

BYLAW 71-2003

A BYLAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING AN AREA STRUCTURE PLAN FOR THE NORTH OF LAKELAND DRIVE AREA.

WHEREAS it is deemed advisable to adopt an Area Structure Plan for the North of Lakeland Drive Area;

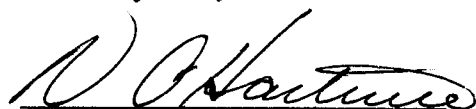
NOW THEREFORE, the Council of Strathcona County, duly assembled pursuant to the authority conferred upon it by the *Municipal Government Act, R.S.A. 2000, c. M-26*, and amendments thereto, enacts as follows:

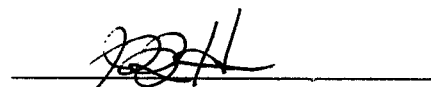
1. That this Bylaw be cited as the "North of Lakeland Drive Area Concept Plan".
2. That Schedule "A" attached hereto is hereby adopted as part of this Bylaw.

Read a first time this 2 day of July, 2003.

Read a second time this 2 day of July, 2003.

Read a third time and finally passed this 2 day of July, 2003.


Mayor


Manager,
Legislative & Legal Services

Date Signed: July 11, 2003

North of Lakeland Drive Area Concept Plan

Prepared by:
Strathcona County
Planning & Development Review Services
2001 Sherwood Drive
Sherwood Park, AB T8A 3W7

In conjunction with:
Earth Tech (Canada) Inc.

July 4, 2003
File # PDRS Admin 4390.59187

North of Lakeland Drive Area Concept Plan

List of Figures	3
1.1 Planning Context for the Concept Plan	4
1.2 Project Objectives	5
1.3 Plan Area Location.....	6
1.4 Current Land Uses.....	6
1.5 Adjacent Land Uses.....	7
2.0 Background Review.....	9
2.1 Relevant County Policy	9
2.2 Provincial and Federal Influences	10
2.3 Other	12
3.0 Transportation and Infrastructure Servicing Issues	13
3.1 Transportation.....	13
3.2 Storm Servicing.....	16
3.3 Sanitary Servicing	17
3.4 Water Services.....	19
4.0 Public Participation	20
4.1 Landowner Interviews	20
4.2 Public Open House #1 - June 19, 2002	21
4.3 Public Open House #2 – June 4, 2003	21
5.0 Opportunities and Constraints	22
5.1 General Plan Area.....	22
5.2 NW Section 12.....	23
5.3 NE Section 12.....	24
5.4 Summerwood (S½ Section 12).....	25
5.5 Section 11 (incl. portion of NW 2).....	25
5.6 SE Section 10 (incl. portion of NE 3).....	27
6.0 Concept Plan Principles & Policies.....	29
6.1 General Urban Development	29
6.2 Natural Areas & Open Space:.....	30
6.3 Transportation Networks.....	31
6.4 Residential Development.....	33
6.5 Residential Urban Village Developments.....	35
6.6 Commercial Development.....	36
6.7 Business/Employment Development	37
6.8 Servicing & Utilities	38
6.9 Urban Design	39
7.0 Land Use Concept.....	42
7.1 Introduction	42
7.2 General Land Use Statistics.....	43
7.3 Residential – Unit and Population Projections at Maximum Density.....	44
8.0 Implementation of the Concept Plan	45
8.1 Municipal Development Plan (Bylaw 38-98).....	45
8.2 Detailed Area Structure Plans & Area Redevelopment Plans.....	45
8.3 Summerwood Area Structure Plan (Bylaw 27-2002).....	46
8.4 Land Use Bylaw (Bylaw 8 – 2001)	46
8.5 Other	46

North of Lakeland Drive Area Concept Plan

List of Figures

Figure 1	Plan Area Location Map
Figure 2	Air Photo
Figure 3	Site Topography
Figure 4	Transportation
Figure 5	Stormwater Management
Figure 6	Sanitary Sewer Servicing
Figure 7	Water Services
Figure 8	Opportunities and Constraints
Figure 9	Land Use Concept

List of Appendices

Appendix 1	Existing Districting - Land Use Bylaw 8-2001 (April 2003)
Appendix 2	1998 Strathcona County Municipal Development Plan Policy Areas - Sherwood Park Urban Services Area (Map 2 of 2)
Appendix 3	Summerwood Area Structure Plan Bylaw 27-2002 - Land Use Concept – Figure 4
Appendix 4	Canadian National Railways - <i>Requirements for Development Adjacent to Principle Mainlines</i> (April 1996)

North of Lakeland Drive Area Concept Plan

1.0 Introduction

1.1 *Planning Context for the Concept Plan*

Identified as a priority in the 2002 Strathcona County Business Plan, County Council directed Administration to prepare an “Area Concept Plan” for the lands lying north of Lakeland Drive, within the Sherwood Park Urban Services Area (**Figure 1**). It was determined that a Concept Plan was needed to provide comprehensive planning, servicing and urban design direction for the entire area and to ensure coordination of development by different landowner’s.

At present, the only policy direction for future development in this area is provided by the Strathcona County Municipal Development Plan (MDP) Bylaw 38-98. However, as the County’s strategic plan, the MDP only provides overall objectives and policies for planning and development in Strathcona County, and a generalized land use framework for the Plan Area. As required by Provincial regulation, subsequent levels of planning and land development must comply with the policies of the MDP. The Area Concept Plan will therefore build upon the objectives and policies of the MDP to provide more “site specific” land use guidelines and principles as well as a conceptual land use plan for the area.

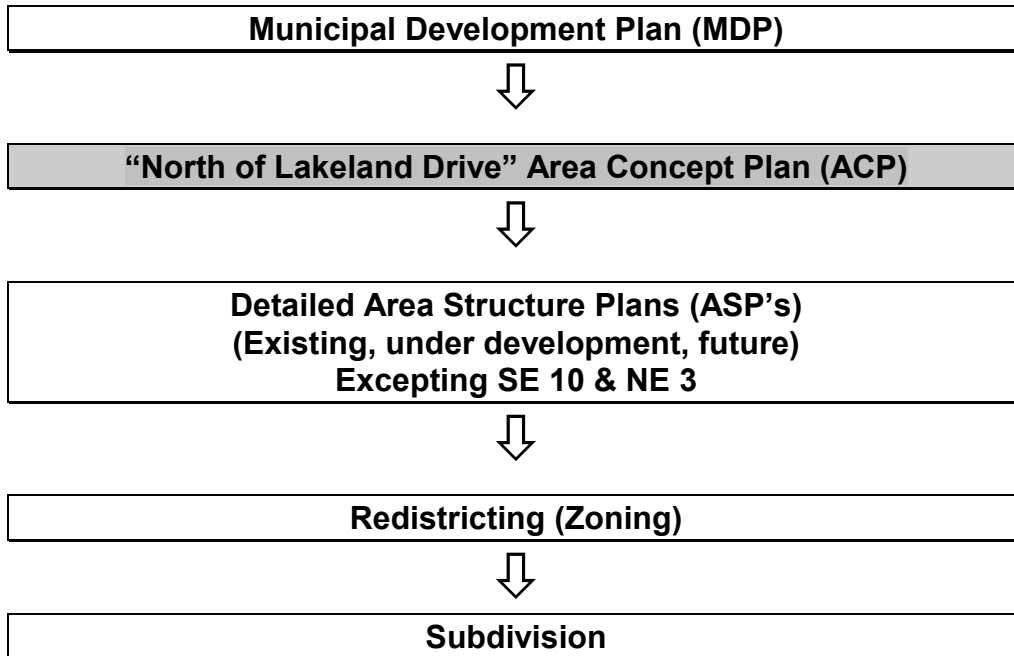
It is the County’s intent that the *North of Lakeland Drive Area Concept Plan* will be a “statutory” planning document, to be approved as an “Area Structure Plan Bylaw” per the requirements of the Municipal Government Act. It will therefore require compliance with the MDP and offer opportunities for public input through a statutory Public Hearing of Strathcona County Council.

This Concept Plan will be used to guide more detailed planning and engineering studies to be completed by area land developers, through preparation of Detailed Area Structure Plans, Redistricting (Zoning) and Subdivision applications.

The MDP also directs that the County prepare a Highway 16 Corridor Study in order to address urban design and operational criteria adjacent to the Yellowhead highway. As the Highway 16 Corridor study will not be completed prior to approval of this Area Concept Plan, this document includes general design statements that will address the aesthetics of public and private lands adjacent to Highway 16.

North of Lakeland Drive Area Concept Plan

Figure 1.



1.2 Project Objectives

The objectives of the Concept Plan project are to:

1. Establish a comprehensive land use, urban design and servicing policy framework for the Plan Area;
2. Promote orderly and economically feasible residential and commercial development;
3. Provide the County with an indication of future development potential and population growth in the Plan Area;
4. Provide a mechanism by which future development planning applications can be assessed and implemented; and
5. Provide more detailed urban design policies for lands located within the Highway 16 Corridor Study Area.

