# South Okotoks Area Structure Plan

TOWN OF OKOTOKS
Planning Consultants
Urban Planning Division
Calgary Regional Planning Commission
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# TABLE OF CONTENTS

## TABLE OF MAPS



## LIST OF TABLES

introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction
introduction

# SOUTH OKOTOKS AREA STRUCTURE PLAN

## CHAPTER 1.0.0
## INTRODUCTION

### 1.0.0
### INTRODUCTION

### 1.1.0
### PURPOSE OF THE AREA STRUCTURE PLAN

The rapid growth of the City of Calgary has created unprecedented pressures for development in neighbouring small towns. One of the most affected of the surrounding communities over the past few years has been Okotoks. In the past two years, proposals for development of almost every available piece of land in the north part of the Town have been presented. Of the 216± hectares (533± acres) covered in these proposals, 150± hectares (370± acres) of development have received approval.

In response to continued growth pressures, the Town applied for and obtained, in 1978, annexation of 476± hectares (1176± acres) of land south of the Sheep River. Preliminary development proposals have already been prepared by the development companies involved for most of this land. In view of the limited communication links between the north and south side of the Town, due to the existence of the Sheep River and its valley and potential planning problems which could result from the approval of unco-ordinated, piecemeal development, the Town undertook the preparation of an Area Structure Plan for the newly annexed lands to the south.

The purpose of the AREA STRUCTURE PLAN can be summarized by the following objectives: to provide a framework for future subdivision of the area, to ensure that the review of any proposals and subsequent urban development is conducted on the basis of approved policies and guidelines; and to establish a land-use strategy that achieves the Town's stated goals and objectives as outlined in its General Municipal Plan, which was adopted in March 1977. The policies and guidelines established in the GENERAL MUNICIPAL PLAN provide for urban development within a framework that ensures conservation of the Town's natural features, preservation of the community "small town atmosphere", and achievement of a balance between residential, commercial, and industrial growth.

### 1.2.0
### THE STUDY AREA

The Area Structure Plan applies the above principles to the lands south of the Sheep River, excluding those lands recently approved for development north and east of Highway 2A, designated in the GENERAL MUNICIPAL PLAN for longer term growth. More detailed planning can then take place in the near future based upon the AREA STRUCTURE PLAN document to ensure that development is carried out in an orderly and economic manner. Map No. 1 outlines the Study Area, which covers 495± hectares (1210± acres) and includes all of the land annexed to the Town in 1978. The boundaries of the Study Area are well defined to the north by the Sheep River and its valley and the Canadian Pacific Railroad. There are no clearly defined physical limits to the south, east and west, therefore, legal boundaries have been identified corresponding to the Town boundary. The AREA STRUCTURE PLAN will provide for adequate road connections from these areas to facilitate future expansion, although land within the existing Town boundaries can accommodate growth in the forseeable future. The Study Area is currently linked to the existing Town and surrounding area by Highways No. 2A and No. 7.

### 1.3.0
### PLAN INTERPRETATION

Realization of the AREA STRUCTURE PLAN'S objectives is dependent upon correct interpretation of the various parts. The substance of this

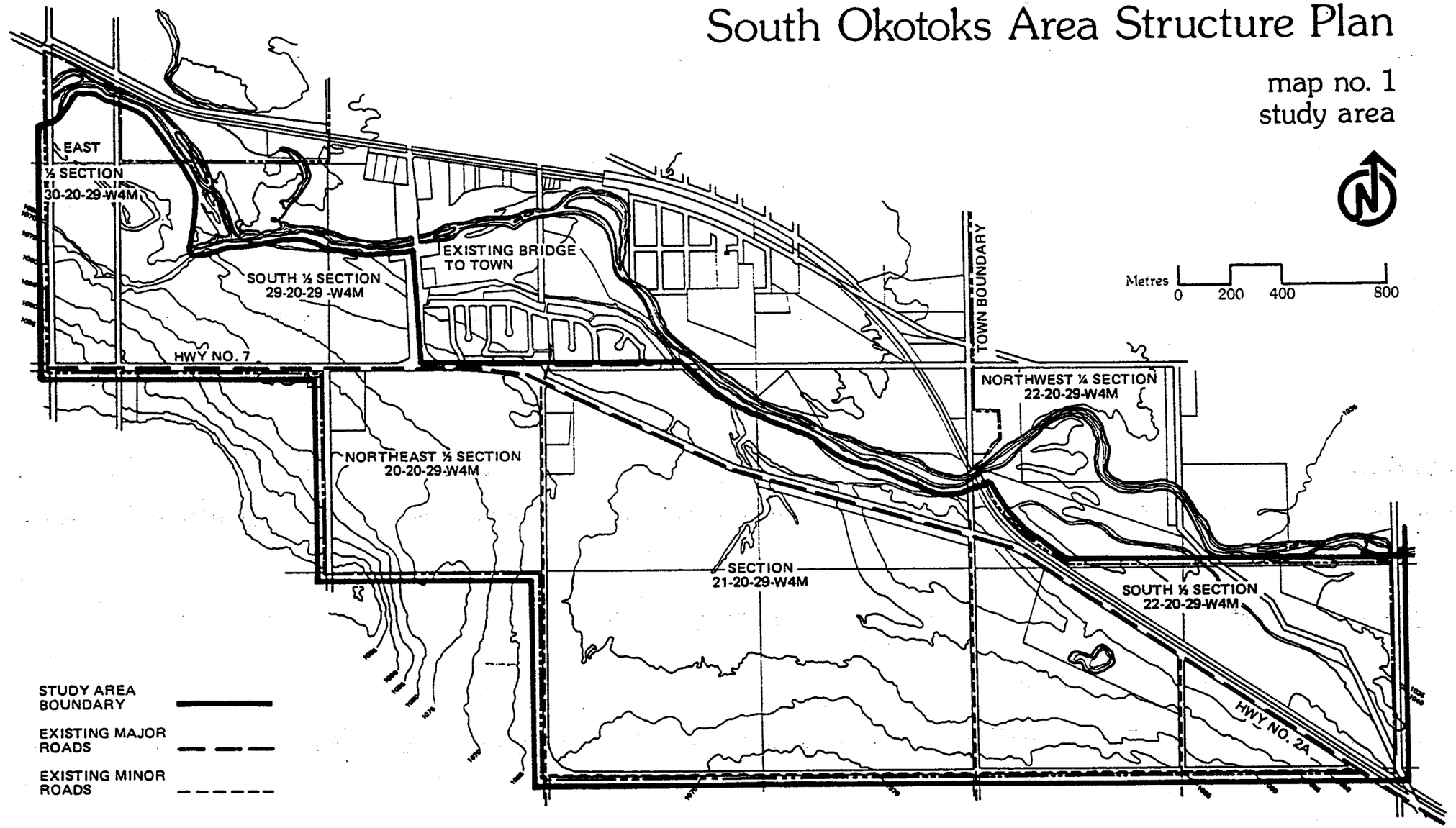
document is the overall development plan, policies, and design guidelines and standards relating to the proposed land-uses and urban activities; and, can be considered to be an outline of Council's position toward future growth in the Study Area. Nevertheless, it is not Council's intention to establish in the Plan precise limits, boundaries, dates, locations or quantities which are inflexible to change. The information presented is limited and, as is always the case, the various projections included in support of the Plan are based upon some degree of uncertainty.

## 1.4.0
## PLAN REVIEW AND AMENDMENT

Monitoring of the progress of the Plan's implementation may identify the need for amendments from time to time. Where such an amendment is contemplated, Council will first review the effects to identify any possible conflicts with the overall objectives contained in both this document and the Town's GENERAL MUNICIPAL PLAN.

# South Okotoks Area Structure Plan

## map no. 1
## study area



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# CHAPTER 2.0.0
# LANDSCAPE RESOURCES

## 2.0.0
## LANDSCAPE RESOURCES

The Study Area can be described as a plateau visually oriented towards the Sheep River and the old town. The plateau is separated from the Sheep River Valley by a 7.5 to 11 metre (25 - 35 feet) escarpment. The higher elevations of the land situated on the north side of the River give the area some protection from northern winds and increase the area's visual attractiveness. The visual effect is also highlighted as the land also slopes down to the Sheep River and towards the centre of the Study Area. Map No. 2 summarizes the landscape resources of the area.

## 2.1.0
## DRAINAGE

Minor drainage courses and seasonal sloughs are evident, notably in Section 21. A rather large drywash is also located in the northern part of Section 21, and indicated on Map No. 2. The Study Area forms part of a larger drainage system that extends in a southerly direction beyond the Town boundary. The design of future developments should take into consideration natural drainage requirements both within the Study Area and beyond its boundaries.

## 2.2.0
## FLOODPLAIN

The defined 1% (1:100 year) floodplain of the Sheep River occupies a significant part of the valley, presenting restrictions to the types of urban development which could take place on and in the immediate vicinity of this area.

## 2.3.0
## SOIL CHARACTERISTICS

Although land in the area is generally suitable for development, the DETAILED SOIL SURVEY OF THE OKOTOKS area shows the need for more comprehensive soil analysis prior to any development taking place. Soils consist of nearly flat gravelly material near the River and medium textured material above the escarpment further south. Generally, the drainage characteristics present few limitations for new development. However, several small areas of land with potentially higher water tables could limit either the type or form of development.

## 2.4.0
## VEGETATION

As indicated on Map No. 2, major treed areas are found mainly along the valley of the Sheep River, with only limited concentrations above the floodplain.

## 2.5.0
## ARCHAEOLOGICAL AND HISTORICAL SITES

Several archaeological and historical sites have been identified within the Study Area, notably along a strip of land south of the river. Alberta Culture has advised that because other important sites could exist, an historical resources impact study should take place prior to any disturbance of the surface.

## 2.6.0
## CEMETERY

Since the existing cemetery is to be retained in its present location,

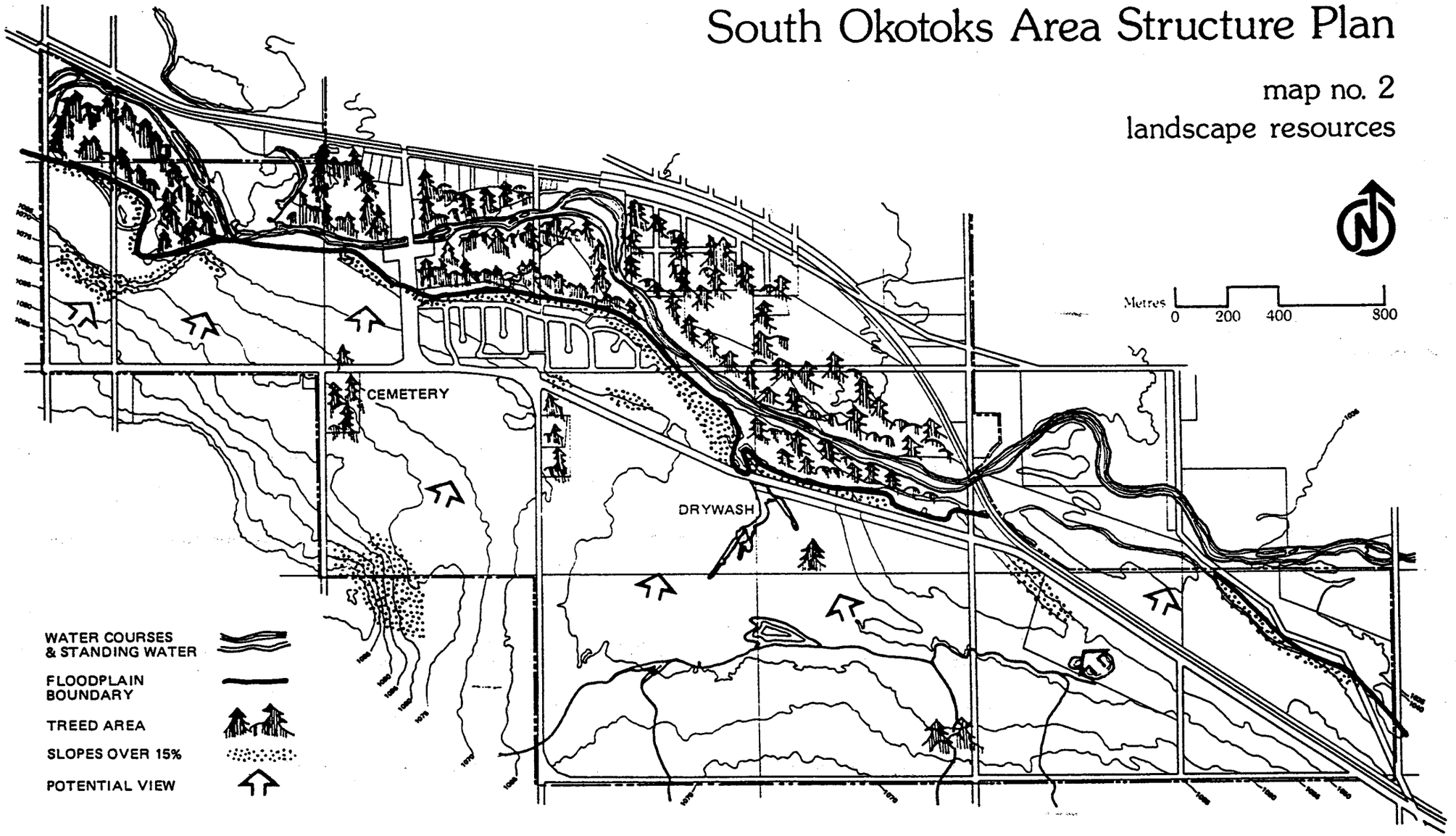
development in the immediate vicinity could be influenced as to design in order to visually integrate the site as a feature of the area.

