

NE 32-42-25-4

COUNTRY HILLS ESTATES

TOWN OF PONOKA, BY-LAW 9-92 Schedule "A"

AREA STRUCTURE PLAN

SEPTEMBER, 1992

Prepared by

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EDMONTON, ALBERTA

TABLE OF CONTENTS

By-law

1.0	INTRODUCTION	
1.1	General	1
1.2	Annexation	1
1.3	Town of Ponoka General Municipal Plan	1
1.4	Scope	1
2.0	SITE DESCRIPTION	
2.1	Location Plan	2
2.2	Legal Description	2
2.3	Existing Rights-of-way	2
2.4	Soils Classification	2
2.5	Surface topography	2
2.6	Existing Buildings	3
3.0	EXISTING MUNICIPAL SERVICES	
3.1	Roadways	7
3.2	Water Supply and Distribution	7
3.3	Sanitary Treatment and Collection System	7
3.4	Storm Drainage	8
3.5	Natural Gas Facilities	8
3.6	Electrical	8
3.7	Telephone	8
3.8	Garbage Collection	8
4.0	AREA STRUCTURE PLAN	
4.1	Introduction	10
4.2	The Area Structure Plan Design	10
4.3	Land Use	10
4.4	Housing and Population	10
4.5	Student Population	10
4.6	School Expansions	10
4.7	Municipal Reserves and Recreation	14
4.8	Commercial Site	14
4.9	Highway Widening	14
4.10	42 Street Road Widening	14
4.11	Road Rights-of-way	14
4.12	Northwestern Utilities Gas Lines	15

TABLE OF CONTENTS (continued)

5.0	SITE SERVICING	
5.1	Pedestrian Circulation	17
5.2	Vehicular Circulation	17
5.3	Storm Sewer	18
5.4	Sanitary Sewer	19
5.5	Water Distribution	20
5.6	Other Utilities	20
6.0	STAGING	
6.1	Staging	25
6.2	Impact on Town's Services	25

LIST OF FIGURES

Figure	1	Location Plan	4
	2	Rights-of-way	5
	3	Site Topography	6
	4	Existing Municipal Services	9
	5	Area Structure Plan	16
	6	Pedestrian and Vehicular Circulation	21
	7	Servicing Concept - Storm	22
	8	Servicing Concept - Sanitary	23
	9	Servicing Concept - Water	24
	10	Staging	27

LIST OF TABLES

Table	1	Proposed Land Uses	11
	2	Housing and Population Projection	12
	3	Student Populations	13
	4	Staging Impact	26

LIST OF APPENDICES

Appendix	A	Storm Sewer System Evaluation	
	B	Sanitary Sewer System Evaluation	

1.0 INTRODUCTION

1.1 General

The Area Structure Plan for Country Hills Estates has been planned to provide maximum flexibility for development and will enable growth to occur as quickly or slowly as the demand for residential units requires.

A 10% dedication of the development lands is provided for municipal reserves.

At present the land is classified as Agricultural (A) and is used for crop production.

1.2 Annexation

The property was annexed into the Town of Ponoka on January 1, 1981 under Alberta Local Authorities Board Order No. 10903.

1.3 Town of Ponoka General Municipal Plan

The 1987 General Municipal Plan for Ponoka identifies the Country Hills Estates Area for residential development.

1.4 Scope

The Area Structure Plan has been prepared to the level of detail required to ensure that the objectives, flexibility, design concepts, and policies as set forth within this plan will be adhered to.

2.0 SITE DESCRIPTION

2.1 Location Plan

The Country Hills Estates Area is located in the south east corner of Ponoka, south of Highway No. 53 and east of the Battle River as shown on Figure 1.

The eastern edge abuts the west right-of-way of McDonald Road with the quarter line of the SE 1/4 Sec 32-42-25-W4M serving as the southern edge.

2.2 Legal Description

The Country Hills Estate Area Structure Plan encompasses Part of the NE Sec 32-42-25-W4M having a gross area of ± 58.584 hectares.

2.3 Existing Rights-of-way

Northwestern Utilities Limited has existing rights-of-ways as shown in Figure 2.

- a) The existing farm house is serviced by a 31mm diameter low pressure main extending eastward from 42 Street.
- b) A 31mm diameter low pressure main is located on the western side of 42 Street which services the four homes and a church.
- c) A 50mm high pressure gas line is located along the eastern perimeter (approximately 32m from the east property line, within a 9.15m ROW) and southern perimeter (approximately 4.5m from the south property of line within a 9.15m ROW).

2.4 Soils Classification

The soils consist of Peace Hills Sandy Loam Soil, which is classified in the Canada Land Inventory as 3^c.

2.5 Surface topography

Figure 3 illustrates the site topography.

The average slope from the highest point (elevation 856.0m) located at the eastern boundary of the property and sloping downward to the river (elevation 805m) is 3.2%

Slopes within the property range from 3.0% to 4.0% with the highest point located at the eastern boundary at elevation, 856.0m, and the lowest located at the western boundary at elevation, 828.0m.

Drainage patterns for the Area are split.

Drainage off the northern one third of the property drains north and west to the Highway 53 ditches and is conveyed by a storm sewer main from 42 Street west to the Battle River.

Drainage off the southern two thirds of the property drains west to 42 Street and 36 Avenue. Surface runoff meanders through Golf Course lands and undeveloped sections of 36 Avenue eventually reaching the Battle River.

2.6 Existing Buildings

A vacant farm house is located on the northern edge of the property with access off Highway No. 53.