North of Lakeland Drive Area Concept Plan

1.3 Plan Area Location

The North of Lakeland Drive Area Concept Plan encompasses slightly more than two sections of land in the Urban Service Area of Sherwood Park, with an area of ± 550 ha (1359 acres). The lands are generally described as those lying within:

1. Section 11 - Twp 53 - Rge 23 - W4M;
2. Section 12 - Twp 53 - Rge 23 - W4M;
3. A small portion of the remnant of Section 2 - Twp 53 - Rge 23 - W4M is also included in the Plan Area. For the sake of further description, it will be referred to as a portion of Section 11;
4. Southern 80 acres of SE of Section 10 - Twp 53 - Rge 23 - W4M, and;
5. Portion of NE Section 3 - Twp 53 - Rge 23 - W4M, which lies North of the future Lakeland Drive. For the sake of further description, it will be referred to as a portion of SE Section 10.

1.4 Current Land Uses

An aerial photo of the Plan Area is presented as **Figure 2**.

The topography of the area is shown in **Figure 3**.

The majority of the Plan Area is rolling agricultural land that is currently being cultivated. A number of smaller tree stands, wetlands and drainage courses are distributed across the land. A few small farmsteads and associated shelterbelt tree stands also remain.

The Canadian National Railway (CNR) mainline runs diagonally through the NE quarter of Section 12. A high pressure ATCO gas line runs N-S through the middle of Section 11. A sanitary sewer line runs E-W through the N $\frac{1}{2}$ of Section 11.

The NW quarter of Section 12 has been subdivided and developed as two manufactured housing developments; Lakeland Village and Jubilee Landing. Approximately 700 residential housing units are planned for the two projects. A small 0.5 ha commercial development with convenience store, gas bar and restaurant/lounge currently exists adjacent to Clover Bar Road, at the entrance to Lakeland Village. Two vacant parcels identified as Highway 16 Commercial Policy Area in the Municipal Development Plan lie to the north and east of the existing convenience store site.

On the SW corner of NW 12 is a small ± 1.0 ha country residential lot, developed as a residence with a related family business.

North of Lakeland Drive Area Concept Plan

A small ATCO gate station sits in the NE corner of NW 12, adjacent to Highway 16.

A portion of SE 10 is developed for outdoor recreational uses as Centennial Park.

The remainder of SE 10 and the portion of Section 3 within the Plan area are currently undeveloped.

1.5 Adjacent Land Uses

The Plan Area is primarily bounded by highways or arterial roads as follows:

- North** – Highway 16, which is planned as a major 6-10 lane Provincial Highway adjacent to the Plan Area;
- East** – Highway 21, which is planned as a 4 lane Provincial Highway adjacent to the Plan Area;
- South** – Future Lakeland Drive, a planned 4 lane arterial roadway; and
- West** – Sherwood Drive, currently a 2 lane arterial roadway with plans for 4 lanes.

A small portion of the Plan area lies West of Sherwood Drive. These lands are surrounded by the following adjacent uses:

- North** – The remainder of SE 10 consists of 2, 16 ha (40 acre) parcels. The northern of these two parcels contains a residence;
- East** – Business, commercial and recreational uses including Millennium Place; and
- South** – Currently undeveloped.

Clover Bar Road generally bisects the Plan Area, running in a north-south direction.

To the north of Highway 16 are the existing and future commercial and industrial land uses in the Yellowhead North Industrial Area within the Urban Service Area. An Area Concept Plan for this industrial district is under development.

To the east of Highway 21 lie lands outside the Sherwood Park Urban Service Area. They have been developed for country residential development and small rural holdings.

To the south of future Lakeland Drive, lie the existing residential neighbourhoods of Cloverbar Ranch, Lakeland Ridge, Davidson Creek and Clarkdale Meadows.

North of Lakeland Drive Area Concept Plan

These neighbourhoods have been, or are currently being developed for predominately single family homes. A medium-density multi-family site also lies adjacent to the Study Area at the eastern edge of the Clarkdale Meadows neighbourhood.

North of Lakeland Drive Area Concept Plan

2.0 Background Review

2.1 Relevant County Policy

2.1.1 **Strathcona County Municipal Development Plan (Bylaw No. 38-98)**

The Municipal Development Plan (MDP) is the County's primary strategic land use planning document, providing high level land use, development, economic development, social and servicing policy direction for Strathcona County. The MDP acknowledges the community's goals for future development in the County and Sherwood Park. The MDP document presents background information, assumptions, planning objectives and general policies, which serve to guide the more detailed analysis and development of land use and servicing principles within the Concept Plan area. It also includes a generalized land use plan for the Urban Service Area of Sherwood Park, which is included in **Appendix 2**.

2.1.2 **Summerwood Area Structure Plan – Qualico Developments (Bylaw No. 27-2002)**

The *Summerwood Area Structure Plan* was approved in April 2002, in advance of this *North of Lakeland Drive Area Concept Plan*. The Plan, prepared on behalf of Qualico, covers the south half of Section 12 and a small portion of SE 11, east of Clover Bar Road. The approved ASP provides general land use allocations, land use and population statistics for the Summerwood Area. (See **Appendix 3**)

Given that the Summerwood ASP was approved prior to the Area Concept Plan, the text of Summerwood ASP has recognized that any planning principles and recommendations of the ACP will take precedence over those in the ASP. Any changes to the Summerwood ASP as a result of finalizing the North of Lakeland Drive Area Concept Plan could require a subsequent amendment to the Summerwood ASP, to ensure compatibility within the hierarchy of statutory plans.

2.1.3 **Current Land Use and Planning Approvals in NW 12**

The Concept Plan recognizes existing uses as well as the planning approvals and development rights afforded landowners by the current MDP direction and zoning. These uses and approvals are assumed to remain within the Plan Area. Most of NW Section 12 has received planning approvals and has been partially constructed as two comprehensive manufactured housing developments. It is currently zoned for manufactured housing with additional approvals for the existing commercial adjacent to Clover Bar Road. A small parcel has also been developed for a home and business under the County's AD - Agriculture Future Development District.

North of Lakeland Drive Area Concept Plan

Two lots identified in the MDP as Highway 16 Commercial Policy Area lie north of the manufactured housing developments, adjacent to the Highway. They are currently zoned AD - Agriculture Future Development District. These lots will, more or less, be required for future highway widening. Until the time they are acquired for highway purposes, limited commercial development may be permitted under the AD District.

Heavy Industrial Risk Overlay (IRO)

Strathcona County is currently working on a reciprocal development risk assessment overlay to be implemented through the Land Use Bylaw for all developments within 3 km of heavy industry located within County boundaries. A portion of the North of Lakeland Drive Area Concept Plan area is within 3 km of heavy industry and once the IRO Overlay is adopted as an amendment to the Land Use Bylaw, the requirements of the IRO will apply to subsequent development applications within the 3km zone.

In addition to the above policy documents there are a number of technical documents and studies relative to infrastructure, transportation and environmental management which influence future planning and development in the Plan Area. These include:

- Transportation Study 2000, (Stantec);
- Sherwood Park Master Drainage Plan (Stantec, 2000);
- Strathcona County Water Servicing Study (Stantec, 2002);
- Ecological Assessment of Remaining Habitat Patches in the Undeveloped Lands within the Urban Services Area of Sherwood Park North of Baseline Road, (Stantec, 2000);
- Strathcona County Engineering Servicing Standards (1998);
- Strathcona County Open Space Development Standards (2002);
- North of Baseline Road (Stantec, 2000); and
- Functional Plan for Lakeland Drive (Stantec, 2002).

2.2 *Provincial and Federal Influences*

Provincial and National level policies and operations also influence development in the Plan Area. Federal and Provincial government departments as well as the Canadian National Railway were contacted to identify and understand their current plans, operations, planning requirements and/or concerns with urban development in this part of Sherwood Park.

Department of National Defense – Edmonton Garrison Heliport Zoning Regulations

The Department of National Defense is in the process of amending the Aeronautics Act to incorporate the Edmonton Garrison Heliport Zoning

North of Lakeland Drive Area Concept Plan

Regulations. These regulations, in the interest of flight safety and navigation, limit construction of buildings and other structures to heights which will not constitute a hazard in the vicinity of the heliport or to the visual and instrument approach paths around the heliport. In addition, any developments that may increase the attraction of waterfowl will be discouraged. A small portion of the Area Concept Plan area falls within the Edmonton Garrison Heliport Zoning Regulations, as shown in **Figure 8**. All plans for development within this zone must be referred to the Department of National Defense for comment.

2.2.2 Alberta Transportation

Provincial Highways 16 and 21 flank the north and eastern boundaries of the Plan Area, respectively. As such, Alberta Transportation retains a degree of influence over lands within 800m of these Highways. Alberta Transportation also restricts all access and egress to the Highways from adjacent lands, controls arterial roadway access points within 400 m of highway interchanges and controls directional and commercial signage adjacent to highways.

Alberta Transportation has been contacted and advises that no new accesses will be provided from Highway 16 and 21. The existing intersection with Sherwood Drive will ultimately be developed as an interchange, though no timing has been provided. Highway widening along the south side of Highway 16 will also be required, as shown in **Figure 4**. The new Highway 16 right-of-way boundary is in accordance with the Highway 16 Functional Planning Study, and will allow for interchange construction at Sherwood Drive, and interchange improvements at Clover Bar Road.

The long-term access to Highway 21 is via the intersection of Lakeland Drive and Highway 21. The existing service road and intersection on the west side of Highway 21 will be removed as part of the residential development in SE 12, with access to NE 12 being gained through the internal collector roadway network.

2.2.3 Alberta Environmental Protection

Alberta Environmental Protection (AEP) is responsible for reviewing stormwater management plans for newly developing urban areas, to ensure that stormwater discharge meets the flow rates and water quality regulations. AEP will review more detailed stormwater management reports provided by the developers in the Plan Area at the time of Detailed Area Structure Plan preparation, and ensure that proposed systems, ponds and wetlands are acceptable.