## 2.7.0
## RESTRICTED DEVELOPMENT AREA

Two different elements define areas of restricted development within the Study Area. Map No. 2 shows lands with slopes over 15%, which will present limitations to the type of development permitted in order to minimize disruption of the land. Map No. 2 also shows a strip of land along the riverbank that, in the opinion of Alberta Environment, cannot be utilized for building construction due to stability problems along the escarpment.

# South Okotoks Area Structure Plan

map no. 2
landscape resources



transportation &
utility system
analysis

# CHAPTER 3.0.0
# TRANSPORTATION AND UTILITY SYSTEMS ANALYSIS

## 3.0.0
## TRANSPORTATION AND UTILITY SYSTEMS ANALYSIS

## 3.1.0
## TRANSPORTATION SYSTEM

As Map No. 1 shows, the Study Area is served by two major roadways — Highway 2A north to the existing built-up area of Okotoks and east to High River and Highway 7 west to Turner Valley and Black Diamond. Both roads are constructed to two-lane rural highway standards — insufficient to serve the traffic volume resulting from full development south of the Sheep River. The existing bridge has an estimated capacity of 12,000 vehicle trips per day, which also presents limitations to the scale of development that can be permitted before major upgrading is required.

In addition to the capacity limitations, the existing Highway 2A alignment and the intersection of Highways 2A and 7 are not adequate to serve long-term needs within the Study Area. In light of these constraints, alternative means of accommodating future transportation demands have been investigated and incorporated into the Plan. Several minor section rural roads also serve the Study Area and could be used, after upgrading, as part of the new urban road system.

## 3.2.0
## UTILITY SYSTEM

The existing Town water system consists of a well supply with chlorination, a system of waterlines acting as both transmission and distribution mains, and two storage reservoirs. The present system, all to the north of the Sheep River, is divided into three pressure zones. Map No. 6 describes the major components of the existing system in relation to the Study Area.[1] Major growth in the south will necessitate major expansion of the water supply, treatment, storage, and distribution system.

A similar situation exists with respect to the Town's sanitary system. The existing treatment plant, which provides treatment for approximately 3,000 persons will either have to undergo major upgrading or alternative methods found to accommodate major growth in the Town. Map No. 7 outlines the major components of the system in relation to the Study Area.[2]

There is no storm sewer system servicing the Study Area. As development occurs, installation of a storm drainage system will be required.

Detailed descriptions of the existing Town utility systems and their potential for upgrading can be obtained from the Town Engineer.

With respect to other utility services, as they present opportunities for expansion or constraints to development, the Study Area has running through it a number of natural gas lines, power lines, and telephone cables which are described on Map Nos. 9 to 11.

As the maps indicate, the Study Area is covered by an existing grid of natural gas, electric, and telephone lines which can be utilized to serve the area. However, the design of the area will have to consider right-of-way and easement requirements. In some instances, the alignment of certain lines may have to be moved to accommodate the proposed designs. A description of the proposed utility servicing plans is found in Section 4.8.

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[1] EPEC Consulting Western Ltd., Town of Okotoks Projected Water Supply and Storage Requirements System Upgrading 1979-1980, May, 1979. Page 2.

[2] EPEC Consulting Western Ltd., Town of Okotoks Proposed Sewage Treat- Treatment Facilities Expansion, June, 1979. Page 1.

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the development plan
the development plan
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Bylaw 4-94

CHAPTER 4.0.0
THE DEVELOPMENT PLAN

## 4.0.0
## THE DEVELOPMENT PLAN

### 4.1.0
### OVERALL STRATEGY

Based upon an analysis of the Study Area's phsyical and man-made development opportunities and constraints, the development plan and policies which follow present Council's land-use strategy for Okotoks, south of the Sheep River.

The Plan can be summarized as a land-use strategy that provides for the development of an urban extension to the existing townsite. The land-use strategy provides the opportunities for the area to develop its own community focus and identity but within a framework that is of benefit to and in harmony, rather than conflict, with the growth of the Town as a whole. As the means to achieve this objective, Council intends to permit development in the Study Area which is guided by a Plan that ensures that full range of social, community, recreational, commercial, and employment opportunities is provided in locations that will encourage development of a local community focus and identity. At the same time, the Plan attempts to ensure that development south of the River complements rather than competes with existing facilities to the north. This is done through careful location of urban activity centres and the provision of an efficient, high standard transporation system within development area, and in the establishment of upgraded links to the existing townsite.

Map No. 3 summarizes the Development Plan for the Study Area. The Plan's major components include:

(a) Establishment of a number of major development areas which are defined by major transportation routes and/or natural

***(a) Establishment of a number of major development areas which are defined by major transportation routes, land ownership, and/or natural physical features. The major land-use of these cells will be either residential or industrial.***

***(b) A range of land-uses are found within each major development area which may include: local commercial. shopping centre commercial, highway commercial, recreational/educational/institutional and mixed use sites. The locations of these activities have been chosen so that they will serve as either community focal points for each individual development area and/or for the entire South Okotoks area. As such, the proposed non-residential, non-industrial activities are located close to major transportation routes in order to ensure maximum access to the facilities with minimum disruption to the resident population."***

(c) Internal collector intersections and external roadways which have been designed to maximize access to individual development areas from the external road network as well as internal movement within each area.

(d) Development of a major pathway network that links major activity centres to residential areas and complements the roadway network in the movement of vehicle and non-vehicle traffic through the Study Area, thereby minimizing potential conflicts. The network shown on Map No. 3 is conceptual only and intended only to establish the design principle.

(e) Conservation of the Study Area's natural physical features, particularly the Sheep River Valley and escarpment lands and other steep slopes, and treed areas for recreational purposes.

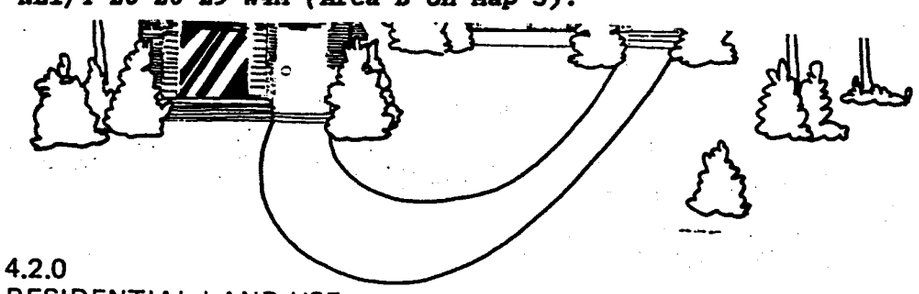
(f) Separation of land-uses which should not be located together for example, industrial and residential activities, by means of buffers, landscaping, and the location of roadways.

***"(g) Provision for an innovative residential/commercial development in the NE1/4 20-20-29 W4M (Area B on Map 3) based on the following design principles:***

- ***to incorporate a variety of housing, commercial, mixed use, and public building forms that provide for an assortment of diverse households and age groups.***
- ***to provide a diverse range of parks that enrich the public realm and provide a variety of green focal points in the community.***
- ***to provide a rich variety of street forms that are humanly scaled, function as a network and are appropriate to the character of Okotoks.***

***These design principles and any special guidelines based on these design principles which are referenced in this Plan are intended to apply only to development in the NE1/4 20-20-29 W4M (Area B on Map 3)."***

The remainder of this section outlines in detail the strategies and policies for each individual component of the Plan.



## 4.2.0 RESIDENTIAL LAND-USE

### 4.2.0 LAND-USE STRATEGY

As Map No. 3 indicates, residential development will be the predominant land-use south of the Sheep River. Three major areas have been established, each separated from the others either by Highway No. 7 and/or High-

By/aw 4-94

***"4.2.1 LAND USE STRATEGY***

By/aw 4-94

***As Map No. 3 indicates, residential development will be the predominant land use south of the Sheep River. Three major areas have been established, each of which can be planned and developed as a separate neighbourhood because of natural and man made boundaries and land ownership.***

***Area A - North of Big Rock Trail and west of Highway No. 2A.***
***Area B - South of Big Rock Trail and generally west of Highway No. 2A (NE1/4 20-20-29 W4M)***
***Area C - East and north Highway No. 2A and west of the proposed new Sheep River bridge crossing."***

### 4.2.2 DENSITY

A maximum average (overall) density of 37 persons per gross developable hectare (15 persons per gross developable acre) will be allowed in the Study Area. The 37 persons per gross developable hectare density factor shall neither be applied to, nor transferable from, land considered undevelopable. However, at their discretion, Council may, under certain circumstances, recommend to the Subdivision Approving Authority a density other than specified where it deems it desirable, depending upon the design of the proposed development. Any decision to permit a density other than specified will only be made if it can be established that sufficient capacities exist or can be designed into the supporting utility, commercial, recreation, and community and social systems and services to accommodate the increased demand. Also, the residential density factor will not be transferable from land designated for either highway commercial or industrial uses. However, because utility capacities are based upon density calculations a separate density factor will be applied to these uses, to be determined at the subdivision plan stage by the Town in consultation with the Town Engineer and its planning advisors.

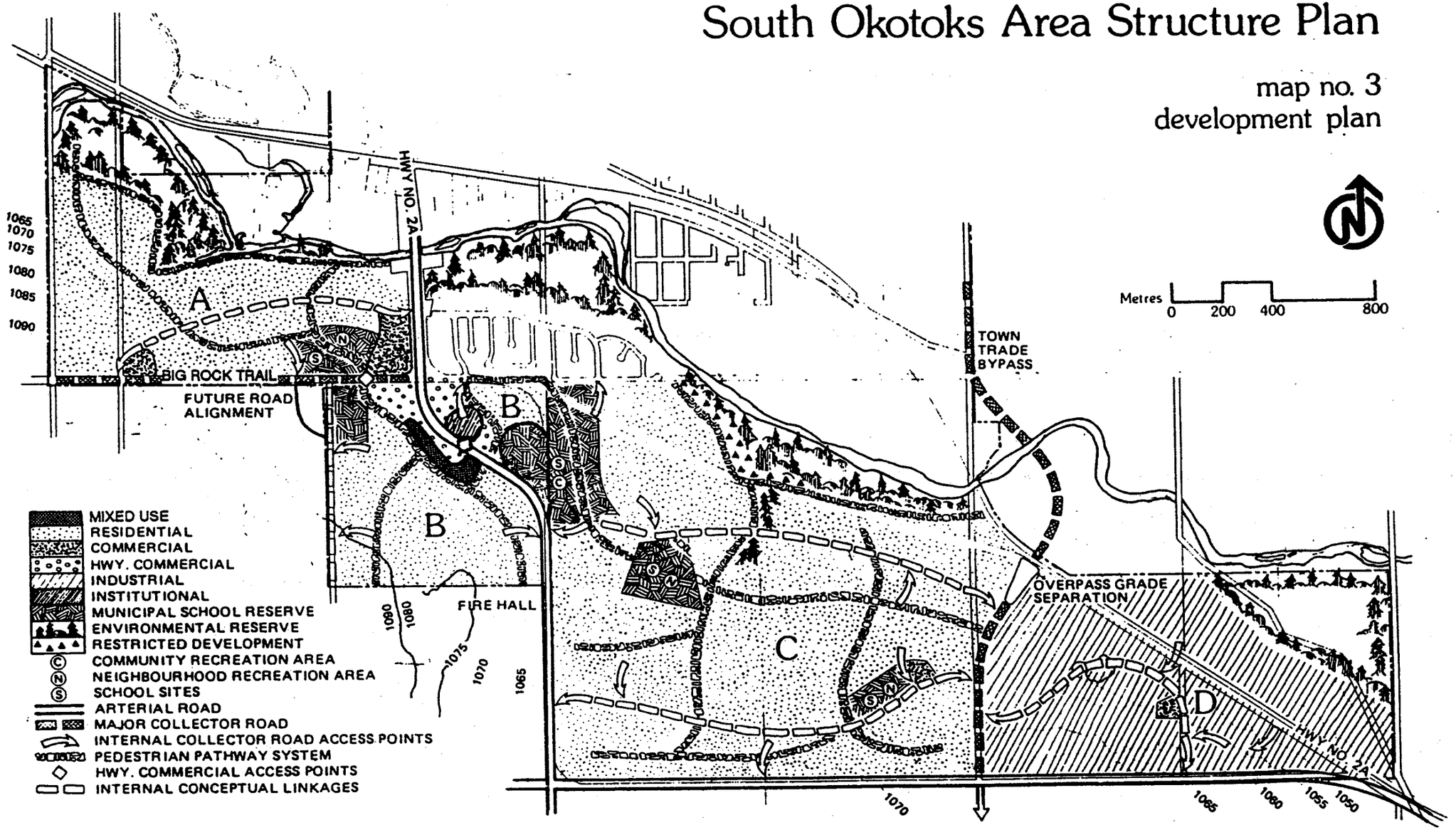
### 4.2.3 DEVELOPMENT POTENTIAL

From preliminary calculations, approximately 315 gross developable hectares (778 gross developable acres) of land are identified for residential development and associated uses (municipal and school reserve, roads, utilities, local commercial, and institutional uses) in Areas A, B, and C.

Total gross developable residential acreage and population is broken down as follows:

# South Okotoks Area Structure Plan

map no. 3
development plan



Bylaw 19-96

Bylaw 4-94

| | Hectares | Acres | Potential Population |
|---|---|---|---|
| Area A | 65 | 161 | 2,415 |
| Area B | 37 | 91 | 1,370 |
| Area C | 205 | 506 | 7,590 |
| Total | 307 | 758 | 11,375 |

Based upon the gross acreage and density, the anticipated population is in the range of 11,000 - 12,000 person."

4.2.4
DEVELOPMENT GUIDELINES AND STANDARDS

The form and structure of residential development shall be based on the following guidelines in conjunction with the Development Plan, Map No. 3.

4.2.4.1
Density

At the concept or subdivision plan stage, the developer(s) must adequately demonstrate means by which a density of 37 persons per gross hectare or less is to be attained for each subsequent outline and/or tentative plan submission.

