

Suder Greens Neighbourhood Structure Plan

Office Consolidation November 2013

Prepared by:

***Current Planning Branch
Sustainable Development Department
City of Edmonton***

Bylaw 12949 was adopted by Council in March 2002. In November 2013, this document was consolidated by virtue of the incorporation of the following bylaws:

- | | |
|--------------------|---|
| <i>Bylaw 12949</i> | Approved March 12, 2002 (to adopt the Suder Greens Neighbourhood Structure Plan) |
| <i>Bylaw 13663</i> | Approved April 7, 2004 (to adjust boundaries of low and medium residential development, commercial development, and circulation within the Suder Greens NSP) |
| <i>Bylaw 14203</i> | Approved December 4, 2006 (to ensure Medium Density Residential Design Guidelines are implemented within the Lewis Farms Community Centre) |
| <i>Bylaw 15918</i> | Approved October 24, 2011 (to amend the Suder Greens Neighbourhood Structure Plan to allow for pedestrian activity and diverse commercial and residential uses) |
| <i>Bylaw 16274</i> | Approved November 13, 2012 (to amend the Suder Greens Neighbourhood Plan to accommodate an Emergency Response Station – Fire Station) |
| <i>Bylaw 16636</i> | Approved November 4, 2013 (to amend the Suder Greens Neighbourhood Plan to allow for apartment housing) |

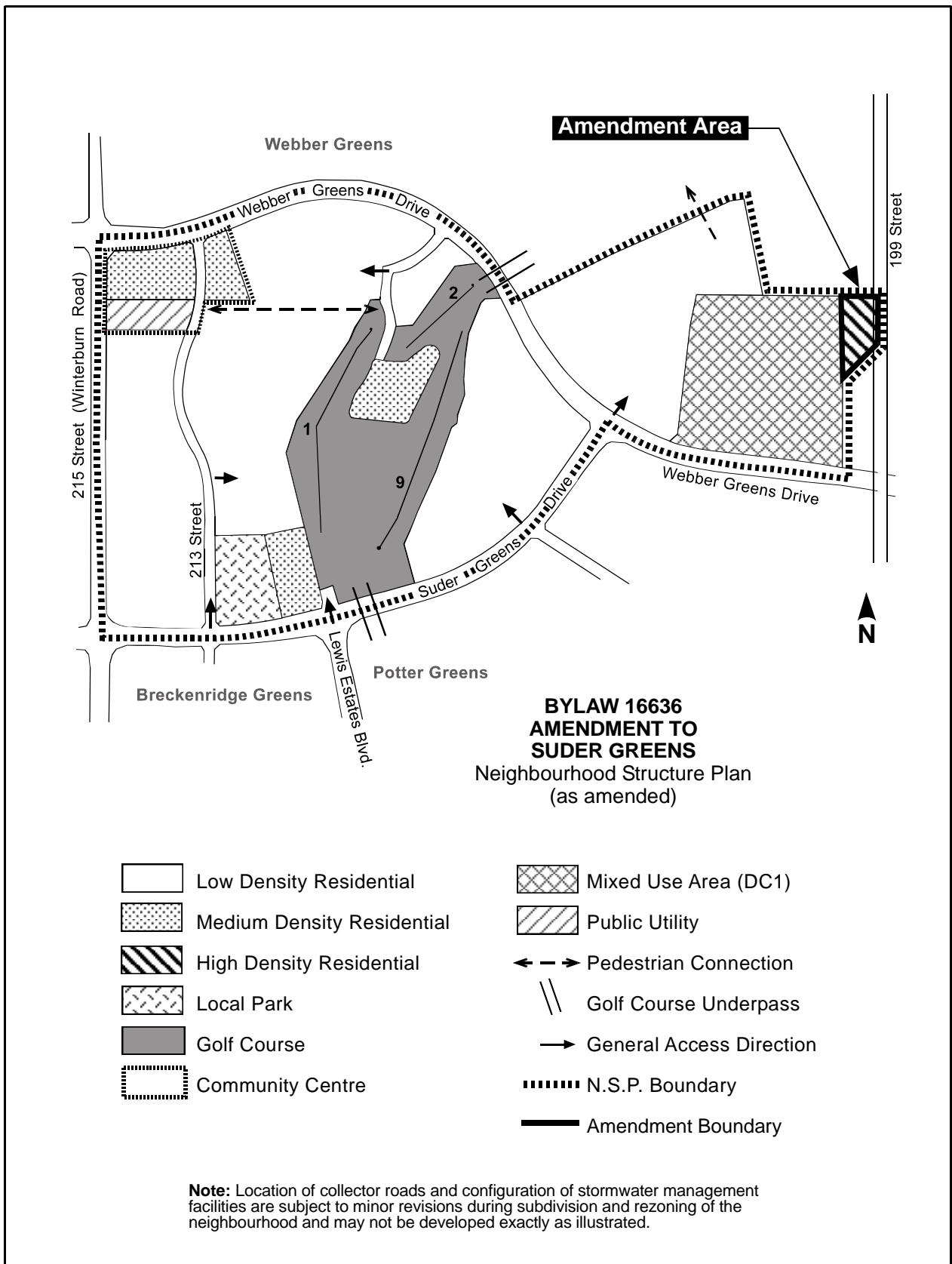
Editor's Note:

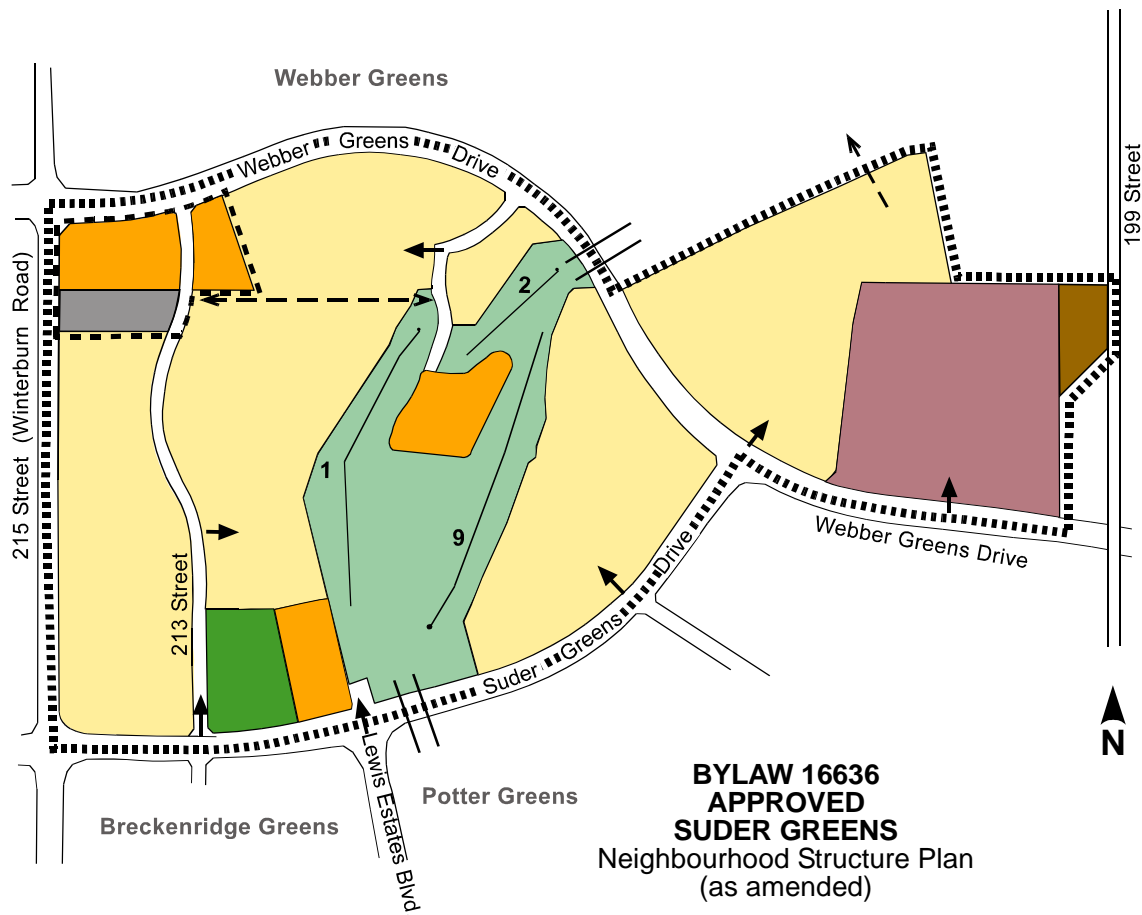
This is an office consolidation edition of the Suder Greens Neighbourhood Structure Plan, Bylaw 12949, as approved by City Council on March 12, 2002. This Plan is an amendment to the Lewis Farms Area Structure Plan, Bylaw 8733 as approved by City Council on June 14, 1988. This edition contains all amendments and additions to Bylaw 12949.













For the sake of clarity, new maps and a standardised format were utilised in this Plan. All names of City departments have been standardised 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 italicised 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
Sustainable Development





- | | |
|--|--|
|  Low Density Residential |  Mixed Use Area |
|  Medium Density Residential |  Public Utility |
|  High Density Residential |  Pedestrian Connection |
|  Local Park |  Golf Course Underpass |
|  Golf Course |  General Access Direction |
|  Community Centre |  N.S.P. Boundary |

Note: Location of collector roads and configuration of stormwater management facilities are subject to minor revisions during subdivision and rezoning of the neighbourhood and may not be developed exactly as illustrated.

