

Carter Crest Neighbourhood Structure Plan

Office Consolidation January 2006

Prepared by:

*Planning and Policy Services Branch
Planning and Development Department
City of Edmonton*

Bylaw 9347 was adopted by Council in December 1989. In January 2006, this document was consolidated by virtue of the incorporation of the following bylaws:

- Bylaw 9347* Approved December 12, 1989 (to adopt the Carter Crest NSP)
Bylaw 10410 Approved June 17, 1993 (to adjust the density for one of the two multi-family areas, located in southwest corner of the neighbourhood, and divide the site into three sites)
Bylaw 10925 Approved March 3, 1995 (to adjust the density for a portion of the land (Site A and B) located in the southwest corner of the neighbourhood)

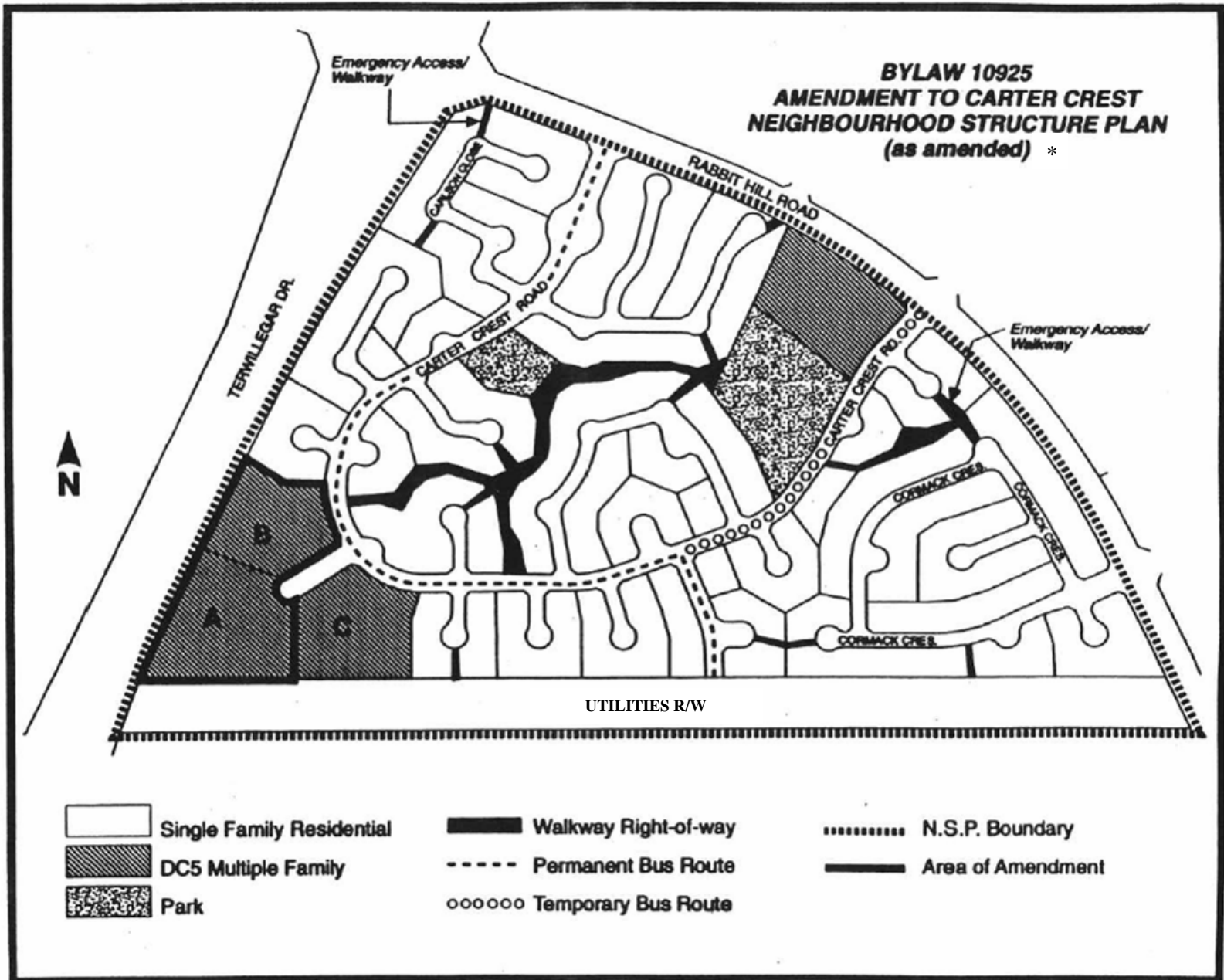
Editor's Note:

This is an office consolidation edition of the Carter Crest Neighbourhood Structure Plan, Bylaw 9347, as approved by City Council on December 12, 1989. This edition contains all amendments and additions to Bylaw 9347.

For the sake of clarity, new maps and a standardized format were utilized in this Plan. All names of City departments have been standardized to reflect their present titles. Private owners' names have been removed in accordance with the Freedom of Information and Protection of Privacy Act. Furthermore, all reasonable attempts were made to accurately reflect the original Bylaws. All text changes are noted in the right margin and are italicized where applicable.

This office consolidation is intended for convenience only. In case of uncertainty, the reader is advised to consult the original Bylaws, available at the office of the City Clerk.

City of Edmonton
Planning and Development Department



*Amended by Editor

CARTER CREST

NEIGHBOURHOOD STRUCTURE PLAN

November 1989

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(Amended by Bylaw 10925)

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(Amended by Bylaw 10925)

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1.0 INTRODUCTION AND BACKGROUND

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1.1 INTRODUCTION

In September 1988, the City of Edmonton adopted the amended Riverbend Neighbourhood Structure Plan prepared for the Riverbend Area. This proposed Neighbourhood Structure Plan Document and accompanying plan have been prepared by IMC Consulting Group Inc. on behalf of a *private developer* for submission to the City of Edmonton. The prime objective of the plan is to promote the continued framework for future development in the plan area. This continuing effort will result in and encourage an attractive and economical residential development environment in a manner which is compatible and complementary to existing developments in the Riverbend area.

Amended by Editor

1.2 DEVELOPMENT RATIONALE

The development of the Carter Crest neighbourhood represents a natural extension of residential development in Riverbend. Accordingly, the owner considers these lands as a priority area for development and as such is desirous of developing the property for a number of reasons, namely: the lands are ideally suited for urban development; the development will promote an additional 'choice for the housing consumer in southwest Edmonton; the development of Carter Crest represents a logical extension for a self-contained residential development area bounded by Terwillegar Drive to the west, Rabbit Hill Road to the north and east and the *private power corporation* right-of-way to the south; the land is immediately serviceable by water and sewer infrastructure located to the north and; access is readily available and can be provided by Rabbit Hill Road which eats immediately to the north and north east of the plan area.

Amended by Editor

Current growth trends coupled with the potential for immediate servicing indicates a target date for the first phase of development in 1990.

1.3 POLICY CONTEXT

This document, and accompanying plans, have been prepared in accordance with Section 64 of the Planning Act. This Area Structure Plan describes the proposed land use, density of development, the location of major and local roads and utilities, and the anticipated sequence of development. The City of Edmonton Council have adopted "Terms of Reference for Residential Neighbourhood Structure Plans". This Neighbourhood Structure Plan Document conforms with these requirements.

In addition, this Neighbourhood Structure Plan has been prepared in conformance with the City's General Municipal Plan, and other relevant municipal plans and policies.

1.4 SCOPE OF PLAN

The proposed Neighbourhood Structure Plan provides for the orderly development of the neighbourhood. It specifies land uses, residential density patterns and responds to park and school requirements, transportation requirements, as well as servicing and utility requirements.

The design of the area establishes a framework within which development will take place and incorporates municipal requirements for the area, in order that consistent and coordinated development may take place responsive to the needs and requirements of future residents.

The Neighbourhood Structure Plan will provide a sound framework within which city Council can consider districting and the various review agencies and the Municipal Planning Commission may properly and fully evaluate subsequent detailed subdivision applications.

In our opinion, the plan represents an optimum housing mix. It must be realized however that within the time span for implementation of the plan, flexibility is required in order that changing residential demands can be accommodated.

**2.0 EXISTING FEATURES AND
FACTORS INFLUENCEING THE
PLAN**

2.0 EXISTING FEATURES AND FACTORS INFLUENCEING THE PLAN

2.1 GENERAL

In the preparation of the Neighbourhood Structure Plan, it was necessary to examine existing site conditions and to consider a number of natural and man-made influences as they may impact the type and level of development that can be achieved. These factors include land ownership, natural features, soils suitability, pipeline and utility corridor routings, transportation corridors and external servicing relationships. An assessment of the above considerations is required in that they may pose potential opportunities and/or constraints in the planning of the area.

