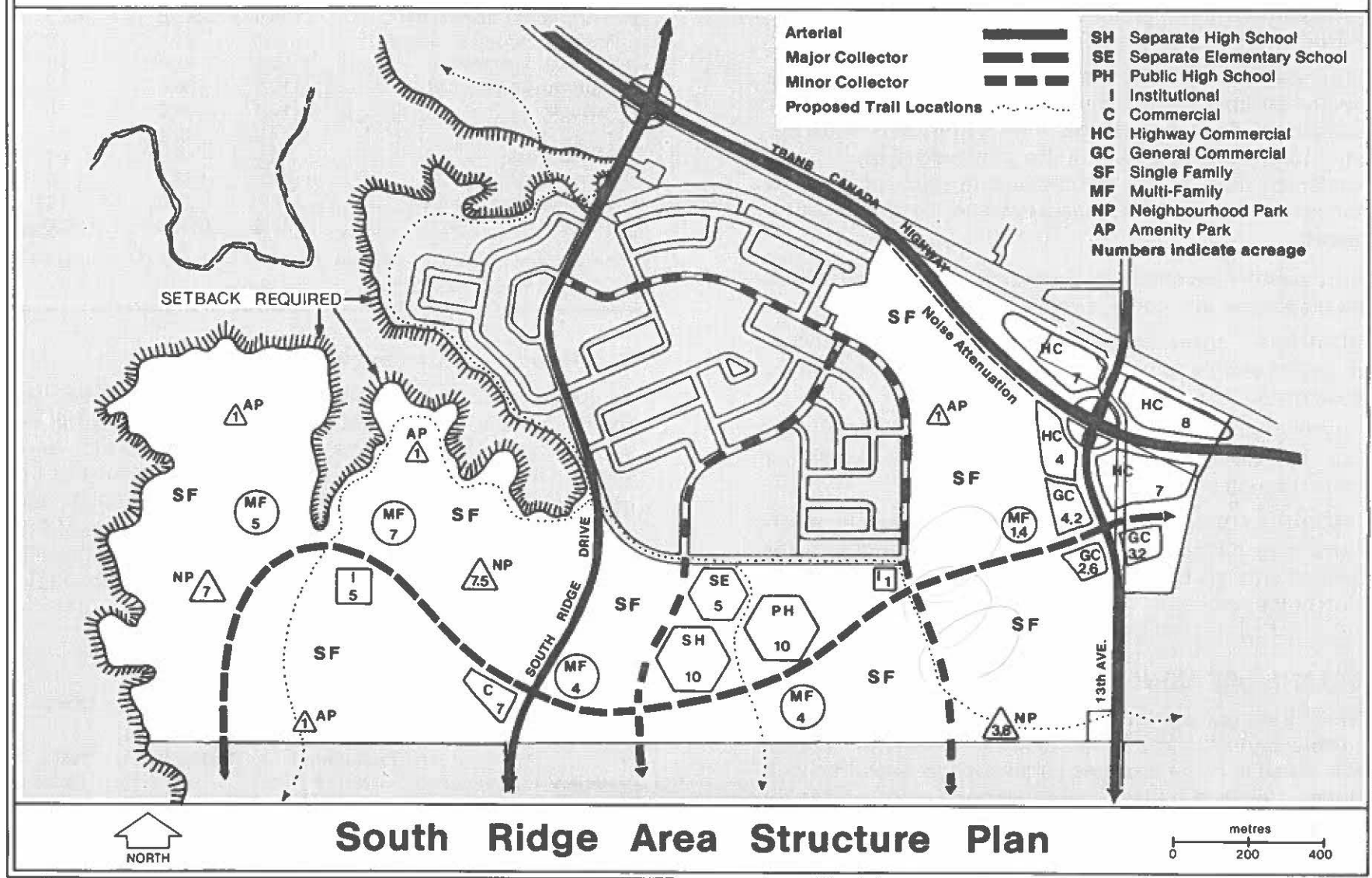
 Private



**South Ridge Area Structure Plan**

metres  
0 200 400

# Figure 1.2 LAND USE AND TRANSPORTATION CONCEPT



South Ridge Drive between Stratton and Sprague Way should be done when a subdivision design is required for lands south of South Ridge Drive. It may be advantageous at that time to close all or portions of South Ridge Drive to better integrate the existing park and residential areas with the final phases of the South Ridge neighbourhood.

This concept for the major roads in this area follows from the development strategy recommended in the background study (Appendix A). Furthermore, this road pattern has been designed to provide linkage with the proposed system in the Southlands area. At the subdivision design stage, more detailed coordination with respect to these alignments will be required.

In the development of this road system, the following matters were also taken into consideration:

- (1) TRANSIT - collector roads should be used and subdivision design should provide for a maximum ¼ mile bus route access distance.
- (2) PEDESTRIAN CIRCULATION - the concept plan indicates the possible location of a pedestrian walkway-trail system through this area.
- (3) NOISE ATTENUATION - consideration should be given to providing an additional 11 metres of right-of-way for proposed arterials to provide for separation and noise attenuation in the future.

## 5.0 LAND USE CONCEPT

Based on the general location of the major elements of the road network, including the highway and related interchanges, the land use concept provides for a variety of uses. The vast majority of the land in the plan area will be used for residential purposes. However, a significant amount of commercial development will occur in the vicinity of the 13th Avenue interchange. The general location of land uses is indicated in Figure 1.2 and the distribution is shown in Table 1.1.

**Table 1.1**  
**DISTRIBUTION OF LAND USES**

	Area		Percent of Total
	Hectares	Acres	
Low Density Residential	108.4	267.8	48.3
Medium Density Residential	8.7	21.4	3.9
General Commercial	6.9	17.0	3.1
Highway Commercial	10.5	26.0	4.7
Schools	10.1	25.0	4.5
Parks*	12.3	30.4	5.5
Institutional	2.4	6.0	1.1
Road and Utilities	58.1	143.5	25.9
Highway Re-alignment	10.1	25.0	4.5
<b>TOTAL</b>	<b>224.2</b>	<b>554.0</b>	<b>100.0</b>

\* This figure includes 3.3 hectares (8.1 acres) of previously established reserve outside the plan area.

## 5.1 Residential Component

Approximately 554 acres are contained in the plan area. As shown in Table 1.2, the total population of the area will be approximately 7,816 persons. The resultant population density of 14 persons per acre is slightly lower than the 15 persons per acre recommended in the General Municipal Plan. However, considering that a significant portion of the land is being used for non-residential purposes (Trans-Canada Highway upgrading, highway commercial, etc.), the resultant figure is satisfactory.

**Table 1.2**  
**DEVELOPMENT POTENTIAL OF NET RESIDENTIAL LAND**

	Low Density Residential	Medium Density Residential	Total
Net Residential Acres	267.8	21.4	289.2
Units per acre	8.0	26.0	
TOTAL UNITS	2,142	556	2,968
Persons per unit	3.0	2.5	
TOTAL POPULATION	6,426	1,390	7,816



The population of the Area Structure Plan will be distributed among three of the neighbourhoods identified in the background study (Appendix A). Approximately 1,800 will complete the neighbourhood north of the major collector. Another 4,516 will contribute to the formation of a neighbourhood to the southwest and the remaining 1,500 will be part of a third neighbourhood to the south.

The most common housing type will be low density residential units, consisting of single family dwellings with some duplexes, townhouses and apartments. The exact mixture will be determined at each subdivision stage based on market demand and user need.

## **5.2 Commercial Component**

As noted in the plan objectives, the population in this area will rely on the downtown and existing regional shopping centres for major commercial services. The plan provides for general commercial facilities along South Ridge Drive and 13th Avenue to serve the area. In addition, highway commercial is provided adjacent to the 13th Avenue interchange on the Trans-Canada Highway (Figure 1.2).

The seven acre general commercial site identified along South Ridge Drive at the southern boundary of the plan area could be used for other purposes, if future demands do not materialize.

## **6.0 STAGING**

The staging of development within the plan area coincides with the staging in the General Municipal Plan and follows a logical extension of services in the area. There are three stages, as shown in Figure 1.3, with the first stage completing the neighbourhood north of the major collector. The second stage will provide for residential development immediately to the south as part of a second neighbourhood. The third stage deals with land west of the South Ridge Drive arterial which would form part of another neighbourhood.

The development of the third stage could be further refined in terms of phasing at a later date, since it represents a rather large area, and it is in this area where certain servicing problems exist.

## **7.0 UTILITY SYSTEMS**

### **7.1 Electrical**

Electrical service for the plan area will be supplied by the City of Medicine Hat. An existing substation in the Northwest quarter of Section 18 will be adequate for this area.