2.2.4 Canadian National Railway

The CN Railway is a significant transportation corridor in NE 12, with operations mandated and ensured through federal legislation. CN has been contacted with regards to this planning process and has indicated that the rail line through this area is a "Principle Main Line" of national significance, providing rail service to the Wainwright Subdivision east of Sherwood Park and to points beyond.

North of Lakeland Drive Area Concept Plan

Approximately 20 trains a day operate on this mainline carrying a variety of freight, liquids and heavy rail products.

CN has expressed that the development within the Plan Area, and especially within NE 12, be sufficiently buffered and separated from the rail operation. CN has developed design “requirements” for development adjacent to its Principle Mainlines. These are included in **Appendix 4**.

2.3 Other

In addition to these technical studies, this Area Concept Plan also reviewed the results of a comprehensive public survey of Strathcona County residents, known as **Community Consultation 2002**. This survey asked fundamental questions about the nature of development within the County. Many of the findings of this survey have been incorporated into the principles and policies of this Area Concept Plan.

North of Lakeland Drive Area Concept Plan

3.0 Transportation and Infrastructure Servicing Issues

3.1 *Transportation*

This section provides an assessment and identification of issues relating to transportation and municipal servicing of the Plan Area.

A plan relating to transportation issues is included as **Figure 4**.

3.1.1 *Provincial Highways*

The following are a list of the Provincial Highways to be taken into consideration in the Plan Area:

1. Highway 21 runs north-south along the east boundary of the Plan Area and connects with Highway 16 by way of a cloverleaf interchange;
2. Highway 16 runs east-west along the north edge of the Plan Area;
3. Both Highway 16 and Highway 21 are slated for further expansion and improvement in future; and
4. Improvements to Highways 21 and 16 will require property from the eastern and northern edges of the Plan Area.

3.1.2 *Arterial Roadways*

The following are a list of issues relating to arterial roadways in the Plan Area:

1. Sherwood Drive is ultimately planned as a four lane, divided arterial, with the provision, if required, to be expanded to a six lane divided arterial roadway. Sherwood Drive, currently at two lanes, runs north-south within the Plan Area and provides a connection to Highway 16. At present the connection with Highway 16 is a right-in / right-out interchange. Ultimately, the Province plans for a diamond interchange at this location to provide westbound access to and from Sherwood Drive.
2. Clover Bar Road is ultimately planned as a four lane, divided arterial on a 50 m right-of-way. Clover Bar Road is currently a 40 m right-of-way with two lanes running north-south through the middle of the Plan Area. It connects with Highway 16 by way of an interchange.
3. Lakeland Drive is ultimately planned as a four lane, divided arterial on a 50 m right-of-way, running east-west between Broadmoor Boulevard and Highway 21. It is currently undeveloped. A functional plan for Lakeland Drive was completed by the County in 2002, establishing right-of-way requirements, number of drive lanes, restricting the number of collector roadway all directional access locations and established finished roadway grades. Development demands and recommendations of this Concept will impact the Functional Plan for Lakeland Drive.

North of Lakeland Drive Area Concept Plan

4. Pedestrian and bicycle trails are planned for, or have been developed within, the arterial roadway rights-of-way. These include the Trans Canada Trail and Heritage Parkway Trail system linking to areas north and west of the Plan Area.

3.1.3 Collector Roadways

A preliminary network of collector roadways has been developed for portions of the Plan Area through previous and ongoing neighbourhood planning efforts undertaken by Qualico (Summerwood S½, Section 12) and Genstar for Section 11.

1. Some concern has been expressed that the collector roadway network plans developed thus far by the private developers suggest a potential for overloading. The number of collector/ arterial intersections appears to be insufficient, particularly in the eastern portion of the Plan Area (Summerwood, S½, Section 12), where access to the major roadway network is restricted to Clover Bar Road and Lakeland Drive.

Special attention needs to be paid to the design of collector/arterial intersections to ensure that adequate channelization is provided to satisfy capacity requirements. A maximum of 5000 vehicle trips per day is recommended on collector roadways serving residential neighbourhoods. This figure is recognized as the “environmental capacity” of the roadway, which triggers resident’s complaints about traffic volumes, noise and safety concerns. The restricted access and egress from the Summerwood neighbourhood in particular, may generate vehicle trips in excess of this recommended amount.

2. With residential development already existing in NW 12, there is concern with the lack of opportunity to develop a collector roadway connection between Clover Bar Road and NE 12. The long term potential for such a collector connection should be explored with landowners in NW 12.
3. A proposed collector roadway network has been developed and is illustrated in **Figure 4**. The Traffic Impact Assessment for Summerwood indicates the need for double-left turns at the intersections of Clover Bar Road and Lakeland Drive, and at Clover Bar Road and Summerwood Boulevard. Strathcona County also anticipates the need for double left turns being required at Sherwood Drive and Lakeland Drive, as well as at the remaining major collector to arterial intersections. At the time of finalizing land uses through preparation of Detailed Area Structure Plans, an analysis and design of the collector roadway network will need to be provided, including intersection designs that may include roundabouts and other traffic calming features.

North of Lakeland Drive Area Concept Plan

3.1.4 Access

There are a number of existing access points on Highway 21, Clover Bar Road and Sherwood Drive which provide access to existing land uses and will need to be accommodated or replaced.

1. The Province of Alberta states that the existing access to Highway 21 serving NE 12 will have to be relocated southward to Lakeland Drive, as they will not permit access to Highway 21, between Highway 16 and Lakeland Drive in future.
2. On Clover Bar Road, there are five (5) existing access points serving existing land uses in NE11 and NW12. Four of the five accesses serve the areas east of Clover Bar Road including the residential areas, the Highway 16 service road and the existing country residential parcel (Lot B). The accesses to the manufactured home developments can likely be maintained and logically integrated with new developments in the plan area. The access to the Highway 16 service road, however, will need to be consolidated with the Lakeland Village access. Access to the country residential parcel will need to be consolidated with either the Jubilee Landing access or the proposed multi-family developments to the south in Summerwood.
3. At present, the eastern portions of Jubilee Landing (Lots 3A and 3B) are not fully developed. It is intended that they will access Clover Bar Road via a private collector roadway. When these lands do fully build out, there is a question as to how traffic is to be managed. An existing internal roadway link with Lakeland Village has been barricaded, due to separate ownership of the two developments. However, once Jubilee is fully developed, it may be advantageous to reconnect the two internal roadway systems to provide better access for all residents in NW 12. Discussions with the two park owners should be pursued to facilitate this connection as well as a connection to NE12.
4. Along Sherwood Drive, there are seven (7) existing access points. Four (4) of the existing accesses serve land uses west of Sherwood Drive. One collector road access east of Sherwood Drive will have to align with the northern access to Centennial Park. All these existing accesses will need to be rationalized with a roadway/access concept for Sherwood Drive. A Functional Plan for Sherwood Drive does not currently exist.
5. The developers in this Plan Area are proposing a number of community commercial sites. The viability of these commercial sites will depend on the provision and availability of all-directional access on at least one of the abutting arterial roadways. A number of the proposed commercial sites are located at a corner of arterial intersections; all-directional access to these sites would therefore be located some distance from the arterial/arterial intersection. In the absence of detailed site plans and traffic impact assessments for the commercial sites, it is recommended

North of Lakeland Drive Area Concept Plan

that all directional, non-signalized access to commercial sites should be no closer than 200 m from the nearest arterial/arterial or arterial/collector intersection. The location of permitted all-directional accesses will govern the dimensions/depth of these commercial sites.

3.2 Storm Servicing

A detailed assessment of the stormwater management of the western portion of the Plan Area (lands west of Clover Bar Road) has been done as part of the **NW Sherwood Park Master Drainage Plan (Stantec, 2000)**. There is no existing stormwater plan for the land east of Clover Bar Road. Qualico developments are currently preparing a Master Drainage Plan for the future Summerwood community in the south half of Section 12. **(Figure 5)**

1. The NW Sherwood Park Master Drainage Plan suggests that two stormwater management facilities (SWMF) are required in Section 11, one servicing the residential areas, and one servicing the highway commercial area.

The discharge point for both of these SWMF's would be to the northwest, to a culvert that crosses Highway 16 and empties into "Unnamed Creek." This culvert will need upgrading to accommodate future stormwater flows. The report identified that the upgrading be done by Alberta Transportation when the interchange at Highway 16 and Sherwood Drive is constructed. If development in the area precedes the interchange construction, the developer would need to complete the upgrading. The Master Drainage Plan states that the established allowable release rate for the developed basin is 4.1 l/s/ha.

The Master Drainage Plan also recommends implementing erosion protection measures for the downstream reaches of this drainage pathway to correct the existing and anticipated future erosion problems.

An existing drainage channel flows through Section 11 and carries controlled outflow from an existing stormwater management pond in Clover Bar Ranch. Stormwater flows from this pond are restricted with a 525mm pipe and control up to approximately a 1 in 25 year storm. As well, it is likely that controlled stormwater from the east half of section 2-53-23-4 will flow through this area. The proposed SWMF in section 11 will need to be oversized to accommodate stormwater flows from all areas contributing to the pond and have a maximum release rate of 4.1 l/s/ha.