4.2.4.2
Overall Design

The developer(s) will be encouraged to design residential areas as major cellular developments off the arterial and/or major collector road system in accordance with the general designation set out in policy 4.2.1. Similarly, within each major cell residential development will be encouraged in the form of smaller cellular "neighbourhoods" off the internal collector road network.

4.2.4.3
Housing Types

Residential neighbourhoods should contain a variety of housing types catering to different life styles, age groups, income groups, and family types. While supporting single family as the predominant house type, Council may encourage alternative house types, such as medium density semi-detached homes, town houses, and other similar forms, providing these types are confined to minor areas within a subdivision.

4.2.4.4
Medium Density Housing

Medium density areas, particularly large pockets, if permitted, should be served by separate roads having direct access to the collector system. These areas should also be located so as to minimize walking distances and maximize convenience to educational, commercial, recreational, and other activity areas.

4.2.4.5
Comprehensive Design

Council will encourage, wherever possible, comprehensive design within major development cells and individual neighbourhoods. Certain savings will likely result with respect to servicing as well as providing the potential to maximize the utility of open spaces and recreation areas. Also, there will be greater potential to provide more variety and interest in the urban design. This policy should be emphasized where a mixture of low and medium density housing units is proposed.

4.2.4.6
Subdivision Design

Regardless of housing form, the design of new residential subdivisions should consider both the topography and tree cover of a site. Regardless of housing type offered, the design of subdivisions as well as individual lots, housing units, and streets should incorporate, as much as possible, such aspects as view potential, slope, orientation to receive direct sunlight and reduction of noise from roads and railways. Subdivision design should generally complement the natural environment of an area.

4.2.4.7
Architectural Control

Architectural design guidelines should be established by the developer, in consultation with the Town, to encourage compatibility of housing types.

4.2.4.8
Innovative Design

The use of innovative house design and site layout will be encouraged, particularly for medium density housing areas. The use of zero side yards, variation in front yard setbacks and laneless subdivisions could be considered both to effect greater savings and to provide a more varied and attractive living environment.

4.2.4.9
Open Spaces and Pathways

Residential neighbourhoods should be designed to make easier the linking of the local open space and pathway network with the major Town open space and pathway system. All pathways should be designed to minimize pedestrian/vehicular conflict and to maximize accessibility to community facilities. All walkways and park areas in residential areas shall be landscaped during the initial stages of development in accordance with the terms and standards established by the Town in individual development agreements.

4.2.4.10
Residential Frontage

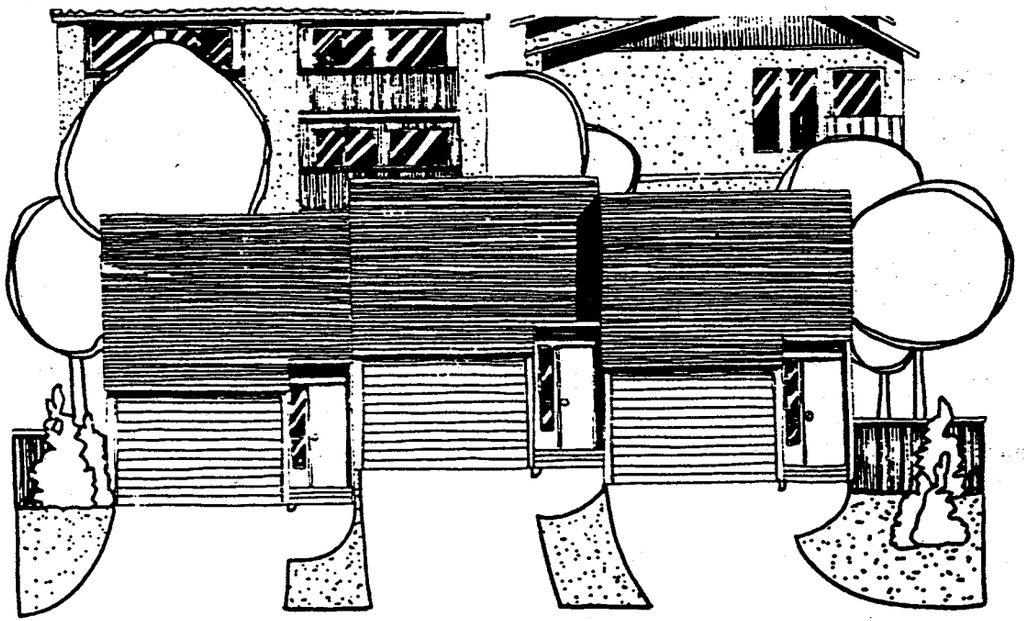
Residential and commercial uses facing each other will be discouraged. Where this situation is unavoidable, proper visual screening must be provided.

"4.2.4.11
***AREA B SPECIAL DEVELOPMENT GUIDELINES AND STANDARDS***

***In addition to the above guidelines and standards, development in Area B should conform with the special residential building guidelines in the Westridge Design Brief as adopted by Council. The Westridge Design Brief provides a conceptual planning framework for the future development of Area B.***

***4.2.4.12***
***GENERAL***

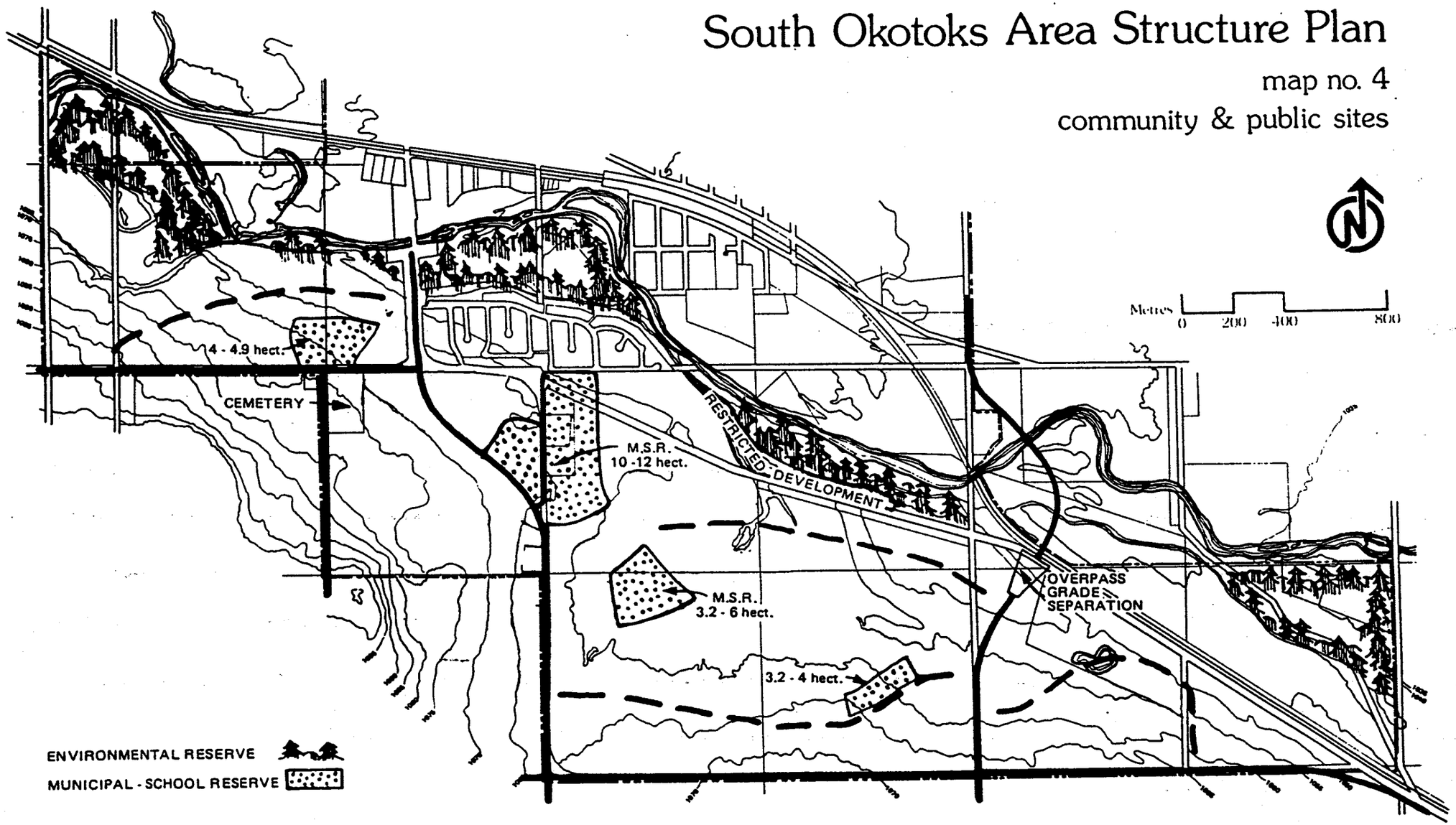
***In addition to the policies contained in this plan, all development must conform to the standards and policies contained in the Town's General Municipal Plan and Land Use Bylaw."***



# South Okotoks Area Structure Plan

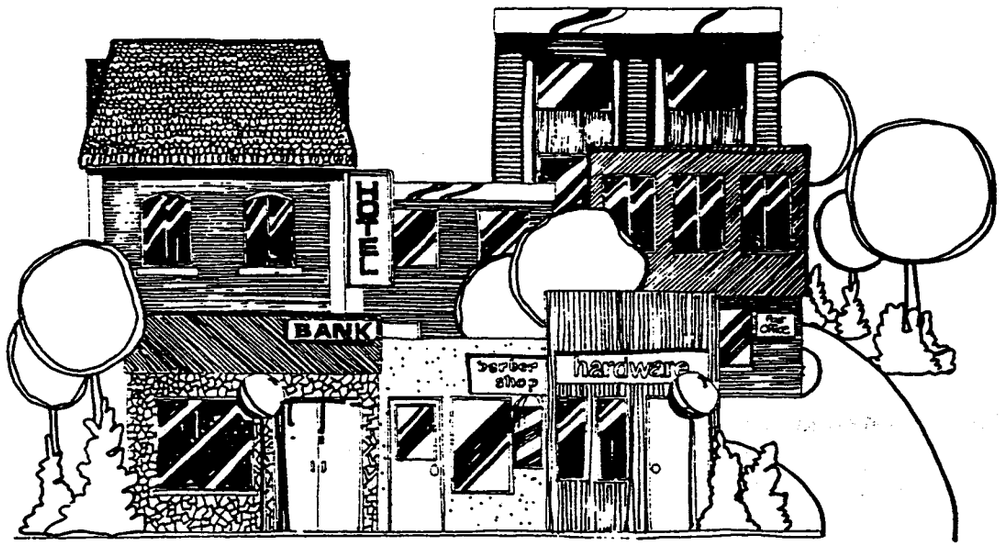
map no. 4

community & public sites



Bylaw 4-94






## 4.3.0
## COMMERCIAL LAND-USE

"4.3.1 Land Use Strategy

In accordance with the Town's General Municipal Plan, commercial activity will be encouraged south of the Sheep River when substantial residential development has occurred there to support it. Decentralization of shopping facilities will NOT BE ENCOURAGED BEFORE THAT TIME UNLESS IT IS NOT possible to consolidate large parcels of land within the existing Town centre. Six commercial sites have been identified - three neighbourhood centres located in Areas A and C and the industrial park (Area D); one community shopping centre site located immediately west of Highway 2A in the Hunters Glen residential neighbourhood (Area A); one community shopping centre site located east of Highway 2A, and south of Big Rock Trail (Area B); and a commercial/residential mixed use area abutting Westland Road and Westland Gate (Area B).

The neighbourhood commercial sites shall not exceed 0.6 hectares (1.5 acres) each in size. The sites for the community shopping centre shall not exceed 4.0 hectares (10.0 acres) in aggregate size. The sites for commercial residential mixed use development shall not exceed 1.5 hectares (3.7 acres) in aggregate size.

Sites designated as commercial shopping centres should be of sufficient size to accommodate a wide range of retail businesses along with associated parking, landscaping, accesses and vehicle and pedestrian circulation facilities. A minimum shopping centre size of 1.821 hectares (4.5 acres) is preferred."

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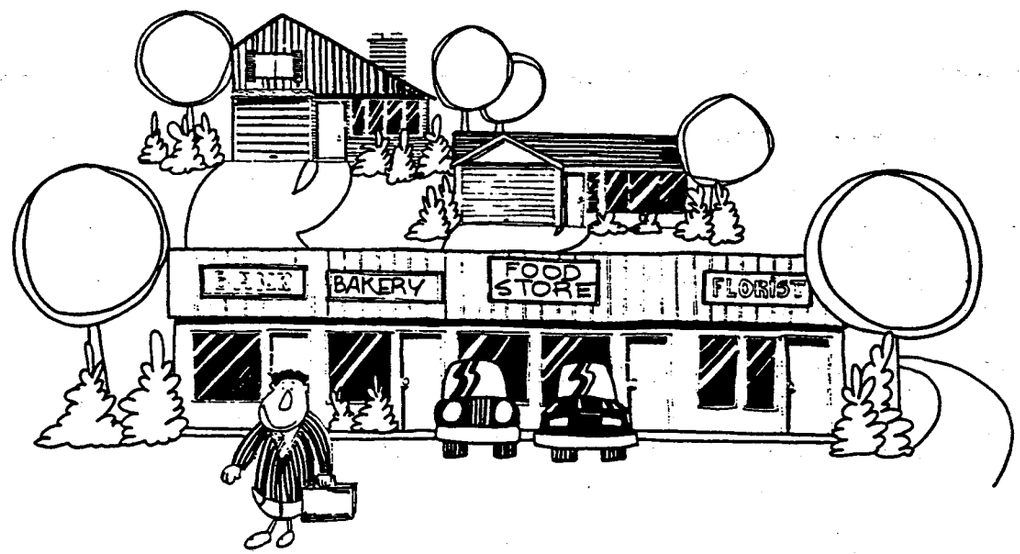
Bylaw 19-96

***"4.3.2***
***STAGING***

***The Town may request staging of any or all commercial developments to correspond with residential staging or may delay development if it is decided that premature development of a large commercial site could affect the viability of the Central Business District or other commercial facilities.***

***The Town may require an economic feasibility study from the developer for any commercial development before development approval is given, particularly if a smaller acreage is being considered.***

***Developed floor space on each site will be limited to ensure that development is in keeping with the Town's overall policy not to have suburban shopping facilities competing directly with the Downtown or neighbourhood centres competing with community centres. Rather, they should complement each other in providing a full range of commercial activities."***



4.3.3
DESIGN

Location of local commercial facilities shall ensure maximum accessibility for pedestrians and vehicles, as well as adequate car parking. Standards contained in the Development Control or Land–Use Bylaw shall be applied. When the local commercial centre is located in a residential area, screening will be required.