A 69 KV line, being part of the electrical ring system around Medicine Hat, bounds the plan area (Figure 1.4). Discussions with the Utilities Department indicate that it will be more economical to accommodate the line within the future built-up area than to relocate it. The size of the power line dictates a 10.5 metre (35 foot) building setback from the line and at least 1 metre between any pole and adjacent property lines.

A few existing overhead electrical lines which serve local farms may require relocation as development proceeds.

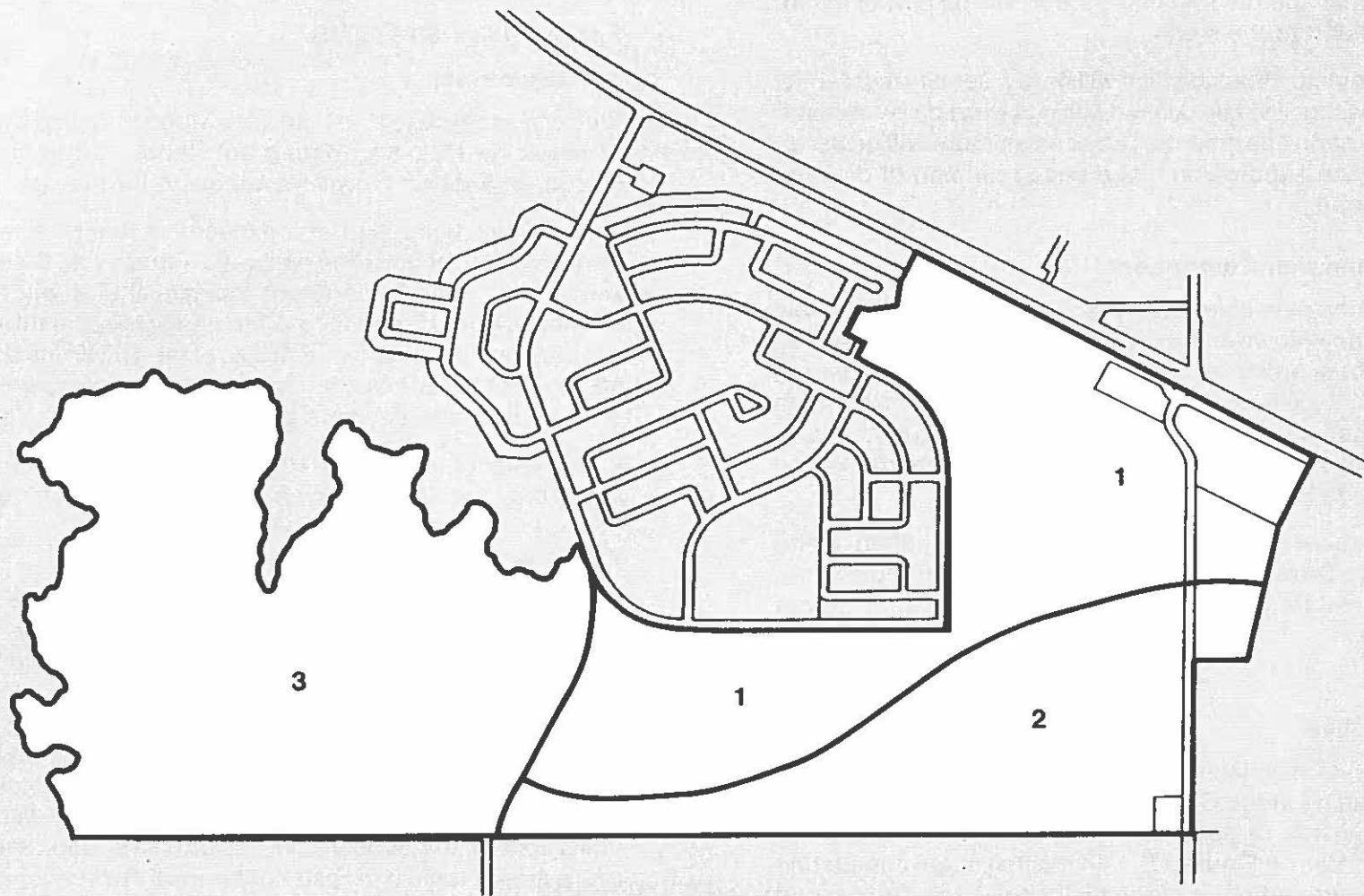
### **7.2 Gas**

The gas supply for the first two stages of this plan will be provided via medium pressure lines through the existing South Ridge subdivisions. A tie-in with a regulator station adjacent to 13th Avenue will provide adequate pressure. The third stage will require a regulator station and a tie-in with the existing high pressure line north of South Ridge. Service lines in the third stage should also loop into existing service lines in South Ridge. Gas wells and regulator stations will require utility lots at the subdivision design stage and abandoned wells should remain in road rights-of-way wherever possible.

### **7.3 Sanitary Sewer**

The existing sanitary sewer system in South Ridge is capable of handling full development of this area structure plan. Major

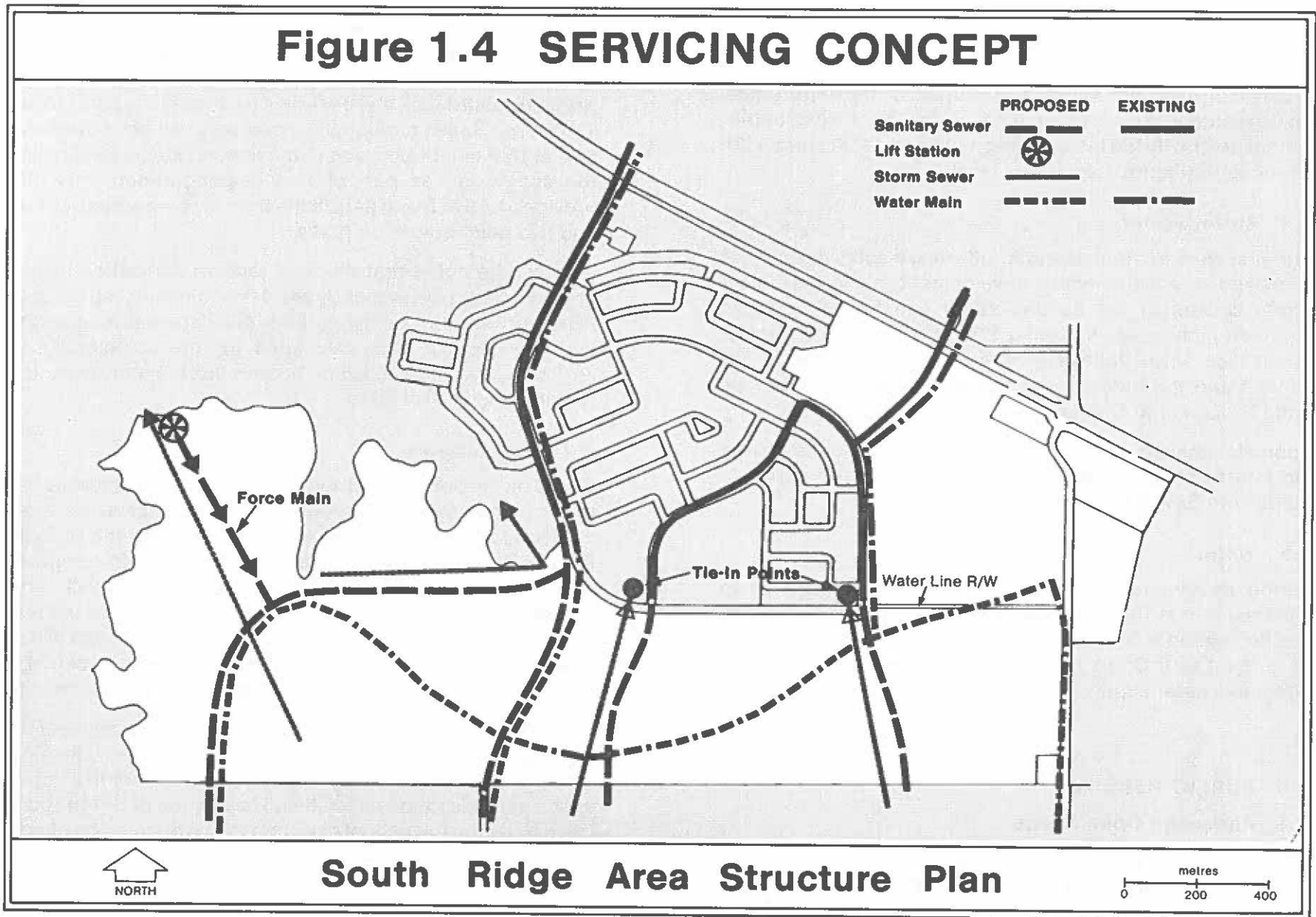
**Figure 1.3 DEVELOPMENT STAGING**



**South Ridge Area Structure Plan**

metres  
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# Figure 1.4 SERVICING CONCEPT



mains which will service the second and third stages include an eight inch line along Southview Drive, an eight inch line along Stratton Way and a twelve inch line along Sprague Way.