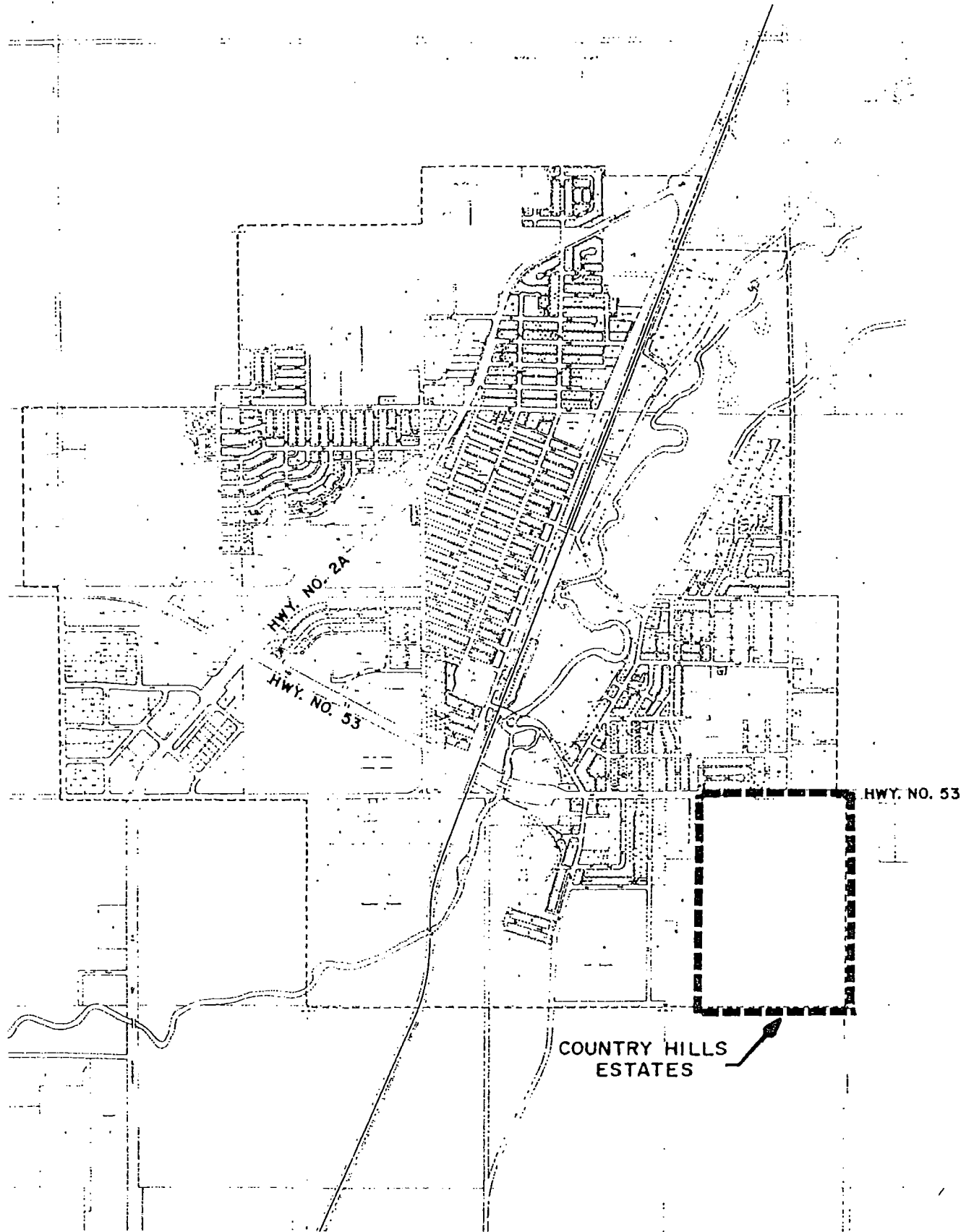


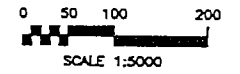
Figure 1- LOCATION PLAN



Town of
PONOKA

**COUNTRY HILLS
ESTATES**

N.E. 1/4 SEC. 32-42-25-W4M
TOWN OF PONOKA, ALBERTA



LEGEND

-  DEVELOPMENT BOUNDARY
-  N.U.L. NORTHWESTERN UTILITIES LIMITED

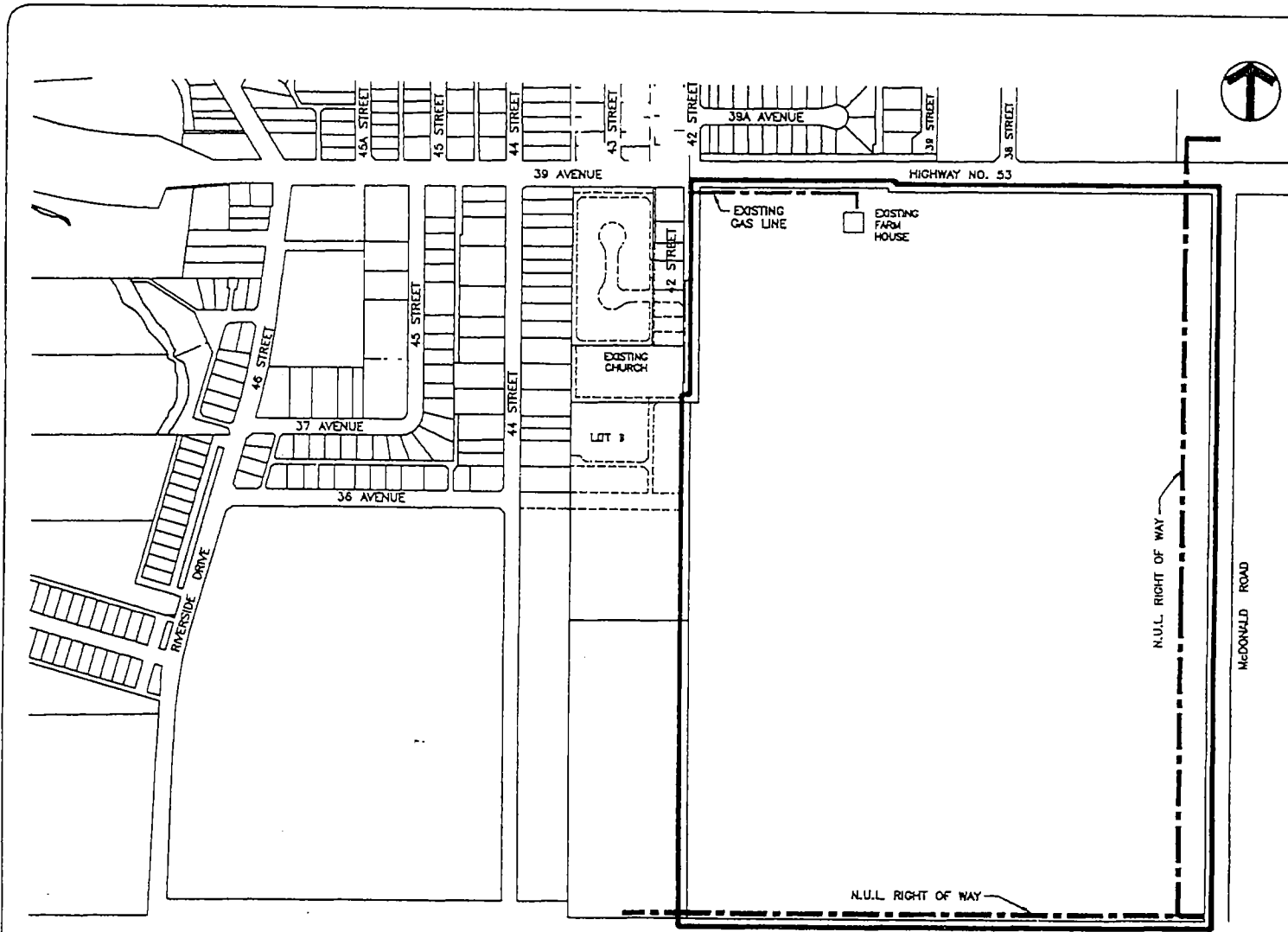


Figure 2 - RIGHTS OF WAY

3.0 EXISTING MUNICIPAL SERVICES

Figure 4 shows the existing services within or adjacent to Country Hills Estates.

3.1 Roadways

Highway No. 53 is located along the northern boundary. There is one access to the existing farm house.

McDonald Road is located on the eastern edge of the property within the County of Ponoka No. 3. There is one farm access into property. The right-of-way for this road is 30.49 meters.

42 Street, on the western edge of the property, is a graveled residential street extending off Highway 53 southward approximately 270m. It provides access to four homes, a church, vacant land to the west and the to the Area.

3.2 Water Supply and Distribution

The Town of Ponoka obtains their water supply from a number of municipal wells drilled in the Paskapoo sandstone aquifer. The water from these wells is pumped to treatment and storage facilities which has been estimated to be adequate for a population in excess of 10,000 people.

The Area is located in the Town's "Pressure Zone 2". This pressure zone is served off a 900m³ reservoir located at 48 Avenue and 38 Street. A booster pumping station is located at 48 Avenue and 40 Street with a 250mm water trunk main extending east on 48 Avenue and south on 38 Street towards 39 Avenue.

There is an 150mm diameter water main on 42 Street that services the existing homes and the church.

3.3 Sanitary Treatment and Collection System

The Town of Ponoka treats their municipal wastes by an anaerobic/aerobic lagoon system consisting of four anaerobic and four aerobic cells adequate to treat sewage effluent for a population of 10,000 people.

