NORTH RIDGE Area Structure Plan

Bylaw 4/2015

February 2, 2015
CITY OF ST. ALBERT

BYLAW 4/2015

Being a bylaw to establish the
North Ridge Area Structure Plan

NOW THEREFORE the Municipal Council of the City of St. Albert pursuant to the provisions of the Municipal Government Act hereby ENACTS AS FOLLOWS:

1. This Bylaw may be cited as "North Ridge Area Structure Plan Bylaw".

2. The North Ridge Area Structure Plan Bylaw, attached hereto as Schedule A, is hereby adopted.

3. Bylaw 38/98 is repealed by this bylaw.

READ a first time this 2\textsuperscript{nd} day of February, 2015..

READ a second time this 2\textsuperscript{nd} day of February, 2015..

READ a third and final time this 2\textsuperscript{nd} day of February, 2015..

SIGNED AND PASSED THIS 3\textsuperscript{rd} day of Feb, 2015.

MAYOR

CHIEF LEGISLATIVE OFFICER
# NORTH RIDGE AREA STRUCTURE PLAN

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CHAPTER 1 - INTRODUCTION

1.1 Purpose

This plan establishes the basic residential land use and circulation patterns for the North Ridge Neighbourhood. It addresses planning and servicing patterns as well as the staging of future development according to St. Albert’s current guidelines and standards.


CHAPTER 2 - THE DEVELOPMENT AREA

2.1 Location and Area (Figure 1)

The North Ridge Neighbourhood is located in the northwest quadrant of St. Albert. It lies to the west of Deer Ridge and to the northwest of Lacombe Park neighbourhoods. The Area Structure Plan (ASP) area is bounded on the east by Hogan Road, on the south by Giroux Road, on the west by Ray Gibbon Drive, and on the north by Villeneuve Road.

2.2 Policy Context

The North Ridge ASP complied with the Municipal Development Plan ("MDP") Bylaw 4/2000, under which it was approved. However, this ASP does not comply with the MDP Bylaw 15/2007, Policy 4.11, because the neighbourhood was developed before new statistical requirements on multiple family units were established. The MDP identifies this area as a location for residential development in St. Albert. The ASP also recognizes and incorporates the requirements of Land Use Bylaw 9/2005, as amended.
2.3 Existing Features

The North Ridge neighbourhood consists of a total of 144.12 hectares (356.11 acres) with the majority being residential. Existing vegetation, topographic, and drainage characteristics include:

2.3.1 Site Considerations

(a) The ASP area is level, draining to the west and the south. There are no permanent water bodies or defined drainage courses in the ASP area.

(b) The development area is situated on a bedrock upland bordered by pre-glacial bedrock valleys. The general soil stratigraphy consists of a thin cover of topsoil over silty clay soil over clay till. Overall, the soils and geological conditions are suitable for urban development.

(c) The groundwater table has been monitored in northwest St. Albert and is generally shallow. The groundwater conditions may affect some houses, depending on site grading and localized water table elevation. Measures may need to be taken through the development process to address water table considerations.

(d) Vegetated areas include a series of shelterbelts running east-west through the southern part of the site and along the northern perimeter of the site. There are also several bluffs of aspen poplar and an area under grass and shrub cover in the northeast portion of the site. There is a narrow triangular area in the northwest corner of the site which has a dispersed tree cover of willow, aspen poplar, Manitoba maple, and an understory of shrubs and grasses. The ASP addresses the feasibility of integrating existing vegetation features into the overall development pattern of the neighbourhood.

2.3.2 Surrounding Land Uses

(a) The North Ridge ASP is bounded by three residential neighbourhoods. Deer Ridge to the east and Lacombe Park to the southeast are developed residential neighbourhoods. Ville Giroux to the south is undeveloped and will be a neighbourhood with a mix of commercial and residential.
(b) Ray Gibbon Drive is located west of the ASP boundary and is proposed as an eight (8) lane roadway. To the northwest are lands used by the City for snow storage and compost depot. To the northeast are undeveloped lands.

(c) A dry waste site occupying a former gravel pit is located about 350 metres west of the west limit of the ASP area. A second dry waste site occupies a former gravel pit located north of Villeneuve Road about 100 metres northwest of the ASP area.

(d) An electrical transformer station is located in the adjoining quarter section to the north of the ASP area and immediately north of Villeneuve Road. A remnant of the former Edmonton and Slave Lake Railway embankment continues through the site.