**SUDER GREENS NEIGHBOURHOOD STRUCTURE PLAN
LAND USE AND POPULATION STATISTICS
BYLAW 16636**

	Area (ha)	% of GDA
Gross Area	99.35	
Golf Course	14.00	
<i>Arterial Roads</i>		
½ of Webber Greens and Suder Greens Drive	6.48	
½ of 215 Street	1.48	
Gross Developable Area	77.39	
Circulation	14.70	19.0
Parks	2.80	3.6
Transit Oriented Mixed Use	10.71	13.8
Low Density Residential	41.00	53.0
Row Housing	3.23	4.3
Low-rise/Medium Density Residential	3.94	5.1
High Density Residential	1.01	1.3
Total	77.39	100.0

Residential Land Use/Density	Area (ha)	DU/ha	Units	% of Total Units	Population	PPDU
<i>Low Density Residential</i>	41.00	25	1,025	32.8	2,870	2.8
<i>Row Housing</i>	3.23	45	145	4.6	406	2.8
<i>Low-rise/Medium Density Residential</i>	3.94	90	355	11.4	639	1.8
<i>High Density Residential</i>	1.01	200	202	6.5	323	1.6
<i>Mixed Use¹</i>	6.97	200	1,394	44.7	2,230	1.6
Total Residential	56.15		3,121	100%	6,468	

Density: 55.6 units/net residential hectare
200 units/net residential hectare within 400 m of the Lewis Estates Transit Centre²

Student Generation	Elementary	Junior High	Senior High
Public	613	224	211
Catholic	204	75	70

¹ The Mixed Use area is divided into five sub-districts. Three of these permit residential uses, for a total of 7.98 ha. Maximum allowable densities range from 150 u/ha to 325 u/ha. 200 u/ha is taken as an average density assumption for the three sub-districts. Average persons per unit is assumed to be 1.6 for this Mixed Use area.

² All three residential-permitting sub-districts of the Mixed Use area, as well as the high density residential area of the plan, lie within a 400 m radius of the Lewis Farms Transit Centre, which includes the planned Lewis Farms LRT Station.

Table 2 - Net Density Within 400 m of Transit Centre/LRT Stop

Land Use (DC1 Area)	Area within 200 m of Transit Centre	Area within 200-400 m of Transit Centre	Maximum Density*	Maximum Units within 200 m of Transit Centre	Maximum Units within 200-400 m of Transit Centre	Maximum Units within 400 m of Transit Centre
<i>Mixed Use (Area A)</i>	2.96 ha	0.98 ha	225 (pre-LRT) 325 (post-LRT)	666 (pre-LRT) 962 (post-LRT)	221 (pre-LRT) 319 (post-LRT)	887 (pre-LRT) 1281 (post-LRT)
<i>Commercial Office (Area B)</i>	-	2.70 ha	-	-	-	-
<i>Pedestrian Friendly Commercial Node (Area C)</i>	0.40 ha	1.23 ha	125	50	154	204
<i>High-rise Residential (Area D)</i>	-	1.40 ha	225 (pre-LRT) 325 (post-LRT)	-	315 (pre-LRT) 455 (post-LRT)	315 (pre-LRT) 455 (post-LRT)
<i>Natural Area (Area E)</i>	-	0.91 ha	-	-	-	-
Total	3.36 ha	7.22 ha		716 (pre-LRT) 1012 (post-LRT)	690 (pre-LRT) 928 (post-LRT)	1406 (pre-LRT) 1940 (post-LRT)

*units/net residential hectare



SUDER GREENS

Neighbourhood Structure Plan

Mackenzie Associates
Consulting Group Limited

LEWIS ESTATES
COMMUNITIES
SUDER GREENS
Neighbourhood Structure Plan

Prepared by

**Mackenzie Associates
Consulting Group Limited**
Professional Planners

in association with

UMA Engineering Ltd.
Professional Engineers

on behalf of

A Private Corporation
(Amended by Editor)

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(As Amended by Editor)

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Introduction

1.1 Purpose of Document

This document is the Neighbourhood Structure Plan for Neighbourhood 3 as defined by the Lewis Farms Area Structure Plan (as amended). It has been prepared in accordance with terms of reference for Neighbourhood Structure Plans established by the City of Edmonton Planning and Development Department, and special provisions for Neighbourhood Structure Plan approval pertaining to the integration of resource operations and urban development as required by City Council in the Lewis Farms Area Structure Plan.

This Neighbourhood Structure Plan is intended to implement the Lewis Farms Area Structure Plan by establishing a framework according to which future subdivision and development of land can take place within Suder Greens on an orderly and comprehensive basis.

1.2 Background

The Lewis Farms Area Structure Plan (A.S.P.) is an area structure plan as contemplated by Section 633 (i) of the Municipal Government Act (R. S. A. 1994) which defines a general pattern of future development for a 10 square kilometer (four square mile) area of land in the City of Edmonton. The A.S.P. plan area is located in west Edmonton, immediately west of the *Transportation Utility Corridor (Anthony Henday Drive)* and immediately south of Stony Plain Road (Highway 16) in a location outlined on **Figure 1 - Location Plan**. The Lewis Farms A.S.P. was first approved by Bylaw by the Municipal Council of the City of Edmonton on June 14, 1988 (Bylaw 8733), and has been amended by:

Amended by
Editor

a) four subsequent A.S.P. amendments including:

- i) the Golf Course Amendment (Bylaw 10881);
- ii) the Major Roadways Amendment (Bylaw 12183);
- iii) the Scheffer Consultants Ltd. Amendment (Bylaw 12184);
- and
- iv) the Community Centre Amendment (Bylaw 12488); and by

SUDER GREENS
NEIGHBOURHOOD STRUCTURE PLAN

Figure 1

Location Plan

January, 2002
Markenpie Associates
Consulting Group Limited

Prepared for:
A Private Corporation

- b) three Neighbourhood Structure Plans within the East Sector for:
- i) Neighbourhood 1 (Potter Greens) (Bylaw 9390), as amended up to September 5, 2001 by Bylaw 12616;
 - ii) Neighbourhood 2 (Breckenridge Greens) (Bylaw 9925); and
 - iii) Neighbourhood 4 (Webber Greens) (Bylaw 12360).
 - iv) Neighbourhood 3 (Suder Greens) (Bylaw 15917).

The Lewis Farms A.S.P. as amended establishes a general land use pattern and transportation structure for the future development of the Lewis Farms area, and identifies large areas for residential and business/industrial use. Within the area identified for residential use, the A.S.P. defines eight future residential neighbourhoods. It also specifies that a Neighbourhood Structure Plan (N.S.P.) be prepared for each defined neighbourhood unit, and that each N.S.P. should be approved by City Council prior to any subdivision being permitted within that neighbourhood area.

1.3 Plan Area

The area to which this document applies (hereinafter referred to as the Plan Area) is the area identified on **Figure 1** as Suder Greens. This area corresponds to the area defined as Neighbourhood 3 in the Lewis Farms A.S.P., as amended.

1.4 Terms of Reference and Land Ownership

This document was prepared by Mackenzie Associates Consulting Group Limited, Professional Planners. Municipal engineering information and advice was provided by UMA Engineering Ltd., Professional Engineers.

A private corporation is the developer of a 335.9 hectare tract of land within the Lewis Farms A.S.P. Plan Area. The registered owners of the land in the Suder Greens Plan Area are:

Amended by
Editor

- a) *A private corporation*, owners of 96.54 hectares, being 99.0% of the Plan Area; and
- b) the Government of Alberta, owners of 1.33 hectares, being 1.0% of the Plan Area.

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Editor

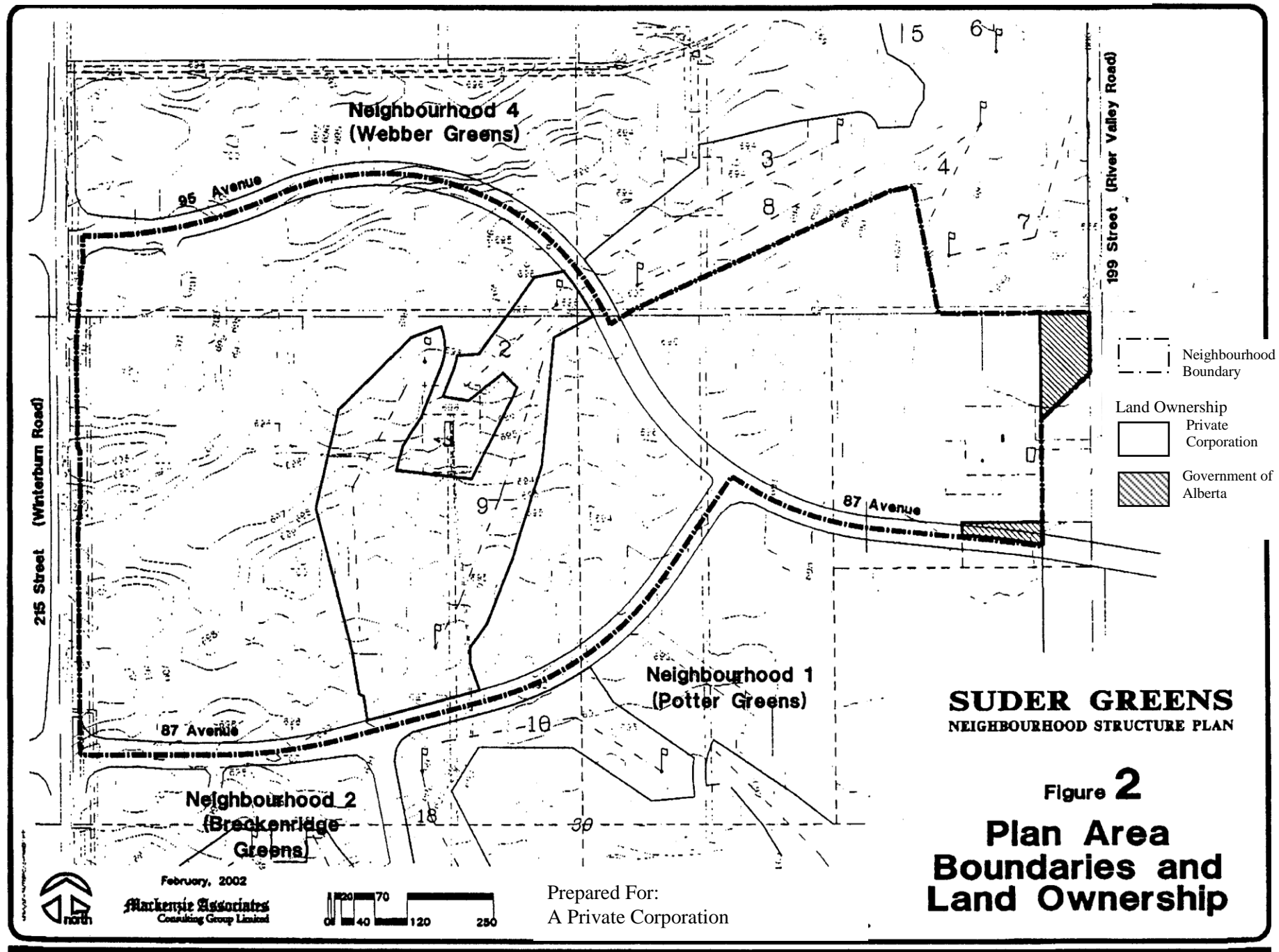
The location of lands owned by the Government of Alberta are indicated on **Figure 2 - Plan Area Boundaries and Land Ownership**. The remainder of the Plan Area is owned by *a private corporation*.