Policies and standards contained in the General Municipal Plan and the Development Control or Land-Use Bylaw will be applied to control exterior design, which should be of a high standard and compatible with the surrounding neighbourhood.

4.3.4
HIGHWAY COMMERCIAL DEVELOPMENT

To provide for growing demands for highway commercial land in Town, three sites will be developed south of the Sheep River. The sites identified either side of Highway 2A shall not be less than:

Area A: 3.3 hectares - 8.2 acres
Area B: 5.5 hectares - 13.6 acres
Area C: 4.5 hectares - 11.1 acres

***"4.3.5***
***ACCESS TO HIGHWAY COMMERCIAL AREAS AND COMMUNITY SHOPPING CENTRES***

Bylaw 4-94

***All highway commercial sites, community shopping centres, and commercial/residential mixed use sites shall be provided with service roads or alternate design solutions which have limited access to the adjacent highway. Access shall be provided in accordance with the plans approved by the Town in consultation with Alberta Transportation and the Town's planning advisors, which generally limit the number of points of access to commercial areas to proposed major intersections."***

***4.3.6 DESIGN IN HIGHWAY COMMERCIAL AREAS AND COMMUNITY SHOPPING CENTRES***

***Screening and landscaping of highway commercial and community shopping centre uses from residential uses must be provided.*** 4-94

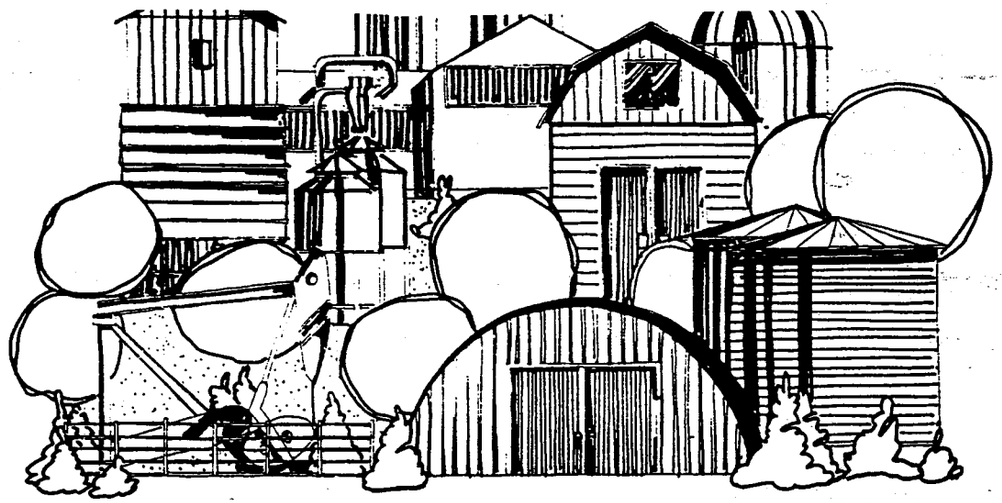
***'4.3.7***
***COMMERCIAL/RESIDENTIAL MIXED USE AREA***

***In addition to the above guidelines and standards, development in the mixed use area shall conform with the special commercial building guidelines in the Westridge Design Brief as adopted by Council. The Westridge Design Brief provides a conceptual planning framework for the future development of Area B.***

Bylaw 4-94

***4.3.8***
***GENERAL***

***In addition to the policies contained in this plan, all development must conform to the standards and policies contained in the Town's General Municipal Plan and Land Use Bylaw."***



4.4.0
INDUSTRIAL

4.4.1
LAND-USE STRATEGY

In accordance with the General Municipal Plan, an industrial park of approximately 105 gross hectares (260 gross acres) has been established in the southeast part of the Study Area east of the proposed new Sheep River

bridge crossing and north of the proposed Highway 2A realignment and is identified on the Development Plan, Map No. 3, as Area D.

In this location, the industrial park has good potential for railway access via the adjacent CPR line. It also has very good potential road access both to the existing Town via either the existing bridge crossing or the proposed Eastern Bypass Truck Route, and to Highway 2 via 2A east or north. The site is also close to the Town sewage treatment plant and water distribution; and being south and east of the existing Town and new residential areas any fumes will be blown away by the prevailing westerly winds. The industrial park has, therefore, considerable potential to become both the Town's major employment centre and a regional industrial centre.

### 4.4.2 TYPES OF INDUSTRY

Industrial development should be compatible with the Town's physical environment. Industrial activities, therefore, shall meet Alberta Environment standards and any other Provincial, Federal, or Town standards in force with respect to control of pollution and the location of industries in the Town. The types of industry permitted and the industrial park design will be co-ordinated through Council and the Municipal Planning Commission.

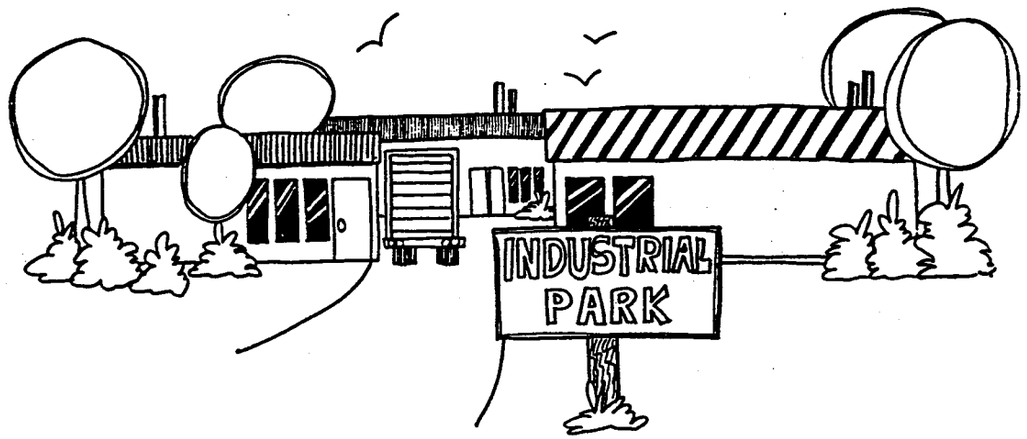
### 4.4.3 DESIGN AND APPEARANCE

(i) Industrial activities should be suitably separated, screened and buffered (e.g., earth berms) from surrounding residential, commercial or recreational land uses, to the satisfaction of the Town.

(ii) As a general principle, heavier types of industrial activities should be located away from residential and commercial activities and buffered by lighter industries.

(iii) The industrial park design should provide maximum flexibility and be able to accommodate a large range of site requirements.

(iv) Industries requiring a large amount of vehicle service shall be encouraged to locate near to the collector and arterial roadways and on larger parcels.




(v) Industrial buildings should have high standards of exterior appearance.

### 4.4.4 SERVICING

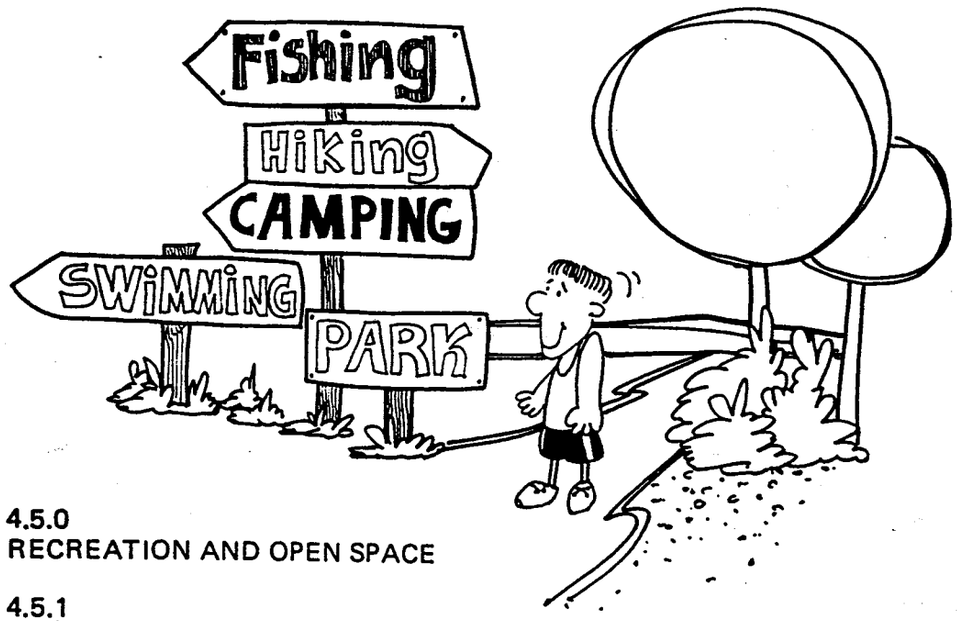
Industrial sites should be serviced through Town utility systems. Lines will be sized to accommodate maximum projected demands and to standards approved by the Town Engineer.

### 4.4.5 HAZARDOUS INDUSTRIES

Industries requiring storage of bulk fuels, chemicals, explosives, radioactive material, or other hazardous materials will not be permitted in close proximity to adjacent residential, commercial, and recreational areas according to Provincial and Town regulations.

### 4.4.6 GENERAL

The policies and regulations in the Town's General Municipal Plan and Development Control or Land-Use Bylaw also apply to new industrial development in the Study Area.




## 4.5.0
## RECREATION AND OPEN SPACE

### 4.5.1
### LAND-USE STRATEGY

In keeping with the policies contained in the General Municipal Plan, recreation and open space development in the Study Area will be composed of two elements:

(a) Development of a comprehensive system designed to serve the needs of residents in the area;

at the same time:

(b) Designing an internal system to ensure that it forms a logical extension to the overall Town system currently being developed and focussing on the Sheep River.

Therefore, natural topographic features such as the Sheep River floodplain and the escarpment areas, which are, for practical purposes, undevelopable for intensive urban uses, have been utilized as the major element in the recreation and open space system for South Okotoks. A system of pathways link this major recreation area to the internal system of parks serving the study area. The network shown on Map No. 3 is conceptual only. The Town and Subdivision Approving Authority may permit locations other than shown, providing the design principle is maintained.

Land for recreation use comes from the reserve requirements under the Planning Act, 1977. Subject to the provisions of this Act, an area not exceeding 10 per cent of the developable land may be required to be provided as either school, municipal, or municipal/school reserve. In addition to dedicated reserve, the Subdivision Approving Authority may also require the registered owner of land that is subject to proposed subdivision to provide certain lands as environmental reserve depending upon the quality of the land.

### 4.5.2
### RECREATION AND OPEN SPACE SYSTEM

Council will make every effort to encourage development of the open space and recreation system to the provision guidelines outlined on Table 4.5.1.

The recreation and open space system should be composed of a hierarchy of areas, where the size of each reflects the intended function and its location relative to the number of people to be served in a development area. The recreation system facilities should include the following with location relative to population concentrations:

(i) Block Playgrounds or Playlots (where appropriate)
(ii) Neighbourhood Recreation Areas
(iii) Community Recreation Areas

The open space system will primarily consist of the dedicated environment reserve.

### 4.5.3
### DEDICATED ENVIRONMENTAL RESERVE

Due to its flooding potential, the Sheep River floodplain will be left in its natural state and dedication as environmental reserve may be required by the Subdivision Approving Authority. The floodplain boundary as shown on Map Nos. 2 and 3, represents the findings of a preliminary study conducted by Alberta Environment. At the subdivision plan stage, consultation with Alberta Environment should take place to confirm the entire floodplain boundary.

## TABLE 4.5.1

## RECREATION AND OPEN SPACE SYSTEM PROVISION GUIDELINES

| Type of Recreation Facility | Function | Provision Guideline Hectares | Provision Guideline Acres[a] | Average Size of Facility Hectares | Average Size of Facility Acres | Approximate Catchment Area Population | Radius of Area Served Kilometres | Radius of Area Served Miles |
|---|---|---|---|---|---|---|---|---|
| BLOCK PLAYGROUNDS & PLAYLOTS | Street and Neighbourhood | 0.8 | 2.0 | 0.01 - 1.6 | 0 25 - 4.0 | Up to 1,000 | 0.4 | 0.25 |
| NEIGHBOURHOOD RECREATION AREA | Neighbourhood | 1.6 | 4.0[b] | 2.0 - 4.0 | 5.0 - 10.0 | 2,000 - 3,000 | 0.8 | 0.5 |
| COMMUNITY RECREATION AREA | Community | 1.6 | 4.0[c] | 4.0 - 40.0 | 10.0 - 100.0 | 3,000 - 5,000 | 4.8 | 3.0 |
| DEDICATED ENVIR-ONMENTAL RESERVE | District, Town, and Region | 2.0 | 5.0 | 40.0 | 100.0 | 5,000+ | 16.0 | 10.0 |
| TOTAL | | 6.0 | 15.0[d] | – | – | – | – | – |

[a] Per thousand population.