Some of the area in NE 11 will have to drain to the northeast due to topographic constraints. It will cross Highway 16 via an existing culvert on the eastside of Clover Bar Road and enter Davidson Creek, Oldman Creek and ultimately the North Saskatchewan River. Detailed investigation will need to be done at the Detailed Area Structure Plan stage to determine pond-sizing requirements for this small basin and discharge routing.

North of Lakeland Drive Area Concept Plan

2. Very little stormwater planning or analysis has been done for the lands east of Clover Bar Road. The existing development in NW 12 is served by a SWMF on the Lakeland Village site. This wet pond serves the Lakeland Village, and the Jubilee Landing sites. The outlet from this pond to the small creek, which flows north through the site, is controlled at a culvert.

Qualico Developments has an approved Area Structure Plan for the Summerwood neighborhood, which includes a large SWMF that will ultimately discharge via Davidson Creek to Oldman Creek, and to the North Saskatchewan River. According to topographic information, this appears to be the existing condition for pre-development flows.

3. The NE 12 will require a SWMF in the far NE corner of the property, due to the general topography of the site. It is proposed that this SWMF be located northeast of the CN rail line, as access for other forms of development would not be permitted. As Alberta Transportation has identified this isolated parcel for highway widening purposes, discussions with the Province will need to confirm the availability of the land for SWMF purposes. This SWMF could be oversized to provide storage for other areas as well as accommodating lands required for the railway, highway and interchange purposes.
4. The SE 10 slopes to the NE. A large storm pond as identified in **Figure 5** will be required. Additional storm pond(s) may be required to accommodate any development proposed on the site. All storm water will have to be directed to the drainage channel, which runs adjacent to Sherwood Drive to a culvert that crosses Highway 16 and empties into "Unnamed Creek."

3.3 Sanitary Servicing

Sanitary Servicing for the Plan Area is readily available as the lands lie within the basin serviced by the Northeast, Central and the North Trunk sewer lines, as shown in **Figure 6**. This basin is approximately 30 percent developed at this time. The Northeast Trunk lies within Clover Bar Road and runs north to Lakeland Village Mobile Home Park, and then turns west to cross Section 11 before joining with the Central Trunk at Sherwood Drive.

1. The Central Trunk generally follows the Sherwood Drive right-of-way, though it does swing into Section 10 and Section 11 north of Lakeland Drive. The North Trunk picks up the flows from the Northeast and Central Trunks, and drains north along the extension of Sherwood Drive (north of Highway 16) to tie-in to the Southeast Regional Trunk Sewer (SERTS), which discharges to the Alberta Capital Region Wastewater Treatment Plant (ACRWWTP).
2. The designated Northeast Trunk service basin includes the majority of the Plan Area, except for the SW 11.
3. The North Trunk serves as the off-site trunk for the entire area.

North of Lakeland Drive Area Concept Plan

Capacity analyses of the Northeast, Central, and North Trunks were provided in the following recent studies:

- *Southeast Urban Fringe Area Sanitary Servicing Study* – Cochrane Engineering, May 1997 (Northeast Trunk).
- *Southwest Sherwood Park Sanitary Servicing Study* – Infrastructure Systems Ltd., January 2001 (Central and North Trunks).
- *North/Northeast/Central Sanitary Trunk Assessment* – ISL Infrastructure Systems Ltd., August 2002.

The first two studies noted capacity constraints in the existing trunks under wet weather conditions, for servicing full development of the basin. High sewer flows during rainfall events are the result of excessive infiltration and inflow from the existing development in the upper basin areas. Strathcona County has embarked on an effort to identify the sources and reduce the amount of those extraneous flows. Part of this effort involves ongoing flow monitoring to better quantify the actual flows in the system.

The studies also discussed an opportunity to implement infiltration and inflow reduction measures, before any upgrading of the existing trunks is needed. Continuous flow monitoring of the system flows will indicate when, and to what extent, trunk upgrades will be required.

There are also indications that, due to their depth, the existing trunks may be able to take some temporary surcharging, and thus can accept flows in excess of their pipe-full capacities, without compromising the risk of flooding basements. These options were not looked at in-depth because they were out of the scope of the studies, and would require significant hydraulic modeling.

The latest study from ISL analyzed the existing capacity of the North, Northeast, and Central trunks based on the design criteria for the County. Design criteria included:

- Sanitary flow generation – 375 l/person/day
- Commercial flow generation – 18 m³/ha/day
- Peaking factor for residential areas – min of 3.0
- Peaking factor for commercial/industrial/light industrial – $Q=10*Q_{avg}^{-0.45}$
- Infiltration – 0.5 l/s/ha
- Flow to be conveyed at a depth of 80%

This ISL study has identified that by 2004, based on the current County standards, growth will necessitate a significant amount of upgrading to the system to accommodate the additional sanitary flows. The study also indicated that there is very little capacity left in the system based on current development levels. The study identified that, to meet County standards, a large portion of trunk lines would need to be twinned to accommodate the projected development in this area.

North of Lakeland Drive Area Concept Plan

Unless future studies of the Northeast, North, and Central Trunks uncover alternatives not discussed in previous studies, any proposed development in the North of Lakeland Drive Concept Plan Area will require trunk upgrading as identified in ISL's latest assessment.

The topography of the lands within the Plan Area generally falls to the northwest, therefore conducive to flow interception by the existing trunks. An exception is the NE12, which falls to the northeast. With some filling of the low-lying portions of the area adjacent to the CN rail line, in the order of two to three metres, this area may connect to the Northeast Trunk via a gravity sewer installed across the NW 12, through the remnant land between Lakeland Village and Highway 16.

Alternatively, an interim or permanent lift station could service the NE 12, pumping south to Summerwood when the sewer system of that area has been constructed. However, the impact on pipe sizing in Summerwood to allow for sanitary flows from NE 12 would need to be examined prior to the first phase of Summerwood development. Given the lack of development desires from the existing landowners in NE 12, protection of a long-term easement is recommended, to allow Summerwood to proceed.

3.4 Water Services

Stantec completed a detailed analysis of the water system for the Sherwood Park and surrounding area under the title of "**Strathcona County Water Servicing Study, 2002.**"

The recommended ultimate water transmission and supply system for the Plan area is shown on **Figure 7**.

The largest percentage of residential growth anticipated for Sherwood Park is within the Concept Plan area. As residential developments expand North of Lakeland Drive and East of Sherwood Drive these areas can initially be serviced from the existing 600mm Water Transmission Main on Clover Bar Road. However, the first stages of the Clover Bar Water Transmission Main from Lakeland Drive North to Highway 16 will be required to support development adjacent to Clover Bar Road. This connection to the existing 300 mm main near Lakeland Village will complete a major transmission loop extending through the City of Edmonton and along Broadmoor Boulevard.

Subsequent development along Sherwood Drive will require the construction of the first stage of the 600mm Lakeland Drive water transmission main and the 450 mm Sherwood Drive transmission main.

North of Lakeland Drive Area Concept Plan

4.0 Public Participation

4.1 Landowner Interviews

Earth Tech carried out detailed interviews with major landowners within the Plan Area in order to gain an understanding of the following issues:

- Specific information relating to individual parcels that could impact the Area Concept Plan;
- Individual owners development aspirations and timing;
- Landowner concerns with other existing and proposed developments in the Plan Area; and
- Land owner desires for the Area Concept Plan and Implementation.

Given the level of development activity to date in the area and known plans of developers and landowners in both Sections 11 and 12, it was felt that knowledge of these landowner aspirations would be critical to providing an understanding of current housing and commercial markets in Sherwood Park. These developers had also undertaken a significant amount of technical review relating to storm water management and provisions of other utility services in the area. It was determined that their local knowledge would assist in development of design principles, policies and a land use plan which was realistic.

A summary of key issues identified through the landowner interviews is provided below.

Key Issues from the Landowner Interviews

- Desire for current businesses and farms to remain as viable operations, with opportunities to expand in future.
- Desire for an integration of the Lakeland Village/Jubilee Landing residential communities with developments in the rest of the Plan Area and Sherwood Park.
- Recognition that a lot of planning and design have already been completed by developers and that their development plans should be considered in the development of the Concept Plan.
- Desire for the Concept Plan to provide general planning principles and a development framework for the Plan Area, but allow land owners flexibility to design and develop individual communities which respond to future market needs.
- Desire for the Concept Plan to provide a comprehensive servicing review for the entire Plan Area and indicate significant or costly constraints to development.

North of Lakeland Drive Area Concept Plan

4.2 Public Open House #1 - June 19, 2002

A public open house for the North of Lakeland Drive Area Concept Plan was held on Wednesday, June 19, 2002 from 5:00 p.m. to 8:00 p.m. The event was publicized by advertising in two local Strathcona County newspapers; Strathcona County This Week and the Sherwood Park News. A notice was also mailed to the landowners, businesses, and organizations in the Plan Area to invite them to drop in during a pre-open house session from 2:00 p.m. to 4:30 p.m. Four landowners attended the pre-open house session and 25 people attended the public open house.

4.2.1 Summary of Issues

Relating to the Development Principles, responses from the public who attended the Open House, a predominant amount of respondents stated that the Principles either “Mostly Addressed” or “Did Not Address” their individual vision for the type of urban development they desire to see in the area. Specific comments included:

1. Support for principle of retaining or re-integrating natural areas, but distrust as to whether this could occur.
2. Concern over traffic that will be generated from the Plan Area and impacts on existing communities and roadways south of Lakeland Drive.
3. Concern over the proposed mixed residential communities that could develop and a desire for single-family housing. Some concerns about laned residential and apartment sites.
4. Concern about lack of school sites identified in the Concept Plan and ultimately how and when schools across Sherwood Park would be built.