2.2 LOCATION AND URBAN CONTENT

The Carter Crest Neighbourhood Structure Plan comprises portions of the N. 1/2 Sec. 2-52-25-W4 and incorporates approximately 57.24 ha. (141 ac.) of land. The Carter Crest area is bounded by Terwillegar Drive on the west, Rabbit Hill Road on the north and north-east and the *private power corporation* right-of-way to the south. The location of the area within the contact of the Riverbend area is illustrated in Exhibit 1. Immediately to the north of the proposed development is the Ogilvie Ridge (Riverbend Neighbourhood No. 8) which is nearing its completion. Immediately adjacent to Cartier Crest on the west side of Terwillegar Drive is the Falconer Heights Neighbourhood for which a Neighbourhood Structure Plan has recently been approved. It is anticipated that lands lying south of the *Power Line* Right-of-Way will also be developed for predominantly residential land use purposes.

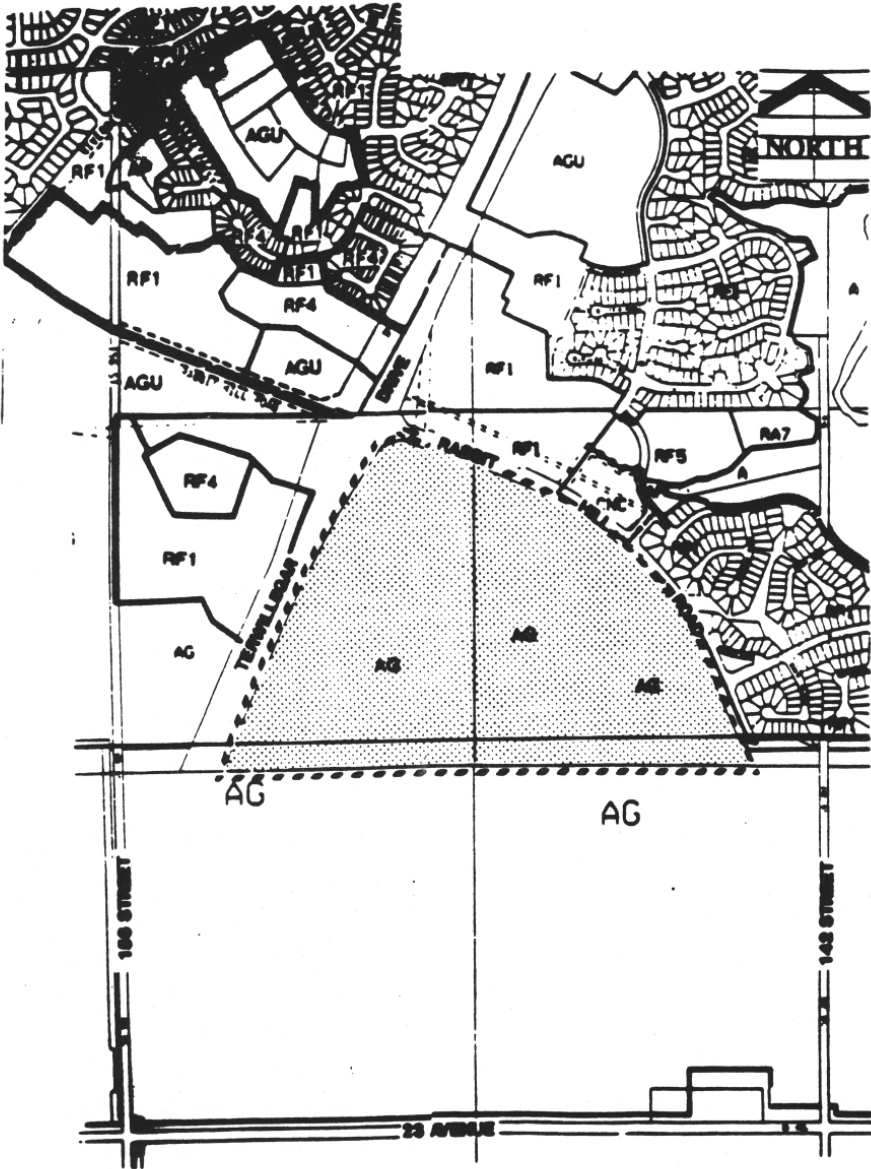
Amended by Editor

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2.3 LAND OWNERSHIP

Land ownership within the plan area is listed in Appendix A and referenced on Exhibit 2.

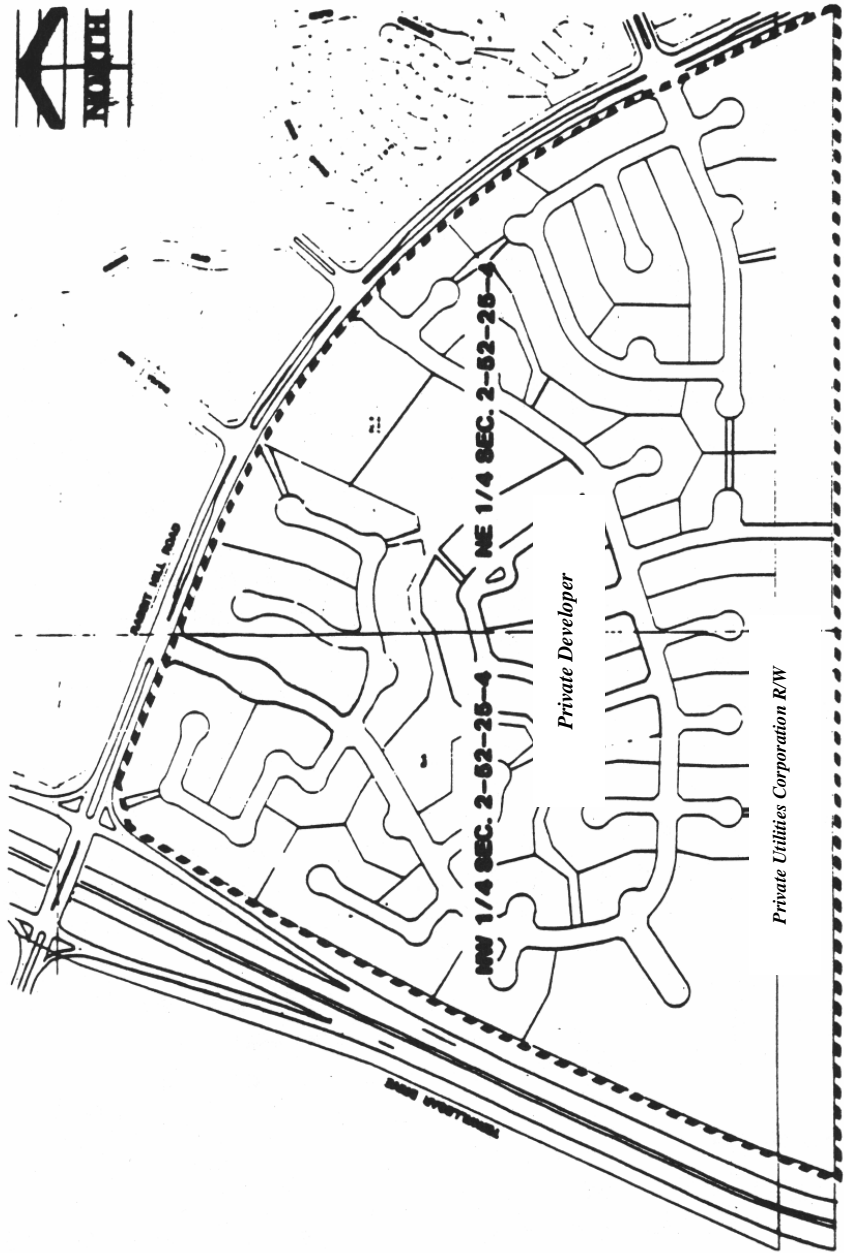
Exhibit 1 – Urban Context
(Bylaw 9347, December 12, 1989)



IMC
Consulting
Group Inc.

EXHIBIT 1
URBAN CONTEXT

Exhibit 2 – Land Ownership*
(Bylaw 9347, December 12, 1989)



See Appendix A for Land Ownership



EXHIBIT 2
LAND OWNERSHIP

*Amended by Editor

As can be illustrated by the Exhibit, a *private developer* is the majority land owner and as such have assumed responsibility for the plans preparation.