A servicing problem exists in a portion of the third stage. Approximately 90 acres of land in the northwest corner cannot be gravity fed into existing mains, and a lift station will be required (Figure 1.4).

#### **7.4 Storm Sewer**

Storm sewers in the existing South Ridge subdivision were oversized to accommodate development in the plan area. Storm sewers in the second stage can be tied into an eighteen inch sewer following Stratton Way and a twenty-seven inch sewer following Sprague Way. Portions of the second and third stages will utilize the twenty-seven inch outfall adjacent to Stevenson Street.

Approximately 90 acres in the third stage cannot be gravity fed into existing outfalls and thus, will require a separate outfall into Seven Persons Creek.

#### **7.5 Water**

Further development in the South Ridge area will require an improvement in the water supply. The City of Medicine Hat has completed a study of the situation and a water reservoir near the Lamb Court Health Unit will be built to provide adequate water supply.

### **8.0 PUBLIC RESERVE**

#### **8.1 Parks and Open Space**

The rationale for the provision and distribution of reserve for parks and open space, as well as for schools, has been based on the entire land holdings south of the Trans Canada Highway and is detailed in the background study (Appendix A).

Within the area structure plan, there will be a hierarchy of parks and open space, based on the recommended distribution in the background study. These are shown in Figure 1.2 as part of the development concept. Immediately east of the existing subdivision, there will be a small amenity park - tot lot. To the southeast, a neighbourhood park will be provided as part of that neighbourhood in the second stage. Similarly, in the southwest, as part of that neighbourhood, this plan provides 17.5 acres of park in the form of three amenity parks and two neighbourhood parks.

It should be noted that the total reserve dedication for this area structure plan is slightly below the minimum ten percent. However, when the existing park development is included, and the dedication is calculated for the combined area structure plan and existing South Ridge subdivision, this requirement is exceeded.

#### **8.2 School Sites**

Based on the detailed distribution provided in the background study (Appendix A), the area structure plan provides three new school sites totalling 27 acres. Two sites for the Catholic Board of Education are for an elementary school (5 acres) and a high school (10 acres). Both of these schools will serve neighbourhood populations in the plan area as well as adjacent neighbourhoods. The elementary school site will be required in the near future. An adjacent 12-acre public high school site will also be provided to serve this part of the city.

All three school sites will be situated immediately south of the existing community park, as part of the first phase of development, to provide a strong community focal point of open space and educational facilities. The section of South Ridge Drive between the school sites and the park would be closed to provide immediate access to the park facilities from the schools and eliminate the redundancy of major east-west roads created by the major collector immediately south of the school sites.

With full development of the structure plan, an additional public elementary school will be required. The background study shows no additional schools in the plan area; rather, two schools are proposed directly to the south on the Weiss and Wahl properties. Should future development phasing not allow suitable construction time for the needed school, the school can alternately be built on an appropriate site located in the western part of this plan area, as part of the third stage.

## 9.0 IMPLEMENTATION

Following from the staging suggested above, the implementation of this area structure plan initially involves a more detailed examination of the development and design of the first stage which completes the first neighbourhood. The following subdivision design and proposed land use districts represent this first level of implementation. With the exception of an 8.9 hectare (22 acre) residential parcel in the southwest corner, this subdivision concept provides for full development of lands immediately east and south of the existing South Ridge subdivisions.

### 9.1 Subdivision Design

A total of 46.15 hectares (113.7 acres) of land are involved in this design (Figure 1.5). The general distribution of land uses is given in Table 1.3 and shows that the largest proportion of land will be used for residential purposes (45%), with reserve land for parks and schools accounting for 24 percent, and land for roads and lanes using about 20 percent of the total. Other uses include commercial activities along 13th Avenue which make up nine percent of the total, and one church site about 0.8 hectares (2 acres) in size.

The roads established by this subdivision design include arterials, collectors and local streets. The southern extension of 13th Avenue will ultimately serve an arterial function and has a 36 metre right of way providing for a four-lane divided

**Table 1.3**  
**DISTRIBUTION OF LAND USES**  
**BY AREA, SUBDIVISION CONCEPT**

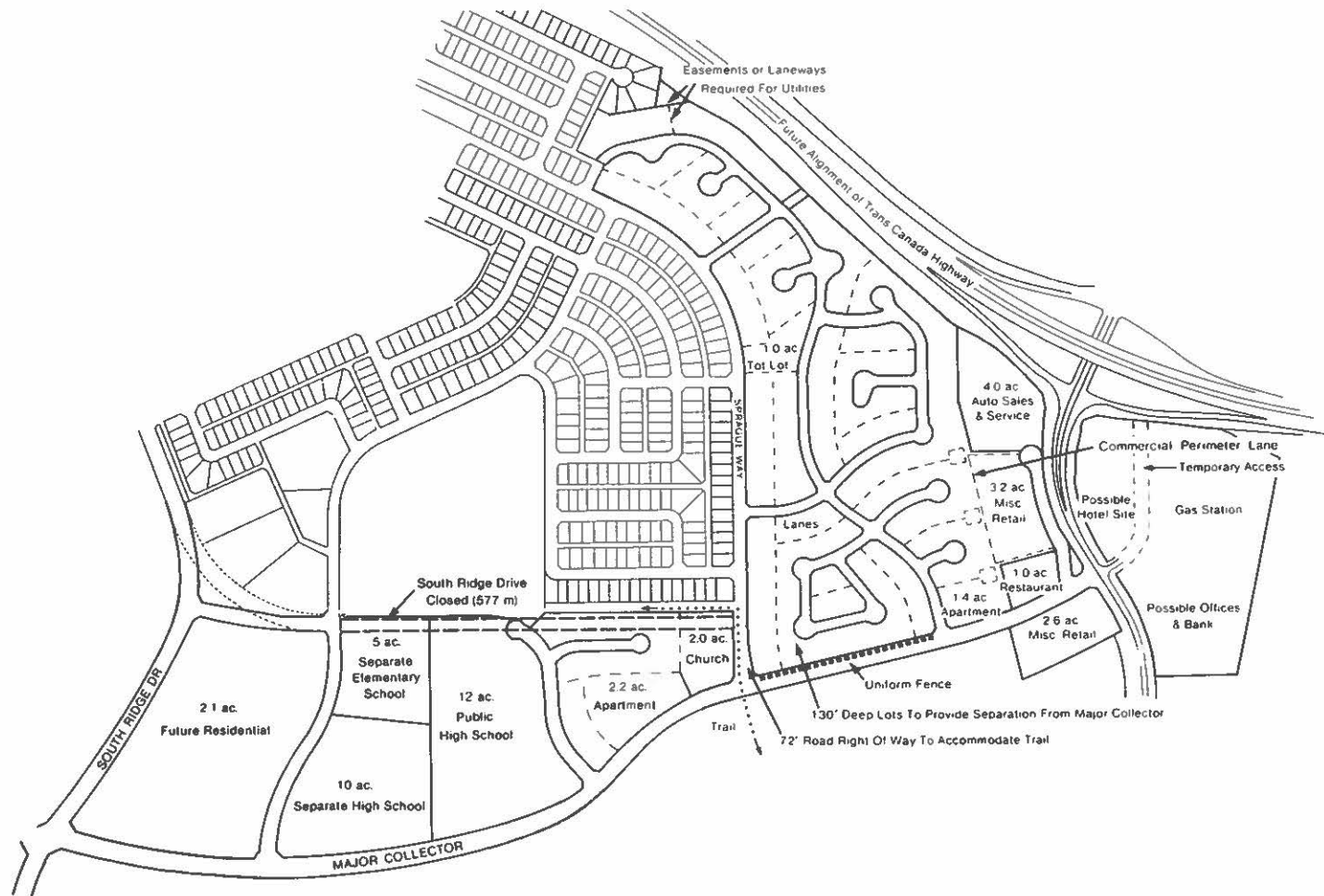
	Hectares	Acres	Percent of Total
<b>Residential</b>			
Single Family	18.70	46.2	
Duplex/Fourplex	0.40	1.0	
Apartments	1.40	3.4	
<b>TOTAL</b>	<b>20.50</b>	<b>50.6</b>	<b>45%</b>
<b>Commercial</b>			
Highway	1.60	4.0	
General	2.75	6.8	
<b>TOTAL</b>	<b>4.35</b>	<b>10.8</b>	<b>9%</b>
<b>Institutional</b>			
Church	0.80	2.0	2%
<b>Reserve</b>			
Amenity Park	0.40	1.0	
Separate Elementary School	2.00	5.0	
Separate High School	4.10	10.0	
Public High School	4.90	12.0	
<b>TOTAL</b>	<b>11.40</b>	<b>28.0</b>	<b>24%</b>
<b>Roads and Lanes</b>	<b>9.10</b>	<b>22.3</b>	<b>20%</b>
<b>TOTAL</b>	<b>46.15</b>	<b>113.7</b>	<b>100%</b>

roadway. The major collector along the southern boundary of the design has a 22 metre right of way while the residential streets have 15 metre rights of way.