Of the developers and landowners who attended, there were different concerns expressed or ideas provided:

1. Concern that the individual landowner be able to control the right to maintain existing business uses or plan for new development opportunities.
2. There was concern that some of the development principles were too prescriptive for this level of Plan and that such principles should not be presented until more detailed planning and analysis was undertaken at the detailed ASP, Traffic Impact Assessment, subdivision approval or development permit stage.

4.3 Public Open House #2 – June 4, 2003

A second Open House was held to confirm the principles outlined in the Concept Plan and present the recommended development concept for the Plan area. 23 people attended this meeting and there was general support for the development principles and the land use concept.

North of Lakeland Drive Area Concept Plan

5.0 Opportunities and Constraints

The review of existing municipal policies, servicing studies, interviews with land owners, other stakeholders and comments received from the June 19, 2002 Open House have identified a number of development opportunities and constraints for the lands within the Plan Area.

These Opportunities and Constraints are identified below and shown in **Figure 8**.

5.1 General Plan Area

Constraints

Highway 16 and 21 - prohibit access to neighbourhoods and limit access along existing arterial roadways. Future Highway widening needs will remove developable land along the south side of Highway 16.

Arterial Roadways - Arterial roadway and access locations to collector roadways are limited by current Functional Plans and acceptable intersection separation limits.

Existing Mobile home developments - preclude comprehensive land use and access planning especially for NE12. The County to investigate options to provide access from NE 12 to Clover Bar Road including a service road connection north of Lakeland Village Manufactured Home Park.

Opportunities

Land size - The large, relatively un-fragmented, undeveloped tracts with few owners provides good opportunity to provide a comprehensively planned urban community in the last major developable area of Sherwood Park.

Ownership - Major owners are developers motivated to design and build comprehensively designed communities.

Adjacency to Existing Infrastructure and Services - Existing water, sanitary lines and arterial roadways allow for efficient and cost effective extension of services. New development will not be “leap frogging”.

Open Space - Opportunities for comprehensive open space planning, linkages within community and to major regional amenities such as Centennial Park, Millennium Place, Trans-Canada Trail, Heritage Parkway Trail and existing residential communities to the south.

Access - Three arterial roadways within the Plan Area provide good access and connections to Sherwood Park and regional highways.

North of Lakeland Drive Area Concept Plan

Topography - Topography is generally favourable for urban development, as there are no severe slopes or unstable lands.

Natural Areas - Some significant and sustainable natural areas can be incorporated into the Plan's open space system.

Highway 16 Corridor - Given that a majority of land adjacent to highway 16 has not been developed, there is opportunity to create comprehensive design guidelines to ensure that new developments present a high standard of urban design and landscaping at this major gateway to Sherwood Park and Strathcona County.

5.2 NW Section 12

Constraints

Existing Accesses - There are four (4) access points to Clover Bar Road at non-standard intervals.

Highway Widening - Highway 16 widening will remove most of highway commercial frontage and eliminate the existing vacant commercial property from development possibilities.

Service Road Elimination - Current access to NE 12, the existing commercial site, and the ATCO facility will eventually be removed due to future Highway 16 right-of-way requirements. The impacts of this closure need to be understood and options reviewed.

Existing Development - Lakeland Village and Jubilee Landing Manufactured Home Parks are essentially planned and developed. The two developments consist of approximately 650 to 700 low-density manufactured homes. A connection between the two subdivisions needs to be established. No real opportunity currently exists to establish a collector road access through the site to NE 12.

Country Residential Site - Access to this parcel is restricted and isolated from both Jubilee Landing and Summerwood.

Opportunities

Intersection Consolidation - There is opportunity to consolidate the four existing accesses to minimize intersections on Clover Bar Road. The small wedge of road right-of-way adjacent to the country residential lot should be used in providing a common access to that lot and Jubilee Landing to the North.

North of Lakeland Drive Area Concept Plan

Low Density Development in NW 12 - is essentially a “final land use” (no intention of intensification). Unused density could be spread to other lands in the Plan Area to support municipal goals and overall housing densities.

Stormwater Management - An existing system is in place for this area, with the opportunity to direct some of Jubilee’s new development flows south to the Summerwood pond.

Existing Country Residential Site - The location of this parcel relative to the creek, Clover Bar Road, the proposed multi-family site in Summerwood and the Stormwater facility is conducive to the future development of a multi-family development on this site.

Commercial Redevelopment - There is an opportunity to redevelop this site and intensify commercial uses on vacant property over the long term, with market support from increased traffic generated by the completion of the manufactured housing developments and proposed multi-family uses in Summerwood and Section 11.

5.3 NE Section 12

Constraints

Access Restrictions - Access to Highways 16 or 21 will not be allowed. Access is limited to two (2) collector roadways via Summerwood. The existing and future service road access to the east will be removed once access is available from Summerwood. The existing service road adjacent to Highway 16 will be lost to highway widening.

CN Rail - The location of this secondary main line limits access across it. This area is not compatible for residential development unless greater setbacks, berms and noise attenuation strategies are incorporated. The land slopes upward from a raised track so noise and vibration impacts could be even greater. CN operations estimate traffic at 20+ heavy rail trips per day, carrying noxious liquids, wood, coal, automobiles and VIA passenger service.

Sanitary Servicing - The topography prevents gravity connection to the Summerwood sanitary sewer lines. A lift station from NE 12 will be necessary. Alternatively, gravity feed potential is available via a dedicated sanitary line to Clover Bar Road. An easement along the north side of Lakeland Village will need to be protected for this purpose. Both are costly solutions to service the NE 12.

Owners are not developers - The current landowners wish to continue farming their land in the near term. Conflicts between continued farming operation and new residential development might result as Summerwood develops out and Jubilee Landing is completed.

North of Lakeland Drive Area Concept Plan

Opportunities

Residential - Opportunities exist to expand the manufactured home development to the East – subject to confirmation of sanitary sewer service, sufficient access etc. A detailed ASP will be required.

Other Land Use -The potential exists for non-residential uses in the northern portion of property adjacent to the CN main line. This could include a SWMF east of the CN tracks and outdoor storage/maintenance depot/industrial uses west of the tracks. However, access to any storage or industrial areas is not appropriate through residential communities, and alternate access via a highway service road would be required. This may be difficult to achieve given the Highway 16 road widening requirements. Further exploration through the preparation of a detailed ASP will be required.

5.4 Summerwood (S½ Section 12)

Constraints

Approved ASP - Statutory ASP document approved in 2002. The developer is currently preparing detailed subdivision design & servicing in accordance with the approved ASP.

Transportation System - Collector locations, intersection alignments and overall traffic volumes within this portion of the Concept Plan Area may be difficult to reassess.

Opportunities

Approved ASP - The Summerwood ASP incorporated much of the County's policies regarding retention of natural areas, open space linkages, nodes, SWMF, neighbourhood theming, urban design etc.

Community Commercial - Commercial areas at the intersections of Lakeland Drive and Cloverbar Road should be of a community scale and cater to local retail needs and designed to integrate with existing and future residential uses within the Plan area.

5.5 Section 11 (incl. portion of NW 2)

Constraints

Heavy Industrial Setback Zone from City of Edmonton - approximately ¼ of Section 11 lies within 1.5 km (of existing Heavy Industrial development) and 3.0 km (from vacant lands zoned for Heavy Industrial purposes) within the City of Edmonton.

North of Lakeland Drive Area Concept Plan

DND Heliport Zone - approximately ½ of Section 11 and a portion of Section 10 lies within the Edmonton Garrison Heliport Zoning Regulation which limits building height and any increased waterfowl hazard. SWMF's may have to be constructed minimize attraction of waterfowl.

Stormwater management - There is an existing wetland at Sherwood Drive, draining northward through the road ditch and dispersed drainage channels flowing to the northwest and northeast.

Existing Stormwater from Clover Bar Ranch - Stormwater flows from Clover Bar Ranch, in excess of 1:25 year events, will need to be managed on Section 11. This will increase the volumes and land requirements for stormwater management in Section 11.

Pipeline rights-of-way - Existing gas and sewer pipelines if not relocated must be incorporated into neighbourhood design. This places limitations on roadway design, crossing angles and setbacks for housing.

Land Use - A large portion of Section 11 is identified for non-residential uses, given the constraints of the Heavy Industrial setbacks. Integration and/or buffering between the commercial and business uses and residential areas will be required.

Opportunities

Stormwater Management - Opportunities exist for retention and integration of existing wetlands, linear drainage and pipelines as greenways in neighbourhoods connecting to park nodes and other pedestrian destinations.

Regional Facilities - Integration/connection opportunities with the regional recreation facilities to the west of Sherwood Drive, Millennium Place & Centennial Park exist as well as connection to commercial areas.

Open Space - Opportunity to promote both E-W and N-S open space connections.

Highway Commercial - The Highway 16 exposure and access to Clover Bar Road and Sherwood Drive promote the north portion of Section 11 for large format commercial, catering to a regional scale of shopping. Urban design of such an area relative to the provincial highway will be critical.

Business Commercial - opportunities exist along the northern portion of Sherwood Drive.