A 200mm diameter sanitary main is located on 42 Street, to service the four homes and church. From 42 Street the sanitary sewer main is routed west along the southern edge of the Highway carriageway; then north along 43 Street; increasing in size to 300mm at 42 Avenue; and eventually connecting into the 450mm outfall main to the lagoon at 52 Avenue.

The key sanitary mains that are affected by the Country Hills Estates are the 200mm and 300mm mains on 43 Street.

Section 6.0 and Appendix "B" address the capacities and upgrading requirements to service the Area.

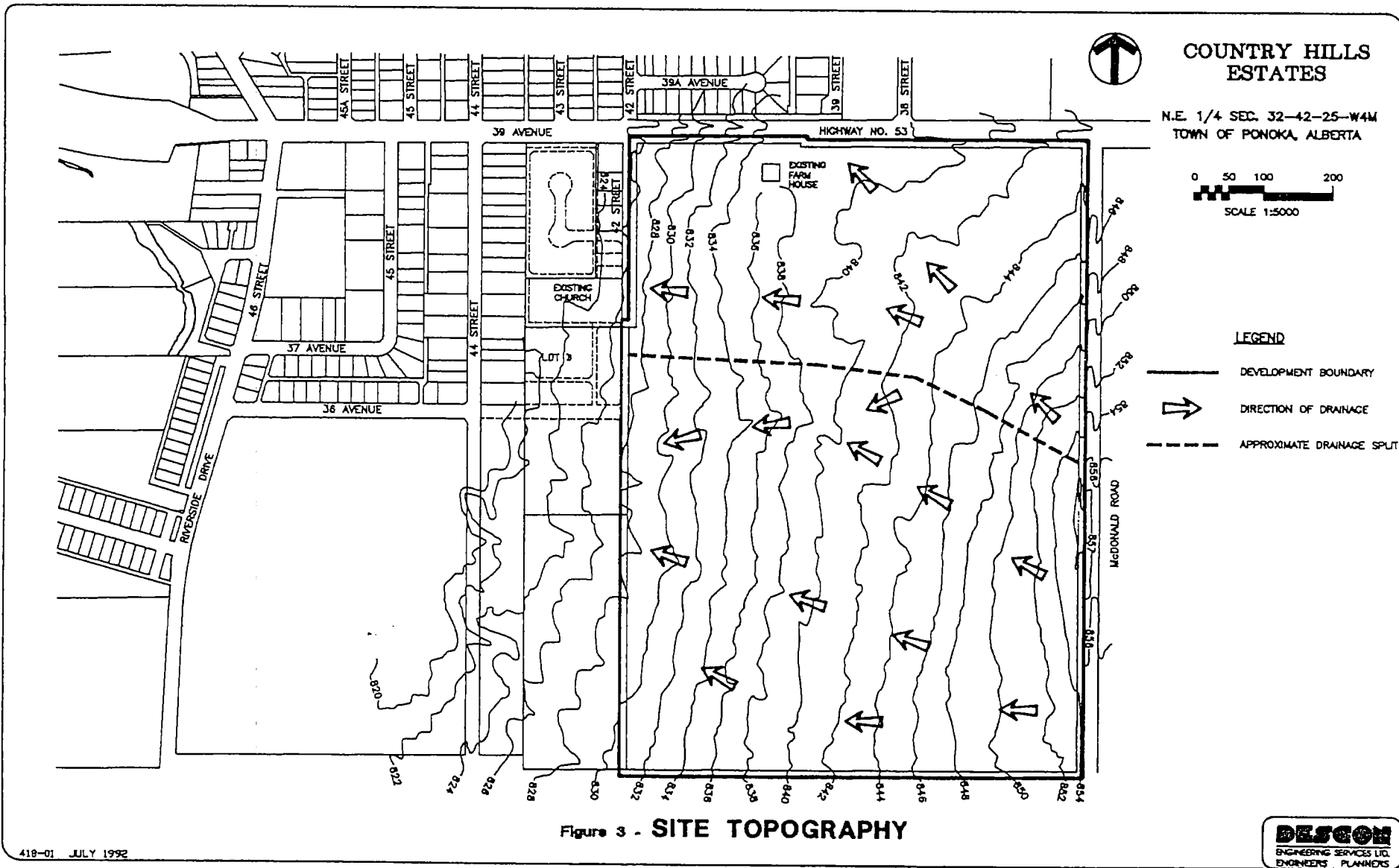


Figure 3 - SITE TOPOGRAPHY



3.4 Storm Drainage

A storm sewer main is located in the north shoulder of Highway 53. From 42 Street the storm sewer main increases in size increments from 750mm to 1200mm in diameter at the Battle River.

This storm sewer main conveys storm runoff from the highways ROW, small drainage basins on the north and south side along Highway 53, and approximately 19 hectares of present agricultural land from the Area.

3.5 Natural Gas Facilities

Northwestern Utilities Limited (NUL) has the franchise to provide natural gas service in the Town of Ponoka.

The on site gas lines are reviewed in Section 2.3.

3.6 Electrical

The Town of Ponoka owns its own electrical distribution system and provides electrical service to developed areas. A high voltage supply line is located along the northern boundary of the property in the Highway ROW.