Amended by
Editor

The Suder Greens Plan Area encompasses a total area of approximately 99.35 hectares.

Bylaw 13663
April 7, 2004

Figure 2: Plan Area Boundaries and Land Ownership [Bylaw 12949, March 12, 2002 (As Amended by Editor)]



Planning Context and Development Factors

2.1 Location and Setting

The general location of the Suder Greens Plan Area which is illustrated on **Figure 1** is identified in more detail on **Figure 2**. Generally, the Plan Area lies between Neighbourhoods 1 (Potter Greens) and 2 (Breckenridge Greens) on the south, and Neighbourhood 4 (Webber Greens) to the north.

The precise boundaries of the Suder Greens plan area will be defined by the following features:

- a) The south boundary of the Plan Area is defined by the centre line of the future right-of-way of two major roadways defined by the Lewis Farms A.S.P. as amended by the Major Roadways Amendment (Bylaw 12183) and the Community Centre Amendment (Bylaw 12488) including:
 - i) the *Suder Greens Drive (87 Avenue)* (arterial); and
 - ii) the east portion of the *Webber Greens Drive (87/95 Avenue)* (arterial); as indicated on **Figure 2**.
- b) The east boundary is defined by the east boundary of the Lewis Farms Plan Area and the Transportation and Utility Corridor (TUC) near or adjacent to 199 Street (*River Valley Road*);
- c) The north boundary is defined by the west portion of the *Webber Greens Drive (87/95 Avenue)* arterial roadway and portions of the Lewis Estates Golf Course; and
- d) The west boundary is defined by the east edge of the future right-of-way of Winterburn Road (215 Street) which is planned to be developed to arterial standards.

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2.2 Physical Features

2.2.1 Topography

The topography of the Plan Area consists of flat to gently rolling terrain. The area slopes downward from an area of higher ground (approximate elevation 702 metres) situated near the southwest corner of the Plan Area, from which the land slopes eastward and northeastward toward the east edge of the Plan Area. The eastern portions of the Plan Area are lower (lowest elevation is approximately 687 metres adjacent to 199 Street (*River Valley Road*) at the east edge of the Plan Area). Existing overland drainage routes will be preserved during construction. Major topographic features of the Plan Area are highlighted on **Figure 3 - Development Factors**.

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Editor

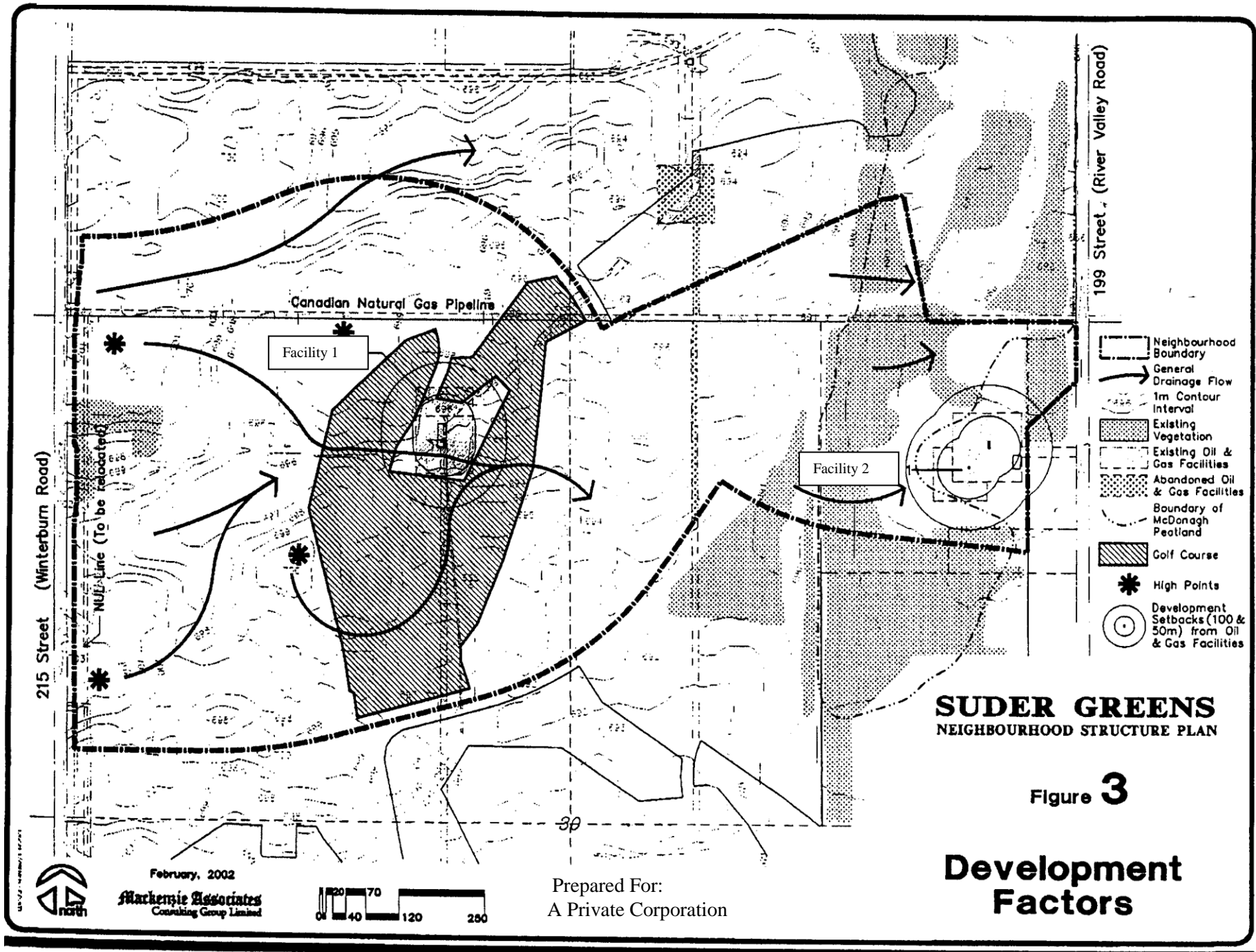
2.2.2 Soils

The geotechnical (soils) and hydrogeological (groundwater) setting has been a significant factor in the general planning for development in the Lewis Farms area, and has been analyzed by Hardy B.B.T. Limited. The soil stratigraphy over the Plan Area generally comprises lakelaid clay soils grading with depth into coarser grained silt and sand sediments. Topographically higher areas have a surface mantle of topsoil, whereas lower lying areas are covered by a wet, organic peat deposit.

Subsoil conditions in the Plan Area have been determined and groundwater conditions monitored in an ongoing series of geotechnical investigations carried out since 1984, and soil deposits have been sampled for laboratory testing programs. Piezometers have been installed and a regular program of groundwater level monitoring continues.

The organic soils will require removal for proposed development purposes, but have been used in association with certain recreational uses such as the golf course.

Figure 3: Development Factors [Bylaw 12949, March 12, 2002 (As Amended by Editor)]



Site grading will utilize clayey soils from the Plan Area and adjacent lands to raise the ground surface in selected areas. The majority of residential foundations will be constructed in the clay stratum. Underground servicing will optimize site grading design to position piping with minimum depths of embedment below the groundwater table.

Construction procedures for the residential subdivision will follow conventional practice over the majority of the Plan Area. There are areas where specialized techniques for buried service installation and roadway construction will be utilized, through procedures using Infrastructure Performance Criteria (IPC) servicing agreements that are now common and have been proven successful in similar conditions within the Edmonton area.

Further details on servicing development in the Plan Area are provided in Chapter 5 of this document.

2.2.3 Drainage

The existing pre-development pattern of natural drainage in the Plan Area generally follows the existing contours of the land. The general directions of natural drainage are illustrated on **Figure 3** and indicate that the Plan Area drains naturally from west to east and northeast. From the Plan Area the direction of natural drainage continues northeastward into golf course lands in Webber Greens and ultimately into the City of Edmonton storm drainage system.

2.2.4 Vegetation

The location of existing vegetation within the Plan Area is identified on **Figure 3 - Development Factors**.

Most of the vegetation is contained within an area identified as the McDonagh Peatland, an area designated in a 1995 report entitled "Conservation of Natural Sites in Edmonton's Table Lands". The McDonagh Peatland area is also outlined on **Figure 3**.

In accordance with City Council policy, a Natural Site Assessment was undertaken for the McDonagh Peatland and submitted to the Planning and Development Department for review. That assessment concluded that the McDonagh Peatland area is likely not self-sustaining and that it was not necessary to undertake any further assessment. The southernmost portion of the McDonagh Peatland, lying within the expanded boundaries of the Potter Greens Neighbourhood to the south of the Plan Area, was not determined to be suitable for retention or preservation when City Council approved an amendment to the Potter Greens NSP with respect to that area on September 5, 2001 through Bylaw 12616. The residual portion of the McDonagh Peatland within the Plan Area, traversed by the future right-of-way for *Webber Greens Drive (87 Avenue)*, is not considered to be self-sustaining or suitable for preservation.

Amended by
Editor

Areas of other existing vegetation in the Plan Area, outside the McDonagh Peatland area, consist of varying mixtures of trees and brush that do not comprise substantial clusters.

2.2.5 Existing Roadways

Winterburn Road (215 Street) on the west boundary of the plan area is oiled and currently developed at a rural road standard. It is intended to be upgraded to a major arterial roadway in the future and function as part of the major arterial roadway grid to serve west Edmonton.

Initial primary access to the Plan Area will be provided from a northward extension of Lewis Estates Boulevard from its existing intersection with Potter Greens Drive to the south.