Community Commercial - Commercial areas at the intersections of Lakeland Drive and Sherwood Drive should be of a community scale and cater to local

North of Lakeland Drive Area Concept Plan

retail needs and those of the recreation users in Centennial Park. The site should be designed to integrate with existing and future residential uses within the Plan area.

Topography - Terrain is varied with sloped and level lands, creating interesting grades and slopes. Topography can be used to “hide” commercial or apartment development from existing residents.

Entrance treatments - Possible in conjunction with SWMF at major entrances from Highway 16 at Sherwood Drive and Cloverbar Road.

Ownership - Land in this area is controlled by owners with development aspirations. This provides opportunity to create a comprehensively planned community of residential, commercial and business/employment uses.

5.6 SE Section 10 (incl. portion of NE 3)

Constraints

Heavy Industrial Risk Overlay (IRO) – the western portion of these lands lie within the 3km Industrial Risk Overlay. This Land Use Bylaw Overlay District establishes the level of risk for specific activities and assesses suitability within proximity to Heavy Industry. Certain activities or uses may be restricted within the overlay area regardless of the uses stated in the corresponding Land Use District.

DND Heliport Zone -The Heliport Zone covers a significant portion of Section 10 and portion of Section 2 included in this Plan. The Edmonton Garrison Heliport Zoning Regulation limits building height and any increased waterfowl hazard. SWMF’s may have to be constructed minimize additional attraction of waterfowl.

Significant Habitat & Wetlands - This portion of the Concept Plan contains large wooded and wetland areas, which received a high priority ranking (*Ecological Assessment, Stantec, 2000*) and should be retained. The wetland may also prove problematic if these wetlands are deemed hazardous as part of the Edmonton Garrison Heliport Zoning Regulation.

Stormwater management - There is an existing wetland at Sherwood Drive, draining northward through the road ditch and dispersed drainage channels flowing to the northwest and northeast.

Opportunities

Topography - Terrain is varied with sloped and level lands, creating interesting grades, views and slopes.

North of Lakeland Drive Area Concept Plan

Regional Facilities - Integration/connection opportunities with the regional recreation facilities such as Millennium Place & Centennial Park are obvious due to their proximity.

Stormwater Management - Opportunities exist for retention and integration of existing wetlands and tree stands as greenways connecting to park nodes and other pedestrian destinations.

North of Lakeland Drive Area Concept Plan

6.0 Concept Plan Principles & Policies

Based upon the work completed, the following “Development Principles” have been prepared. These Principles will provide direction, which will influence land use, transportation, servicing, and environmental considerations of future planning and development initiatives undertaken by private developers and area landowners.

Policy statements have been included to provide more specific planning direction to private landowners and developers when undertaking detailed planning studies for their respective lands. The policies will also guide County Council and Administration in the review of Detailed Plan’s, rezoning, subdivision and development permit applications within the North of Lakeland Drive Area Concept Plan boundary.

These Principles and Policies form the basis used to develop the more detailed land use concept outlined in Section 7.

6.1 General Urban Development

Principle 1 *Development in the Plan Area must conform to the land uses and policies of the Municipal Development Plan, as directed by the Municipal Government Act.*

Principle 2 *Development in the Plan Area will provide for the orderly and efficient use of land and include a logical and cost effective extension of existing services in Sherwood Park.*

Principle 3 *Future plans will promote comprehensively planned and integrated communities for residential, open space, commercial and business uses.*

Principle 4 *Future development will recognize the “gateway” role the Plan Area will play for Strathcona County and Sherwood Park, and promote enhanced urban design and landscaping standards adjacent to Provincial Highways and along arterial roadways.*

Principle 5 *Existing businesses and farm operations will be allowed to remain until developed for ultimate land uses. New development will consider these existing uses and provide necessary buffering and separation through on-site design.*

North of Lakeland Drive Area Concept Plan

Principle 6 ***New development will incorporate development setbacks to respect existing and future heavy industrial developments, existing rail lines and future Highway expansions.***

Principle 7 ***Development costs will be proportionately apportioned amongst all benefiting land developers.***

Policy 6.1.1 No residential or institutional development will be permitted within the 1.5 km setback from existing Heavy Industrial businesses in Edmonton. Regard for the 3.0 km setback from future heavy industry in Edmonton must also be considered in the design of any institutional, and multiple family developments in Section 11.

Policy 6.1.2 New developments will include appropriate setbacks and buffering from Highways 16 and 21.

Policy 6.1.3 Development in NE 12 will be set back a minimum 30 m from the CN rail line and buffered with appropriate levels of berm and/or noise attenuation.

Policy 6.1.4 Developments within 3km of the heavy industry located within Strathcona County boundaries must conform with the Heavy Industrial Risk Management Overlay district (IRO) requirements of the Land Use Bylaw once adopted.

6.2 *Natural Areas & Open Space:*

Principle 1 ***Development of the Plan Area will promote the local natural features and the existing “parkland” image of Strathcona County and Sherwood Park and incorporate a naturalization program into new neighbourhood plans.***

Policy 6.2.1 The findings of the *Ecological Assessment* (Stantec 2000) will be reviewed to assess on-site natural features and determine their condition, sustainability and ability to be retained and incorporated into the new urban landscape.

Policy 6.2.2 Existing wetlands and drainage courses should be integrated into future stormwater management schemes where topographically possible.

Policy 6.2.3 Existing tree stands that are deemed to be sustainable should be integrated into new urban developments.

North of Lakeland Drive Area Concept Plan

Policy 6.2.4 Where existing tree stands are unsustainable or cannot be retained, enhanced tree planting should be encouraged.

Principle 2 *An open space system of integrated natural areas, park nodes, regional trails and pedestrian linkages will be provided for the benefit of both future residents within the Plan Area and existing residents in Sherwood Park.*

Policy 6.2.6 Local parks and pathways will be developed to provide regional linkages to existing residential communities, Centennial Park, Millennium Place, school sites, the Trans-Canada Trail and other open spaces.

Policy 6.2.7 Linear pipeline rights-of-way, power line rights-of-way and stormwater management facilities will be incorporated into the open space and trail system.

Policy 6.2.8 An 8 ha regional level park with playfields will be required in the north half of Section 11, for regional scale sports activities and may include a parks maintenance facility. The regional park site will include collector roadway accesses, which provide building siting and parking access in locations which do not negatively impact residential development.

6.3 Transportation Networks

Principle 1 *An integrated roadway and transit system will be provided that supports the levels and types of commercial, employment and residential development proposed in the Plan Area.*

Principle 2 *The highways and arterial road system abutting and penetrating the Plan Area will be consistent with Strathcona County's Transportation Master Plan and Provincial Highway Plans.*

Principle 3 *A Transportation Impact Assessment (TIA) must be prepared and approved by Strathcona County prior to registration of the initial subdivision within an approved ASP.*

Policy 6.3.1 Development will allow for the logical extension of transit services from existing transit routes to service new residential, commercial and business areas.

North of Lakeland Drive Area Concept Plan

- Policy 6.3.2 The layout and location of higher density residential land uses and the collector road network will be designed so as to be conducive to, and supportive of, efficient transit routing and short walking distances to transit service.
- Policy 6.3.3 There will be no direct access to provincial highways or arterial roadways from residential parcels. New Interchange structures on Highway 16 and 21 are to include and incorporate design elements for pedestrians and bicyclists.
- Policy 6.3.4 Existing accesses along the east side of Clover Bar Road (NW 12) should be consolidated to minimize the number of intersections and optimize operation of the roadway.
- Policy 6.3.5 Opportunities for long term collector road access between NE 12 and Clover Bar Road should be explored with owners in NW 12. The County to investigate options to provide access from NE 12 to Clover Bar Road including a service road connection north of Lakeland Village Manufactured Home Park.
- Policy 6.3.6 Notwithstanding Policy 6.3.5, any future plans for major redevelopment or intensification of existing residential lands in NW 12 shall include the provision of a public collector roadway to provide access between NE 12 and Clover Bar Road.
- Policy 6.3.7 Collector roadway access to new neighbourhoods shall be generally in those locations identified in this Concept Plan.
- Policy 6.3.8 Self-enforcing traffic calming measures will be required on all collector roadways. Such measures could include, but are not limited to, traffic roundabouts, reduced carriageway widths, “no parking” zones, raised table intersections, median islands and/or cross walks.
- Policy 6.3.9 Local straight or near straight roads shall have a maximum unimpeded length of 215 m.
- Policy 6.3.10 A minimum 400 m separation distance should be provided between signalized intersections along arterial roadways.
- Policy 6.3.11 A minimum 200 m separation distance should be provided between signalized arterial intersections and non-signalized, all-turns access to commercial properties along all arterial roadways.

North of Lakeland Drive Area Concept Plan

Principle 4 ***Neighbourhood collector and local roadway networks will be designed to provide adequate access to various uses within the Plan Area, yet discourage and minimize the prospect for speeding and shortcutting.***

Policy 6.3.12 Long, continuous and excessively wide collector roadways are discouraged.

Policy 6.3.13 Neighbourhood plans are to be designed such that the maximum volume on collector roads is not greater than 5,000 vehicle trips per day, except within 200 m of intersections with arterial roads, where volumes could be expected to increase by 50% providing the lane design is adequate to accommodate the traffic volumes and turning movements.

Policy 6.3.14 There should be no single family lot access to collector roads except in low-volume sections consistent with the Strathcona County Engineering Servicing Standards.