Amended by Editor

2.4 ENVIRONMENTAL ASSESSMENT

Topography

The general topography of the Carter Crest planning area is characterized by gently undulating plain largely the result of deposits that once formed the bed of glacial Lake Edmonton. The land slopes generally from the south to the north with an overall gradual fall of about 20 metres from the height of the land to the lowest developable portion of the site.

Specifically, the site is characterized by two high points in the south-west and south-east quadrants of the site which combine to gently slope northward towards Rabbit Hill Road, levelling out to relatively flat conditions on the northern portions of the site. The topographical variations of the area will not only present few restrictions in the development of the am but will allow for innovative opportunities in the creation of a multitude of different lot grading concepts at the detailed subdivision plan stage as major vistas are available in all directions from the major high points. The existing site contours are more definitively illustrated in Exhibit 3 and Exhibit 4.

2.4.1 Existing Land Uses

Existing land uses pose no constraint to development of the area. The land is presently utilized for agricultural purposes, more specifically, for the cultivation of grain crops. There are no structures on site.

2.4.2 Soils and Soil Types

A reconnaissance of the property has been undertaken and available surficial and geological data reviewed. Preliminary investigation of the development indicates that the soils pose no apparent constraints to development and are suitable for the type of development contemplated

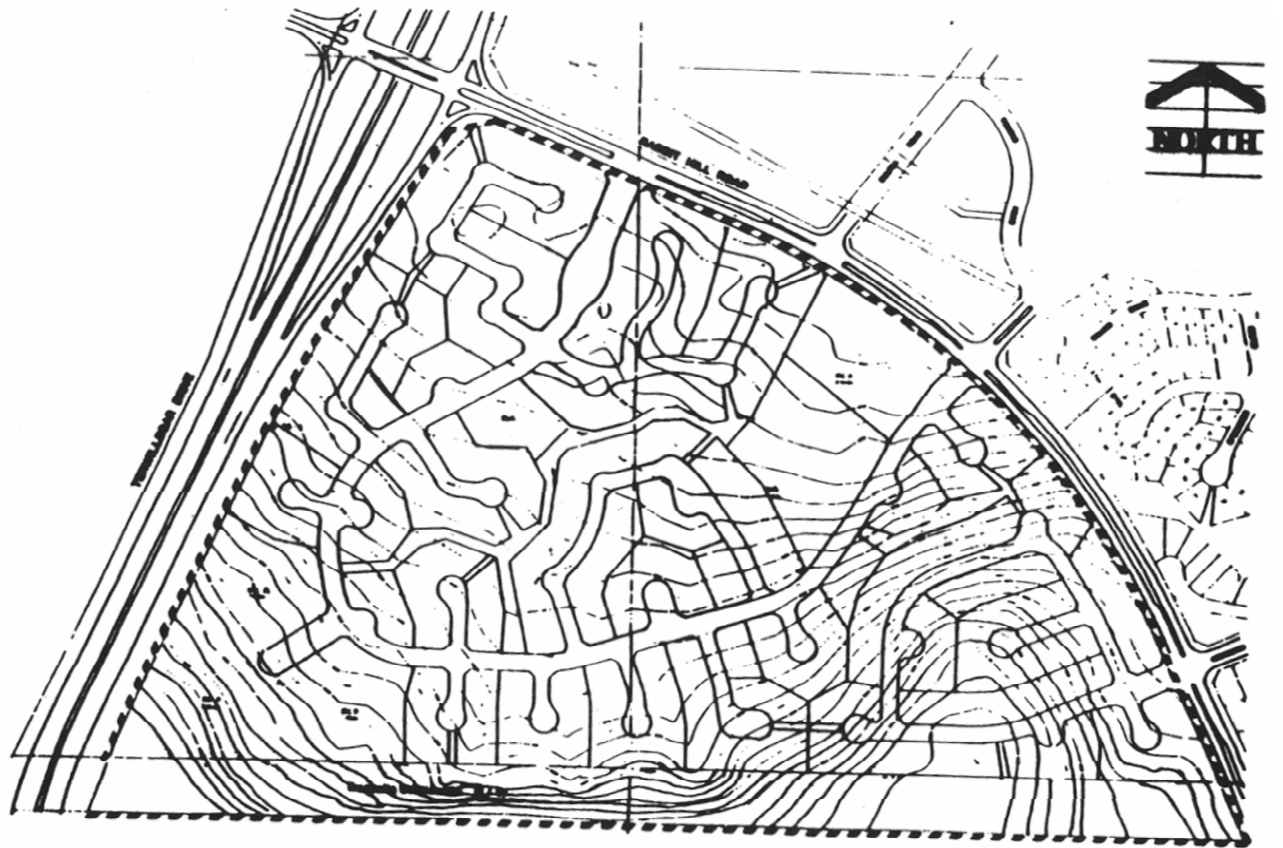
Exhibit 3 – Existing Site Contours
(Bylaw 9347, December 12, 1989)

MC
Consulting
Group Inc.

Contours @ 1.5m Intervals, Based on City Datum.

EXISTING SITE CONTOURS

EXHIBIT 3



*Amended by Editor

Exhibit 3 – Existing Site Contours
(Bylaw 9347, December 12, 1989)



in the plan. The CLI soil classification for the area is Type 2 and Type 3.

A comprehensive soil sampling and testing program will be prepared and submitted to the City of Edmonton for its review prior to any subdivisions being approved.

2.4.3 Vegetation and Natural Features

The area is presently under cultivation and therefore free of significant tree stands.

2.5 EXISTING PIPELINES AND UTILITY RIGHTS-OF WAY

The location of existing easements and rights-of-way within or adjoining the plan area are illustrated in Exhibit 2.

As can be shown by the exhibit, the only major utility located in the planning area is the existing *private utilities corporation* corridor located at the southern edge of the neighbourhood. The power line currently falls within a 60.96 m (200.0 foot) right-of-way and as such poses little hindrance to development. In fact, this right-of-way has the potential to own as a linear open space corridor linking future district parks, the North Saskatchewan Rim Valley and the Whitemud Creek Ravine Systems, providing an extensive open system for local and district residents. The developer will landscape the right-of-way in accordance with the policies, of the City and *private utilities corporation*.

Amended by Editor

With respect to the above, in order to mitigate any adverse physical influence, this facility will receive appropriate attention when construction proceeds in its proximity.

2.6 TRANSPORTATION CORRIDORS

The plan area has excellent access to adjacent and regional transportation systems. Specifically, Terwillegar Drive is located adjacent to the western edge of the plan area. This major arterial roadway which currently extends from Whitemud Drive to 23 Avenue will continue to be upgraded and extended south

to ultimately tie into *Anthony Henday Drive*. Rabbit Hill Road which forms the northern and northeastern boundary of the plan area will ultimately be constructed as a 4-lane divided arterial. Ultimately, Rabbit Hill Road will exist from west of Riverbend Road to *Anthony Henday Drive*, with an interchange to be located at the Rabbit Hill Road/Terwillegar Drive intersection.

Amended by Editor

Access to and from the neighbourhood will be via Rabbit Hill Road. The first access to Rabbit Hill Road is located approximately mid-way between Terwillegar Drive and Bulyea Road, the second creates a 4-way intersection with Oeming/Omand Drive north of Rabbit Hill Road and the third access aligns itself with Ogilvie Boulevard in the southeastern sector of the neighbourhood. The first access into the neighbourhood will be in the form of a T-intersection providing all-directional access from both Rabbit Hill Road eastbound and westbound. The second two access points will also provide the neighbourhood with all-directional access capabilities. The combination of Rabbit Hill Road and Terwillegar Drive will provide the neighbourhood with excellent access capabilities to Whitemud Drive and ultimately to *Anthony Henday Drive* and, as such, the neighbourhood will have access to all areas of the City and surrounding regional areas.

Amended by Editor

Transit service will be extended into the Neighbourhood according to City of Edmonton guidelines. Internal roadways will be designed to facilitate routings and maximize access to public transit.

2.7 SUMMARY

The Plan proposed for the Carter Crest Neighbourhood Area must recognize various environmental factors in the design of this residential area. The natural and man made components of the neighbourhood will provide a number of opportunities to be incorporated to form the future park environment which will benefit the neighbourhood. The manner in which these factors are utilized and the opportunities manifested are the subject of future sections of this document and are fostered by development objectives formulated for the Plan.