Arterial roads from West Jasper Place will, when extended, provide good access to the plan area from existing built up areas, shopping and schools. *Suder Greens Drive (87 Avenue)* will ultimately be extended west of Anthony Henday Drive into the Plan Area in an alignment generally defined by the Development Concept described in Chapter 4 of this document.

Amended by
Editor

In summary the plan area is well served by major roads, existing and proposed, which partially define the Neighbourhood boundaries, and provide opportunities for more intensive land use at highly accessible locations.

2.3 Existing Uses

2.3.1 Existing Land Uses

Those portions of the Plan Area featuring arable soils have been cleared and used for agricultural purposes. Lower portions of the Plan Area featuring predominantly organic soils have not been cleared for agricultural use and remain vacant in a predominantly natural state. There are no existing buildings or structures relating to existing or previous agricultural use which possess any significance as development constraints.

The most significant man-made feature of the Plan Area is the portion of the Lewis Estates Golf Course which is developed and contains Fairways 1, 2, and 9. Other features include:

- a) an existing set of operating oil wells located in a pod of land encircled and buffered by the golf course (*Facility 1*);
- b) an existing operating oil well near the east edge of the Plan Area (*Facility 2*); and
- c) several minor oil and gas pipeline facilities which have been installed for the transportation of oil and gas products through gathering and transmission networks. These oil and gas facilities are discussed in the following section, and their locations are identified on **Figure 3 - Development Factors**.

Amended by
Editor

Amended by
Editor

2.4 Oil and Gas Facilities

Existing oil and gas facilities in the Plan Area would be integrated with future urban development in the following manner.

2.4.1 Facility 1

Amended by
Editor

The existing oil wells would continue to operate on the site which is presently surrounded and buffered by Fairways 1, 2, and 9. The existing service road (from 215 Street to the west) would be closed, when the area is proposed for subdivision, and alternate access to the site would be provided by a new access road that would follow the future alignment of a road, to be constructed through any residential area to collector roadway standard, northward to connect with the planned alignment of the *Suder Greens Drive/Webber Greens Drive (87/95 Avenue)* arterial roadway.

Amended by
Editor

At such future time as the oil wells are no longer required, the wells will be capped, any required environmental restoration will be undertaken, and the reclaimed site will be utilized for medium density residential development.

All existing flow lines connected to the well site will be relocated, as may be required to facilitate planned subdivision in the area surrounding the well site.

2.4.2 Facility 2

Amended by
Editor

The existing oil well would continue to operate on the site, and adjacent development (residential and commercial) would be restricted from encroaching within 100 metres. This restriction shall remain until any required oil well upgrading has been undertaken. A 50 metre separation distance may subsequently be approved by the Alberta Energy and Utilities Board for the upgraded well site. Any other standards as determined by the AEUB will be met.

At such time as the oil well is no longer required, the well will be capped, any required environmental restoration will be undertaken, and the reclaimed site will be utilized for residential or commercial development in accordance with the Development Concept described in Chapter 4.

Access to the existing well site will continue to be provided by an existing service road connecting to 199 Street (*River Valley Road*) as long as the oil well remains in operation.

Amended by
Editor

In each situation, the provisions of Section 10 (1) of the Subdivision and Development Regulation (under the Municipal Government Act) will apply, to the effect that no subdivision to create residential or public facility use will be allowed within 100 metres of any wellhead. This setback may only be reduced to 50 metres if upgrading takes place and is approved by the Alberta Energy and Utilities Board.

The existing oil and gas facilities will be separated by the required setbacks and buffered from future residential uses by landscaping and/or open space uses. In the case of *Facility 1*, the existing golf course and landscaping will serve this function. In the case of *Facility 2*, a form of landscaping utilizing a combination of visual screening techniques (berming and/or fencing) and landscaping would be designed at the subdivision stage of development.

Amended by
Editor

2.4.3 Flowlines and Service Pipelines

All existing flowlines will be relocated into appropriate alternate alignments as part of the subdivision process where feasible and practical, or otherwise incorporated into the future pattern of subdivision.

Development Objectives

The primary objective of the Development Concept proposed for Suder Greens is to provide a framework for the subsequent subdivision and development of the Plan Area. Specific objectives of the Development Concept are:

- i) to ensure that the planned pattern of development conforms to the Lewis Farms A.S.P. as approved and amended by City Council;
- ii) to define a comprehensive pattern of development that will permit the plan area to be developed in an orderly and economical manner;
- iii) to ensure that the planned development pattern incorporates sustainable elements of the existing natural features of the plan area; and
- iv) to ensure that the planned pattern of development achieves an attractive and functional integration of the existing natural features and oil and gas pipeline facilities in the plan area with future residential and recreational land uses.

These objectives form the basic design philosophy according to which the Development Concept for Suder Greens was formulated. The Development Concept is described in Chapter 4.

The Development Concept

4.1 Description of the Development Concept

The Development Concept proposed for Suder Greens is illustrated on **Figure 4 - Development Concept**. It consists of a proposed land use pattern and circulation pattern which, in combination, are intended to define the basic structure of future land use planning and development within the Plan Area.

The general urban design concept is based upon the objective of integrating the three fairways of the existing 18 fairway Lewis Estates Golf Course with a broad range of high quality residential and commercial land uses.

The topography of the Plan Area exerts a significant influence on the urban design which is expressed in the Development Concept through the following features:

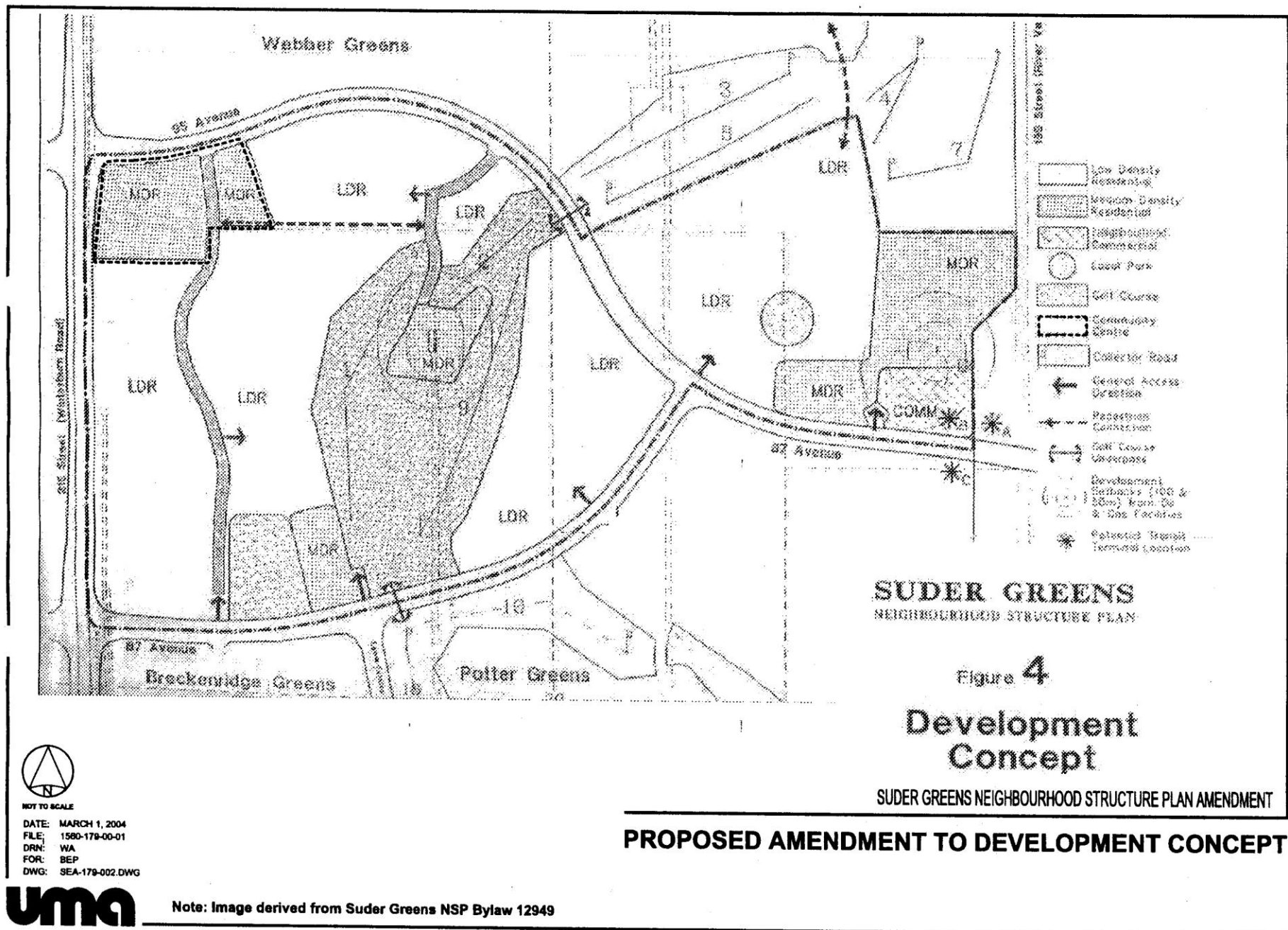
- a) the location of portions of golf course fairways in areas of relatively low lying land in the Plan Area; and
- b) the creation of cells or clusters of residential development on the topographically higher elevations of land.

The Development Concept encompasses several basic elements which include:

- a) three existing fairways (1, 2, and 9) of the Lewis Estates Golf Course;
- b) *a primary node of medium density residential uses located at the northwest corner of the Plan Area combined in a Community Centre area as envisioned by the Lewis Farms ASP;*

Bylaw 13663
April 7, 2004

Figure 4: Development Concept [As Amended by Bylaw, 13663 April 7, 2004]



c) *a node of transit-oriented and pedestrian-friendly mixed uses located north of Webber Greens Drive (87 Avenue), at the east edge of the Plan area;*

Bylaw 15918
October 24,
2011

d) two small pods of medium density residential use within or adjacent to the existing golf course fairways; and

e) three pods of low density residential use adjacent to parts of the existing golf course fairways.

f) *pedestrian connections along the pipeline right-of-way between the collector roads and to the east across the golf course into the Webber Greens neighbourhood;*

Bylaw 13663
April 7, 2004

g) *golf course underpasses under Suder Greens Drive and Webber Greens Drive;*

h) *a local park adjacent to Suder Greens Drive.*

The community centre is intended to be a mixed use district for the Lewis Farms area, containing a community shopping facility and service uses, combined with an adjacent area of medium density housing. The community centre is located on Winterburn Road in order to provide, in combination with future school and park sites planned on the west side of Winterburn Road, a central focus for community activities within the Lewis Farms plan area.