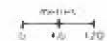
The alignment of the existing irrigation water line and gas lines crossing the site could not be incorporated in the design and will have to be relocated. The existing storm sewer line, sanitary sewer line and water main have been accommodated within roadways, laneways and easements, with the exception of a portion of South Ridge Drive.



**Figure 1.5 SUBDIVISION CONCEPT - STAGE 1**



**South Ridge Area Structure Plan**



South Ridge Drive between Stratton Way and Sprague Way would be closed to allow for a more efficient design. Existing services could be maintained in an easement across the park but services would have to be abandoned in the area to the east which would become residential.

The subdivision design provides three school sites immediately south of the large Community Park, including a 5 acre Separate Elementary School, a 10 acre Separate High School and a 12 acre Public High School. These locations were identified in the background study and, although the high schools will not be required immediately, the separate elementary school site is to be developed in the near future.

The residential component of the design indicates a housing mix similar to the existing South Ridge development. The majority of the housing units would be single-family detached dwellings with some duplex and fourplex development. Two apartment sites within the design would accommodate about 108 units (see Table 1.4).

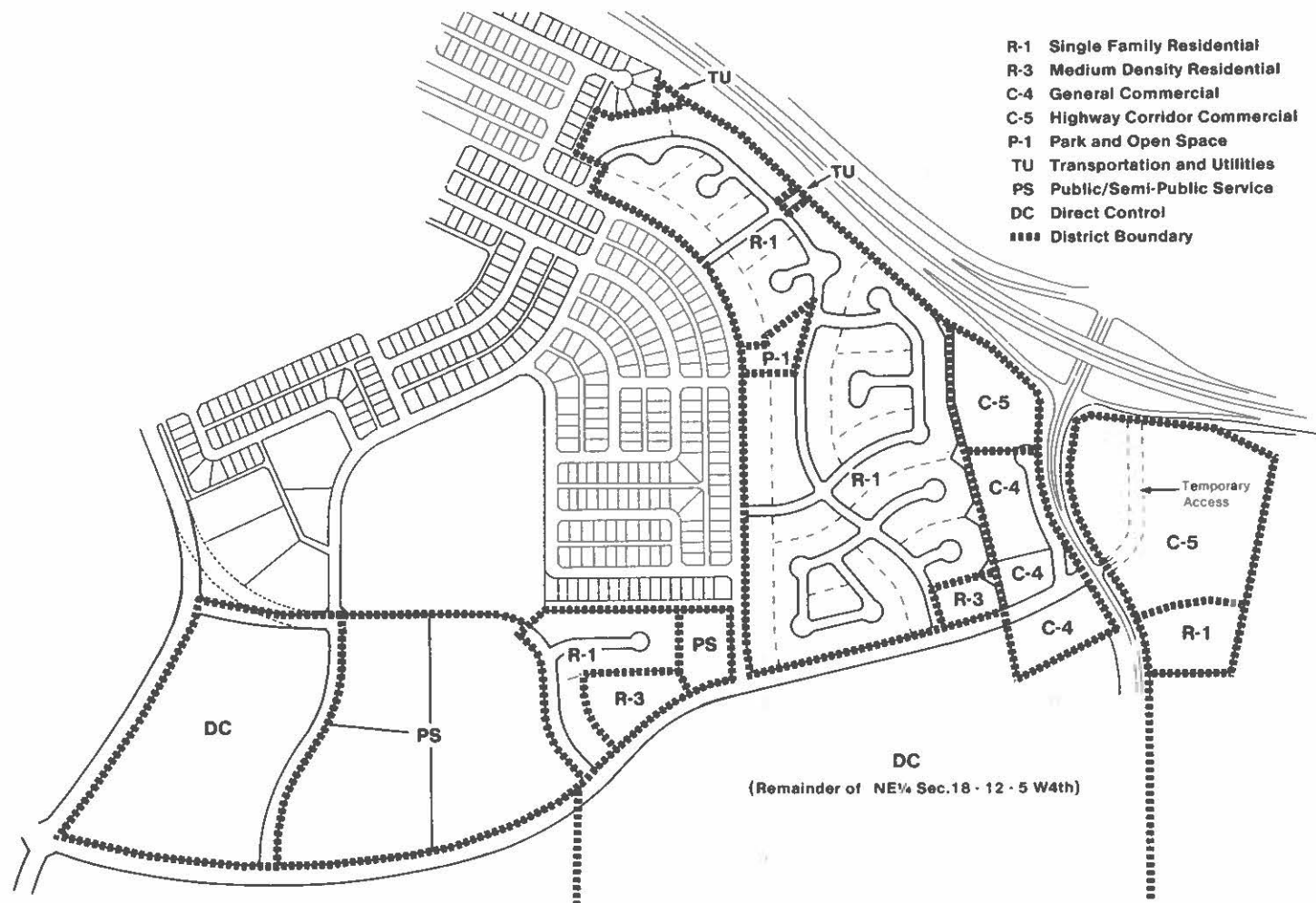
## 9.2 Land Use Districts

The proposed land use by-law amendment is shown in Figure 1.6 and deals only with Stage 1 of the area structure plan. A variety of districts are established, reflecting the uses proposed for this area. The land within Stages 2 and 3 cannot be reclassified in this plan, since the concept plan for these areas, as shown in Figure 1.2, identifies a broad distribution of uses but does not provide detailed areas or boundaries.

**Table 1.4**  
**HOUSING MIX AND PROJECTED POPULATION**

	<b>Single Family</b>	<b>Duplex Fourplex</b>	<b>Apartment</b>	<b>Total</b>
Net Acreage	46.2	1.0	3.4	50.6
Unit Density	7	13	32	-
Projected Units	323	13	108	444
Percent of Total Units	73	3	24	100
Persons Per Unit	3.5	2.75	2.25	-
Projected Population	1,130	36	243	1,409

**Figure 1.6 LAND USE BY-LAW AMENDMENTS - STAGE 1**



**South Ridge Area Structure Plan**

metres  
0 60 120



## **APPENDIX A**

### **BACKGROUND STUDY**



## APPENDIX A BACKGROUND STUDY

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## **1.0 PURPOSE**

The Medicine Hat General Municipal Plan has made provision for phased development of land south of the Trans-Canada Highway. Prior to development, the General Plan requires that area structure plans be prepared in accordance with the Planning Act. It is anticipated that a number of area structure plans will be prepared for various lands south of the Trans-Canada Highway, and their proximity and interrelationship necessitates that coordination occur at the preliminary planning stages. Transportation and utility facilities, for example, common to these neighbourhoods can be provided economically and logically only if a general overview providing for integration is established prior to further development.

The purpose of this study is to provide the necessary background information to ensure that individual area structure plans south of the Trans-Canada Highway will be prepared in a coordinated manner with adjacent developments. The study addresses the need for an efficient transportation network, an appropriate development strategy, adequate utility services and sufficient park and school space for this area south of the Trans-Canada Highway. In doing this, a framework is provided within which the details of each area structure plan can be established and evaluated.

## **2.0 LOCATION**

The area which is the subject of this study includes all lands south of the Trans-Canada Highway and east of Seven Persons Coulee outlined in the General Municipal Plan as future residential and urban reserve as shown in Figure A.1. The legal description and ownership of the lands which comprise the study are depicted in Figure A.2.