[b] Standard comprises 1.1 hectares (2.75 acres) for recreational open space and 0.5 hectares (1.25 acres) for public and separate elementary school joint-use facilities.

[c] Standard comprises 0.8 hectares (2.0 acres) for recreational open space and 0.8 hectares (2.0 acres) for public and separate junior and senior high school joint-use facilities.

[d] Total standard comprises 4.8 hectares (11.75 acres) per 1,000 persons plus 1.3 hectares (3.25 acres) for public and separate elementary and junior and senior high schools (all under joint-use).

### 4.5.4
### COMMUNITY AND NEIGHBOURHOOD RECREATION AREAS

One community recreation area has been identified encompassing approximately 10 - 12 hectares (25 - 30 acres).

Three neighbourhood recreation areas have been shown on the Development Plan. Each is between 3.2 and 6.0 hectares (8.0 and 15.0 acres) in size. Other neighbourhood recreation areas may be identified at the subdivision stage depending upon the availability and distribution of reserve lands.

### 4.5.5
### BLOCK PLAYGROUNDS AND PLAYLOTS

These facilities may be required and need will be determined at the subdivision plan stage by the parties concerned. Care should be taken to avoid over-planning the number of small parks.

### 4.5.6
### LOCATION OF RECREATION AREAS

Recreation Areas should be carefully sited. Adequate access to the sites and good visibility will be encouraged.

Likewise, sites should be located in order to enhance the overall subdivision design. Therefore, recreation sites which are flanked by lanes will be discouraged.

### 4.5.7
### DESIGN

Natural and man-made features which exist in the Study Area and have been identified for conservation should be incorporated, wherever possible, into the subdivision design. Features which have been identified for incorporation into the open space and recreation system include:

(a) The drywash in the north part of Section 21;

(b) Pockets of older trees on the flatlands above the valley;

(c) Archaeological and historical sites identified by Alberta Culture, and

(d) The existing cemetery.

### 4.5.8
### RESTRICTED DEVELOPMENT AREAS

A number of areas with development restrictions may be incorporated into the recreation system.

Land with slopes over 15 per cent, as shown on Map No. 2, should be identified as environmental reserve at the subdivision plan stage unless comprehensive design is employed to minimize the potential impact of development.

### 4.5.9
### SHEEP RIVER ESCARPMENT

As Map No. 2 indicates, a steep escarpment effectively forms the northern boundary of development in the area. One area has been identified in particular by Alberta Environment as undevelopable due to potential instability. Therefore, as a general requirement for all lands adjacent to the escarpment, a slope stability report acceptable to Alberta Environment will be required at the subdivision plan stage.

This report will identify:

(i) the "Top of the 15% slope,

(ii) the "Environmental Setback Line"
an indication of land affected by slope instability and/or slippage), and

(iii) the 30 metre (100 foot) "Development Setback" from the Top of the 15% Slope as required in the General Municipal Plan to provide for public access and to reduce the visual impact of development,

At their discretion, Council may, however, permit encroachment of this setback where it can be clearly demonstrated by the developer that the proposed subdivision development is of a design, type, and appearance and so located with respect to the defined escarpment that the visual aspects and soil stability are not impaired and public access is retained.

Also, if development is allowed along the escarpment it must not affect the natural contours of the escarpment.

## 4.5.10
## PATHWAY SYSTEM

A walkway and pedestrian pathway system should be provided throughout the study area to link the following:

(i) Dedicated Environmental Reserve Area;
(ii) Neighbourhood and Community Recreation Areas;
(iii) The public access and pathway system along the escarpment; and
(iv) Community facility sites.

This system can incorporate or use the following:

(i) Utility rights-of-way;
(ii) Existing open spaces;
(iii) Separate pathways in subdivisions;
(iv) Proposed recreation areas;
(v) Public open space system along the escarpment;
(vi) Rights-of-way of collector and arterial roads;and;
(vii) Local residential streets;

Pathways systems shall be absorbed into the public roadways dedication pursuant to Section 93, Planning Act, 1977, except where they pass through recreation and open space areas.

## 4.5.11
## DEDICATION OF PUBLIC RESERVE

The Subdivision Approving Authority will require that a reserve dedication not exceeding 10 per cent shall be provided with each major residential development area. In the case of industrial land, only partial reserve could be required in the area. The unused balance, to be determined by the Subdivision Approving Authority in consultation with Council, could be provided within the adjacent residential area in order to ensure maximum use of the land for recreation purposes.

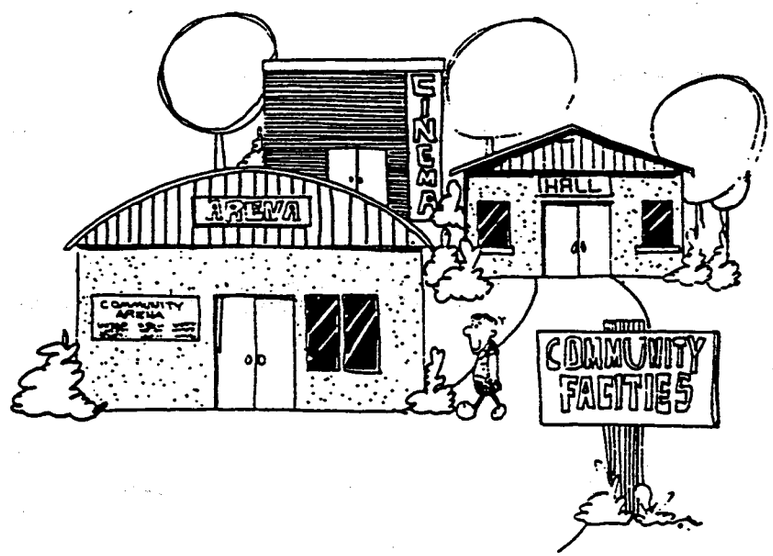
## 4.5.12
## DISTRIBUTION OF PUBLIC RESERVE/SCHOOL SITES

Since the Plan identifies several school sites, part of the dedicated reserve will have to be provided for these facilities. However, the amount that can be utilized by the School Division must not seriously jeopardize the amount of land to be used for parks and recreation. Where schools use a portion of the reserve, a joint-use agreement between the Town and School Division will be established to distribute the land. The amount of land dedicated solely for school purposes will be limited to immediate facility requirements including buildings, parking, and landscaping, but does not include playing fields, which will be shown as joint-use and incorporated into the recreational system.

## 4.5.13
## GENERAL

All subdivision applications will be circulated to the Recreation Board for comment on the distribution of recreation lands.

An historical resources impact study, acceptable to Alberta Culture, must be prepared as part of the subdivision plan submission and will identify the extent of the archaeological and historical resources in the area; determine the potential impact of development on the site; and indicate how these sites can be incorporated into the subdivision design.



## 4.6.0
## COMMUNITY, EDUCATION AND SOCIAL SERVICES

### 4.6.1
### LAND-USE STRATEGY

As the Development Plan, Map No. 3, indicates, a number of community and social service facility sites and school sites have been identified.

4.6.2

"4.6.2

Bylaw 19-96

### SCHOOL SITES

It has been determined through ongoing consultation with the School Boards that when the Study Area is fully developed, the required school facilities will consist of:

(i) 2 High Schools, and
(ii) 2 or 3 Elementary Schools,

Since school site requirements may vary depending upon how the school facilities are combined, a range of school sites have been shown on the Development Plan.

The sites chosen are the minimum possible to effectively support the facilities. Their location have been based upon the following criteria:

(a) location relative to pedestrian access and open space,
(b) location relative to existing school sites,
(c) the density of proposed residential developments, and
(d) proximity to adequate access roads to accommodate school buses.

At the subdivision plan stage, the sites will be dedicated as municipal/school reserve. As the schools are proposed, the Town and School Boards will specify the proportion of land to be allocated to the School Boards for school buildings, the balance will be allocated to the Town. This procedure will be facilitated through a joint-use agreement between the Town and School Boards."

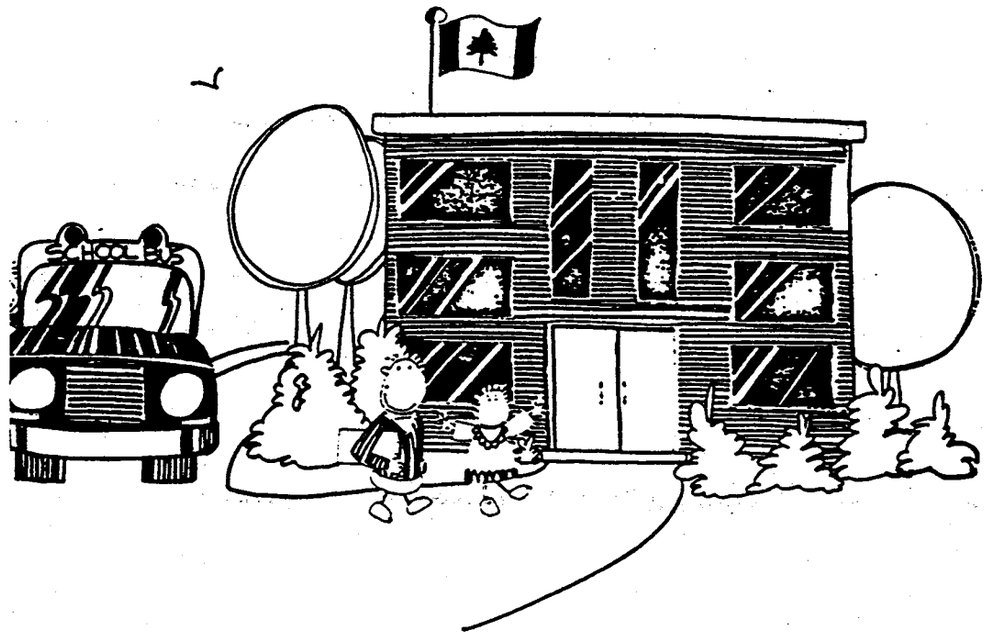
...following criteria:

(a) location relative to pedestrian access and open space,

19-96

(b) location relative to existing school sites,
(c) the density of proposed residential developments, and
(d) proximity to adequate access roads to accommodate school buses.

At the subdivision plan stage, the sites will be dedicated as municipal/school reserve. As the schools are proposed, the Town and School Division will specify the proportion of land to be allocated to the School Division for school buildings, the balance will be allocated to the Town. This procedure will be facilitated through a joint-use agreement between the Town and School Division.



*Community and Social Service facilities such as a firehall, senior citizens home, churches and a hospital have not been shown on the development plan, but the developer(s) will be required to reflect in their plans the possible need for these facilities. Need should be determined at the subdivision plan stage in consultation between the developer, the Town and respective agencies. As with school sites, community and social service facilities should be central to the area served and have good access. Provision of actual sites will be left to negotiations between the parties involved."*

Bylaw 30-89



The 0.5 hectare (1.2 acre) site for the fire hall has been located to provide maximum accessibility to the South Okotoks area and is sized to accommodate a full complement of equipment and personnel.

### 4.6.3.2
### Senior Citizens Home

A 1.2 hectare (3.0 acre) site for a home may be required. Two alternative locations have been identified to take maximum advantage of the other community facilities (i.e. hospital, fire hall), commercial, and educational areas.

### 4.6.3.3
### Hospital

A 4.0 hectare (10.0 acre) hospital site may also be required. Once again two alternative sites have been identified on Map No. 4, which are centrally located with respect to access roads to both rural and urban service areas. The sites are sufficiently large to minimize potential noise and to provide for adequate visitor and employee parking and room for future expansion. The site should be adequate to serve a population of approximately 30,000 persons.

### 4.6.3.4
### Churches

No actual church sites have been shown on the Development Plan, but the developer(s) will be required to reflect in their plans the possible need for these facilities. Need should be determined at the subdivision plan stage in consultation between the developer, the Town, and respective Church Authorities. As with the school sites, churches, if they are required, should be central to the area served and have good access. Sites adjacent to recreation areas would be ideal.

### 4.6.3.5
### General

As in the case of churches, provision of sites for the Hospital and Senior Citizens Home should be determined at the subdivision plan stage in consultation between the Town, the developer(s), and respective agencies. Provision of actual sites will be left to negotiation between these parties.

## 4.7.0
## TRANSPORTATION

### 4.7.1
### DEVELOPMENT STRATEGY

As Map No. 5 illustrates, the principle components of the area transportation system are:

- Highway 7,
- Highway 2A, and the
- Eastern Truck Bypass Route and Bridge Crossing.

Map No. 3 identifies the proposed arterial and major collector system in relation to the various land-uses. The Chart on Map No. 5 outlines the minimum required carriageways to serve projected traffic volumes, which are based upon a traffic study conducted for the Study Area.

Applying Central Mortgage and Housing Corporation guidelines, several stretches of roadway in the Study Area, based upon preliminary analysis, require a more detailed sound attenuation study to determine the full extent of potential traffic noise. Since there are many methods and combinations of techniques available to reduce noise levels to acceptable levels, specification of rights-of-way widths, if noise attenuation is necessary, cannot be included in this Plan.

Rights-of-way widths will be determined at the subdivision plan stage based upon discussions between the developer(s), Town, Town Engineer, and its planning advisors on the method(s) to be used and on land requirements to accommodate the solution.

## 4.7.2
## THE ROAD SYSTEM

### 4.7.2.1
### Highway 7

It will be necessary for Highway 7 to be designed to urban major-collector standards.[1] Sufficiently high volumes of traffic are estimated to warrant a more detailed noise study along the entire length of road within the Study Area.