Policy 6.3.15 The local roadway network should be designed to result in no more than 1000 vehicle trips per day on any local roadway link, wherever possible.

Policy 6.3.16 The collector network should be configured to facilitate efficient circulation and access to residential and commercial/business areas by Strathcona Transit buses. Access to transit stops from residential and commercial sites should be no greater than 500 m walking distance.

6.4 Residential Development

Principle 1 ***New residential developments will respect existing and future Heavy Industrial businesses and be adequately separated so as to minimize potential negative impacts and operational conflicts.***

Policy 6.4.1 No residential development will be permitted within the 1.5 km setback from existing Heavy Industrial businesses in Edmonton.

Policy 6.4.2 No residential development will be permitted within the 3 km IRO District of the Land Use Bylaw.

North of Lakeland Drive Area Concept Plan

Principle 2 ***Residential neighbourhood plans will include master planned themes, which establish a unique community identity, recognize elements of sustainable development, innovative siting and architecture, energy conservation and access considerations.***

Principle 3 ***Encourage housing diversity, which accommodates a mix of built forms, densities, ages, income levels and tenure of housing for residential neighbourhoods while maintaining a predominately single detached character.***

Principle 4 ***To ensure consistency with the developed areas of Sherwood Park a minimum 70% of residential development within any Area Structure Plan Boundary must be low density.***

Policy 6.4.3 Units designated for low density residential uses range from 10 – 21.5 units/net ha. Low-density forms include single detached, semi-detached and may include duplex and townhouse forms which don't exceed 21.5 units/ net ha.

Policy 6.4.4 Lane accessed, single detached lots will be permitted where collector roadways limit access and in areas where a comprehensive development plan demonstrates the integration of lanes with adjacent uses and the provision of sufficient access points to ensure year round use of the lanes and rear parking areas.

Policy 6.4.5 Except for existing developments or those with an approved ASP, a maximum of 10% of all low-density residential development may be developed as laned product.

Principle 5 ***Opportunities will be provided to incorporate new multiple unit housing forms which meet a demonstrated demographic and market need in Sherwood Park, and which are compatible in scale and design to surrounding developments.***

Policy 6.4.6 Units designated for medium density residential uses range from 21.5 – 37units/net ha. Medium density housing forms can include, duplexes, triplexes, four-plexes, townhouses, and low-rise (maximum height 14 m) apartments to a maximum density of 37 units/net ha.

North of Lakeland Drive Area Concept Plan

- Policy 6.4.7 Multiple unit housing developments shall have regard for the housing form and character of the single detached homes within the corresponding neighbourhood.
- Policy 6.4.8 Multiple unit housing developments should be located and designed to provide an interface between single detached developments and higher intensity uses such as commercial lots, business uses and arterial roadways.
- Policy 6.4.9 Multiple unit housing developments should be located along collector roadways near intersections with arterial roadways, proximity to parks and open spaces, utility corridors, transit routes and commercial sites.
- Policy 6.4.10 The location and siting of multiple unit housing developments should minimize massing impacts when viewed from roadways and adjacent residential areas and have regard for form and character of single detached developments on adjacent sites and neighbouring communities.

Principle 6 *Existing residential developments in NE 12 will remain.*

- Policy 6.4.11 Lakeland Village and Jubilee Landing will remain as low density, single-family manufactured housing developments. Any proposal to redevelop these sites will be subject to the preparation of a comprehensive Area Redevelopment Plan. Expansion into NE 12 will require the preparation of an Area Structure Plan.
- Policy 6.4.12 The existing country residential parcel (Plan 2139 KS, Lot B) lying SW of Jubilee Landing will be considered for residential intensification, subject to the provision of appropriate access, the logical extension of roadways, and municipal services and will require the preparation of a comprehensive rezoning and development application.

6.5 Residential Urban Village Developments

Principle 1 *Provide a compact well designed mix of housing, shops and services within an integrated “village” setting at slightly higher densities than surrounding residential uses.*

North of Lakeland Drive Area Concept Plan

Principle 2 ***Encourage the provision of a variety of housing options and care services for people as they advance through stages of life.***

Policy 6.5.1 Urban Village #1 is intended to provide a variety of housing options from independent living, assisted living and extended care facilities within an integrated village development. Village commercial services may also be included that cater to the immediate needs of the residents of the village. These may include pharmacies, beauticians, travel agencies, financial services, convenience retail etc.

Policy 6.5.2 Urban Village #1 shall have an overall average density of 50 units/net ha and may contain several housing forms from single detached, semi-detached, town housing, low-rise apartments (to a maximum height of 16 m) and care facilities. Densities of non self-contained units (rooms without a kitchen) within care facilities will be calculated so that 5 beds will be considered equivalent to 1 unit.

Policy 6.5.3 Urban Village #2 is intended to provide a variety of commercial and medical uses which cater to the general public integrated with a mix of medium density housing forms at slightly higher average densities than the surrounding residential neighbourhoods (overall average density of 50 units/ net ha). Housing forms may include: semi-detached, duplexes, town housing, and low-rise apartments (maximum height 16 m).

Policy 6.5.4 Convenient pedestrian circulation will be encouraged within urban village developments which will connect to the larger community trail network.

Policy 6.5.5 Urban village developments will be designed to provide convenient transit access.

6.6 Commercial Developments

Principle 1 ***The Plan area will provide adequate and appropriate scale and format of commercial opportunities to meet the immediate neighbourhood, community and regional market needs depending on the specific site being considered.***

North of Lakeland Drive Area Concept Plan

Principle 2 ***Commercial development adjacent to Highway 16 will be well planned and feature enhanced visual design to enforce the area's gateway role to Strathcona County and Sherwood Park.***

Policy 6.6.1 Opportunities will be provided for large format commercial developments (larger than 10 acres) adjacent to Highway 16. These commercial areas will be for businesses which require high visibility and accessibility and provide retail and service needs oriented towards the regional shopping needs of Strathcona County and the traveling public.

Policy 6.6.2 Highway commercial developments will be accessed from a dedicated commercial collector road, to minimize impacts on access to adjacent businesses and residential neighbourhoods.

Policy 6.6.3 Opportunities will be provided for community scale commercial developments (up to 4 ha) at intersections of arterial roadways. These community commercial sites will provide local retail and personal service businesses oriented towards the daily shopping needs of residents in the immediate area.

Policy 6.6.4 Community commercial sites will be designed with sufficient accesses to arterial and collector roadways, and developed to minimize impacts of built form, signage, lighting and operations on adjacent neighbourhoods.

Policy 6.6.5 The design of commercial sites will reflect a continuity of architectural style, scale and form to integrate with adjacent developments.

Policy 6.6.6 The existing commercial development in NW 12 will be allowed to remain and redevelop as a community commercial site, subject to development approval, ensuring proper access is maintained and services are made available.

6.7 Business/Employment Development

Principle 1 ***Appropriate business and employment uses will be supported for lands, which fall within the Heavy Industrial setback area of the City of Edmonton. (NW Section 11)***

North of Lakeland Drive Area Concept Plan

- Policy 6.7.1 Business/Employment uses suitable for this area include non-retail business and service businesses such as professional offices, research and development, laboratories, and could include post-secondary educational facilities with no residential component.
- Policy 6.7.2 Retail developments will not be permitted in the Business/Employment Area, except as ancillary uses to a non-retail use.
- Policy 6.7.3 Business/Employment developments will provide appropriate levels of landscaping and screening along Sherwood Drive and internal collector roadways adjacent to residential development and adjacent open spaces.
- Policy 6.7.4 No outdoor storage will be allowed within the Business/Employment area.

6.8 Servicing & Utilities

Principle 1 *Urban levels of service including roadways, sanitary sewer, storm sewer and water will be provided in all areas of the Plan Area, in an efficient and cost effective manner.*

- Policy 6.8.1 Extension of services needed to service urban development will be paid for by the developers.
- Policy 6.8.2 Detailed servicing studies and engineering designs will be required at the detailed Area Structure Plan, zoning and/or subdivision stages, as required by Strathcona County.
- Policy 6.8.3 Stormwater management facilities will be provided to Alberta Environment and County standards.
- Policy 6.8.4 Any stormwater management facilities located within the Edmonton Garrison Heliport Zone must be circulated to the Department of National Defense for comment and designed in such a way that they will not attract waterfowl.
- Policy 6.8.5 Existing developments in the Plan Area will be required to connect to municipal services once services are made available.

North of Lakeland Drive Area Concept Plan

Principle 2 ***Existing municipal utilities, electrical lines and gas pipelines within the Plan Area will remain and be accommodated within plans for new urban development.***

Policy 6.8.6 The existing utilities will be protected within public roadways or Public Utility Lots and integrated into the Plan area's open space system. Details of how these facilities are to be protected and landscaped will be provided at the detailed Area Structure Plan stage.

6.9 *Urban Design*

Principle 1 ***Development will recognize and promote the overall Area's "gateway" role to Sherwood Park and Strathcona County, by providing quality, high level urban design which promotes an appropriate interface between urban and rural development.***

Policy 6.9.1 Encourage development adjacent to Highway 16, Highway 21, Sherwood Drive, Lakeland Drive and Clover Bar Road to incorporate enhanced standards of architecture, signage and landscaping features.

Policy 6.9.2 Residential development will incorporate appropriate noise attenuation, separation and visual screening which may include berms, noise walls, screen fencing, landscaping, or a combination of all.