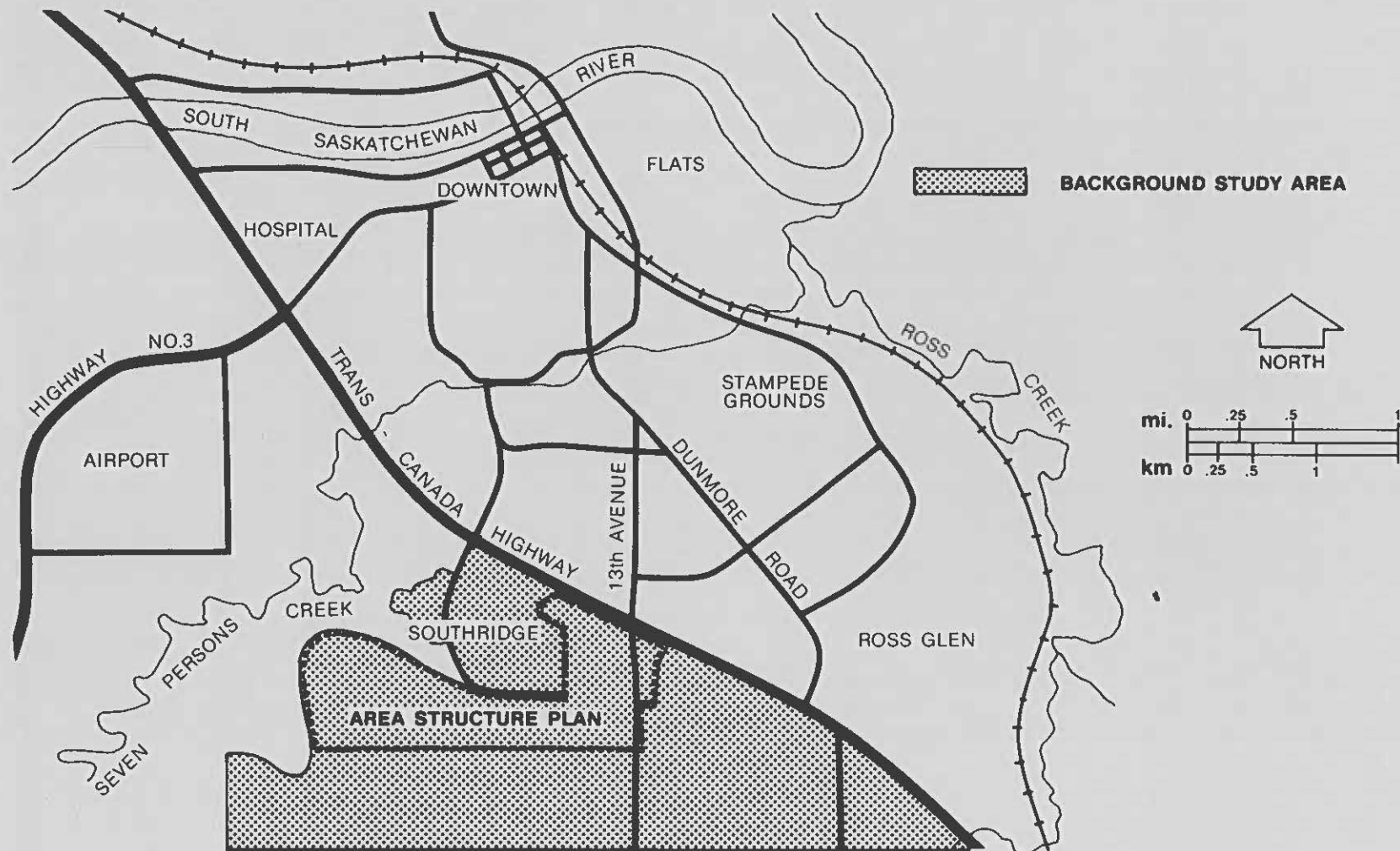
## **3.0 SITE ANALYSIS**

The study area is located approximately two miles south of downtown Medicine Hat. Major transportation routes to the area include Dunmore Road, 13th Avenue, the Trans-Canada Highway and College Avenue which provide access to all parts of the city. Community and regional commercial facilities are located directly north of the study area along Dunmore Road and 13th Avenue. The proximity of these commercial areas should eliminate the need for major commercial activities within this area.

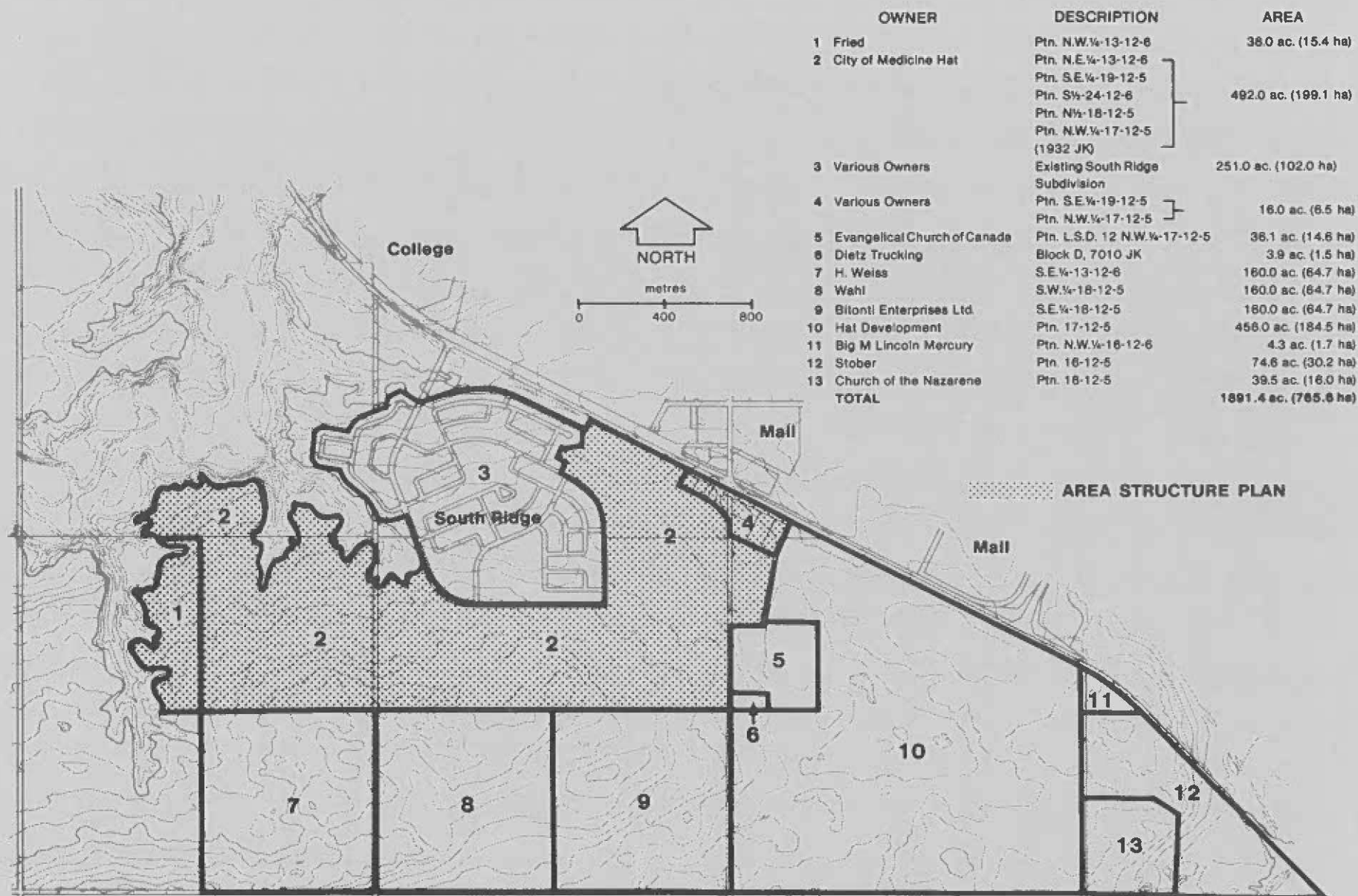
The site is relatively flat prairie, sloping gently towards two escarpments, one to the northwest and another to the east (Figure A.3). Significant natural features in the area include Seven Persons Coulee and Bullshead Creek which have potential for a wide range of recreation opportunity. Seven Persons Creek is located at the base of a 34 metre (110 foot) escarpment to the northwest and Bullshead Creek is located at the base of an 8 metre (25 foot) escarpment to the east. The site itself varies in elevation from 710 metres (2,330 feet) at the top of the escarpment to 740 metres (2,430 feet) on a small ridge in the southwest corner. The ridge becomes more pronounced just south and west of the study area. Land north and west of the ridge drains towards Seven Persons Creek and the remaining area drains south and east. Much of the land between 13th Avenue and the Black and White Trail is flat and poorly drained.

Presently, agriculture is the most extensive land use in the study area in terms of both dryland and irrigated farms and associated farmsteads. A mobile home park located in the Southeast quarter of Section 18-12-5-4 represents the most intensive use of land in the study area. The park development occupies approximately 16 hectares (40 acres) and includes

# Figure A.1 STUDY AREA



# Figure A.2 LAND OWNERSHIP





# Figure A.3 EXISTING DEVELOPMENT





paved roads and serviced pads to accommodate approximately 107 mobile homes. The mobile home park has a reservoir for water supply and a lagoon for sewage disposal. The final land use to note is a church site between the Black and White Trail and the Trans-Canada Highway (Figure A.3).

In terms of existing infrastructure, there are various electrical, gas and irrigation facilities within the study area. An existing sub-station adjacent to 13th Avenue is adequate to serve all development within the study area. A 69 KV line runs through the study area and must be accommodated at the subdivision design stage. There are two operating gas wells and two abandoned gas wells in this area. Other gas facilities include three regulator stations and various collection and distribution lines.