***"4.7.2.2 HIGHWAY 2A***

Bylaw 44-90

***Highway 2A will function as an arterial serving the Study Area. This road will provide the major link between the Study Area and North Okotoks. A more detailed sound attenuation study is required along nearly the entire length of the highway.***

***To facilitate effective internal external traffic movement, Highway 2A has been realigned from the intersection with Highway 7 1.6 kilometres further south, providing a much gentler curve and clearly establishing this road as the arterial, since Highway 7 will not T into it. The realignment should greatly facilitate traffic movement both through and to the site and places all but Area B north of the road, therefore eliminating an effective physical barrier***

***to the Sheep River area. The final alignment is contained in the "Highway 2A Town of Okotoks Functional Planning Study" and this plan shall be taken into consideration in all planning and development of this area.***

***4.7.2.3 EASTERN BYPASS ROUTE AND BRIDGE CROSSING***

***With substantial development in the Study Area, particularly as the industrial park begins to fill up, major road upgrading will be necessary across the Sheep River including a second bridge crossing. Even with upgrading of the present bridge, the new bridge and approach roads will have to be developed to arterial standards. Once again, a sound attenuation study will be necessary."***

## 4.7.3
## INTERNAL COLLECTORS

### 4.7.3.1
### Noise Attenuation

A number of internal collectors wil be necessary to service the Study Area. If the estimated traffic volumes exceed the 4,000 to 5,000 daily vehicle trips established by CMHC as generally requiring further study of sound attenuation, a study should be undertaken as part of the subdivision application stage to determine the extent and methods to solve any problems identified.

### 4.7.3.2
### General Design

***The design of the system of internal collector roadways and intersections maximize the ease of both internal flow and should facilitate access to the external arterials and major collectors.***

***Sufficient internal collector access points to external roads and intersections have been identified to spread the volumes of traffic over the whole study area, thereby not overloading any one intersection. At the same time, locations have been chosen to minimize potential conflicts with the external road system.***

***The precise location of collector-arterial road intersections should be determined at the Outline Plan stage. The Town of Okotoks roadway standards and policy shall be considered when determining intersection location.***

***At Council's discretion 3-way collector access points may be shifted to form a 4-way crossing particularly where signalization may be required.***

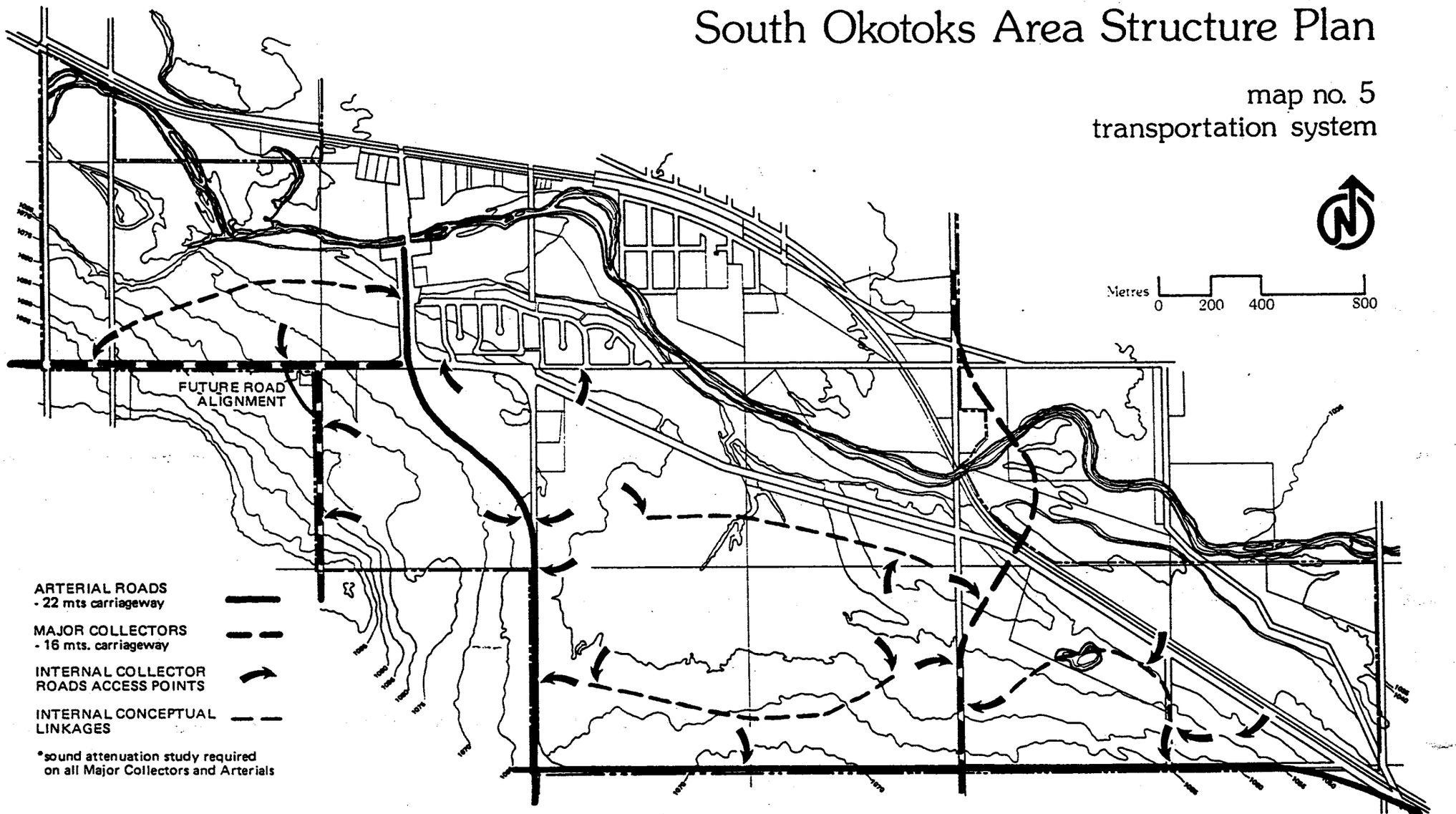
***Overall road design has been based upon the guidelines and standards adopted by the Town. These standards will be applied at the subdivision plan stage to determine the design of the road system."***

Bylaw 44-90

[1] City of Calgary - "Undivided Major Standards".
[2] City of Calgary - "Divided Major Standards", modified according to Town Engineer specifications.
[3] City of Calgary - 'Undivided Major Standards",

# South Okotoks Area Structure Plan

## map no. 5
## transportation system



## 4.7.4
## LOCAL STREETS

Local streets should be designed to minimize through traffic and potential points of conflict with internal collectors. Road design should also enhance the overall subdivision appearance.

## 4.7.5
## FRONTAGE AND PARKING ON COLLECTORS

Parking and residential frontage will not be allowed on arterial and major collector roadways. The subdivision should also be designed to minimize the amount of on-street parking and the residential lots fronting on collectors, by, for example, the location of activities such as parks, schools, and commercial or institutional uses along the roadways. Also the design of the internal collectors should minimize the loss of traffic flow capacity due to parking.

## 4.7.6
## NOISE ATTENUATION STUDIES

If a noise attenuation study is required for a roadway, it shall be undertaken by the developer(s) at the subdivision plan stage and shall:

(i) identify, in detail, the potential extent of any problem, and

(ii) identify proposed solutons.

The study will be based upon CMHC guidelines and standards which are currently being applied by the Approving Authority at the subdivision application stage.

Should the Town, Subdivision Approving Authority, and developer(s) conclude that based upon the more detailed study, noise attenuation is required, the methods to be used will be subject to negotiation between the concerned parties. If additional land is required for this work, it shall be included in the road right-of-way to the maximum of 30 per cent permitted under the Planning Act.

Should additional land still be necessary, the Town and Subdivision Approving Authority may permit part or all the additional requirements to be incorporated as part of individual lots.

***"4.7.7***
***AREA B SPECIAL ROAD DESIGN GUIDELINES AND STANDARDS***



***In addition to the above guidelines and standards, roads in Area B should conform with the special street and roadway guidelines in the Westridge Design Brief as adopted by Council. The Westridge Design Brief provides a conceptual planning framework for the future development of Area B.***

Bylaw 4-94

***4.7.8***
***GENERAL***

icipal
uture

***Policies, guidelines and standards contained in the General Municipal Plan and Land Use Bylaw must also apply to future development."***

## 4.8.0
## UTILITIES

## 4.8.1
## WATER SERVICE

As Map No.6 indicates, development in the Study Area will require major expansion of the Town's existing water supply and distribution system. The Study Area is divided into two pressure zones. Zone 1 encompasses land below an elevation of 3510 feet. Parts of Development Areas A, B, and all of Areas C and D are located in this zone. Zone 2 is that area above elevation 3510 feet. No upper limit has yet been established. Development in this area, which includes parts of Areas A and B, will require pressure boost. When major development takes the Town's population beyond 10,000 persons, additional storage will be necessary and shall be located in pressure zone 2.

The major components of this system are shown on Map. No. 6 and are outlined in detail in the study recently completed by the Town Engineer.[1] Detailed design of the system must include looping of water lines.

Developer(s) must size and locate the water supply and distribution in accordance with the design established by the Town Engineer at the subdivision plan stage.

## 4.8.2
## SANITARY SEWER SERVICE

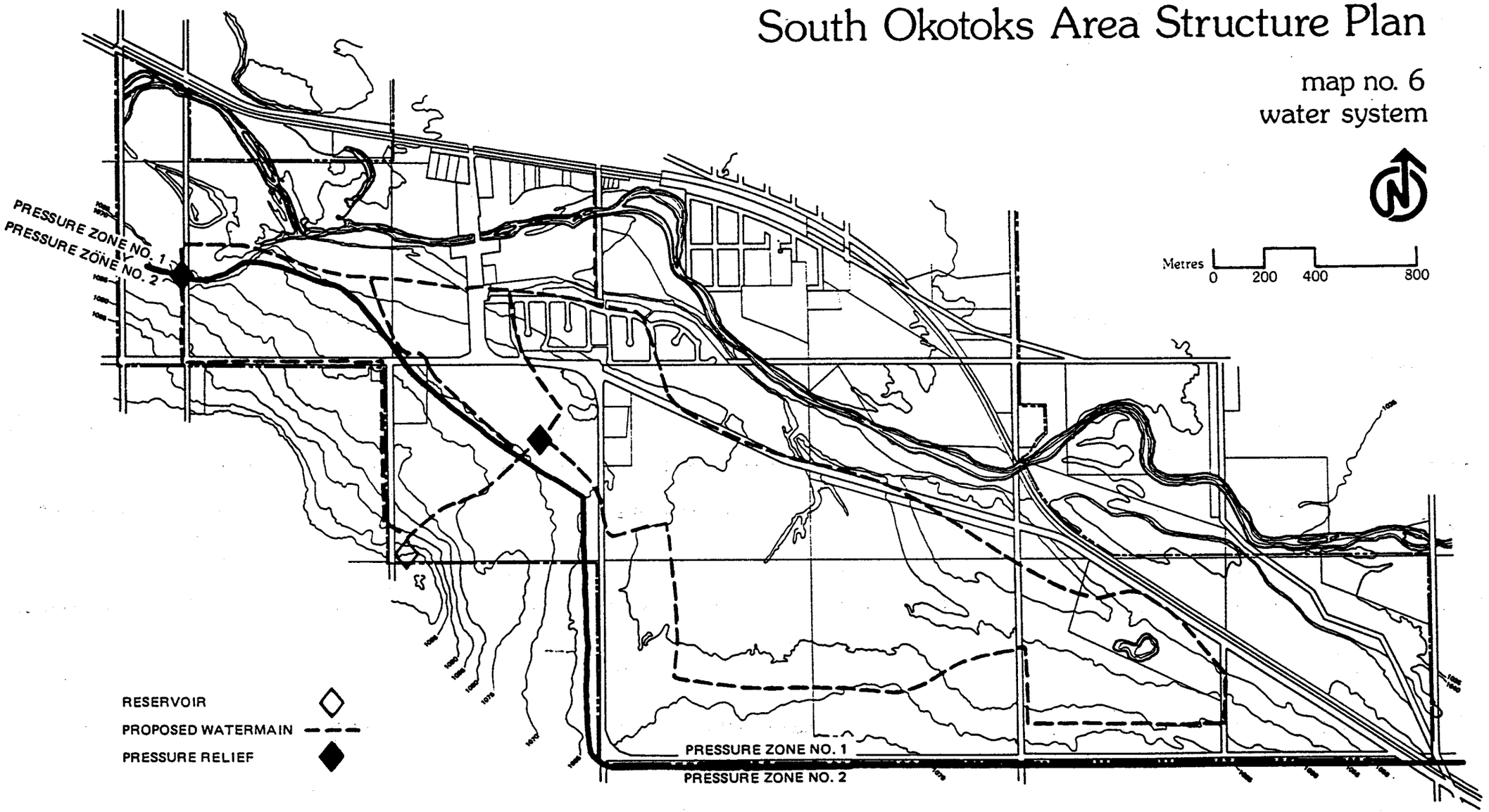
Map No. 7 summarizes the major service lines established in consultation with the Town Engineer.[2] Two servicing zones are identified — zone 1

[1] EPEC Consulting Western Ltd., TOWN OF OKOTOKS PROJECTED WATER SUPPLY AND STORAGE REQUIREMENTS SYSTEM UPGRADING, 1979-80, May 1979.

[2] EPEC Consulting Western Ltd., TOWN OF OKOTOKS PROPOSED SEWAGE TREATMENT FACILITY EXPANSION, June, 1979.