Policy 6.9.3 Highway commercial, business/employment and community commercial uses should be encouraged to incorporate a higher standard of architectural design, landscaping and signing elements to improve the visual impact of these developments and enhance the gateway role these lands play for Strathcona County and Sherwood Park.

Principle 2 ***The Area's overall "gateway" role to Sherwood Park and Strathcona County, shall be enhanced through the preparation of detailed design guidelines for the Highway 16 Corridor which concerns lands within the public realm, within the Highway right-of-way, and privately owned lands within 800m of the Highway 16 right-of-way.***

North of Lakeland Drive Area Concept Plan

- Policy 6.9.4 Promote a higher standard of design and aesthetics for privately owned lands being developed within 800 m of the Highway 16 right-of-way.
- Policy 6.9.5 Commercial developments should reflect a similar architectural theme, which creates visual interest when viewed from Highway 16, through variations to building form, height, massing and siting.
- Policy 6.9.6 All parking and loading areas should be oriented away from the Highway 16 Corridor and screened from the view of Highway 16 travelers by buildings, berms and landscaping.
- Policy 6.9.7 Outside storage will not be permitted for commercial and business uses lying within the Highway 16 Corridor area.
- Policy 6.9.8 On-site landscaping should emphasize the re-integration of natural elements. This can include the clustering of trees/shrubs within yards adjacent to Highway 16 as well the inclusion of “islands of vegetation” within surface parking areas.
- Policy 6.9.9 Fencing adjacent to Highway 16 should be installed behind the landscaped area fronting onto the Highway.
- Principle 4** ***Promote a high standard of design and aesthetics for municipally owned lands lying within the Plan Area and the Highway 16 Corridor.***
- Policy 6.9.10 The proposed stormwater management sites lying adjacent to Highway 16 should be developed and promoted as part of a gateway feature, providing locations for “welcoming” signage and highlighting the County’s goals of environmental protection, sustainable development and enhancement of natural habitat.
- Policy 6.9.11 Enhanced levels of landscaping and tree planting are encouraged within the arterial roadway boulevards.
- Policy 6.9.12 Public boulevards adjacent to the roadway fronting the highway commercial lands should include pedestrian walking areas and landscaping to complement improvements on private commercial lands.

North of Lakeland Drive Area Concept Plan

Principle 5 ***Promote a high standard of design and aesthetics for provincially owned lands lying within the Highway 16 Corridor.***

Policy 6.9.13 The County will work in conjunction with Alberta Transportation to develop appropriate landscaping standards for provincially owned lands within the Highway 16 Corridor.

Policy 6.9.14 The County will work in conjunction with Alberta Transportation to develop appropriate entrance and way-finding signage themes and locations within the Highway 16 Corridor.

Policy 6.9.15 Work with Alberta Transportation so that new interchange structures at Highway 16/21 and Highway 16/Sherwood Drive incorporate design elements such as architectural design, public art, colour and enhanced lighting standards which can create a prominent “entrance” to Strathcona County and Sherwood Park for highway travelers.

Policy 6.9.16 Encourage Alberta Transportation to include pedestrian facilities and access across new interchange structures.

Policy 6.9.17 Land use, urban design and access principles and policies established within this Concept Plan should be further refined through a comprehensive Highway 16 Corridor study, undertaken in conjunction with Alberta Transportation and the City of Edmonton.

North of Lakeland Drive Area Concept Plan

7.0 Land Use Concept

7.1 *Introduction*

The purpose of this Area Concept Plan is to provide a comprehensive analysis of the entire Plan Area and identify issues of importance and concern across the greater plan area: issues that might not be identified through piecemeal, small developments. The intention of this study is to provide direction and a framework to guide future development.

A land use concept is presented as **Figure 9**. The land use concept demonstrates how the overall Planning Principles and Policies presented in Section 6.0 should be applied to a generalized land use concept for the entire Plan Area. Subsequent planning exercises will be required to follow the intent provided by this Area Concept Plan, which will also include additional opportunities for public review and comment. The detailed Area Structure Plans and future site-specific developments brought in by landowners and developers may only slightly modify road patterns, open space allocations and land uses as presented in this Plan.

North of Lakeland Drive Area Concept Plan

7.2 General Land Use Statistics

Total Plan Area	550 ha	
Highway Widening & Arterial Roads	<u>24</u>	
Gross Developable Area	526 ha	
Less:		
Municipal Reserve (10% GDA)	53	
Circulation (Assume 20% GDA)	105	
Stormwater Management	<u>16</u>	(SWMF area estimated)
Net Developable Area	352 ha	
Section 10		
Urban Village #2	14	
Open space	<u>38</u>	
	52 ha	
Section 11		
Residential	68	
Urban Village #1	20	
Highway Commercial	34	
Community Commercial	4	
Business Services	18	
Regional Park	<u>-</u>	(8 ha – included as part of MR dedication)
	144 ha	
Section 12 (less NW 12)		
Summerwood Residential	80	
NE 12 Residential	32	
Community Commercial	<u>3</u>	
	115 ha	
Existing Development in NW 12		
NW 12 (ex. Manufactured housing)	38	(On-site SWMF, parkettes and roads assumed at 8 ha)
Existing Country Residential Site	1	
NW 12 (ex. Commercial)	<u>2</u>	
	41 ha	
Net Developable Area	352 ha	

North of Lakeland Drive Area Concept Plan

7.3 Residential – Unit and Population Projections at Maximum Density

Section 10

Breakdown by Net Area (14 ha)	Area(ha)	Density	Units	Persons/Unit	Total Population
Urban Village #2	14	50u/ha	700	1.78	1,246
Total			700		1,246

Section 11

Breakdown by Net Area (88 ha)	Area(ha)	Density	Units	Persons/Unit	Total Population
Low Density (70%)	48	21.5u/ha	1032	2.4	2,477
Medium Density (30%)	20	37u/ha	740	1.78	1,317
Urban Village #1	20	50u/ha	1,000	1.78	1,780
Total			2,772		5,574

S1/2 Section 12

Breakdown by Net Area (80 ha)	Area(ha)	Density	Units	Persons/Unit	Total Population
Low Density (70%)	56	21.5u/ha	1,204	2.4	2,890
Medium Density (30%)	24	37u/ha	888	1.78	1,581
Total			2,092		4,471

NE Section 12

Breakdown by Net Area (32 ha)	Area(ha)	Density	Units	Persons/Unit	Total Population
Low Density (70%)	22	21.5u/ha	475	2.4	1135
Medium Density (30%)	10	37u/ha	370	1.78	659
Total			845		1,794

Existing Development in NW 12 (39 ha)

	Area(ha)	Density	Units	Persons/Unit	Total Population
Manufactured Housing	38	21.5u/ha	817	2.26	1846
Medium Density Multiple Unit	1	37u/ha	37	1.78	66
Total			854		1,912

Total Concept Plan - Residential	Area(ha)		Units		Total Population
	252		7,263		14,997

North of Lakeland Drive Area Concept Plan

8.0 Implementation of the Concept Plan

The MDP and this Concept Plan are inconsistent, thereby requiring a concurrent amendment to the MDP. Recommendations for such amendments, which must be adopted prior to approval of the ACP, are as follows:

8.1 *Municipal Development Plan* (Bylaw 38-98)

1. MDP (Policy 10.55) should be amended to recognize expansion potential of the manufactured housing districts into the NE of 12.
2. Amend the MDP to identify the ultimate Highway 16 right of way and interchange requirements and adjust or remove policy area designations for these lands where appropriate.
3. The lands designated Regional Arterial Commercial Policy Area in a portion SW of Section 11-53-23 and portions of Section 2-53-23 should be removed and designated Urban Service Area Residential Policy Area to more appropriately reflect the community commercial uses being proposed.
4. The MDP should be amended to reflect the land uses proposed in the SE Section 10-53-23 and NE Section 3-53-23.
5. Amend the MDP to include a definition of “Urban Village”.

8.2 *Detailed Area Structure Plans & Area Redevelopment Plans*

1. Detailed Area Structure Plans (ASP) will be required for all undeveloped portions of the Concept Plan area with the exception of SE Section 10-53-23 and NE Section 3-53-23 North of Lakeland Drive. Each ASP must be consistent with the principles and policies of the MDP and this Area Concept Plan and prepared as per the requirements of Policy SER 008- 007 of the Strathcona County Policy Handbook.
2. Any future redevelopment proposals contemplated within NW 12, will require the preparation of an Area Redevelopment Plan (ARP) which meets the intention of the Municipal Development Plan and this Area Concept Plan.

North of Lakeland Drive Area Concept Plan

8.3 Summerwood Area Structure Plan (Bylaw 27-2002)

1. The Summerwood Area Structure Plan should be amended to recognize the revised collector road alignments, and additional collector road access onto Lakeland Drive.

8.4 Land Use Bylaw (Bylaw 8 – 2001)

1. Existing development in NW 12-53-23 will continue under the provisions of the current land use district and approved development permits.

8.5 Other

1. A comprehensive Master Drainage Plan should be undertaken for the entire Section 12-53-23.
2. NE 12-53-23 will require sanitary sewer connections to Clover Bar Road, via a sewer line along the north side of Lakeland Village. An easement for this long-term sanitary line should be registered adjacent to the Highway 16 right-of-way.
3. In consultation with Alberta Transportation, prepare Highway 16 Corridor Design Guidelines to be implemented as an overlay district in the Land Use Bylaw.