Detailed design guidelines are required for the implementation of higher density residential projects located with the Community Centre.

Bylaw 14203
December 4, 2006

A quantitative summary of the land uses proposed within the Neighbourhood is presented on Table 1 and 2.

4.2 Land Use

4.2.1 Residential Land Use

Areas designated as Low Density Residential (LDR) are intended to accommodate a range of low density residential land use types that could include Single Detached, Residential Small Lot, Planned Lot Residential and Semi-detached Residential and Duplex housing forms as defined by the Zoning Bylaw. In addition, the Low Density Residential land use category is intended to permit development under the Site Specific Development Control provisions of the Zoning Bylaw, for the same residential housing forms, in situations where Site Specific Direct Control techniques would be appropriate as defined in the Zoning Bylaw.

Areas designated as Medium Density Residential (MDR) are intended to accommodate a range of medium density residential land use types that could include Row Housing, Stacked Row Housing, Semi-detached and Duplex Housing, and Low-Rise Apartment housing forms as defined by the Zoning Bylaw. In addition, the Medium Density Residential land use category is intended to permit development under the Site Specific Development Control provisions of the Zoning Bylaw for the same residential housing forms, in situations where Site Specific Development Control techniques would be appropriate as defined in the Zoning Bylaw.

Table 1- Land Use & Population Statistics

	Area (ha)	% of GDA
Gross Area	99.35	
Golf Course	14.00	
Arterial Roads		
½ of Webber Greens and Suder Greens Drive	6.48	
½ of 215 Street	1.48	
Gross Developable Area	77.39	
Circulation	14.70	19.0
Parks	2.80	3.6
Transit Oriented Mixed Use	10.71	13.8
Low Density Residential	41.00	53.0
Row Housing	3.23	4.3
Low-rise/Medium Density Residential	3.94	5.1
High Density Residential	1.01	1.3
Total	77.39	100.0

Residential Land Use/Density	Area (ha)	DU/ha	Units	% of Total Units	Population	PPDU
Low Density Residential	41.00	25	1,025	32.8	2,870	2.8
Row Housing	3.23	45	145	4.6	406	2.8
Low-rise/Medium Density Residential	3.94	90	355	11.4	639	1.8
High Density Residential	1.01	200	202	6.5	323	1.6
Mixed Use ³	6.97	200	1,394	44.7	2,230	1.6
Total Residential	56.15		3,121	100%	6,468	

Density: 55.6 units/net residential hectare
200 units/net residential hectare within 400 m of the Lewis Estates Transit Centre⁴

Student Generation	Elementary	Junior High	Senior High
Public	613	224	211
Catholic	204	75	70

³ The Mixed Use area is divided into five sub-districts. Three of these permit residential uses, for a total of 7.98 ha. Maximum allowable densities range from 150 u/ha to 325 u/ha. 200 u/ha is taken as an average density assumption for the three sub-districts. Average persons per unit is assumed to be 1.6 for this Mixed Use area.

⁴ All three residential-permitting sub-districts of the Mixed Use area, as well as the high density residential area of the plan, lie within a 400 m radius of the Lewis Farms Transit Centre, which includes the planned Lewis Farms LRT Station.

Table 2 - Net Density Within 400 m of Transit Centre/LRT Stop

Land Use (DC1 Area)	Area within 200 m of Transit Centre	Area within 200-400 m of Transit Centre	Maximum Density*	Maximum Units within 200 m of Transit Centre	Maximum Units within 200-400 m of Transit Centre	Maximum Units within 400 m of Transit Centre
<i>Mixed Use (Area A)</i>	2.96 ha	0.98 ha	225 (pre-LRT) 325 (post- LRT)	666 (pre-LRT) 962 (post-LRT)	221 (pre- LRT) 319 (post- LRT)	887 (pre-LRT) 1281 (post- LRT)
<i>Commercial Office (Area B)</i>	-	2.70 ha	-	-	-	-
<i>Pedestrian Friendly Commercial Node (Area C)</i>	0.40 ha	1.23 ha	125	50	154	204
<i>High-rise Residential (Area D)</i>	-	1.40 ha	225 (pre-LRT) 325 (post- LRT)	-	315 (pre- LRT) 455 (post- LRT)	315 (pre-LRT) 455 (post- LRT)
<i>Natural Area (Area E)</i>	-	0.91 ha	-	-	-	-
Total	3.36 ha	7.22 ha		716 (pre-LRT) 1012 (post-LRT)	690 (pre- LRT) 928 (post- LRT)	1406 (pre- LRT) 1940 (post- LRT)

4.2.2 Commercial Land Use

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Mixed Use - The development concept for the Mixed Use area is based on transit-oriented, mixed use principles to create a pedestrian-friendly community centre for the eastern edge of Suder Greens that will evolve into a gathering place as well as an employment and commercial node within Lewis Farms. The area will incorporate a mixture of high-density and medium-density mixed use development within approximately 400 m of transit facilities.

The following principles shall guide the development of the Mixed Use area:

- *Create a transit oriented development that is 'urban' in character and form;*
- *Provide a diverse mix of land uses;*
- *Create an accessible street network based on a modified grid pattern;*
- *Guide development in consideration of surrounding communities;*
- *Ensure that building placement reinforces a pedestrian-friendly environment and that arrival points and edges are attractive and inviting;*
- *Buildings should be attractive and promote a sense of place, particularly in highly visible locations;*
- *The site should accommodate multiple modes of transport, be highly walkable, and employ traffic calming techniques where appropriate; and*
- *Provide landscaped spaces for outdoor activities that encourage use, promote safety, and are consistent in design*

Appropriate transitioning to adjacent low-density residential areas will be achieved through the application of a 35 degree angular plane of view limiting heights adjacent to the western edge of the Mixed Use area, to be implemented through the Direct Control zoning.

4.2.3 Park Land Use

Areas designated as Local Park are intended to illustrate conceptually the general location of small and local neighbourhood park spaces that would be integrated into the surrounding residential areas as part of the future detailed subdivision design process. The shape and size of the

Local Park areas depicted in the Development Concept are intended to be schematic, and actual park areas are intended to be designed and defined at the future subdivision stage of the development process.

4.3 Circulation System

4.3.1 The Road Network

The circulation system proposed to serve the land use pattern of the Plan Area is shown on **Figure 5 - Circulation**. It consists of a well defined hierarchy of roadways which include:

- a) a system of **arterial roadways** defined by the Major Roadways Amendment (Bylaw 12183) and the Community Centre Amendment (Bylaw 12488) to the Lewis Farms A.S.P. that consists of:

- i) 215 Street (Winterburn Road) on the west boundary of the Plan Area;
- ii) a curvilinear arterial road connecting *Webber Greens Drive (95 Avenue)*, at the northwest corner of the Plan Area, to the southeast corner of the Plan Area, (the *Webber Greens Drive (95/87 Avenue)* arterial); and
- iii) a curvilinear arterial roadway connecting 215 Street (*Winterburn Rd*), at the southwest corner of the Plan Area, to the *Suder Greens Drive (95/87 Avenue)* arterial near the centre of the south boundary of the Plan Area;

Amended by
Editor

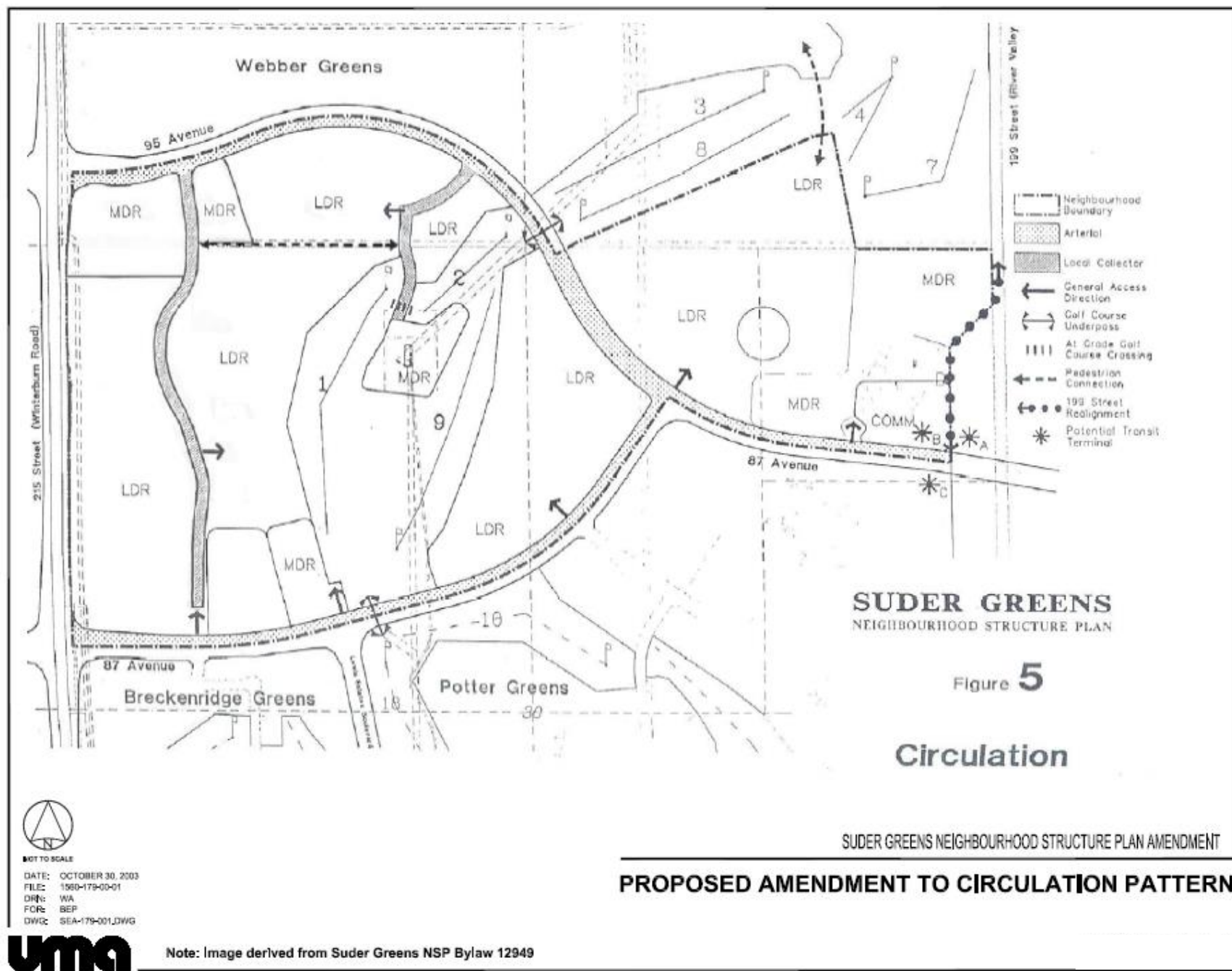
- b) two smaller and more localized **collector roadways**, including:

- i) *a collector roadway access which connects Webber Greens Drive and Suder Greens Drive through a residential area in the west part of the Plan Area; and*
- ii) a collector stub providing interim access to the *Facility 1* wellsite and future access to residential development on that site following reclamation; and
- iii) **local neighbourhood roadways** within the Low Density Residential and Medium Density Residential areas as may be required to serve specific patterns of subdivision that will be created within such areas.