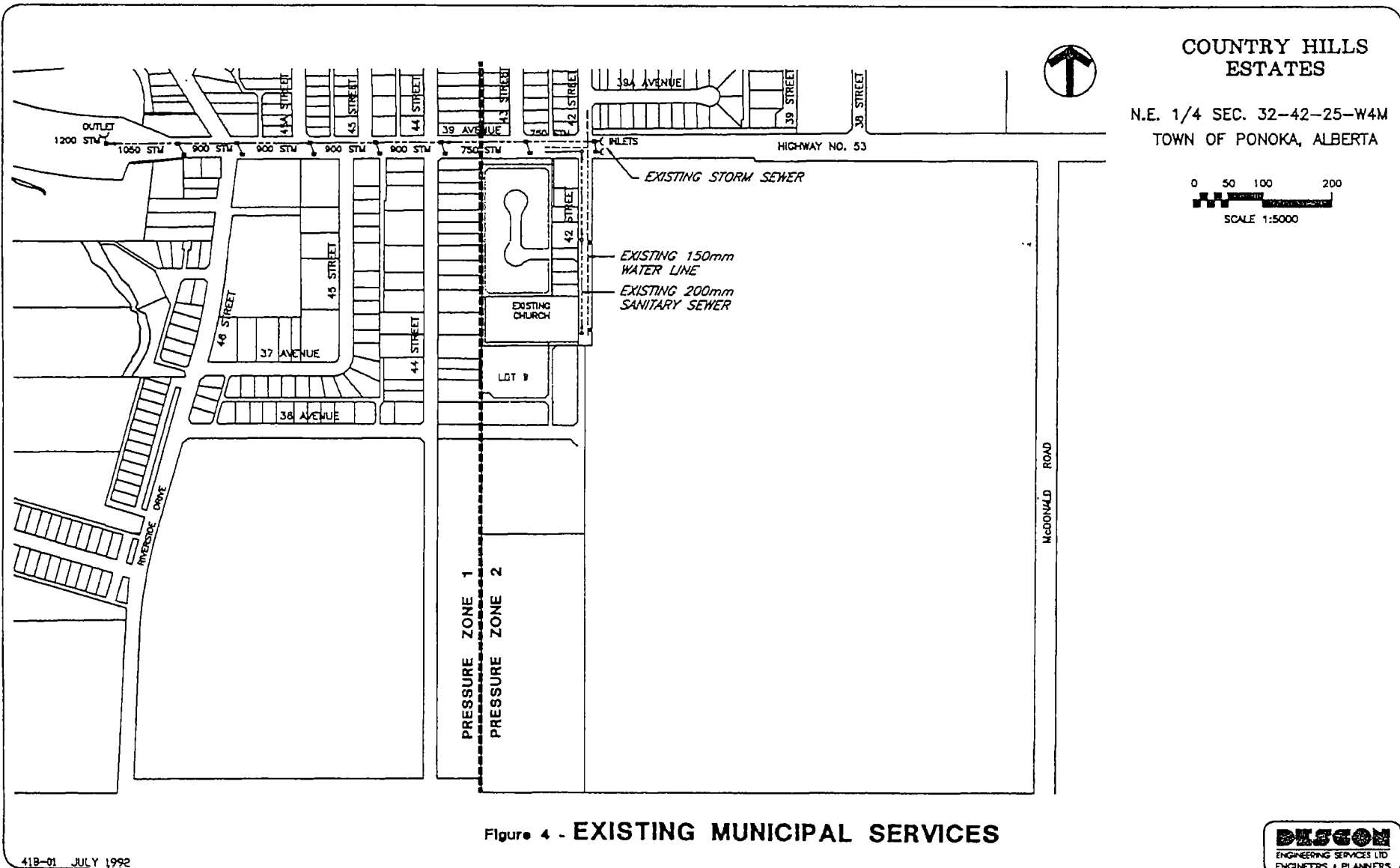
3.7 Telephone

Alberta Government Telephones provides service to developed properties.

3.8 Garbage Collection

The Town of Ponoka contracts collection to a private disposal firm. The solid waste is disposed at the Town's modified sanitary landfill site located approximately 2 kilometers northeast of the Town. The existing facility and expansion possibilities on site have adequate capacity for approximately five years.

The Town of Ponoka and County of Ponoka No. 3, are also jointly developing a regional landfill facility. The site has not been selected at this time.



41B-01 JULY 1992



4.0 AREA STRUCTURE PLAN

4.1 Introduction

The concept for the Country Hills Estates has been based on discussions with representatives from the Battle River Planning Commission, Town of Ponoka and the Developer.

4.2 The Area Structure Plan Design

The design of the area structure plan is identified in Figure 5. The design permits a population of 1,542 people (35 persons per hectare) based on the net developed single family area.

4.3 Land Use

Table 1 identifies the proposed land use for the Country Hills Estates as illustrated in Figure 5.

The land uses are identified by areas. The gross areas identified in this table are approximate. The exact areas will be determined at the Tentative Plan of Subdivision stages.

4.4 Housing and Population

Table 2 identifies the number of people per unit and housing density per hectares used by Ponoka. Table 1 has been used to produce the population and housing unit data identified in Table 2.

4.5 Student Population

The projected student populations for the Area is 532 student as summarized in Table 3.

4.6 School Expansions

School expansions for separate, public and other institutional facilities would be determined by the individual School Authorities based on the subdivision developments occurring in Ponoka.

A Municipal Reserve is provided in Area C for a school site if a new school is required for the Country Hills Estates.

Table 1: Proposed Land Uses*

<u>Area</u>	<u>North Area (Ha)</u>
<u>Single Family</u>	
A	10.185
B	6.941
C	8.147
D	5.696
E	3.888
F	9.189
<u>Commercial</u>	0.785
<u>Municipal Reserves</u>	
MR 1**	0.275
MR 2**	0.183
MR 3	0.342
In Area C	3.240
In Area D	0.600
In Area E	0.220
In Area F	1.000
<u>Collector Roads</u>	5.581
<u>Road Widening</u>	
Highway	0.731
42 Street	0.116
<u>Easements</u>	
E 1** ***	0.155
<u>N.U.L. Rights-of-Way</u>	1.310
	=====
TOTAL AREA	58.584

* The calculations for this table are approximate. Final land use distribution will be determined during detailed design stages.

** The reserve and easement dedications are for a sound berm design.

*** Easement allowances for a sound berm east of Carter Way are not calculated for this table. Final area will be determined during the detailed design stages

Table 2: Housing and Population Projection

<u>Area</u>	<u>Number of people per unit</u>	<u>Number of housing units per area</u>	<u>Population generated per area</u>
A	3.5	102	357
B	3.5	69	242
C	3.5	81	284
D	3.5	57	200
E	3.5	39	137
F	3.5	92	322
		===	===
		440	1,542

Summary

TOTAL HOUSING UNITS 440

TOTAL POPULATION 1,542

* Population projections are based on 3.5 persons per household unit

** Number of units per hectare is 10

Table 3: Student Populations

<u>Area</u>	<u>Number of housing units per area</u>	<u>Population generated per area</u>
A	102	123
B	69	84
C	81	98
D	57	69
E	39	47
F	92	111
	===	===
	440	532

Summary

TOTAL HOUSING UNITS	440
TOTAL STUDENT POPULATION	532

- * Student population projections are based on 1.21 students per household unit based on 1978 Wetaskiwin City Census for new subdivisions provided by the Battle River Planning Commission.

Student population projections for new subdivisions in the Town of Ponoka are unavailable.

4.7 Municipal Reserves and Recreation

The locations of the municipal reserves are illustrated in Figure 5 and summarized in Table 1. The following policies shall apply to the open spaces and reserve dedication.

- a) The developer will be responsible for the dedication of 10% of the gross development area. The gross development area is defined as that land required for the subdivision excluding environmental reserve. Areas in excess of the 10% of the gross development area shall be purchased by the municipality.
- b) Municipal Reserves (MR 1 and MR 2) totalling 0.458 hectares will be part of the 10.0% dedication along the south boundary of the Highway 53 rights-of-way and back of developed lots.
- c) Municipal Reserve (MR 3) (0.342 hectares) is the original farm site that will be a Passive Park. Access to the park will be by internal roadway and walkway systems.
- d) Municipal Reserve (MR 4) (3.240 hectares) is centrally located and would serve as a school site if a new school is required for the Country Hills Estates.
- e) Municipal Reserve's (MR's) for passive parks and tot lots totalling 1.820 hectares will be provided in other areas wherever practical. The number, locations and areas of the sites will be determined at the detailed design stages for each area in conjunction with the Town of Ponoka staff.

4.8 Commercial Site

The commercial site identified in Figure 5 is 0.785 hectares in size with access to be located off 38 Street.

4.9 Highway Widening

Alberta Transportation will purchase 0.731 hectares of highway widening to accommodate future development of Highway 53 into four lanes.

4.10 42 Street Road Widening

A 10.06 meter wide right-of-way is provided for the area north of 36 Avenue to the existing 20.12 meter road right-of-way to allow extension of 42 Street as a local residential street to 36 Avenue. The remaining 10.06 meter of right-of-way would be provided by landowners to the west.

4.11 Road Rights-of-way

5.583 hectares of road rights-of-way are provided for the collector and local residential road systems. Additional residential road rights-of-way will be provided at the Tentative Plan of Subdivision stage as each area develops.

The collector road system has 24.39 meter wide rights-of-way. On 42 Street, south of 36 Avenue 4.27 meters of additional right-of-way widening will be required off the lands to the west at the Tentative Plan of Subdivision Stage for that area.