3.0 DEVELOPMENT PRINCIPLES

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3.1 GENERAL

The Neighbourhood Structure Plan is the intermediate link between the Area Structure Plan and the Plan of Subdivision. The Neighbourhood Structure Plan provides the overall policy framework for the development of the area. The recognition of the potential role of the development area as an important segment of the Edmonton urban fabric leads to the formulation of a number of objectives which should guide the development of the area.

The following objectives have guided the preparation of the development plan for the area. These objectives provide the necessary framework and flexibility to accommodate changes in policies and/or market conditions when more detailed planning is carried out.

3.1.1 Overall Objectives

The area will be developed in accordance with the following overall objectives:

- To conserve and optimize the use of the natural environment through sensitive integration of the development with natural features;
- To develop a neighbourhood that is well and compatible with adjacent residential area, while being reasonably self-sufficient in terms of amenities that enhance its sense of community;
- To provide services in accordance with City standards;
- To provide planning flexibility and stimulate innovation in planning and design of residential areas;
- To encourage energy efficiency in planning whenever possible; and

- To allow for phased development at the earliest practical date consistent with City policies and economic considerations.

3.1.2 Residential Objectives

The following objectives have been developed with respect to residential development:

- To create an attractive residential neighbourhood to accommodate its residents;
- To conform to neighbourhood planning requirements utilizing quality urban design principles;
- To promote the establishment of heterogeneous residential precincts and establish a hierarchy of neighbourhood and sub-neighbourhood units containing compatible housing types; and
- To create sub-neighbourhood sectors and cells which are inherently flexible to change at subsequent planning stages dependent upon area analysis and market conditions at the time.

3.1.3 Open Space and School Objectives

The following four principles have guided the development of open space and school objectives:

- To recognize the use of the existing *private corporation* power corridor lands for potential recreational use;
- To meet the needs of future residents for passive and active park space;
- To fulfill the statutory requirements of the Planning Act by providing 10% of the area for Parks or as money in lieu of municipal reserve; and
- To determine and respond to the requirements of the Public and Separate School Boards with respect to accommodating students from this neighbourhood.

Amended by Editor

3.1.4 Transportation and Utility Objectives

Transportation and utility considerations will be guided by the following objectives:

- To provide for safe and convenient access for vehicles and pedestrians;
- To provide an efficient circulation system for automobiles, pedestrians, bicycles and public transit within the neighbourhood to connect with major adjacent roadways;
- To recognize the existing power transmission corridor and incorporate it into the plan concept; and
- To provide an economical servicing system and phasing sequence based on extending City services and utilities.

3.2 LAND USE REQUIREMENTS

3.2.1 General

Basic to the concept of any Neighbourhood Structure Plan is the establishment of the Land Use Requirements for the area. The following provides a brief explanation of the rationale for land uses proposed within the Structure Plan.

3.2.2 Residential

All the land in the Neighbourhood is designated for residential purposes. Recognizing current consumer preference, as well as present market conditions and the fact that very little multiple family housing has been recently built in southwest Edmonton, this neighbourhood is designed for primarily single family housing. Rowhousing sites have been located in the south-western sector and adjacent to Rabbit Hill Road in the north-central sector of the plan area, directly across from a proposed convenience commercial site to be located north of Rabbit Hill Road. These sites will be developed as Site Specific Development Control

3.2.3 Open Space Requirements

Consistent with the Planning Act and the City of Edmonton's policies; it is necessary to dedicate lands for public open space (and schools where required).

Two park sites are proposed to provide open space amenity for the area. One park site is approximately 1.82 ha, located adjacent to a multiple housing site in the north central area of the plan. A smaller 0.6 ha park is proposed in a west central location. A walkway system runs through the middle of the plan area linking the two park sites and the multi-family sites.

A public elementary school will be included south of this neighbourhood to serve this area. A transit route has been incorporated to provide access to the school.

3.3 NEIGHBOURHOOD STRUCTURE PLAN

3.3.1 Development Concept

The development concept prepared for the Carter Crest area has evolved in response to several factors including:

- Natural site features;
- Physical and functional relationships to the Riverbend planning area;
- Planning policies as established by the General Municipal Plan, the Riverbend Area Structure Plan and other documents;
- Access considerations; and
- Servicing considerations.

The intent of the development concept is directed to the creation of an

attractive urban environment and to integrate the above factors in order to guide future urban development in a rationale manner (see Exhibit 5).

3.3.2 General

The Carter Crest neighbourhood is to be developed totally as a residential area. This development principle reflects the unique locational aspects of the planning area and as such the development concept is directed to the creation of a balanced and attractive urban residential environment. The area will offer a range of low to medium density housing. Approximately 29.42 ha of land will be developed as single family housing while 6.43 ha of land will be developed as multi-family sites. The total residential component of the plan comprises of approximately 35.85 ha.

Bylaw 10935
March 3, 1995

The following sections identify in greater detail the major land uses within the development concept and their relationship. The system infrastructure supporting the development concept are described in Section 4.0.

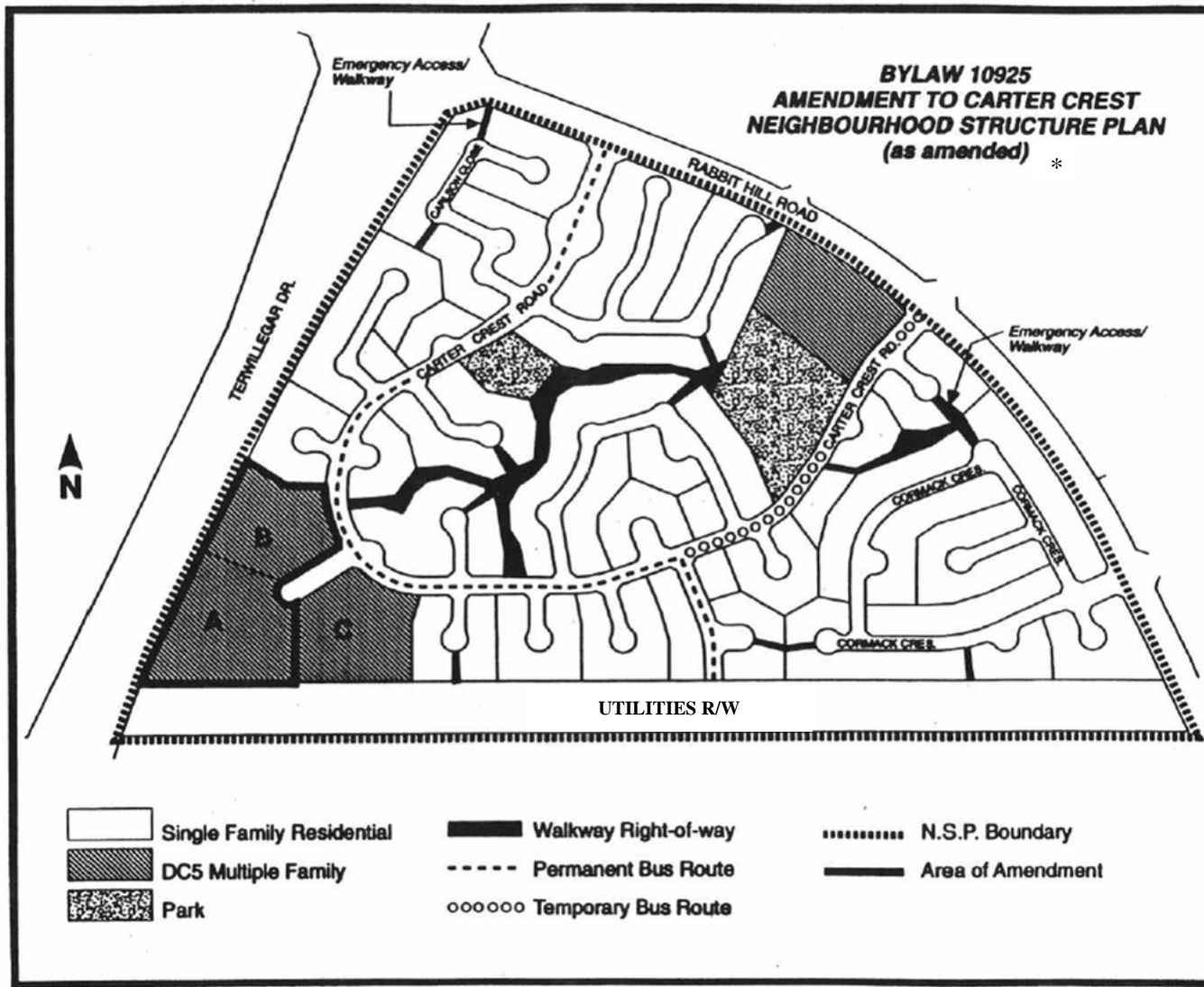
3.3.3 Residential Land Use

Residential land use in the plan area reflects City policies and objectives, the environmental quality of the area, its character and the existing proposed levels of development in Riverbend. A density avenging 42.8 persons per gross hectare would permit not only the above relationship, but would accommodate City policies requiring neighbourhoods to be planned to provide a range of living environments through a variety of housing forms.