Bylaw 13663
April 7, 2004

Amended by
Editor

Figure 5: Circulation [As Amended by Bylaw 13663, April 7, 2004]



199 Street, an existing road that which borders the east edge of the Plan Area, will be realigned in conjunction with the development in the Plan Area. The realignment is intended to provide greater separation along Webber Greens Drive between 199 Street and the Anthony Henday Drive interchange. The realignment is intended to follow the general alignment of the Plan Area boundary, as depicted schematically on Figure 5.

Bylaw 15918
October 24,
2011

All road islands, boulevards and medians associated with the proposed collector and local neighbourhood roadways will be developed as maintenance free by the developer and to the satisfaction of the City Community Services Department at the subsequent subdivision stage.

Public transit to the area will be accommodated on the major roadways, including the arterial and collector roadway system. Public transit service may be focussed at some future time on a transit terminal which could be located within or near the small neighbourhood commercial land use area situated north of *Webber Greens Drive (87 Avenue)*, at the southeast corner of the Plan Area. Three potential locations for a transit terminal are identified as A, B, and C on **Figure 4 - Development Concept**, two of which (A and C) lie outside, but adjacent to, the Plan Area.

Amended by
Editor

4.3.2 Golf Course Crossings of Roads

The golf course will require users to cross over major roadways between the Plan Area and Potter Greens to the south, and Webber Greens to the north. At locations where the golf course is required to connect across a major road, a grade-separated crossing will be constructed to convey golf course traffic beneath the roadway, to avoid conflict with vehicular traffic on those roadways. The locations of these crossings are identified on **Figure 5 - Circulation**.

Within Suder Greens, one grade-level crossing of a local collector roadway stub is planned for golf course traffic. This crossing between Fairways 1 and 2 is also identified on **Figure 5 - Circulation**. Signage will be posted by the developer at the proposed crossing location in accordance with requirements of the Off-Highway Vehicles Act.

4.3.3 Pedestrian Circulation

Pedestrian circulation in Suder Greens will be accommodated primarily on a sidewalk system developed in conjunction with the internal roadway network that will be identified at the subdivision stage of development. Local walkway connections will be considered at the subdivision design stage to facilitate public access within residential areas and provide access to local park areas.

One pedestrian linkage is proposed to allow pedestrian movement between Suder Greens and Webber Greens, at the east end of Golf Course Fairways 3 and 8, as indicated on **Figure 5**. Otherwise no provisions for formal pedestrian access onto the golf course are contemplated. The developer will fence the perimeter of the golf course area to discourage unauthorized public access and shortcutting, and to ensure that the integrity of the golf course is protected. *Another pedestrian linkage will connect the two collector roadways along the pipeline right-of-way*

Bylaw 13663
April 7, 2004

4.4 Social and Demographic Profile

The estimated number of housing units, future population and school generation within Suder Greens is summarized on Table 1 – Land Use & Population Statistics. The estimated future population of the Neighbourhood is 6,469 persons and the overall density of planned development is 55.6 units per net residential hectare.

Bylaw 15918
October 24,
2011

4.5 School Facilities

No schools are proposed within the Plan Area, consistent with the Lewis Farms A.S.P. (as amended). School students living in the Area will attend other nearby schools within the Lewis Farms area, and west Edmonton. Public Elementary School students will be accommodated in the Potter Greens neighbourhood school to the southeast. Other students will be accommodated in schools located outside Suder Greens, either in future facilities to be developed at locations identified in the Lewis Farms A.S.P. (as amended), or in existing schools located in west Edmonton.

Table 2

Demographic Information • Neighbourhood 3 • Suder Greens**1. Estimated Housing Units and Population**

Land Use	Area Hectares	Units/Area Per Ha.	Total Units	Persons Per Unit	Population
1.1 <u>Community Centre</u>					
Apartments	3.83	100	383	1.95	747
1.2 <u>Remainder of Neighbourhood</u>					
Low Density:					
Single Family	38.78	25	970	3.46	3356
Semi-Detached	4.81	33	159	3.32	528
Medium Density:					
Townhouses	4.46	42	187	2.98	557
Apartments	<u>3.81</u>	100	<u>381</u>	1.95	<u>743</u>
Subtotal	51.86		1697		5184
TOTAL					
Neighbourhood	55.69		2080		5931

2. Density of Neighbourhood Development

Total Gross Area of Neighbourhood:	7.87 Ha
Total Population:	5931
Neighbourhood Density:	60.60 people/gross hectare

3. Student Generation

	<u>Elementary</u>	<u>Junior High</u>	<u>Senior High</u>
Public:	558	157	130
Separate:	267	113	67

Plan Implementation

5.1 Provision of Municipal Utility Services

The general locations of major municipal utility infrastructure facilities required to serve development of the Plan Area are summarized on **Figures 6, 7, and 8.**

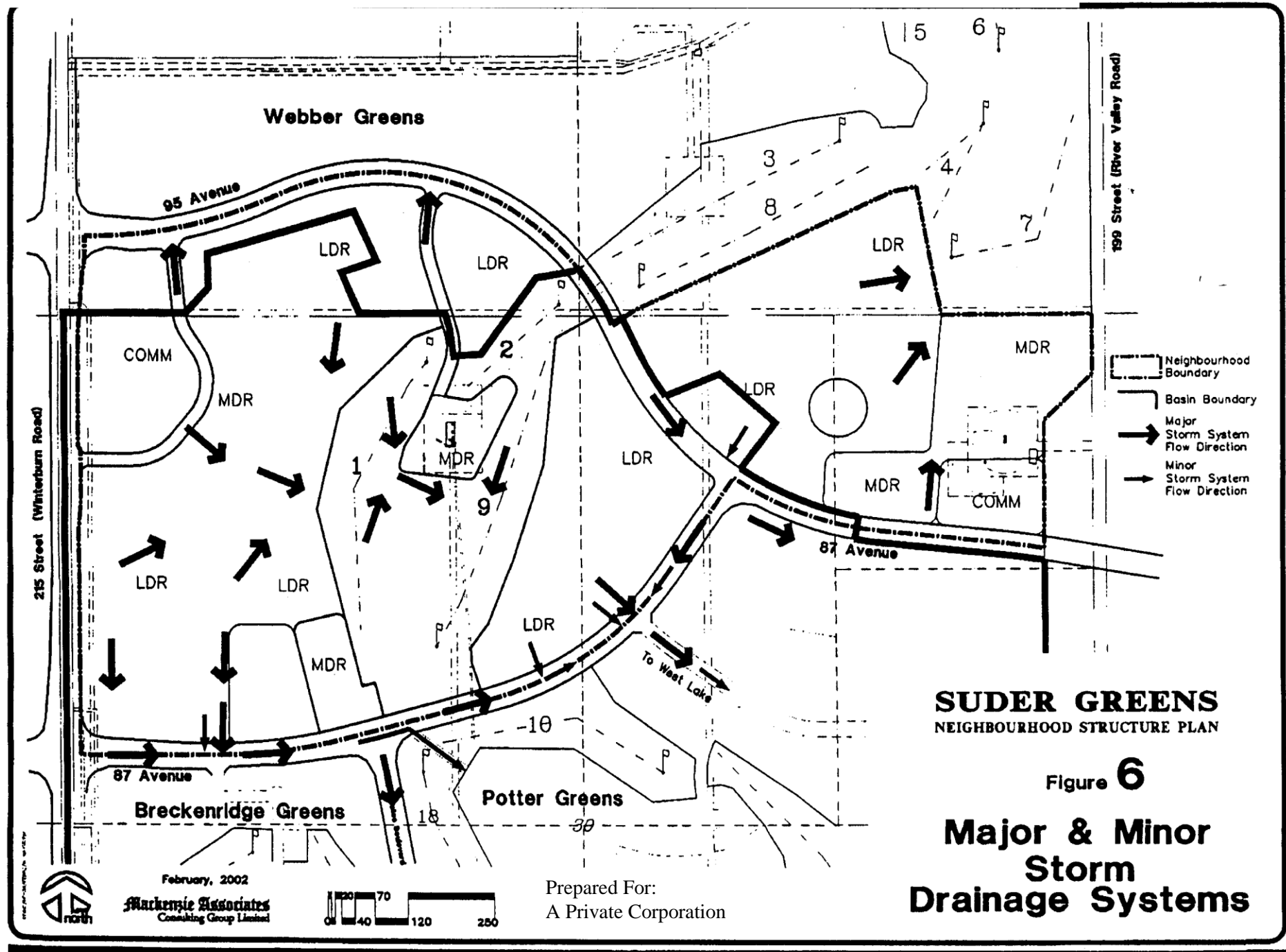
5.1.1 Stormwater Drainage

The patterns of the major and minor storm sewer systems proposed for Suder Greens by UMA Engineering Ltd. are shown on **Figure 6 - Major & Minor Storm Drainage Systems.**

As required by current City standards, both a minor and major storm sewer system will be provided. The minor system will be comprised of piped storm sewers with a capacity to accommodate a 1 in 5 year storm event with no surcharging in the pipes. The major system will provide surface drainage routes to accommodate storm flows in a storm which exceeds the 1 in 5 year event.