There are several irrigation laterals operated by the St. Mary River Irrigation District in the study area as shown in Figure A.3. The laterals presently serve agricultural land in the immediate area plus Medicine Hat College, Connaught Golf Course, Church of the Nazarene and City of Medicine Hat parks. Urban development may necessitate that the irrigation laterals be replaced by underground pipes.

#### **4.0 DEVELOPMENT STRATEGY**

The study relies on the goals and objectives of the General Municipal Plan as being an accurate reflection of the City's expectations for urban development at this time. The underlying emphasis of this study is that population densities and the number of multi-family units will likely increase in the future. Therefore, this study should be considered as a document which reflects the minimum density requirements for this part of the City.

In the short term, the study area may appear to be an isolated residential area because of the barrier created by the Trans-Canada Highway. However, the area represents a logical

extension of residential growth in Medicine Hat. Short term isolation problems should be addressed by ensuring that adequate community facilities are available to those living in this area.

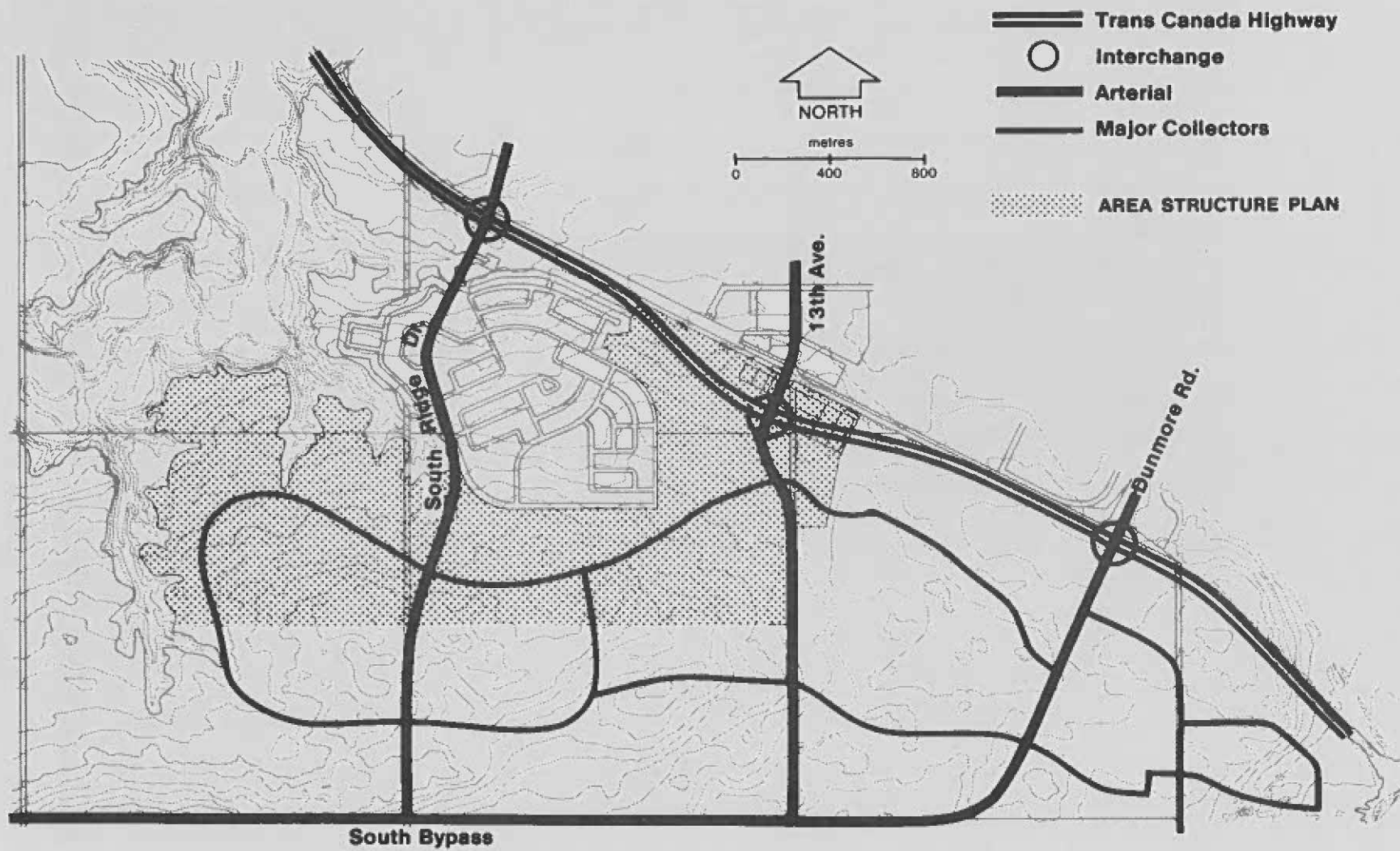
In keeping with the General Municipal Plan Growth Strategy the entire area of 765 hectares (1,891 acres) is designated primarily for residential development and associated uses such as reserve land, roads and utilities, with some local commercial and highway commercial development.

#### **4.1 Transportation System**

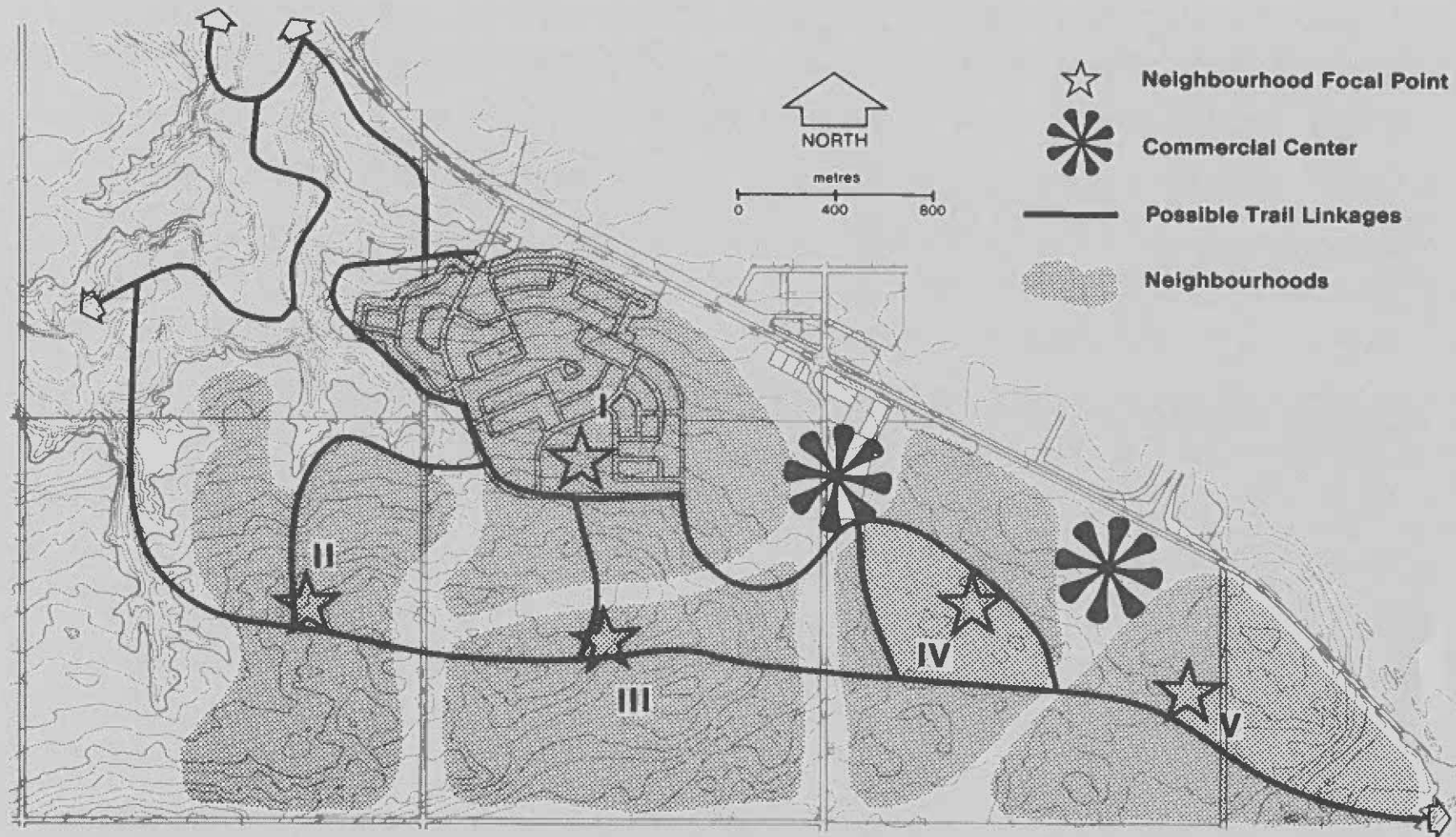
The proposed arterial network in the study area consists of three north-south roads and one east-west road (Figure A.4). The three north-south roads extend south from the Trans-Canada Highway where it intersects with College Avenue, 13th Avenue and Dunmore Road. Grade separation interchanges have been proposed by previous traffic and planning studies at these intersections and preliminary calculations prepared for this study confirm that the traffic generated by the study area's population will necessitate their construction. The east-west road links with Dunmore Road and follows the south boundary of the study area. The design of the arterial network is consistent with Alberta Transportation's policy of one mile spacing between arterials. Initially, the arterials may be constructed as two lane roads. However, sufficient rights-of-way must be provided to permit upgrading to four lane divided standards when warranted by traffic flows in the future.