# South Okotoks Area Structure Plan

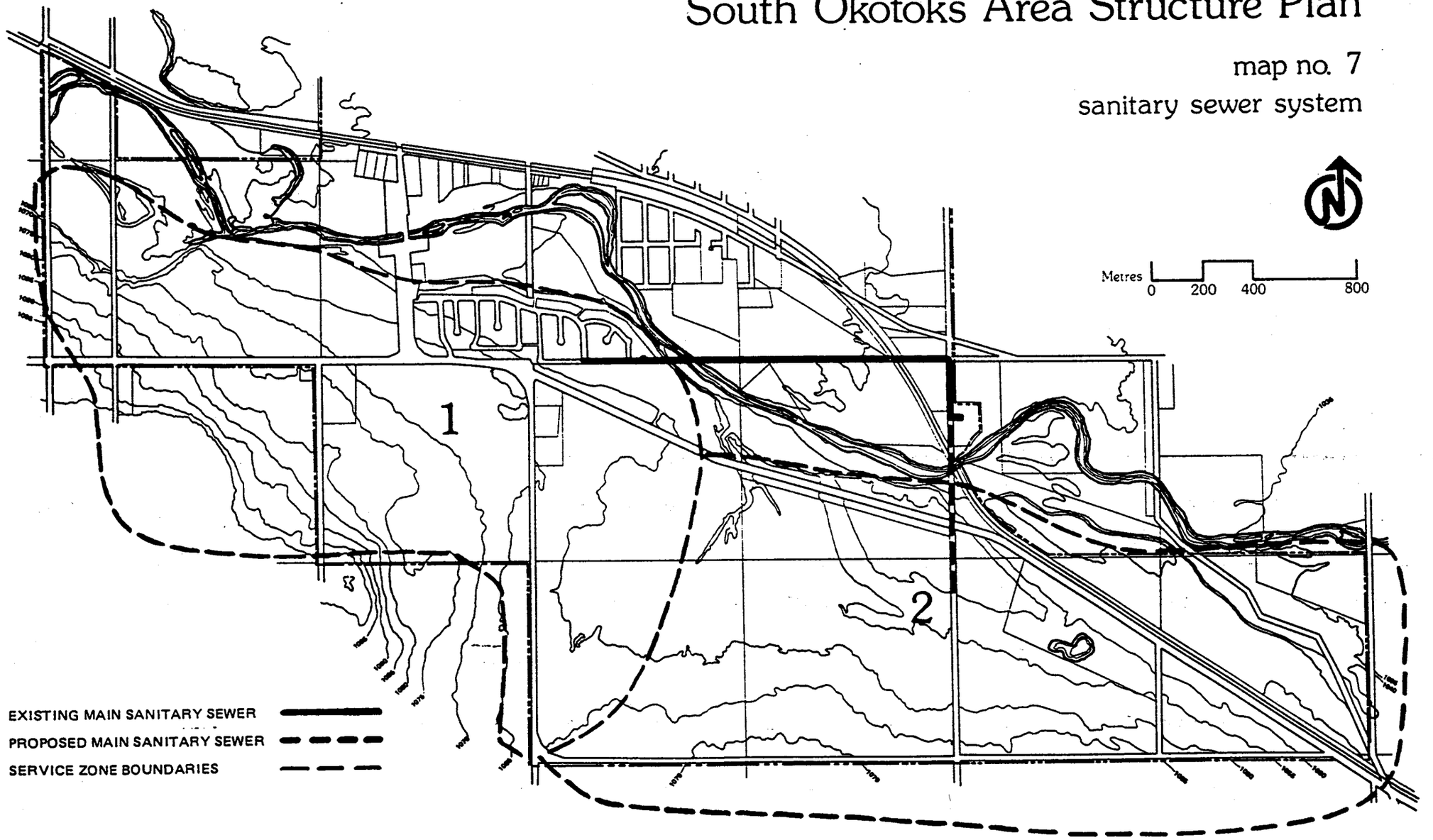
map no. 6
water system



# South Okotoks Area Structure Plan

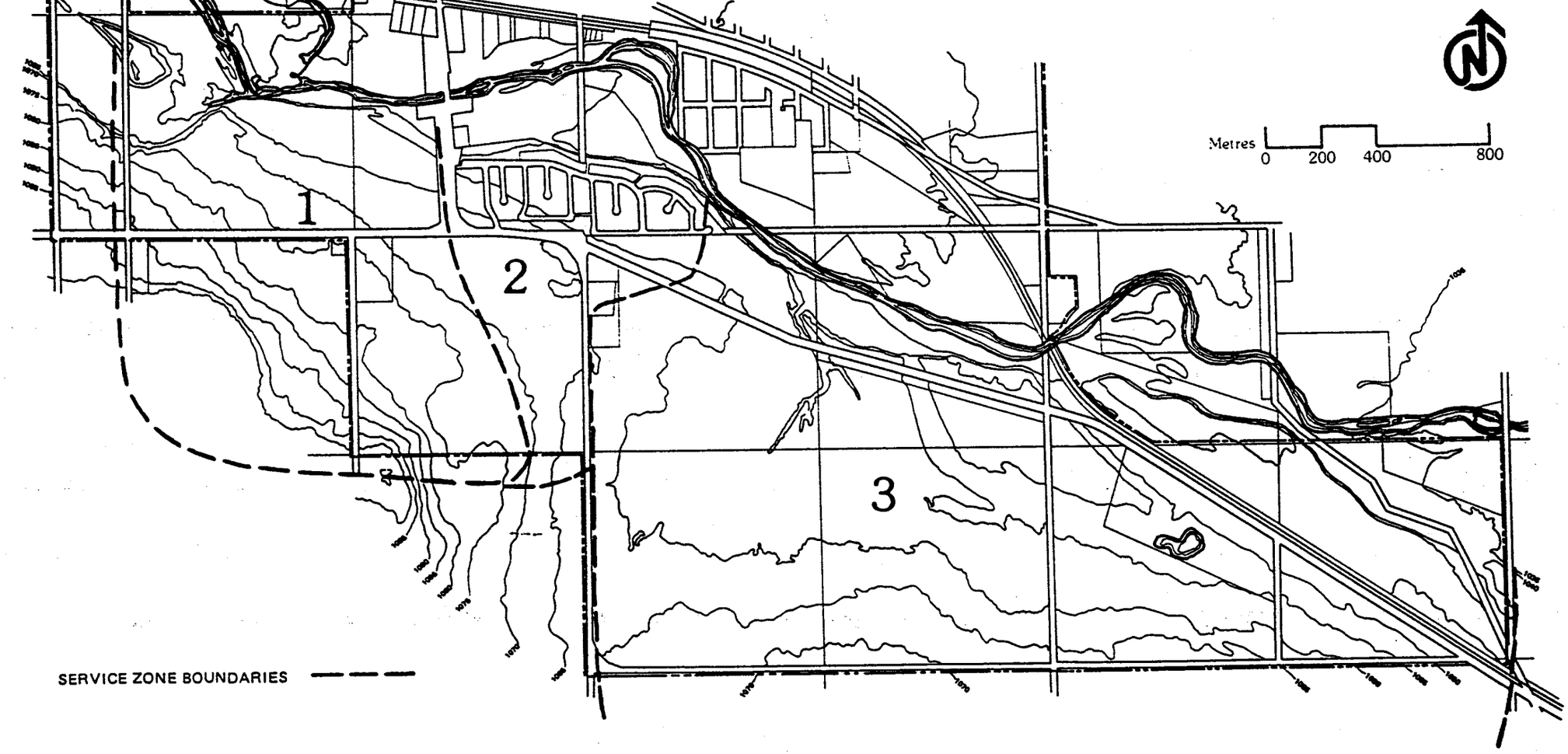
map no. 7

sanitary sewer system



# South Okotoks Area Structure Plan

map no. 8
storm sewer system



extends west from Highway 2A and includes all of Development Areas A, B and the western part of Area C. This zone can be handled by the existing 21" line in the area. Service zone 2 extends east from Highway 2A and encompasses the rest of Area C and all of Area D, the industrial park. A separate, major trunk extension will be necessary to connect service zone 2 to the sewage treatment plant.

Developer(s) must size and and locate sewage lines in accordance with a design established in consultation with the Town Engineer at the subdivision plan stage.

### 4.8.3
### STORM SEWER SERVICE

The proposed storm drainage service zone system for the Study Area is summarized on Map No. 8. The Study Area can be served by three separate systems. Service area 1 would serve all of Development Area A and the western half of Area B. Service area 2 would include the rest of Area B and the northwest part of Area C. The balance of Area C and all of Area D would be served by storm drainage system 3.

Because the Study Area forms only part of a larger drainage area extending south of the Town boundary, the storm drainage systems should be sized to accommodate future drainage from this area through the Study Area. The systems must also take into consideration possible changes in use from agriculture to urban activities.

Developer(s) must size and locate the storm drainage lines in consultation with the Town Engineer at the subdivision plan stage.

### 4.8.4
### TELEPHONE SERVICE

Map No. 9 identifies the existing distribution cables. With the exception of the toll cable running along the south side of Highway 2A, all the cables presently serving the Study Area can be moved, providing service is not disrupted and the cost is borne by the developer(s).

The toll cable along Highway 2A should remain and a 9 metre (30 foot) easement will have to be provided and incorporated into the design either as part of the public pathway system or as part of a road right-of-way.

Detailed guidelines will be proposed by AGT at the subdivision plan stage.

### 4.8.5
### POWER SERVICE

Calgary Power will require easements for the installation of electrical service lines for the Study Area. Requirements will be determined at the subdivision plan stage. Map No. 10 outlines the existing power service lines in the Study Area.

### 4.8.6
### NATURAL GAS SERVICE

Canadian Western Gas will require easements for the installation of gas service to the area. Requirements will be determined at the subdivision plan stage. Map No. 11 outlines the existing gas service in the Study Area.

### 4.8.7
### LAND-USE DEVELOPMENT CELLS

Map No. 12 identifies the proposed land uses in the Study Area in relation to general development cells defined by servicing requirements.

The defined utility servicing department cells are intended to serve as a guide to Council, the Approving Authority, and the developer(s) and in no way should be interpreted as establishing a rigid development sequence or time frame for growth. These policies will be established by Council in response to specific proposals and reflect the capability of the Town to successfully accommodate expansion.

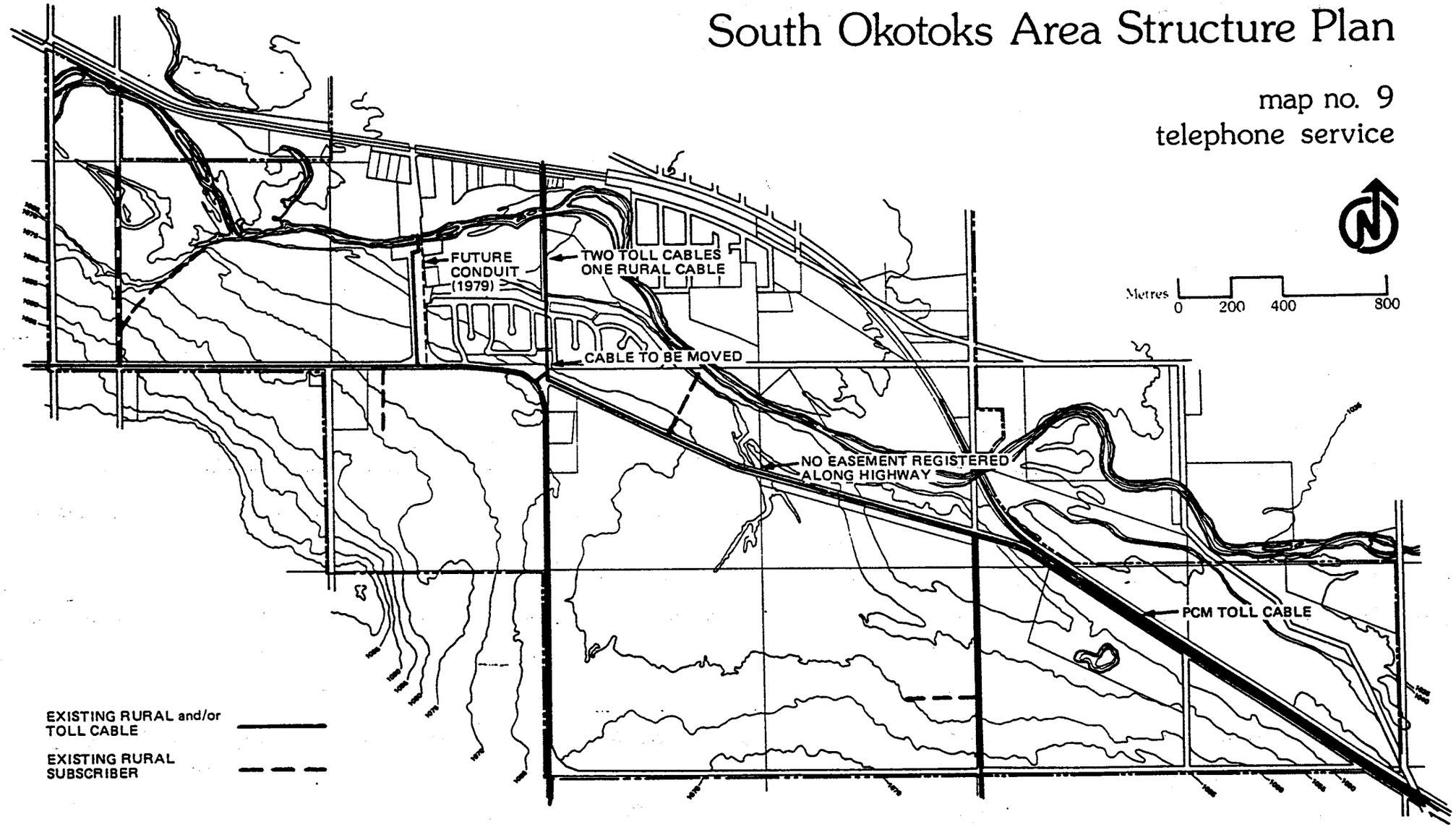
In all cases where Town utility lines are required, servicing plans must be determined in consultation with the Town Engineer at the outline plan stage. Lines must be sized to Town specifications in anticipation of further long-term development to the south. Servicing densities for non-residential land use will be set by the Town Engineer and could exceed that established for residential uses.