The major system will be designed such that depths of flooding in an extreme storm event do not exceed the levels and depths specified in the latest revisions to the City's design standards. The golf course, which is on private property, is designed as part of the major overland drainage system. The majority of the overland flow drains towards the southeast into the West Lake in Potter Greens. The West Lake has been sized to accept drainage from the area within the basin boundary as shown on **Figure 6 - Major & Minor Storm Drainage Systems.** A portion located at the northeast end of Suder Greens will drain north into Webber Greens.

Figure 6: Major & Minor Storm Drainage Systems [Bylaw 12949, March 12, 2002 (As Amended by Editor)]



The minor system will discharge into existing storm sewers in Potter Greens, which discharges into the West Lake in Potter Greens. As with the major system, a portion of the minor system located at the northeast end of Suder Greens will drain north into Webber Greens.

5.1.2 Sanitary Sewerage

The general pattern of the sanitary sewerage system for Suder Greens is shown on **Figure 7 - Sanitary Sewer System**. The north edge of the sanitary basin boundary within Suder Greens generally matches that of the major and minor storm boundaries as shown in **Figure 6 - Major & Minor Storm Drainage Systems**.

The majority of the onsite sanitary sewers will service through Potter Greens to a 675 mm trunk sewer located along Whitemud Drive (79th Avenue). A small section of land located at the northeast end of Suder Greens will drain north through Webber Greens to a storage tank and pump station. This will be located at the northeast end of Webber Greens and will discharge through a forcemain to an existing trunk sewer at 100th Avenue and 163 Street.

The sanitary sewers will be designed to meet the currently prevailing Infrastructure Performance Criteria or City design standards. Sump pumps will be required to handle discharge from weeping tiles.

The sump pumps should discharge directly into a storm sewer or onto a splash pad at the ground surface. The sanitary sewers will be sized using a design that includes an allowance for inflow and infiltration.

5.1.3 Water Supply

The general pattern of the proposed water main system for Suder Greens is shown on **Figure 8 - Water Mains**. The sizes of the water mains vary

Figure 7: Sanitary Sewer System [Bylaw 12949, March 12, 2002 (As Amended by Editor)]

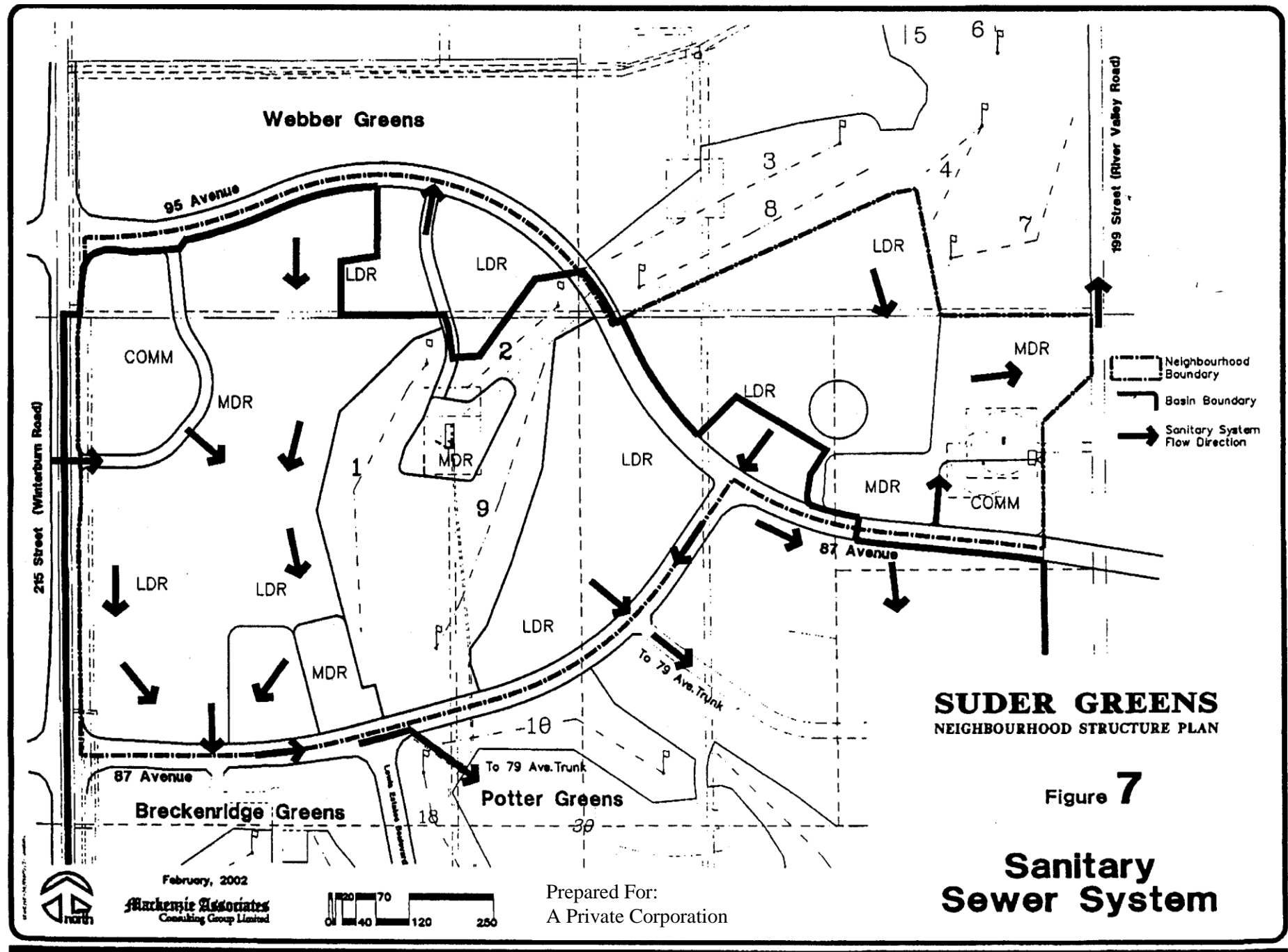
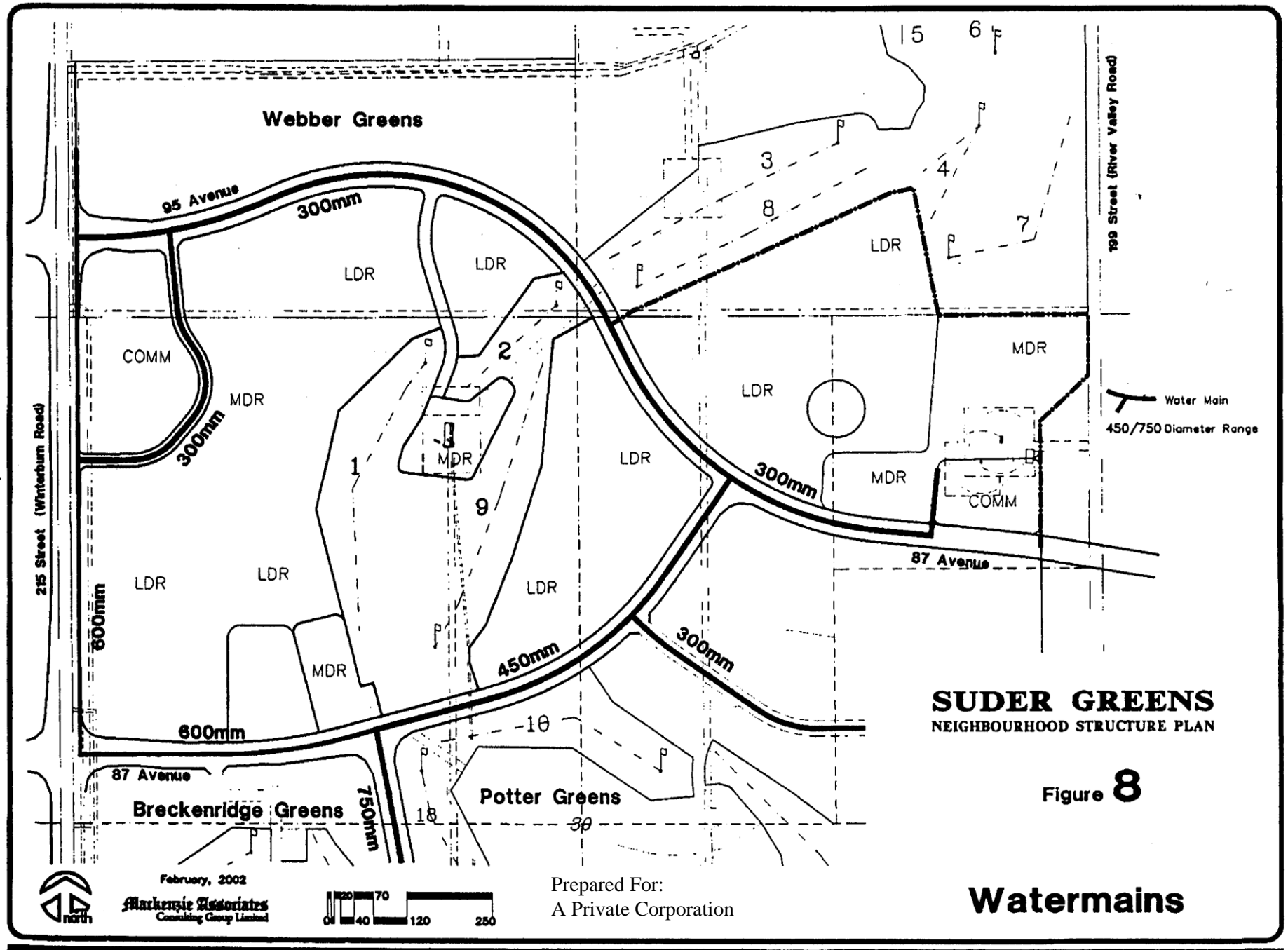


Figure 8: Watermains [Bylaw 12949, March 12, 2002 (As Amended by Editor)]



between 300 mm to 750 mm. The pattern of the water mains are taken from the approved *West Edmonton Water Servicing Study Final Report* prepared by Cochrane Engineering Ltd. in June 1999. The report proposes several alternatives to service Suder Greens and the surrounding area.