Bylaw 10935
March 3, 1995

The overall concept is bead on the premise that the neighbourhood will be comprised of a range of single family housing lot sizes, broadly representing those found presently in southwest Edmonton and particularly in adjacent neighbourhoods (i.e. Bulyea Heights and Olgilvie Ridge). Recognizing current consumer preference, market conditions and the fact that very little multiple family housing has been recently built in southwest Edmonton, the neighbourhood is designated predominantly for single family units.

Exhibit 5 – Carter Crest Neighbourhood Structure Plan*
 (Bylaw 10925, March 3, 1995)



*Amended by Editor

The proposed Land Use Statistics according to the plan have, been provided in Appendix B.

Low Density Residential

Single family housing comprises the majority of the neighbourhood. Pedestrian access will be oriented along local streets and the major walkway systems. Residential units will be oriented around an internal street system and development will be sited with a backing on or siding on relationship with respect to Terwillegar Drive and Rabbit Hill Road.

Uniform screen fencing will be provided adjacent to Terwillegar Drive and Rabbit Hill Road to achieve an attractive streetscape and provide residents with visual screening from these roadways.

Medium Density Residential

The plan makes provisions for two medium density sites which will be developed as Site Specific Development Control *Provisions*. The multi-family sites relationship with the parks and walkways is such that it will enable residents of the sites to fully utilize open space and recreational facilities provided within the neighbourhood. The multi-family sites are located such that they are oriented to the neighbourhood collector roadway to take advantage of future bus routes.

Amended by Editor

The first multi-family development is proposed in the north-central sector of the plan area and comprises 1.56 ha of land. The site is bounded by Rabbit Hill Road a large park and single family residential. This development is planned for a density of 30 dwellings/ha. The Direct Control *provision* will ensure that the site will not adversely affect adjacent development. The *provision* will provide for screened buffer zones adjacent to its boundaries to assure the aforementioned. The screening will be provided through the utilization of landscaping, fencing and/or berming. The Direct Control *Provisions* will also provide an attractive streetscape adjacent to and visual screening from Rabbit Hill Road. The site location adjacent to Rabbit Hill Road and the internal

Amended by Editor

collector roadway provide the site with excellent accessibility.

The second multi-family area is located in the southwest sector of the neighbourhood. The site is bordered by single family to the north and east, by Terwillegar Drive to the west and the *private utilities corporation* Corridor to the south. The site is anticipated to be developed at a density of 46 dwellings per hectare.

Amended by Editor

Bylaw 10935
March 3, 1995

The multi-family area located in the southwest sector of the neighbourhood, comprising of 4.87 ha (12.0 ac), has been divided into three separate sites with varying housing types and densities.

Bylaw 10410
June 17, 1993
Bylaw 10935
March 3, 1995
Amended by Editor

Area A will be developed as a medium density low rise apartment site at a density of 71 units/hectare. The site will accommodate 3 – 4 storey walk-up apartments.

Area B will be developed as a low density multiple family site at a density of 38 units/hectare. The site will accommodate semi-detached, row or linked housing.

Area C will also be developed as low density multiple family site at a density of 25 units/hectare. The site will accommodate semi-detached, row or linked housing.

The higher density Area A is buffered on both sides from the future single family by lower density development and is setback from the major internal collector roadway. A transition of density from apartment to row housing/semi-detached to single family is also provided.

Adjacent land uses and the topography in this portion of the site necessitates its development under Direct Control (DC2) provisions. The Direct Control provisions will provide for extensive screening of the site from Terwillegar Drive utilizing a combination of landscape material, fencing and/or berming. In addition, landscaping will be used to provide an area of transition between the south boundary of the site and the *Private Utilities Corporation* Right-of-Way. Building setbacks and landscaping regulations within the Direct Control provision will provide for a landscaped buffer between the multi and single family residential.

Amended by Editor

This landscaped buffer will mitigate any possible adverse impact of the two housing types being adjacent to each other.

Furthermore, Direct Control *Provisions* for the two multi-family sites will contain regulations regarding the sensitive integration of building heights, setbacks, massing, roof finishes and architectural finishes in order to provide integration with the surrounding single family residential development.

Amended by Editor

To ensure that there is an appropriate transition between the different housing forms, the aforementioned concerns will have to be reviewed in detail at the time of application for *rezoning*. Screening parking areas and maintaining the separation of parking areas from amenity areas will be addressed. It should be noted that market conditions will be continually monitored during the development of this neighbourhood and that the multiple family sites have been designed in a manner such that they could be converted to single family development.

Amended by Editor

3.3.4 **Institutional Land Use**

A school site cannot be supported by the student population generated from the Carter Crest area and consequently the plan does not recognize a school site as a requirement within the neighbourhood. Students from the neighbourhood will be transported to schools in adjacent neighbourhoods to the north or west. The student population generated from this area is estimated as follows*:

PE (K-6)	PJ	PS
156	76	44
SE (K-6)	SJ	SS
68	34	18

**Editor's Note: Student population statistics provided in this section are from Bylaw 9347, approved on December 12, 1989.*

The Public School Board has identified a requirement for pedestrian and transit access in the future to the neighbourhood to the south. This has been included in the plan and is discussed in Section 3.2.3 of the report.

3.3.5 Open Space

Consistent with the provisions of the Planning Act and the City of Edmonton policies, the dedication of lands for suitable open space is required.

The provision of land dedicated to open space is a prime consideration in developing a balanced neighbourhood. In attempting to meet this objective, two factors must be considered: firstly, the preservation of existing natural features and secondly, the assurance that the open space standards reflect the needs of the community and conform with regulatory requirements. Since a school site is not required in the area, it is important to provide a major open space amenity area for the neighbourhood population.

The components of the open space/park system includes two neighbourhood parks, utility right-of-ways, and a walkway system which connects the two parks.

The park sites have been situated in such a way as to allow residents easy access to pursue passive recreation pursuits. Detailed design is to be completed in conjunction with the Parks and Recreation department. The open space has been designed to maximize exposure to park space for lots backing onto this land use. The total area of the two parks is 2.42 ha. The precise park sizes and configurations will be determined at the detailed subdivision plan stage. It should be noted that a walkway system will be included to provide direct pedestrian linkages to the park sites.

As in the case of the main open space area, two pedestrian walkways provide access from the neighbourhood to the *private utilities corporation* right-of-way. This open space component will be developed (landscaped) by the adjacent land owners in accordance with City Policy and with the permission of *the private utilities corporation*.

Amended by Editor

The Neighbourhood Structure Plan delineates park sites under the 10% municipal reserve land area required. The balance of the municipal reserve will be provided as money in place of reserves and the value will be set at the time of subdivision.

Circulation and Access

The transportation network proposed for the neighbourhood has been planned to meet both the internal and external requirements of the development in accordance with City standards. A hierarchy of roads provide the necessary inter connections appropriate to efficiently accommodate traffic at the local, collector and arterial levels.

Specifically, two arterial roadways are located adjacent to the area, namely Terwillegar Drive and Rabbit Hill Road. Terwillegar Drive is planned to ultimately be developed as a 6-lane divided arterial roadway linking Whitemud Drive with *Anthony Henday Drive*. No direct access is planned from the neighbourhood to the facility. Rabbit Hill Road will ultimately exist as a 4-lane divided arterial starting from the plan area on the north continuing to the north-east. Two collector roadway accesses and one local roadway access will provide the neighbourhood with access to and from Rabbit Hill Road. It will be the developer's responsibility to construct the required berm and screen fence adjacent to Terwillegar Drive.

Amended by Editor

A collector loop roadway interconnects the first two entrances to provide primary access into the sub-area of the neighbourhood. A series of cul-de-sacs and local loop roadways have been extended from this loop in order to minimize short-cutting through the neighbourhood. This collector loop will be developed with a separate sidewalk with the developer responsible for landscaping the boulevard. Detailed landscaping plans will be prepared for review and approval Of the Transportation and Parks and Recreation Department. The third entrance to Rabbit Hill Road leads into a single self contained loop roadway.