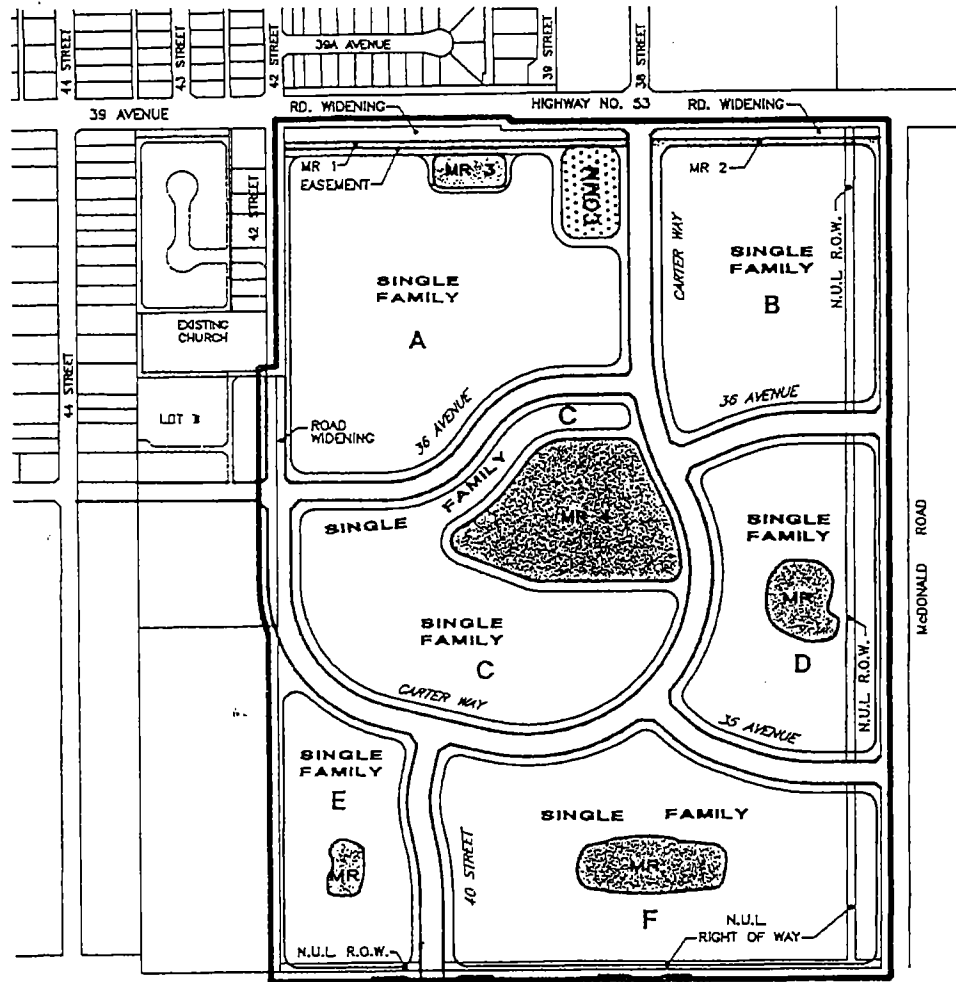
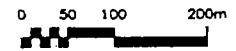
A 20.12 meter wide right-of-way is provided for the extension of 36 Avenue east to 38 Street as a local residential road.

4.12 Northwestern Utilities Gas Lines

The alignments of the existing gas line easements will be incorporated into the Tentative Plan of Subdivision as the areas are developed.

COUNTRY HILLS
ESTATES

N.E. 1/4 SEC. 32-42-25-W4M
TOWN OF PONOKA, ALBERTA



LEGEND

- SITE BOUNDARY
- MUNICIPAL RESERVE
- SINGLE FAMILY
- COMMERCIAL
- NORTHWESTERN UTILITIES LIMITED

Figure 5 - AREA STRUCTURE PLAN

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5.0 SITE SERVICING

5.1 Pedestrian Circulation

The pedestrian circulation system is identified in Section 4.6 and Figure 6.

The maximum width of walkways within the Country Hills Estates development will be determined at the detailed design stages and will be based on the anticipated function of the walkways.

5.2 Vehicular Circulation

The vehicular circulation is identified in Figure 6.

Collector Road System

The collector road system for Country Hills Estates is comprised of:

- a) Extending Carter Way from 38 Street southward from Highway 53, looping west and north and connecting with 42 Street.
- b) Connecting Carter Way with McDonald Road with 35 Avenue and 36 Avenue.
- c) Extending 40 Street southward from Carter Way to the SE 1/4 Sec 32-42-25-W4M.

The following policies shall influence the final design of the collector road system:

- a) Final alignments will be determined in the detailed planning and design stages in conjunction with the Town of Ponoka staff, Alberta Transportation (for Highway 53 entrance details) and the County of Ponoka No. 3 (for McDonald Road).
- b) The detailed design configuration on to Highway 53 at 38 Street will be dictated by Alberta Transportation.
- c) Road widening will be required west of 42 Street.

Local Residential Road System

The local residential road system for Country Hills Estates is comprised of:

- a) Extension of 42 Street south to 36 Avenue.
- b) Extension of 36 Avenue east to Carter Way.

The following policies shall influence the final design of the local residential road system:

- a) Final alignments will be determined for the remaining areas in the detailed planning and design stages in conjunction with the Town of Ponoka staff.

- b) Road widening will be required off the development west of the Area "A" and north of 36 Avenue.
- c) The Town may consider developing 36 Avenue between 42 Street and 44 Street.

5.3 Storm Sewer

The Town had a report prepared for the Riverside Area titled "Riverside Area Storm Sewer Study", July 1985, which provides general servicing concepts for the Country Hills Estates. This Plan incorporates parts of the servicing concepts recommended in the report..

The storm servicing concept for Country Hills Estates is identified in Figure 7.

Country Hills Estates

It is proposed to service, in stages, approximately 15.8 hectares of lands into the existing Highway Storm Sewer located on 42 Street. Stage I would comprise Part of Area "A". Stage II would comprise the balance of Area "A" and part of Area "C" and the Commercial Area. This would be accomplished by:

- a) Providing a "collector" main on 42 Street extending from Highway No. 53 south to 36 Avenue.
- b) Providing a "trunk" main on 36 Avenue between Carter Way and 42 Street as part of a "trunk" main system to service the Country Hills Estates and Town Lands north of Highway No. 53 as discussed in the "Riverside Area Storm Sewer Study".

Until the "trunk" main is extended west along 36 Avenue to the Battle River this "trunk" main could be connected into the 42 Street "collector" main.

The remaining areas would be serviced by a system of "trunk", "collector" and "lateral" mains as shown in Figure 7.

Off-site Services

- a) The "trunk" main would be extended north of Highway No. 53 along 38 Street to service existing properties.
- b) The "trunk" main on 36 Avenue would be extended west along 36 Avenue to the Battle River.

The following policies shall influence the final design of the storm sewer system:

- a) The final design details for storm servicing will be determined during the detailed design stages of development.

- b) Update the "Riverside Area Storm Sewer Study" to compliment the development sequence proposed in this Plan.
- c) The "Riverside Area Storm Sewer Study" addresses the potential of developing Storm Water Management (SWM) Ponds. The steep terrain (3.0% to 4.0% slope) in the Country Hills Estates is not suitable for development of on site SWM ponds. Figure 7 shows two possible locations:
 - Location 1 is the undeveloped land south of 36 Avenue and west of Carter Way. Negotiations with the landowner will be required to acquire this land.
 - Location 2 is located in the Driving Range. Negotiations with the Golf Course Owners will be required to develop a SWM Pond.
- d) Over sizing of the sewer mains will have to be considered if other drainage basins are included into the Country Hills Estate storm sewer system.

5.4 Sanitary Sewer

The sanitary servicing concept for Country Hills Estates is identified in Figure 8.