Two of the alternatives proposed in *the West Edmonton Water Servicing Final Report* require a booster station at *Webber Greens Drive (87 Avenue)* and *Anthony Henday Drive*. The ultimate selection of the most appropriate alternative to follow within Suder Greens is dependent upon the pace and pattern of development within Lewis Farms and the surrounding areas of Big Lake, Winterburn Industrial, and the Grange.

Amended by
Editor

The proposed reservoir at *Webber Greens Drive (95 Avenue)* and *215th Street (Winterburn Rd)* as described in the *Water Network Analysis - Lewis Farms Area Structure Plan - Lewis Estates Potter Greens to 3* prepared by I.D. Engineering Company Ltd. in December 1989, is no longer required based on the *West Edmonton Water Servicing Study Final Report*.

Amended by
Editor

Generally, Suder Greens is intended to be serviced by transmission mains along *Suder Greens Drive (87 Avenue)* and *Webber Greens Drive (95 Avenue)*, with a connection to the 750 mm transmission main located along Lewis Estates Boulevard (207th Street). The design and construction of the proposed water supply facilities within Suder Greens will meet the latest versions of the City's standards.

Amended by
Editor

5.1.4 Shallow Utilities

Natural gas, telephone, electric power, and cable T.V. systems are proposed to be extended to serve the initial stages of development within Suder Greens from existing systems.

a) Natural Gas

Permanent gas supply to Suder Greens will extend from a major gate station facility to be constructed by *a private*

Amended by
Editor

corporation on a site south of Whitemud Drive (79 Avenue), and near an existing high pressure gas main in The Grange.

b) Telephones

Telephone service to residents in Suder Greens will originate from a new telephone switching centre constructed by *a private corporation* on a site in Potter Greens, located directly east of the intersection of *Lewis Estates Boulevard (207 Street)* and *Whitemud Drive (79 Avenue)*.

Amended by
Editor

c) Power

Adequate electrical capacity exists to provide service to development within Suder Greens from the existing power facilities in the area.

Amended by
Editor

5.1.5 Public Utility Lots

Any public utility lots required for utility facilities within the Plan Area will be identified at the subsequent subdivision stage.

5.2 **Staging of Development**

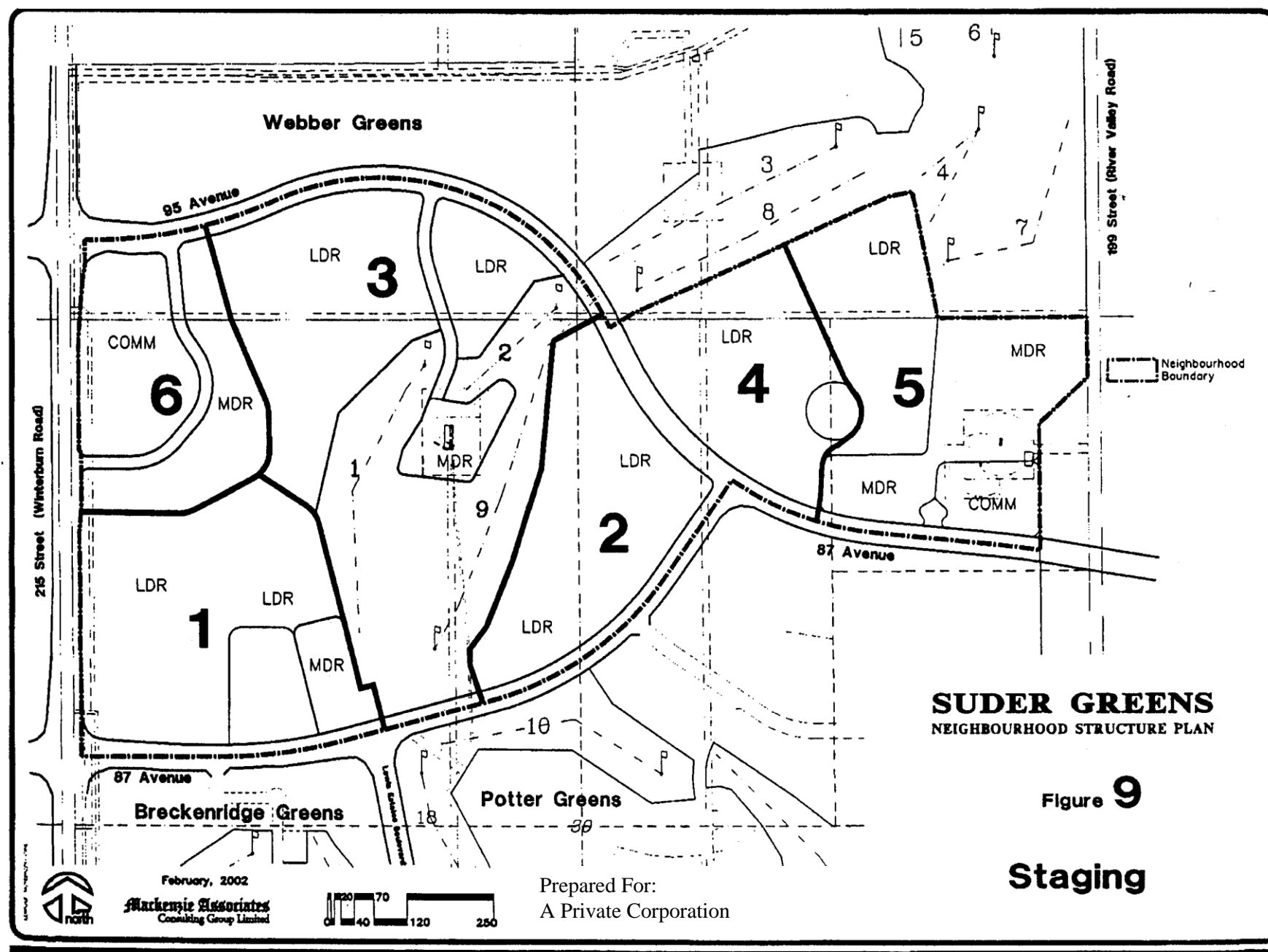
The general staging sequence according to which development is expected to occur within the Plan Area is outlined schematically on **Figure 9 - Staging**. This sequence envisions six basic stages of development to achieve complete development of Suder Greens, a process which is expected to span several years. The first stages of development will consist generally of three residential clusters surrounding Fairways 1, 2, and 9. Future stages will include:

- a) mixed residential and commercial uses north of the *Webber Green Drive (87 Avenue)* arterial (Stages 4 and 5); and
- b) *Medium Density Residential uses within the Community Centre boundary.*

Amended by
Editor

Bylaw 13663
April 7, 2004

Figure 9: Staging [Bylaw 12949, March 12, 2002 (As Amended by Editor)]



Each stage of development will be serviced in accordance with an Infrastructure Performance Criteria (IPC) Residential Servicing Agreement or such other form of Development Agreement that may be appropriate between the City of Edmonton and the developer, and roadway construction will be completed in accordance with prevailing policy established by City Council.

5.3 Subdivision and Rezoning

Development within the Plan Area will take place through successive applications to subdivide and rezone portions of the proposed development area on an orderly, incremental basis. Submission requirements, and approval requirements, for subdivision applications and rezoning applications will be processed in accordance with the adjusted plan approval process described in Appendix B of the approved Lewis Farms A.S.P. document, as amended. This would require, at locations within 100 metres of identified resource facilities (oil and gas wells) documentation of site reclamation in cases where a well has been abandoned, or facility upgrading in cases where a facility will continue to operate, in combination with the screening and landscaping that will be provided to ensure compatibility with adjacent land uses.

5.4 Municipal Reserves

Land will be dedicated as Municipal Reserves to be used for schools and parks in accordance with the Municipal Government Act.

The original Lewis Farms Area Structure Plan assumed that, in calculating the developable area from which 10% would be dedicated for Municipal Reserves, the area proposed for golf course use would be included as land which would be subject to reserves. The Lewis Farms A.S.P. was subsequently amended:

- a) by Bylaw 9390, to incorporate the Potter Greens Neighbourhood Structure Plan (Neighbourhood 1); and
- b) by Bylaw 9925, to incorporate the Breckenridge Greens Neighbourhood Structure Plan (Neighbourhood 2);

and in each amendment the method of calculating Municipal Reserves for golf course lands was modified to postpone golf course lands from Municipal Reserve requirements while used for golf course purposes.

This plan also amends the Lewis Farms A.S.P. (as amended) according to the same principles established for calculating Municipal Reserves in approved Bylaws 9390 and 9925. Because the golf course is constructed in part on lands possessing marginal development potential, and because the golf course serves as a recreational facility for residents of the area, the land area used by the golf course will not be required to dedicate Municipal Reserves when adjacent lands are subdivided for residential use. Future Municipal Reserve requirements that may be attributable to golf course lands will be identified by means of a Deferred Reserve Caveat to be registered on the parcels of land used for the golf course.

The Municipal Reserves that will be dedicated from non-golf course lands within the neighbourhood for local park purposes are estimated to be 2.80 ha., and will be provided in the normal course of subdivision of residential areas in the neighbourhood. The balance of Municipal Reserve dedication will be utilized for school and park requirements within the Lewis Farms A.S.P. area.

Amended by
Editor

Bylaw 14203
December 4,
2006

5.5 ***Community Centre***

The Lewis Farms ASP, as amended, defines a mixed-use Community Centre that will provide a neighbourhood focus and will serve to define the area as a unique and identifiable community within the City of Edmonton. The Suder Greens plan area contains a component of the Community Centre comprised of medium density residential uses. The Lewis Farms Area Structure Plan (ASP)

requires detailed design guidelines for the concentration of higher density housing within the Neighbourhood Structure Plans (NSP's) which include portions of the Community Centre. These guidelines are intended to promote an enhanced level of quality in site design and architecture that is responsive to the individual site, neighbouring residential development, and the overall function of the Community Centre. They will be detailed and implemented through a (DC1) Direct Development Control Provision specific to the site. Applications for development projects within the Suder Greens Community Centre area will be designed in conformance with these guidelines, and correspondingly the City's approval agencies will utilize the guidelines for their deliberations as part of the development review process.

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