The public transit system will be extended to the development area in accordance with Edmonton Transit Systems Guidelines with respect to population thresholds and a direct transit link will be provided from this neighbourhood to the future neighbourhood to the south.

Conclusions

This Neighbourhood Structure Plan has been prepared to satisfy southwest Edmonton's market demand for planned residential communities which provide accessible park systems, excellent access, neighbourhood identity features and a variety of residential home types for future residents within a single high quality location.

4.0 ENGINEERING SERVICES AND UTILITIES

4.0 ENGINEERING SERVICES AND UTILITIES

4.1 GENERAL

This section of the report outlines the provision of municipal and utility services including storm drainage, sanitary sewerage, water distribution, power, natural gas and telephone.

4.2 STORM WATER DRAINAGE

The enclosed Exhibit 6A shows the minor system which is composed of internal lateral and trunk sewers. This system will discharge to a new drop structure to be constructed in the location shown. The storm sewers would be sized to accept drainage from the drainage basin which includes this Neighbourhood Structure Plan as well as the area to the south of the *private utility corporation* right-of-way.

Amended by Editor

Exhibit 6B shows the storm sewer drainage of the major system. This system conveys storm rainfall events larger than the 1:5 year event via the road and open space walkway system to a tributary ravine of Whitemud Creek. Discussion with Alberta Environment and *Community Services* on this concept was positive. They agreed to the concept as long as the Creek was not detrimentally affected. Lot and road grades will be designed to prevent flooding of any residences. Discussion has taken place with the Transportation *and Streets* Department regarding major flows across Rabbit Hill Road and they have now agreed to this concept. This system emulates nature as this is presently what happens with these storm events.

Amended by Editor

The draft report of the storm drainage system has been submitted. Finalization of the report will be completed shortly working closely with *Asset Management and Public Works*.

Amended by Editor

Storm services will be designed in accordance with City of Edmonton servicing standards. The storm water drainage scheme proposed for this area will be

Exhibit 6a – Storm Water Drainage Minor System*
(Bylaw 9347, December 12, 1989)

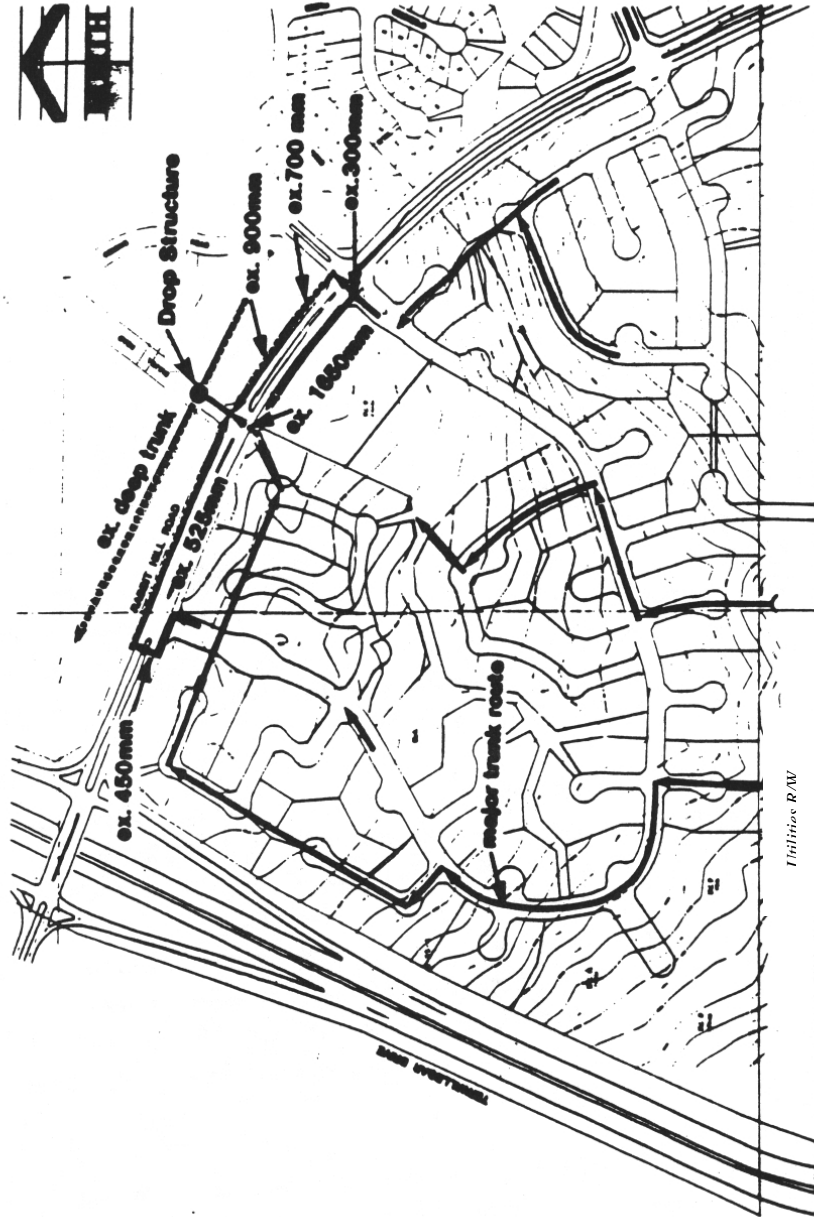
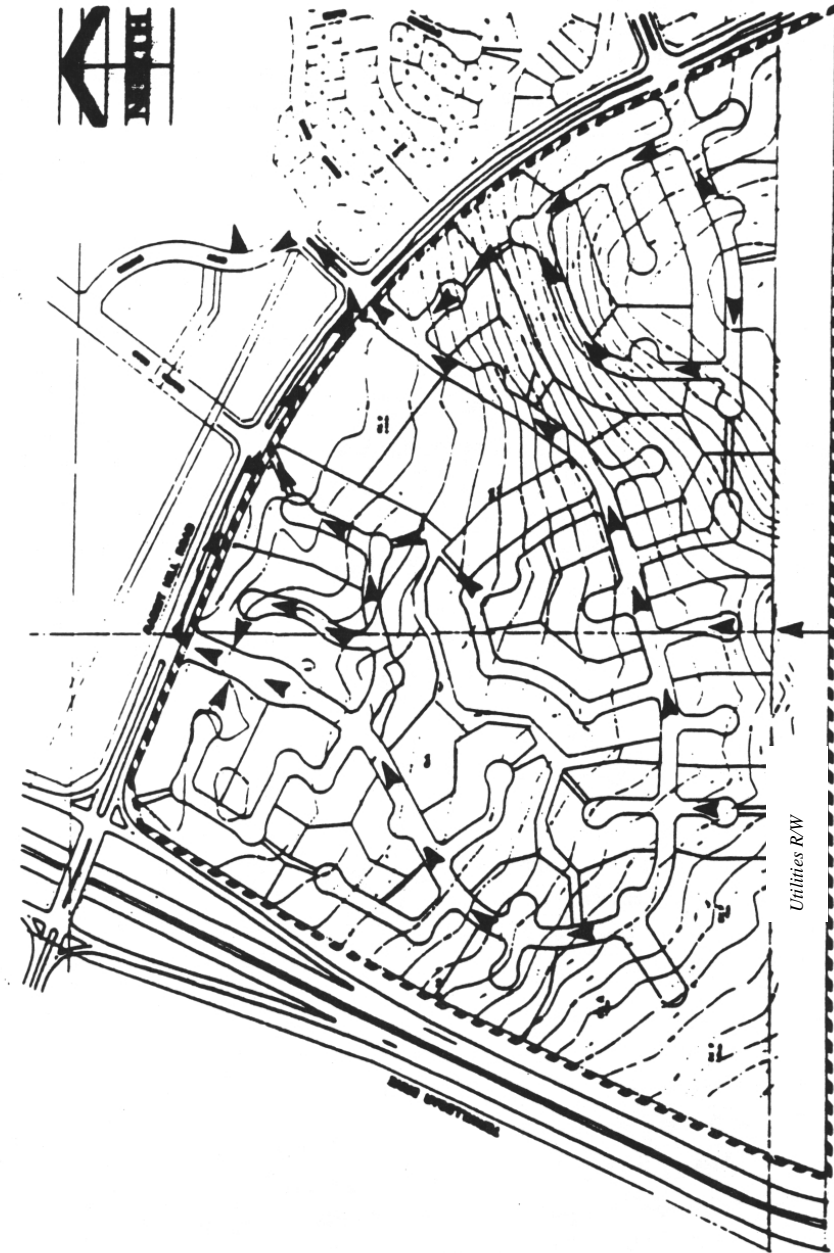


EXHIBIT 6a

**STORM WATER DRAINAGE
MINOR SYSTEM**

*Amended by Editor

Exhibit 6b – Storm Water Drainage Major System*
(Bylaw 9347, December 12, 1989)



Contours @ 0.5m Intervals, Based on City Datum.