Country Hills Estates

It is proposed to service all the areas, excepting Area "E" into the existing sanitary sewer located on 42 Street by gravity. This would be accomplished by a system of collector and lateral mains.

Area "E" could be serviced either by: i) lift station discharging into the 42 Street sewer main, or ii) gravity into new sewer main on 36 Avenue.

The following policies shall influence the final design of the sanitary sewer system:

- a) The final design details for the sanitary servicing will be determined during the detailed design stages of development.
- b) Over sizing of the sewer mains on 42 Street will have to be considered if drainage basins from the south are included into the Country Hills Estate sewage collection system.
- c) Site specific over sizing of the Town's 300mm sewer mains on 43 Street will be required when development of Country Hills Estates exceeds the sewer main capacity.
- d) Site specific over sizing of the Town's 200mm sewer mains on 43 Street or extending a new main from 43 Street and tying into the 250mm main on 44 Street will be required when development of Country Hills Estates exceeds the sewer main capacity.

- e) Discharging weeping tile flows on to surface; it's impact on the total housing development in the area; and timing to upgrade key sections of the Town's conveyance system.
- f) The timing for upgrading the Town's conveyance system will depend on the number of lots that can be developed in each area.

5.5 Water Distribution

The water distribution servicing concept for Country Hills Estates is identified in Figure 9.

It is proposed to develop a 250mm water main loop on Carter Way from 38 Street to 42 Street. A 250mm main will be extended south on 40 Street off Carter Way to service the SE 1/4 Sec 32-42-25-W4M.

200mm lateral mains will be provided on 36 Avenue and 35 Avenue. Internal looping will be provided in the areas at the detailed design stages.

The following policies shall influence the final design of the water distribution system:

- a) Final alignments will be determined in the detailed planning and design stages in conjunction with the Town of Ponoka staff, Alberta.
- b) Extension of the water main across Highway 53 and north on 38 Street to the Town's system.

5.6 Other Utilities

Country Hills Estates will be serviced by natural gas, electricity, telephone and cable T.V.