The collector road system has been designed to minimize short-cutting through residential areas. However, strategic links are provided for bus routes and inter-neighbourhood pedestrian and automobile travel. Special attention has been given to traffic access and circulation around schools, parks and commercial areas.

# Figure A.4 TRANSPORTATION SYSTEM



**Figure A.5 NEIGHBOURHOOD CONCEPT**



## 4.2 Neighbourhood Concept

A neighbourhood concept has been applied to the study area as shown in Figure A.5. Five distinct neighbourhoods are proposed, using arterials as boundaries wherever possible. Based on the present policies of the General Municipal Plan, the population would be distributed as shown in Table A.1.

**Table A.1**  
**NEIGHBOURHOOD AREA & POPULATION**

	Hectares (Approximate)	Acres	Population Estimate
Neighbourhood I (South Ridge)	160	395	5,925
Neighbourhood II	162	400	6,000
Neighbourhood III	144	356	5,340
Neighbourhood IV	172	425	6,375
Neighbourhood V	130	323	4,845
<b>TOTAL POPULATION</b>			<b>28,485*</b>

\* Gross population density will be approximately 37 persons per hectare (15 p.p.a.).

Where applicable, residential development should be oriented towards major features of the open space system and neighbourhood focal points. At the subdivision design stage, local residential streets should be oriented primarily east-west to provide for solar heating applications. The appropriate mix of residential dwelling types will be determined at later stages, based on the market situation at that time.

Neighbourhood focal points have been provided in each of the neighbourhoods in the study area. A focal point may be a local park, community centre, educational facilities and/or neighbourhood commercial areas. Although the focal point should have an individual neighbourhood emphasis, some facilities which require a larger population for adequate support may also serve adjacent neighbourhoods. The land use model encourages a relatively self-sufficient residential sector in terms of community services and amenity features.

These services may include neighbourhood commercial, institutional, educational and recreation facilities required to support the population.

## 4.3 Commercial Development

Commercial centres have also been incorporated into the concept because of the potential for highway commercial and limited general commercial development at the interchanges. The land use allocation model used in this study assumes that the area will rely on the downtown and existing regional shopping centres for the provision of major commercial services.

## 4.4 Pedestrian Circulation

A pedestrian pathway system linking the River Valley Trail System with the focal points and open space within the study area would be an asset. The pathway system would flow through the area linking Seven Persons Coulee and Bullshead Creek by utilizing open space, parks, school grounds, and where required, local roads as shown in Figure A.5.

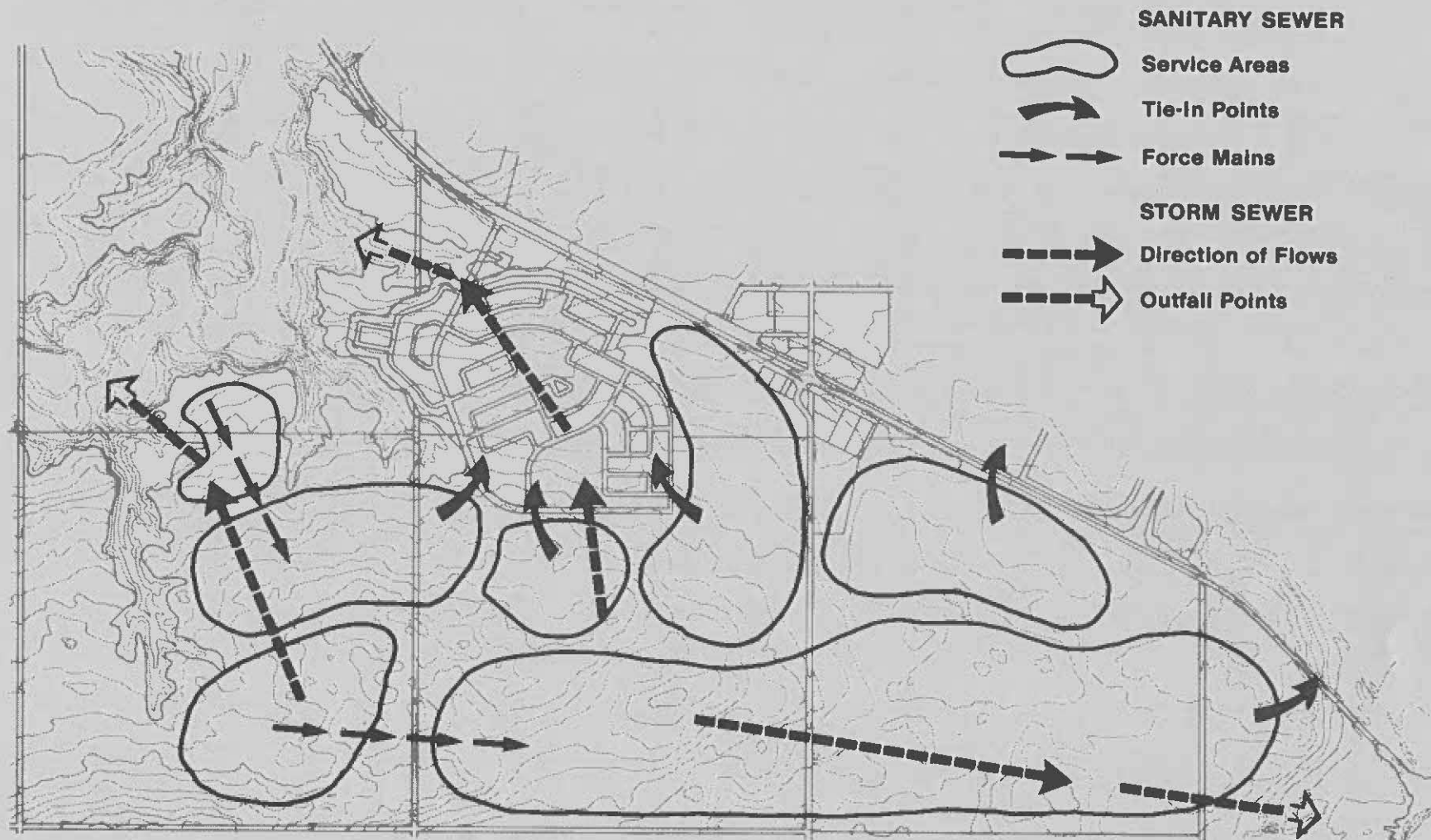
## 5.0 UTILITY SYSTEMS

### 5.1 Sanitary Sewer

The existing sanitary sewer system in South Ridge can accommodate all development north of the Suncrest Trailer Court. City owned land will be serviced via existing mains through South Ridge. Land to the east will require a new main across the Trans-Canada Highway. The remaining land will require a south by-pass around existing development. The by-pass can follow the south boundary of the study area towards Bullshead Creek and then north toward the sewage treatment plant. The southeast quarter of Section 13 will require a lift station to utilize the by-pass. The by-pass can also be located further south of the study area if the demand for residential growth exceeds that provided for in the General Municipal Plan (Figure A.6).



**Figure A.6 SERVICING CONCEPT**



## 5.2 Storm Sewer

Storm sewers in the existing South Ridge neighbourhood are oversized to accommodate development on City-owned land. Approximately 90 acres cannot be gravity fed into the existing outfalls and thus requires a separate outfall into Seven Persons Creek. The remaining lands slope gently to the south and east and will require a separate outfall into Bullshead Creek (Figure A.6).

## 5.3 Water

Further development in the study area will require upgrading of the water supply system. A water reservoir will be constructed in the vicinity of Lamb Court, northeast of the study area, and a booster station will be required southwest of South Ridge. These major facilities would ensure adequate water supply for this sector of the City.

## 5.4 Electric

An existing sub-station adjacent to 13th Avenue is adequate to serve all development within the study area. A 69 KV line runs through the study area and will require accommodation at the subdivision design stage.

## 5.5 Gas

Natural gas for the study area will be supplied by the City of Medicine Hat Utilities Department. Existing supplies will be supplemented by drilling new wells if necessary. Existing gas wells and regulator stations require utility lots and abandoned wells should remain in rights-of-way.