### 4.8.8
### GENERAL

Development agreements will be required by the Town with respect to provision of utility services and any other matters considered to be of mutual concern in the development of the lands in the Study Area.

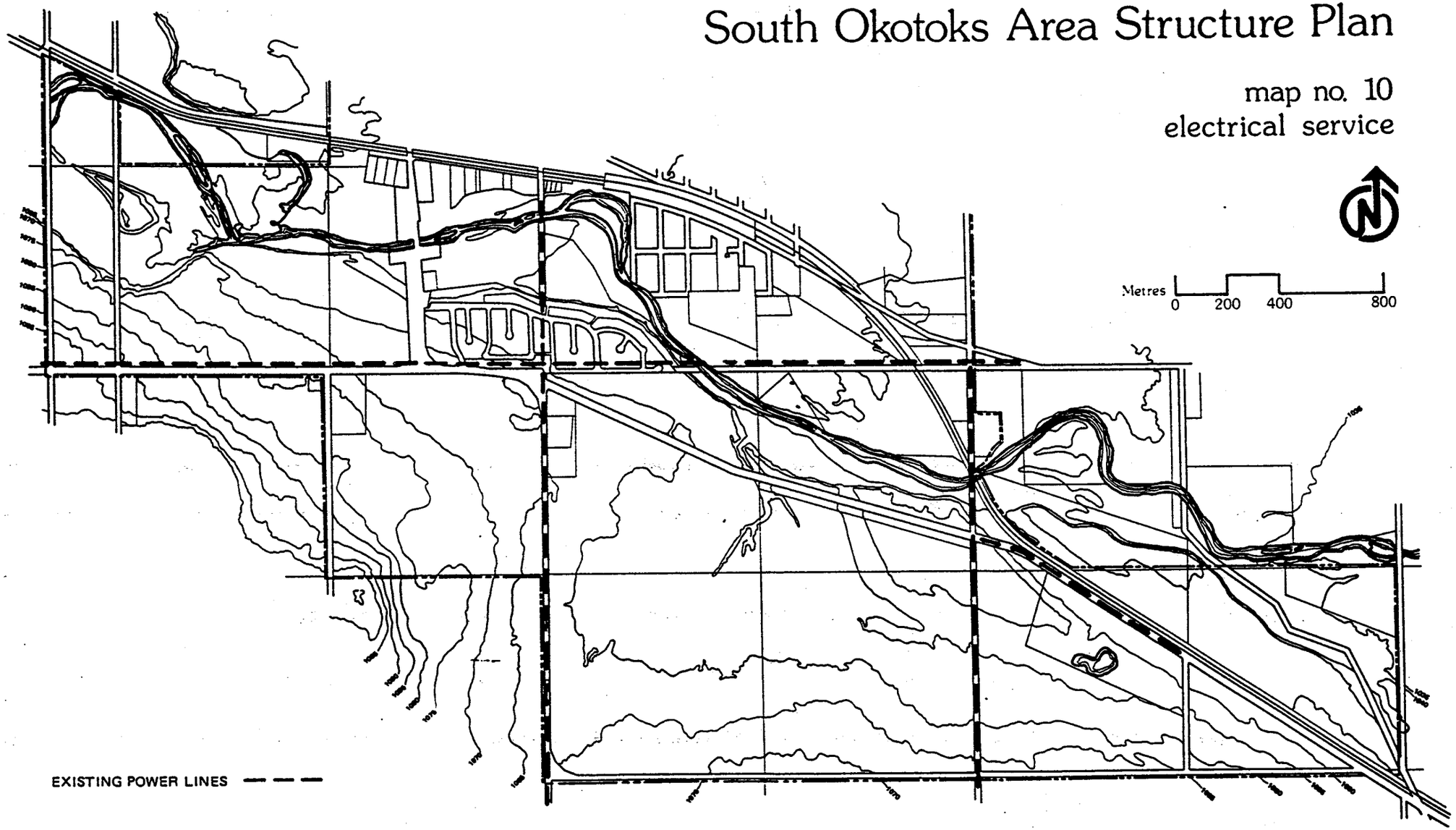
# South Okotoks Area Structure Plan

map no. 9
telephone service



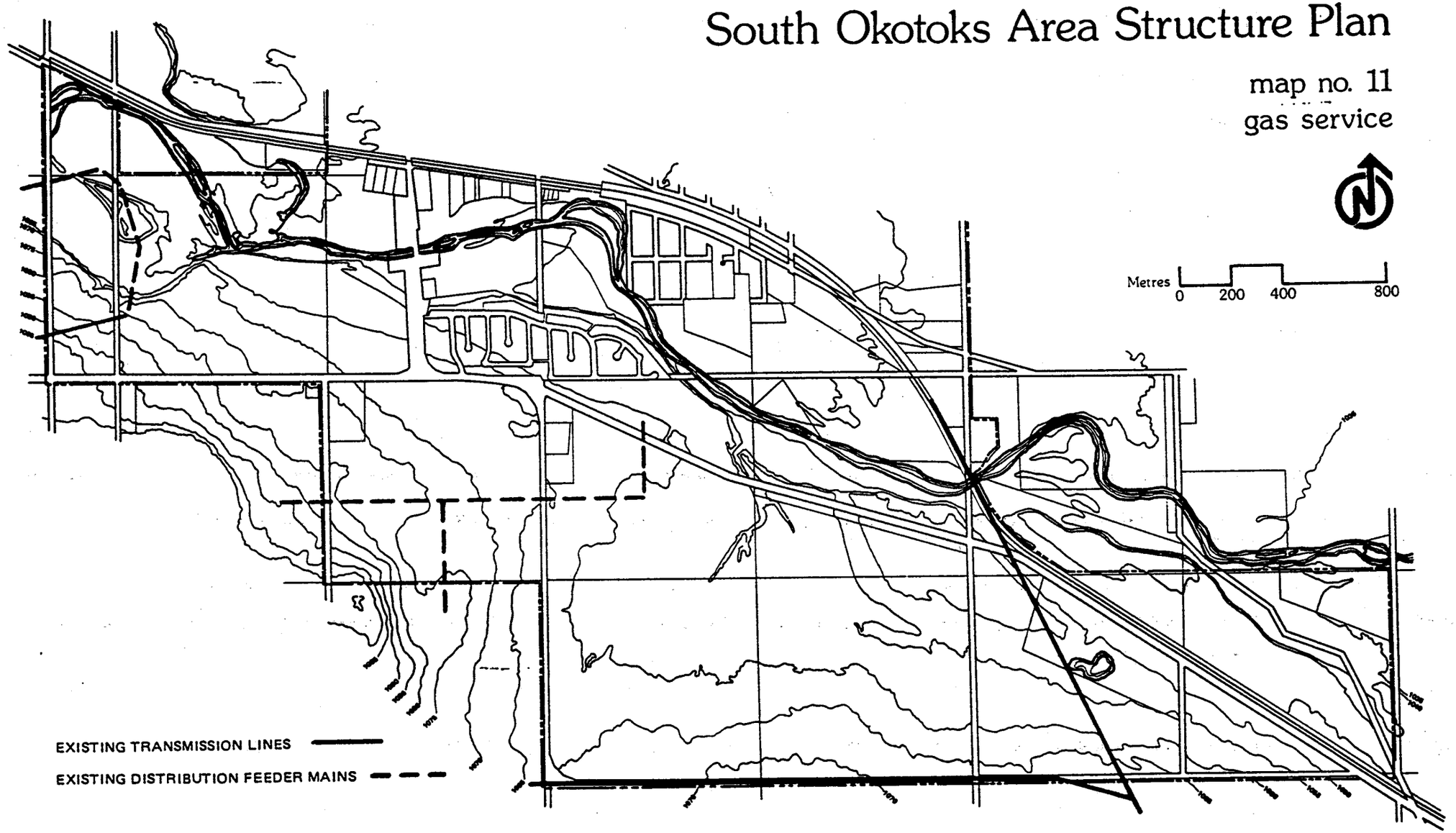
# South Okotoks Area Structure Plan

map no. 10
electrical service



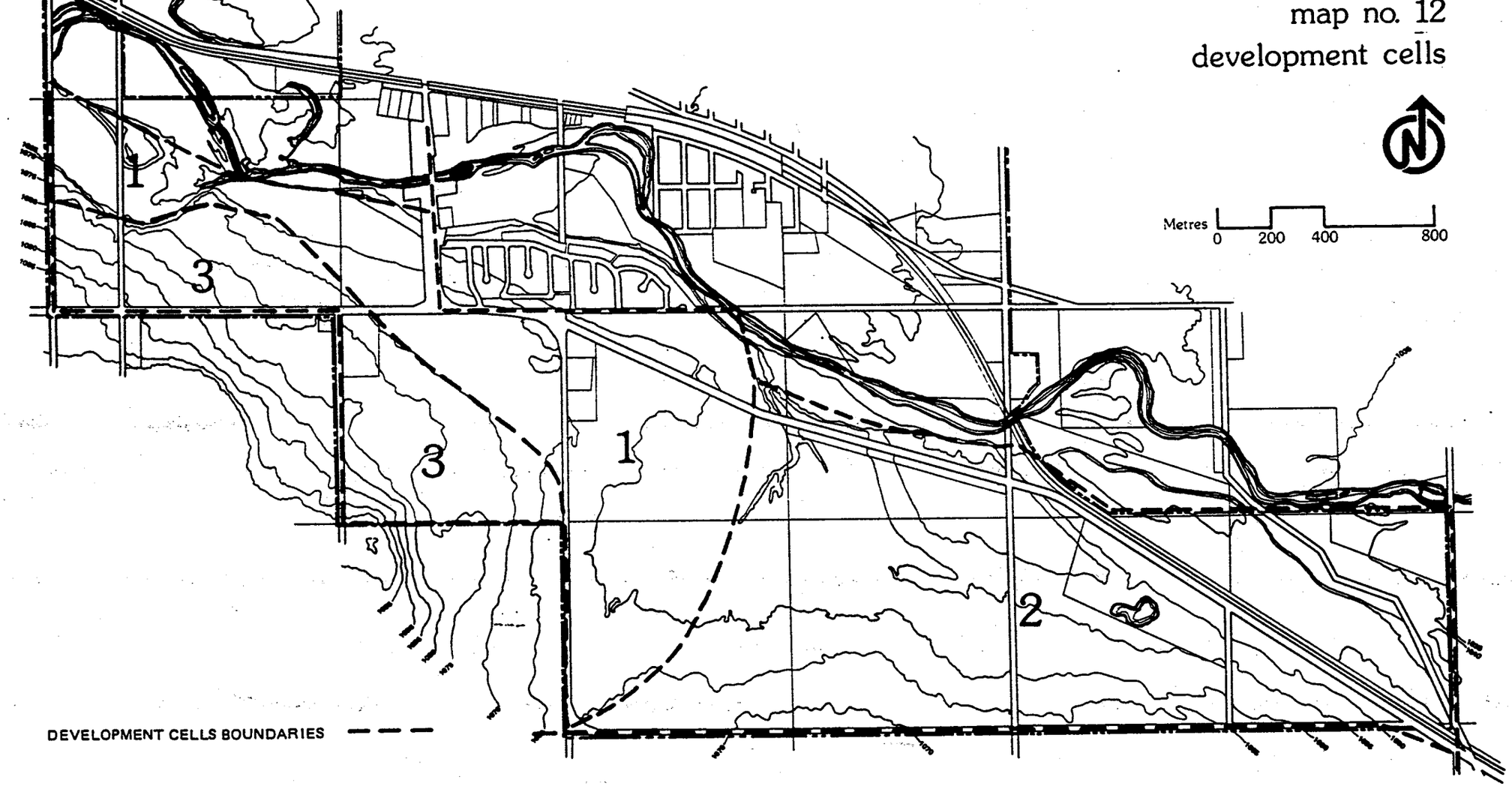
# South Okotoks Area Structure Plan

map no. 11
gas service



# South Okotoks Area Structure Plan

map no. 12
development cells



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## 5.0.0
## BIBLIOGRAPHY


1. Calgary Regional Planning Commission, OKOTOKS GENERAL PLAN. Calgary, by the authors, 1977.
2. City of Calgary (The) Engineering Department. DESIGN GUIDELINES FOR SUBDIVISIONS, METRIC. Calgary, by the authors, 1979.
3. City of Calgary (The) Planning Department. MIDNAPORE II AREA STRUCTURE PLAN. Calgary, by the authors, 1978.
4. De Chiara, Joseph and Koppelman, Lee. PLANNING DESIGN CRITERIA. New York, Van Nostrand Reinhold Company, 1969.
5. De Chiara, Joseph and Koppelman, Lee. SITE PLANNING STANDARDS. New York, McGraw Hil Co., 1978.
6. EPEC Consulting Western Ltd. TOWN OF OKOTOKS PROJECTED WATER SUPPLY AND STORAGE SYSTEM UPGRADING 1979-1980. Calgary, by the authors, 1979.
7. EPEC Consulting Western Ltd. TOWN OF OKOTOKS PROPOSED SEWAGE TREATMENT FACILITIES EXPANSION. Calgary, by the authors, 1979.
8. Lynch, Kevin. SITE PLANNING (2nd Edition). Cambridge, Mass., The M.I.T. Press, 1971.
9. McKeever, J. Ross (Ed.) THE COMMUNITY BUILDERS HANDBOOK. Washington, Urban Land Institute, 1968.
10. Sargions, M.A. and Morrell, J.F. SIMPLIFIED TRAFFIC FORECASTING PROCESS FOR SMALL CITIES. Calgary, by the authors, 1974.
11. Urkman, Richard and Small, Robert. SITE PLANNING FOR CLUSTER HOUSING. New York, Van Nostrand Reinhold Company, 1977.