2.3.3 Existing Site Land Uses

(a) The Sturgeon Heights School and associated playing fields occupy a 6.02 hectares site in the northeast portion of the ASP area. The school is operated by the Sturgeon School Division No. 24 and serves a rural population within Sturgeon County. When the school site is subdivided, Municipal Reserves will be owed. A deferred reserve caveat has been registered on the school's title of certificate.

(b) Three utility easements apply to the subject property, protecting the following utility lines:

(i) A TransAlta Utilities powerline and Gibson Petroleum pipeline run coterminously along the most westerly 6 metres of the proposed ASP.

(ii) A Northwestern Utilities Ltd. gas line easement extends along the northern and eastern side of the ASP.

(c) As of December 2014, all of North Ridge is developed.

2.4 Land Ownership in 1998

1. Imasco Enterprises Inc. and its operating company Genstar Development Company owned 91.0% of the land.
2. The Sturgeon School Division No. 24 owned 7.9% of the land. The parcel size was 10.5 hectares in NE7-54-25-W4, which is the site of the Sturgeon Heights School. In 1980, 0.112 hectares was subdivided from the school site to accommodate the road widening of Villeneuve Road. In 1999, the school site was subdivided with 4.37 hectares being developed as roadway and residential. The school site remaining is 6.02 hectares±.

3. The remainder of the ASP area is made up of registered plans, including road plans and registered subdivisions.
CHAPTER 3 - THE DEVELOPMENT PLAN

3.1 Residential Development (Figure 2)

Residential land use will be the largest land use designation within the ASP area, comprising 80 hectares± (56%) of the total area, at an overall potential gross residential density of 37.5 persons per hectare. Of the total residential lands, 73 hectares± of residential land are intended for low density development. Six multiple family sites occupy 7 hectares±.

Assuming residential densities of 19.7 dwelling units per hectare for low density residential and 73 dwelling units per hectare for medium density, the land areas translate into 1,445 low density units and 525 medium density units (total of 1,970 dwelling units). Therefore, 73% of the dwelling units are low density and 27% are medium density dwelling units.

Single family residential lots will comply with the lot width distribution established by the Land Use Bylaw.

A statistical development breakdown is provided in Table 3-1.
Table 3-1: Development Statistics

<table>
<thead>
<tr>
<th>Area (ha)</th>
<th>% of GDA</th>
<th>Units</th>
<th>Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Area</td>
<td>144.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Developable Area (GDA)</td>
<td>144.12</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Parks and trails (not over utilities)</td>
<td>13.50</td>
<td>9.4%</td>
<td></td>
</tr>
<tr>
<td>Sturgeon Heights School</td>
<td>6.02</td>
<td>4.2%</td>
<td></td>
</tr>
<tr>
<td>Walkways (PUL)</td>
<td>2.36</td>
<td>1.6%</td>
<td></td>
</tr>
<tr>
<td>Stormwater Management (PUL)</td>
<td>9.90</td>
<td>6.9%</td>
<td></td>
</tr>
<tr>
<td>Arterial Roads (Giroux, Villeneuve)</td>
<td>4.31</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>Internal Circulation (non-arterial)</td>
<td>27.67</td>
<td>19.2%</td>
<td></td>
</tr>
<tr>
<td>Subtotal Other Uses</td>
<td>63.76</td>
<td>44.3%</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Density Residential</td>
<td>73.20</td>
<td>50.7%</td>
<td>1,445</td>
</tr>
<tr>
<td>Medium Density Residential (R3) (R3A)</td>
<td>7.16</td>
<td>5.0%</td>
<td>525</td>
</tr>
<tr>
<td>Subtotal Residential</td>
<td>80.36</td>
<td>55.7%</td>
<td>1,970</td>
</tr>
</tbody>
</table>

- May not add up to 100% due to rounding.
- Overall, there will be 24.5 dwelling units per net residential hectare, with a residential breakdown of 19.7 du/ha for low density residential; and 73.3 du/ha for medium density residential.
- Expected population per residential unit is based on the City of St. Albert Census 2014:
  - 2.96 persons per low density dwelling unit, and
  - 2.14 persons per medium density.

3.2 Population Density and School Generation

The population for the North Ridge ASP is estimated at 5,400. This assumes a density of 2.96 persons per low-density dwelling unit, and 2.14 persons per medium-density dwelling unit. It further assumes typical St. Albert housing densities of 19.7 dwelling units per net hectare for single family housing and 35 to 94 dwelling units per net hectare for multiple family housing.