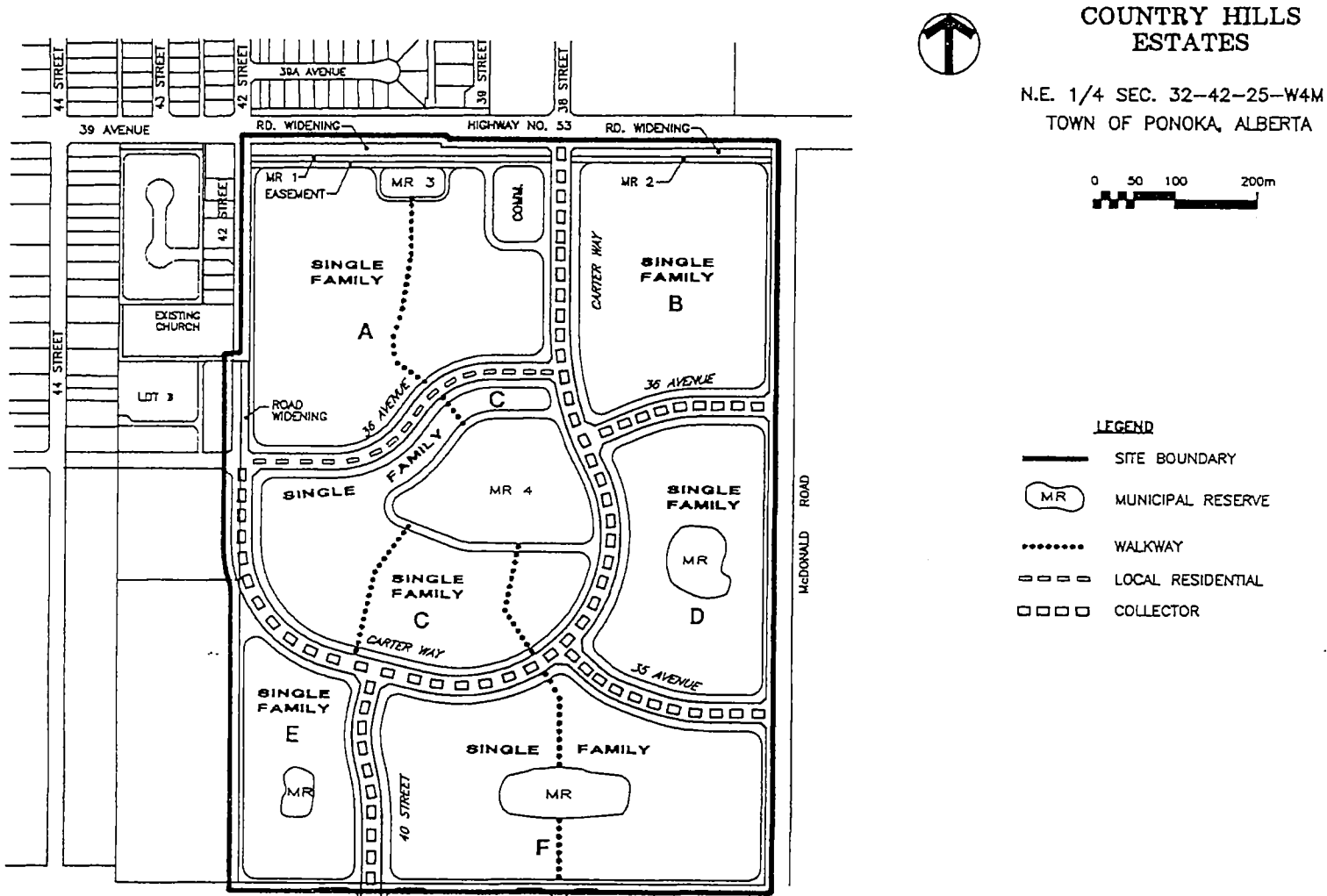


Figure 6 - PEDESTRIAN AND VEHICULAR CIRCULATION



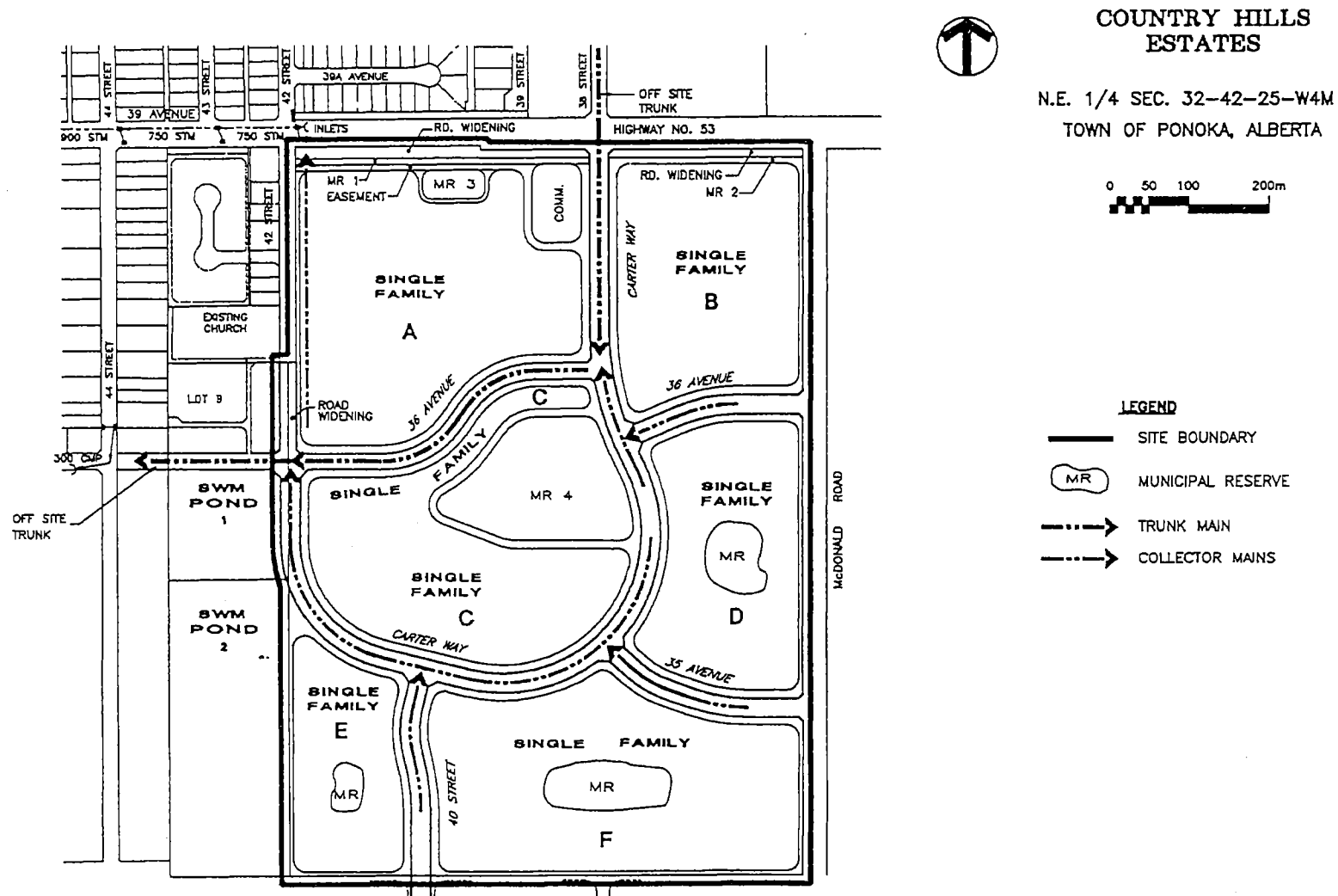
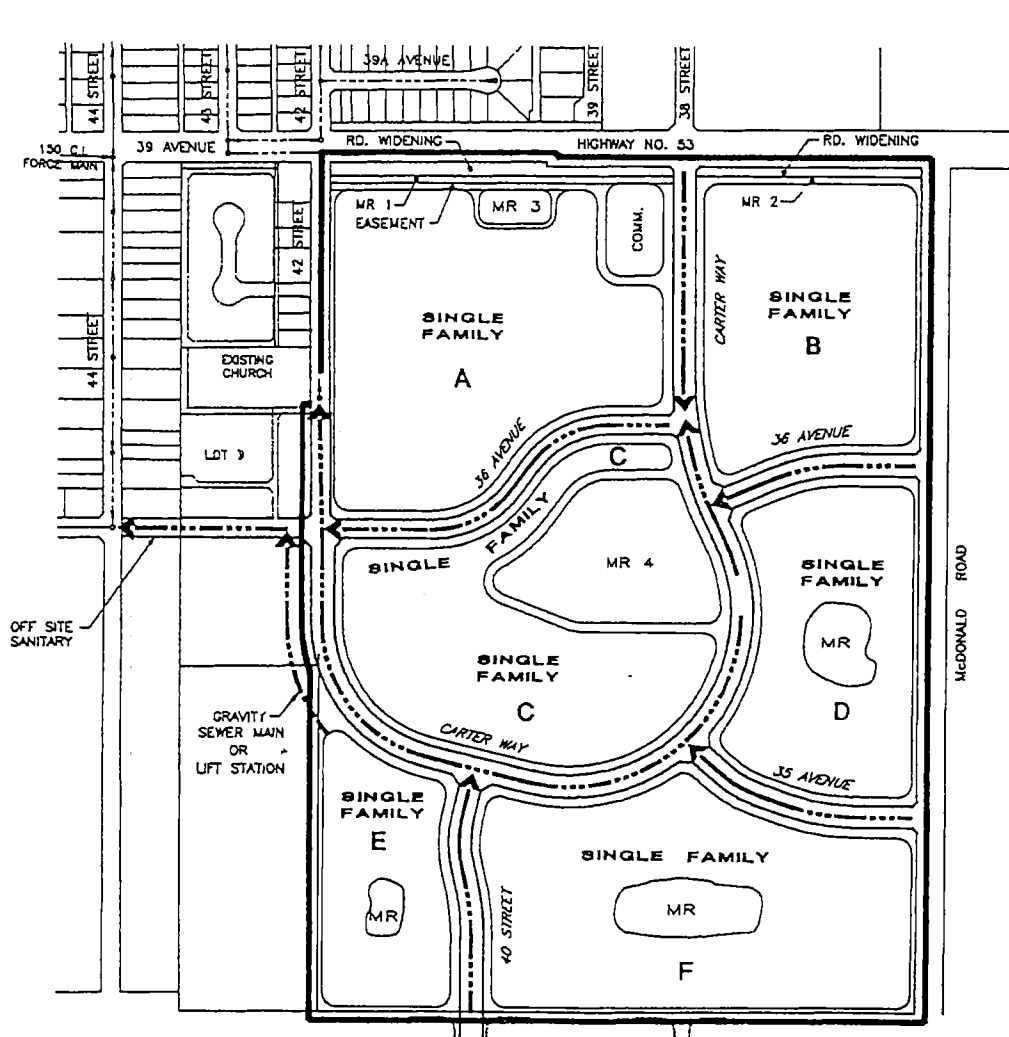


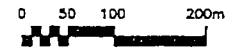
Figure 7 - SERVICING CONCEPT - STORM





**COUNTRY HILLS
ESTATES**

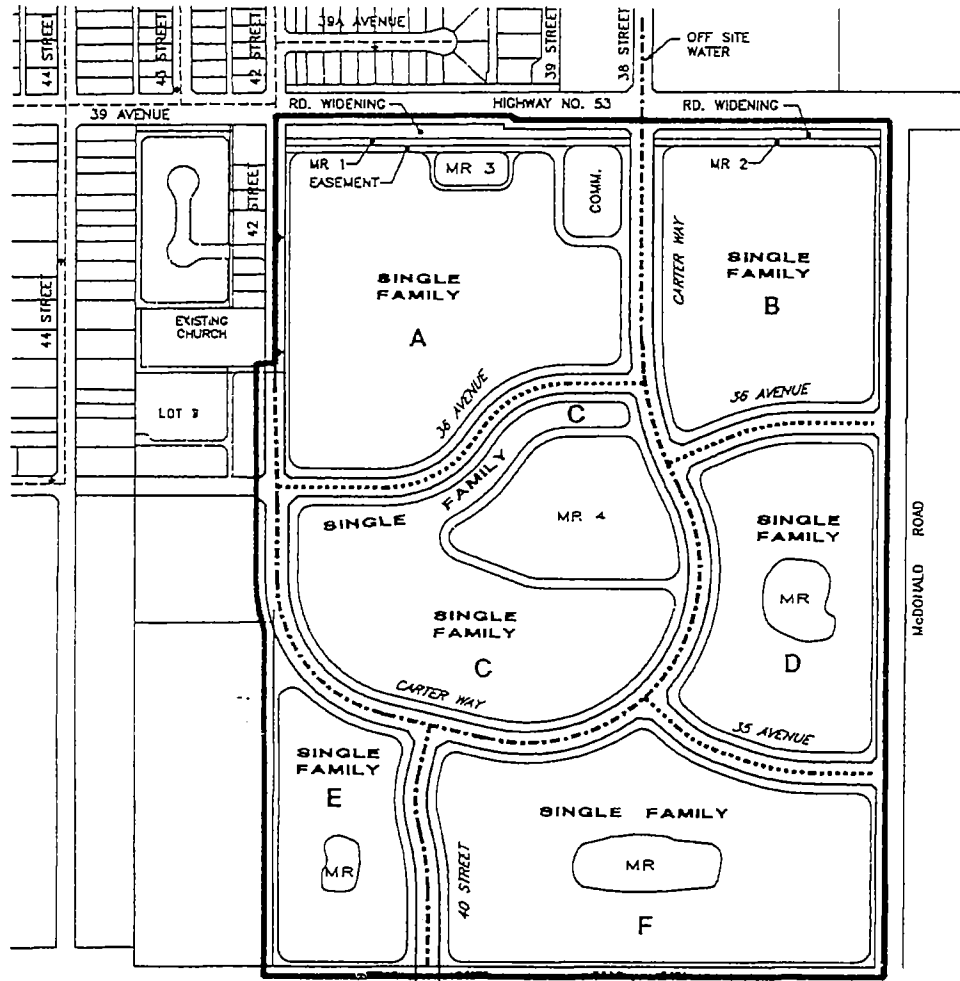
N.E. 1/4 SEC. 32-42-25-W4M
TOWN OF PONOKA, ALBERTA