EXHIBIT 6b

**STORM SEWER DRAINAGE
MAJOR SYSTEM**

*Amended by Editor

adequate to serve the needs of the development.

4.3 SANITARY SEWERAGE

As shown on the enclosed Exhibit 7, it is proposed to service the entire Neighbourhood Structure Plan with a gravity sanitary sewer system that connects to the permanent gravity trunk sewer existing at Terwillegar Drive and Rabbit Hill Road. This system is designed to collect the sewage from the drainage basin south of the *private utilities corporation* right-of-way. The drainage basin is as discussed with Environmental Services where the draft neighbourhood drainage report has been submitted with general agreement from the department on the servicing concept.

Amended by Editor

Sanitary sewers will be designed in accordance with the City of Edmonton servicing standards and will be sufficient design to service the plan area.

4.4 WATER SUPPLY AND DISTRIBUTION

Exhibit 8 shows watermain sizes 300 mm and greater within the development area. Carter Crest is supplied from Rabbit Hill Road where an existing 1050 mm trunk main is located. Three connections from this trunk main divide the demand evenly throughout the neighbourhood.

Amended by Editor

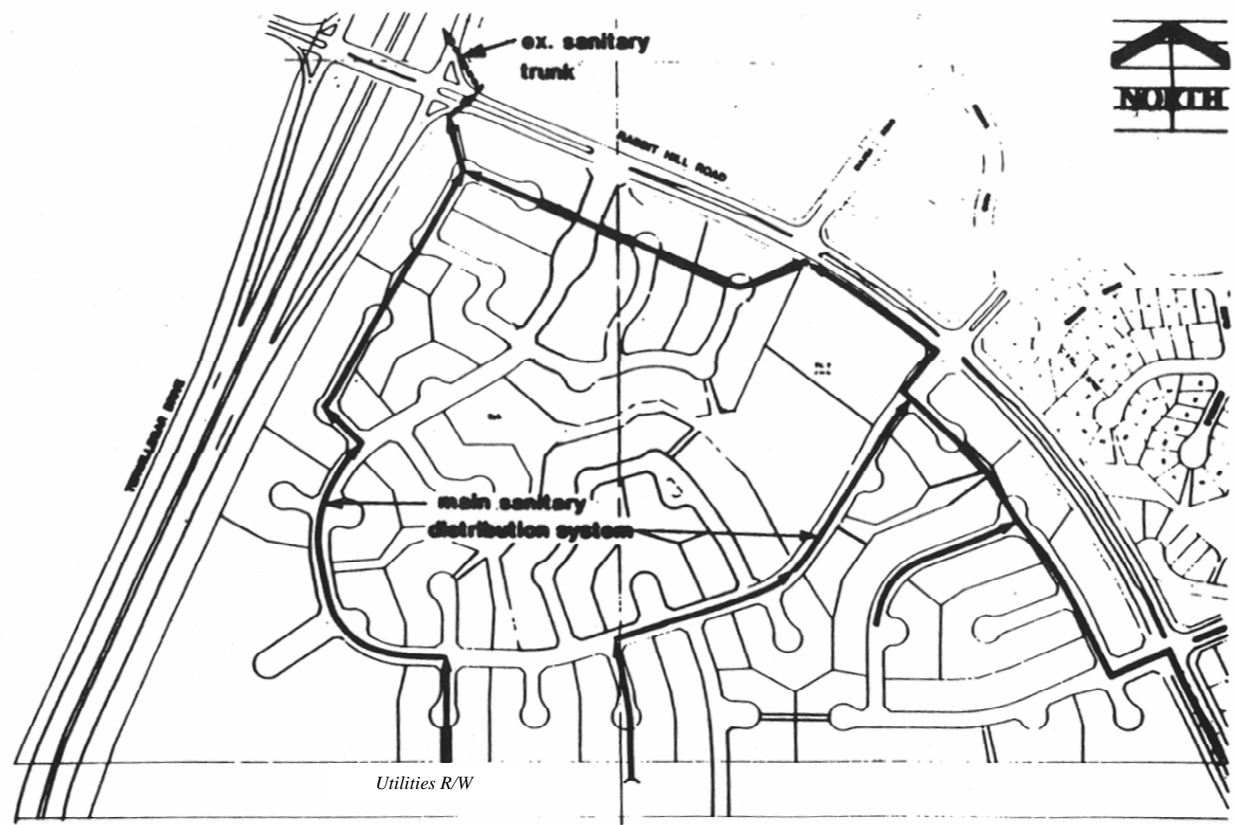
A water analysis report has been submitted to *Asset Management and Public Works* indicating sizing of all main as well as Stage L. The separation of Stage I was necessary to ascertain the requirements for looping as an area that size cannot be serviced without a second source of water. Easements or PUL's will be provided where necessary to accommodate staging. An extension has been indicated leading south from the area to unify servicing of Carter Crest and that future development to the south. This connection will bolster supply services and pressures as the future system evolves. All system will be designed in accordance with the City of Edmonton standards and will be sized to allow for full development of the Carter Crest Neighbourhood.

Exhibit 7 – Sanitary Sewerage
(Bylaw 9347, December 12, 1989)

MC
Consulting
Group Inc.

SANITARY SEWERAGE

EXHIBIT 7



*Amended by Editor

Exhibit 8 – Water Supply and Distribution*
(Bylaw 9347, December 12, 1989)

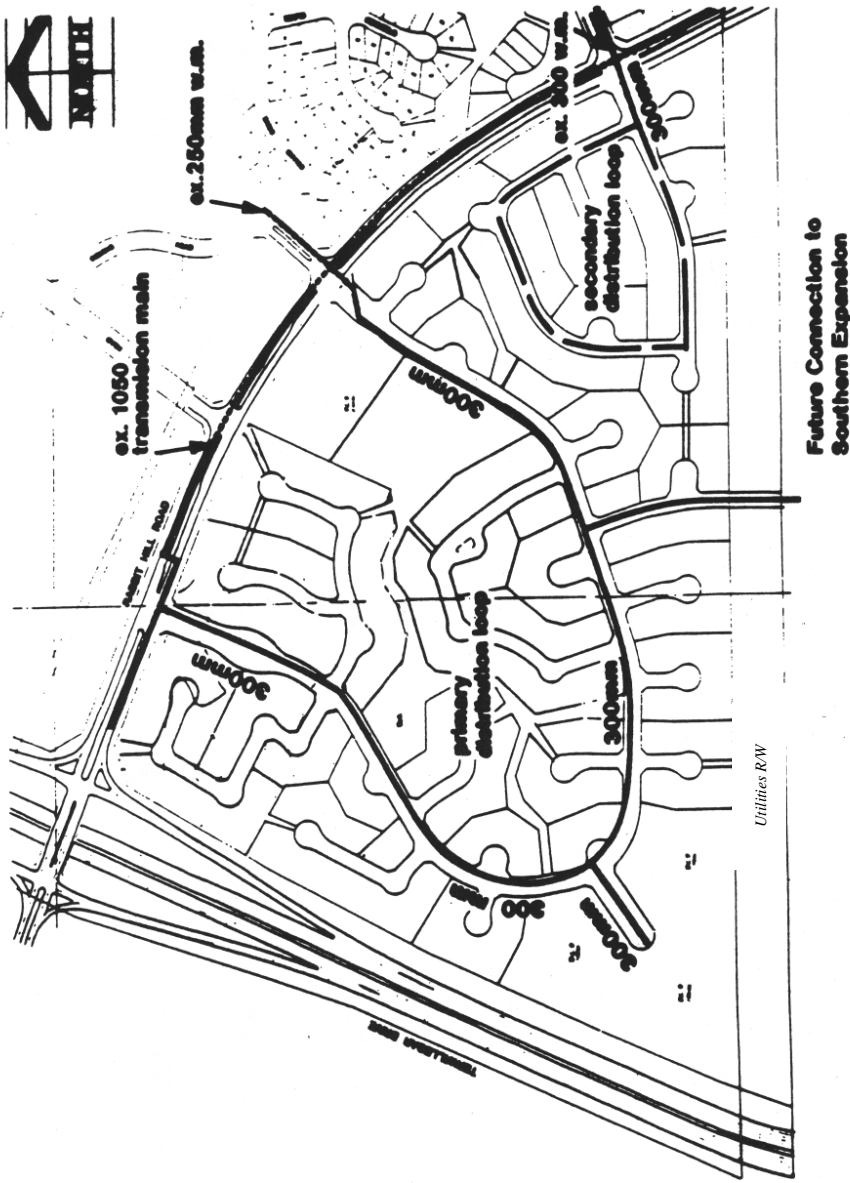


EXHIBIT 8
WATER SUPPLY AND
DISTRIBUTION

*Amended by Editor

4.5 NATURAL GAS, POWER AND TELEPHONE

Natural gas, power and telephone utility systems will be provided from adjacent systems in accordance with City of Edmonton standards.