The projected school generation for the North Ridge ASP is 1,085 students based on 2014 St. Albert Census.
Table 3-2: Student Population Projection - North Ridge

<table>
<thead>
<tr>
<th>Age</th>
<th>Grades</th>
<th>% of 2014 City of St. Albert Census age composition population 60,037</th>
<th>Student Generation North Ridge Population 5,400</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>K-4</td>
<td>6.4%</td>
<td>346</td>
</tr>
<tr>
<td>10-14</td>
<td>5-9</td>
<td>6.6%</td>
<td>356</td>
</tr>
<tr>
<td>15-19</td>
<td>10-12</td>
<td>7.1%</td>
<td>383</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>1,085</td>
</tr>
</tbody>
</table>

3.3 Commercial Development

No neighbourhood commercial development is proposed in the North Ridge Area Structure Plan. The ASP anticipates that commercial needs will be met through existing commercial development in the City, and by future commercial development in adjacent neighbourhoods.

3.4 Schools, Parks, Open Space, and Other Institutional (Figure 7)

School Sites
No new school sites are designated in the North Ridge ASP. The report *St. Albert School Needs Assessment, 1997*, contains population projections which show that the school age population will decline as a proportion of total population.

Sturgeon Heights School serves the residents of Sturgeon County.

Parks and Open Space System
The parks and open space system has three parks: Natalia, Napoleon, and North Ridge; plus a continuous open space and walkway linkage system. The system provides for a variety of active and passive recreational opportunities and areas for the staging of community events. At the entrance of the North Ridge Neighbourhood is a gazebo with benches.

The major open space areas include stormwater management facilities with trails partially around the ponds and benches at the look-out. The stormwater management facilities are connected to the parks via the trail system.

The linkage system will have different characteristics east and west of North Ridge Drive:
(a) East of North Ridge Drive, the linkage system comprises a linear park or open space corridor 1.8 km in length and free of any street crossings.

(b) West of North Ridge Drive, the linkage system is made up of a series of sidewalk links and walkways joining the three major park areas. Public Utility Lot walkways also provide linkages between streets.

The dispersed nature of the open space system will ensure that all residences are within approximately 300 metres of a park or park corridor.

Municipal Reserve includes parks and linear parks. Park areas above the high water level of ponds will be considered for Municipal Reserve suitability upon City review of detailed engineering drawings for the stormwater management facilities. Lands below the high water level will be designated as Public Utility Lot.

Institutional Uses
No provision for institutional uses, such as churches or recreation complexes, is proposed in the ASP area.

3.5 Environmental Assessment

A Phase 1 Environmental Site Assessment indicated the presence of a sewage lagoon on the Sturgeon Heights School site. Two dry waste sites to the west and northwest of the ASP area were also identified.

The sewage lagoon is no longer in operation. Proposed residential development in proximity to the sewage lagoon will be subject to review prior to redistricting. The presence of the two dry waste sites poses a regulatory issue which will require resolution before subdivision can be completed in the northwest corner of the ASP area. The waste site at NW-7-54-25-W45, Pit 1 continues to have a 300-metre radius setback, which comes to the edge of North Ridge, but does not overlap into North Ridge. The former dry waste site located at SW-18-54-25-W4 received a variance setback from 300 metres to 30 metres from Alberta Environment on August 13, 2008. The variance setback enabled the full build-out of North Ridge.

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1 The Subdivision and Development Regulation (AR212/95) establishes a limiting distance of 450 m between the working area of an operating dry waste site and the nearest residence. In addition, a limiting distance of 300 m is established between the disposal area of an operating or non-operating dry waste site and the nearest residence. This limiting distance applies to the approval of a subdivision or the issuance of a development permit.
No other environmental concerns were indicated at the subject property, and no indication of past or present activities which may have had an adverse effect on the lands.

A Heritage Resources Overview was conducted for the ASP Area. It has been determined that there are no concerns with development proceeding on the project was observed.

3.6 Sequence of Development (Figure 8)

The sequencing of development in the North Ridge ASP area shall occur in a manner that promotes contiguous development and establishes an efficient servicing pattern. Staging will generally allow for the initial development of lands immediately west of Hogan Road, where servicing capacity exists. Developments will then shift to the south end of the neighbourhood and proceed north. The west side of the ASP area is shown as the last to develop to allow for resolution of the alignment of the proposed West Regional Road. The roadway is now called Ray Gibbon Drive, and two lanes are built.
CHAPTER 4 - TRANSPORTATION

4.1 Existing Circulation Pattern

Access to North Ridge is from three roadways off Hogan Road, and two roadways off Giroux Road. A roadway access was proposed to Villeneuve Road; however, this roadway access was removed because of future roadways in the north portion of the City.