LEGEND

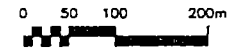
- SITE BOUNDARY
- MUNICIPAL RESERVE
- SANITARY MAINS

Figure 8 - **SERVICING CONCEPT - SANITARY**



**COUNTRY HILLS
ESTATES**

N.E. 1/4 SEC. 32-42-25-W4M
TOWN OF PONOKA, ALBERTA



LEGEND





-  SITE BOUNDARY
-  MUNICIPAL RESERVE
-  250 mm
-  200 mm

Figure 9 - **SERVICING CONCEPT - WATER**

6.0 STAGING

6.1 Staging

The proposed staging for Country Hills Estates has been planned to provide maximum flexibility for development and will enable growth to occur as quickly or slowly as the demand for residential units requires as shown on Figure 10.

Stage I allows for development of part of Area "A".

Stage II allows for the balance of part Area "A" plus part of Area "C". 36 Avenue would be developed between 42 Street and Carter Way.

The Commercial Area could be developed concurrently with Stage II or delayed to when demand dictates. Carter Way from Highway 53 to 36 Avenue would be developed to serve the commercial area.

Stage III - Area "B".

Stage IV - Balance of Area "C".

Stage V - Area "D".

Stage VI - Area "F".

Stage VII - Area "E".

6.2 Impact on Town's Services

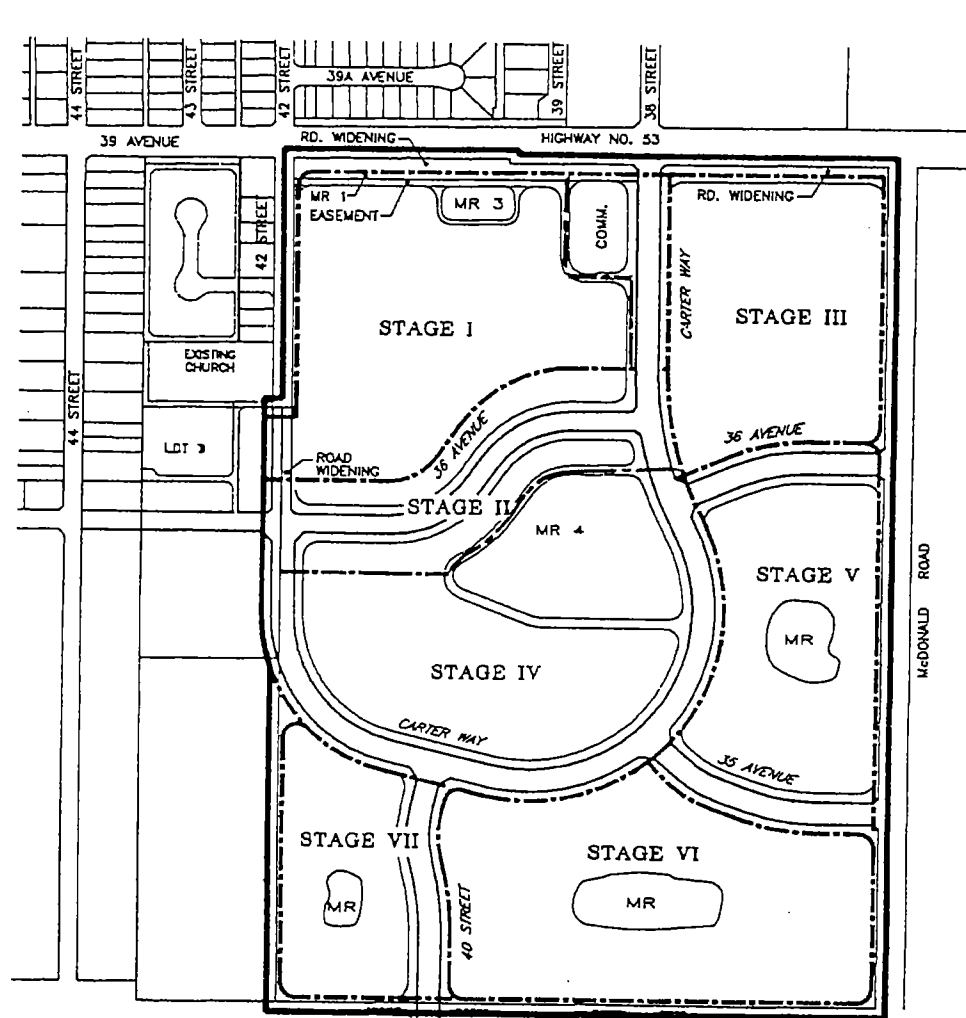
The impact of development on the Town's existing systems is summarized in Table 4.

Table 4: Staging Impact*

Stage (Area)	Population Generated	Impact On Town's	
		<u>Storm Sewer System</u>	<u>Sanitary Sewer System</u>
I (Pt. "A")	305	nil	nil
II (Pt. "A " & "C")	104	Town to update the "River-side Area Storm Sewer Study" Water Management Study for the 36 Avenue "trunk" main	nil
III ("B")	242	Over sizing of "trunk" main on Carter Way to service areas north of Highway 53 Develop 36 Avenue Off Site "trunk" main to the Battle River and associated Storm Water Management Facilities	Allow 52 lots to develop for 181 people. Upgrade 300mm sanitary on 43 Street when 52 lots are exceeded
IV (Pt. "C")	232	nil	nil
V ("D")	200	nil	Upgrade 200mm sanitary on 43 Street or intercept main to 44 Street
VI ("F")	322	nil	nil
VII ("E")	137		Develop 36 Avenue Off Site sanitary main to 44 Street

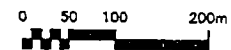
* 1. The impact for school expansions is not included in this table and has to be determined by the school authority based on the student population in Ponoka.

2. There is no impact on the road and walkway systems as these services would be provided for in the Tentative Plan and detailed design stages.



**COUNTRY HILLS
ESTATES**

N.E. 1/4 SEC. 32-42-25-W4M
TOWN OF PONOKA, ALBERTA



LEGEND




-  SITE BOUNDARY
-  MUNICIPAL RESERVE
-  STAGES

Figure 10 - STAGING