5.0 IMPLEMENTATION OF THE DEVELOPMENT

5.0 IMPLEMENTATION OF THE DEVELOPMENT

5.1 GENERAL

The Carter Crest Neighbourhood area can be readily serviced and easily phased. It is anticipated that the Neighbourhood development area will take approximately 4 - 6 years to develop totally.

5.2 STAGING

Carter Crest development will be initiated in the southeast portion of the neighbourhood and continue into the northwest, possibly in 1990. Development could commence in these sub-areas and progress inward along the collector roadway. Other stages of development in the neighbourhood will proceed according to market considerations.

Based on current marketing strategies, individual phases of development will be relatively small in terms of land area and number of residential lots.

A probable staging scenario has been illustrated in Exhibit 9.

The detailed staging of development within the neighbourhood area will be determined at the Subdivision Plan stage.

5.3 REZONING AND SUBDIVISION

Rezoning and subdivision will occur subsequent to the adoption of the Neighbourhood Structure Plan bylaw in accordance with stages identified based on market conditions at that time.

Amended by Editor

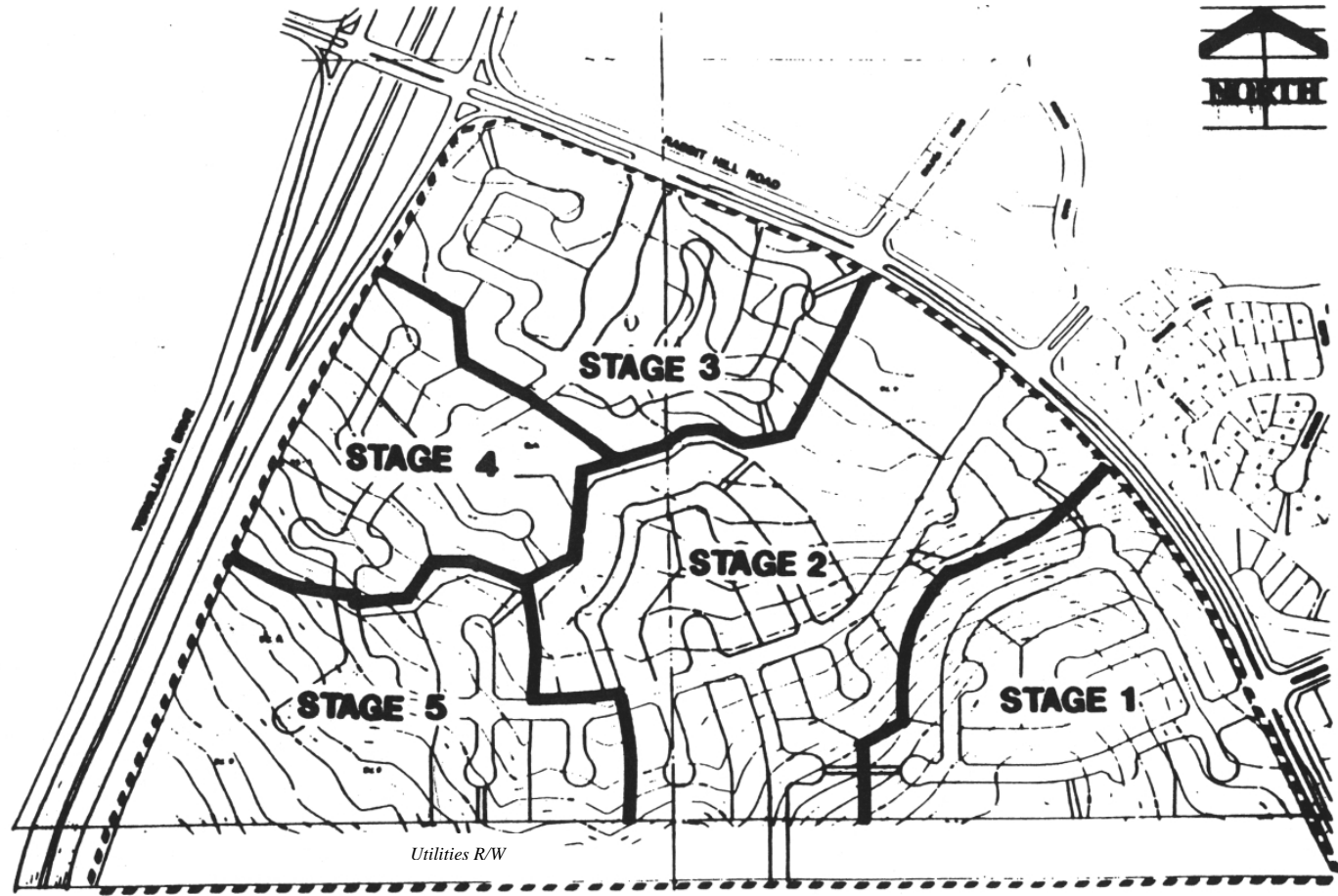
Each phase of *rezoning* and subdivision will go through the steps of notice and public hearings as required by the Planning Act and City of Edmonton.

Amended by Editor

Exhibit 9 – Proposed Staging*
(Bylaw 9347, December 12, 1989)

PROPOSED STAGING

EXHIBIT 9



*Amended by Editor

APPENDIX A LAND OWNERSHIP

LAND OWNERSHIP

(Amended by Editor)

No.	Legal Description	Title Area (ha)	Owner	C. of T. Number
1.	Portion of N ½ Sec 2-52-25-4	50.2	<i>Private Developer</i>	792015002 792015001
2.	Portion of Plan 1225 KS.	7.04	<i>Private Utilities Corporation</i>	207-D-157

APPENDIX B LAND USE STATISTICS

LAND USE STATISTICS
CARTER CREST NEIGHBOURHOOD: RIVERBEND
 (Bylaw 10925, March 3, 1995)

TABLE 1
 LAND USE STATISTICS CARTER CREST NEIGHBOURHOOD: RIVERBEND**

LAND USE	UNIT RANGE	POP'N RANGE	AREA (HA)	% OF GDA
GROSS AREA (INCLUDED TRANS ALTA POWERLINE RIGHT-OF-WAY)			57.24 HA	(141.44 AC)
GROSS DEVELOPABLE AREA			(50.20 HA)	(120.04 Ac)
CIRCULATION			10.1	20.1
PARK			2.42	4.8
WALK WAYS/PUL			1.83	3.7
SINGLE FAMILY	469	1618	29.42	58.6
MULTIPLE FAMILY	*225	533	6.43	12.8
	694	2161	50.20	100.0

GROSS DENSITY: 42.8 P.P.G.HA
 UNIT RANGE BASED ON EXISTING FIGURES

TABLE 2
 MULTI FAMILY/SINGLE FAMILY SPLITS**

STAGE	STATUS	TOTAL # OF UNITS	SINGLE FAM UNITS	MULTI FAM. UNITS
STAGE 1	EXISTING	94	94	0
STAGE 2A	EXISTING	10	10	0
STAGE 2A*	EXISTING	36	36	0
STAGE 2B/2C	MPC APPR'D	137	137	0
STAGE 3	EXISTING	48	48	0
STAGE 4	EXISTING	51	51	0
STAGE 5	MPC APPR'D	93	93	0
DC2(AREA A)	APPROVED**	132	0	132
DC2(AREA B)	APPROVED**	53	0	53
DC2(AREA C)	APPROVED**	40	0	40
TOTALS		694	469	225

* EXISTING 36 UNITS SEMI-DETACHED DC5 PROJECT

SINGLE FAMILY 68% MULTIPLE FAMILY 32%

*TABLE 3***
*OVERALL DC2 DENSITIES***

Site	Area(ha)	Density (units/ha)	Total Units
Area A	1.86	71	132
Area B	1.43	38	53
Area C	1.58	25	40
TOTALS	4.87	46	225

**Amended by Editor