## 6.0 RESERVE ALLOCATION

A brief examination has been made of the 10% reserve dedication expected to result from the subdivision of land in the study area. In total, 76 hectares (187.6 acres) of municipal and school reserve is available from the land holdings in the

area, with the possibility of another 2.1 hectares (5.2 acres) dependent upon development of road allowances. The distribution of these reserve lands by neighbourhood is shown in Table A.2, the allocation of reserve by owner is given in Table A.3 and the general location of these reserve lands is shown in Figure A.7.

**Table A.2**  
**DISTRIBUTION OF RESERVE BY NEIGHBOURHOOD**

Neighbourhood	School		Municipal		Total	
	(ha)	(ac.)	(ha)	(ac.)	(ha)	(ac.)
I	12.9	32.0	10.0	24.8	22.9	56.8
II	2.8	7.0	10.7	26.5	13.5	33.5
III	2.8	7.0	11.7	28.8	14.5	35.8
IV	5.7	14.0	7.8	19.2	13.5	33.2
V	7.7	19.0	3.8	9.3	11.5	28.3
<b>TOTAL</b>	<b>31.9</b>	<b>79.0</b>	<b>44.0</b>	<b>108.6</b>	<b>75.9</b>	<b>187.6</b>

## 6.1 Parks

The allocation of park space was based on the open space standards in the Medicine Hat Recreation Master Plan: First Five-Year Review and the Development Strategy in this study. A summary of these open space standards is shown in Table A.4.

**Table A.4**  
**OPEN SPACE PER 1,000 POPULATION**

	Allocation	Usual Size	Service Area
Amenity Park	0.75 to 1 ac./1,000	1 ac.	¼ mile radius
Neighbourhood Park	1.00 to 2 ac./1,000	6 ac.	½ mile radius
Community Park	1.00 to 2 ac./1,000	8 to 25 ac.	1 mile radius

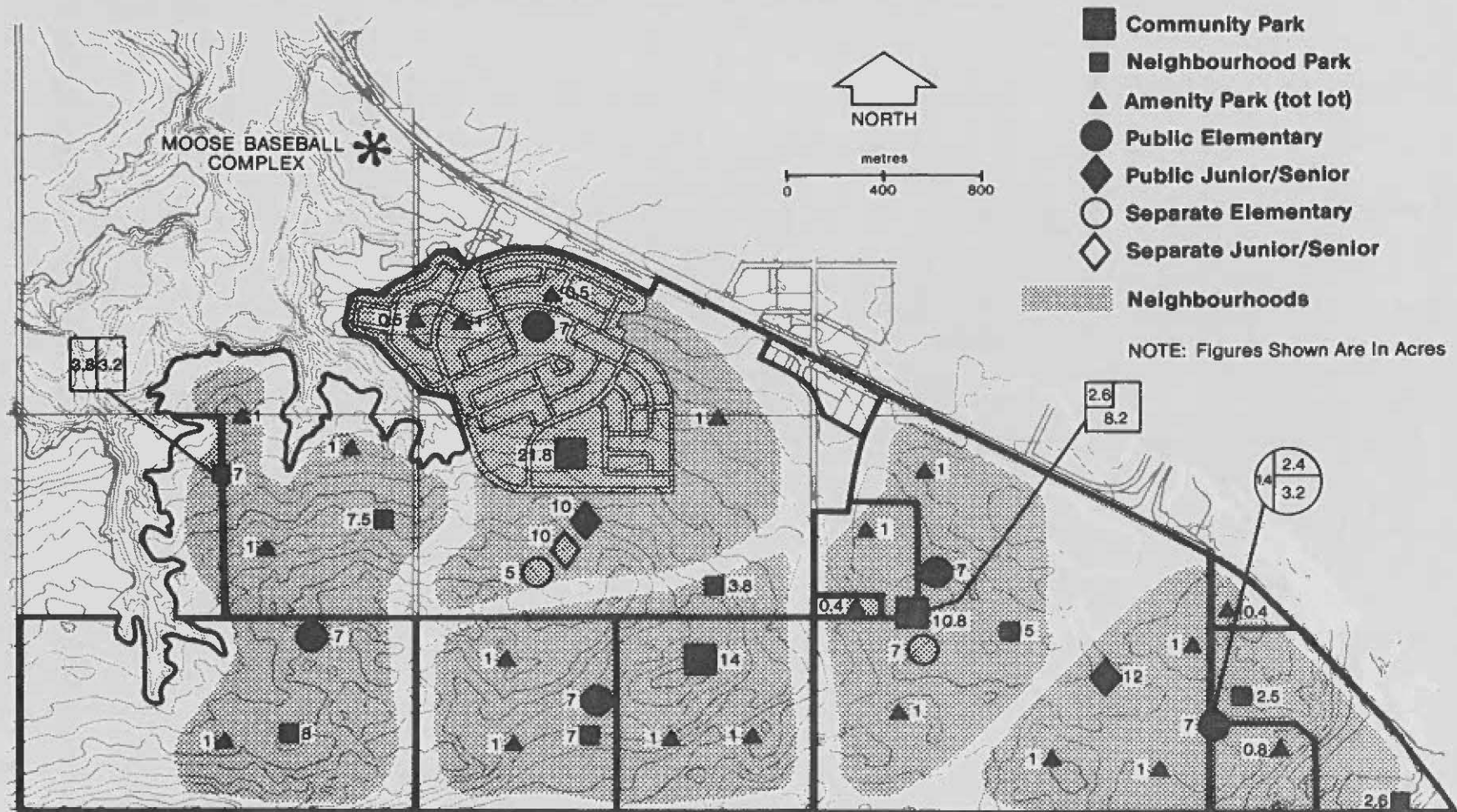
**Table A.3**  
**ALLOCATION OF RESERVE BY FUNCTION AND OWNERSHIP**  
**(Acres)**

	Land Subject To Reserve Dedication	Total Reserve Requirement	Distribution of Reserve						
			Amenity Parks	Neighbourhood Parks	Community Parks	Public Elementary School	Public High School	Separate Elementary School	Separate High School
Fried	38.0	3.8		3.8					
City of Medicine Hat <sup>1</sup>	743.0	74.3	7.0	13.5	21.8	7.0	10.0	5.0	10.0
Evangelical Church of Canada	36.1	3.6	1.0	2.6					
Dietz Trucking	3.9	0.4	0.4						
H. Weiss	160.0	16.0	1.0	8.0		7.0			
Wahl	160.0	16.0	2.0	7.0		7.0			
Bitonti Enterprises Ltd.	160.0	16.0	2.0		14.0				
Hat Development	456.0	45.6	5.0	5.0	8.2	8.4	12.0	7.0	
Big M Lincoln Mercury	4.3	0.4	0.4						
Stober	74.6	7.5		5.1		2.4			
Church of the Nazarene	39.5	3.9	0.8			3.2			
<b>TOTAL<sup>2</sup></b>	<b>1,875.4</b>	<b>187.6</b>	<b>19.6</b>	<b>45.0</b>	<b>44.0</b>	<b>35.0</b>	<b>22.0</b>	<b>12.0</b>	<b>10.0</b>

<sup>1</sup> Includes existing South Ridge subdivision.

<sup>2</sup> Total does not include 16 acres of previously subdivided land.

## Figure A.7 RESERVE ALLOCATION





## 6.2 Schools

The allocation of school sites was based on local school requirements, student population estimates and the development strategy in this study. Elementary schools ideally have an enrollment of  $\pm 400$  students and require a 5 to 7 acre site while junior/senior high schools ideally have an enrollment of  $\pm 1,200$  students and require a 10 to 12 acre site. Since school location is primarily based on enrollment, potential student population in each neighbourhood is shown in Table A.5. These estimates are based on the following assumptions:

- (1) the school age population will be 20% of the total population.
- (2) public school students will represent 75% of the school age population while separate school students will represent 25%.
- (3) public school enrollment will be divided as follows:
  - 50% elementary
  - 23% junior
  - 25% senior
- (4) separate school enrollment will be divided as follows:
  - 47% elementary
  - 24% junior
  - 28% senior

**Table A.5**  
**STUDENT ENROLLMENT PROJECTION**

Neighbourhood	Public			Separate		
	Elem.	Jr.	Sr.	Elem.	Jr.	Sr.
I	445	204	222	138	71	83
II	450	207	225	141	72	84
III	400	186	203	120	61	74
IV	475	220	240	141	72	87
V	355	160	180	112	57	71
<b>TOTAL</b>	<b>2,125</b>	<b>977</b>	<b>1,070</b>	<b>652</b>	<b>333</b>	<b>399</b>

## 7.0 PRIVATE DEVELOPMENT PROPOSALS

Privately held land to the east of 13th Avenue has been the subject of a number of development proposals since the first draft of this study was circulated. The most significant of these proposals is the Southlands Area Structure Plan which has been received by City Council but has not been adopted. In preparing the background study, the Southlands proposal has been considered.