4.2 Proposed Circulation Pattern (Figure 3)

The North Ridge ASP will have an internal circulation system composed of North Ridge Drive, a major collector road, and a series of local roads. North Ridge Drive will be a single loop running approximately through the centre of the neighbourhood from Hogan Road in the northeast to Giroux Road in the southeast. At the south end of North Ridge Drive, a front service road has been created, which runs parallel to the main collector that provides access to a cluster of 11 houses.

Local roads will be designed to minimize traffic flows in residential areas. The east-west orientation of local streets will provide residents with easy access to transit stops along the collector. As noted on Figure 3 of the ASP, circulation patterns are conceptual and may be subject to minor changes.

Five access points are provided to and from the neighbourhood via the perimeter arterial streets. Three access points are from Hogan Road, and two from Giroux Road.

Noise attenuation from perimeter arterial routes will be provided as per City policy, which generally requires a noise attenuation berm at the rear property line of properties backing onto the arterial. Horizontal separation through the use of open space buffers may be used to complement or substitute for berming. The ASP area is about 1.6 km north of the nearest railway line. Hence, noise attenuation from the rail line may not be an issue.

The alignment of the proposed West Regional Road runs north-south to the west of the neighbourhood. The 2003 functional plan for the West Regional Road limits access to the extension of Giroux Road and Villeneuve Road. Direct access from the neighbourhood to the proposed West Regional Road is precluded. Noise attenuation from the proposed West Regional Road will be provided by the developer, as per City policy,
in accordance with arterial standards. The West Regional Road is now called Ray Gibbon Drive.

4.3 Public Transportation

Transit services are provided on North Ridge Drive and Hogan Road. Residences are located within approximately 400 metres of transit service.

4.4 Pedestrian Circulation

A system of pedestrian walkways is incorporated into the ASP design, linking all parts of the neighbourhood through park, public utility lots, and local streets.
CHAPTER 5 - SERVICING AND UTILITIES

5.1 Water Distribution (Figure 4)

Water will be provided to the development area by the extension of existing mains off Hogan Road along the eastern edge of the Area Structure Plan.

In the south, with the initial stages of development, the existing 300 mm water main located at the intersection of Giroux Road and Hogan Road will be extended into the development area. Looping will be accomplished by connecting to a 200 mm water main.

In the central area, the existing 300 mm water main located at the west end of Deer Ridge Drive will be extended into the development area. Looping will be accomplished by connecting to the initial southern stages of development.

In the north, a 250 mm water main will be installed, which will complete the eastern water main loop when connected to the 300 mm water main extension at Deer Ridge Drive.

A 250 mm water main loop will be installed along the western edge to provide the necessary fire protection requirements. Internal looping will occur as staged development occurs.

Water connections off Norelle Terrace and Norwood Close will provide water service to lands west of Ray Gibbon Drive.

5.2 Wastewater Collection System (Figure 5)

The initial stages of development will utilize the remaining surplus capacity within the existing Lacombe Park Estates system. Connection will be made at the existing sanitary sewer manhole located at the intersection of Giroux Road and Hogan Road. The developer will ensure adequate capacity is available for the initial stages to the satisfaction of the City.

The remaining lands will develop from south to north. The sewage will be conveyed through Lacombe Park. A permanent alignment will be required.

The discharge will occur at the existing 450 mm trunk sewer located at Lafleur Drive and Giroux Road.
A sanitary sewer assessment was conducted by Stanley Associates Ltd. on behalf of the City of St. Albert to consider discharge points based on available capacity and costs.

5.3 Stormwater Management (Figure 6)

The development area will consist of four drainage basins and three Storm Water Management Facilities (SWMFs). Each SWMF will be interconnected by a piped system to convey the stormwater runoff and discharge at pre-development flow rates.

An alternative scenario for Basin 3 is to function independent of Basins 1 and 2. Basin 3 drains overland to the northwest corner of the basin. The downstream outlet will be investigated and utilized, if it is confirmed that the current Basin 3 overland drainage contributes to the downstream system.

The development area controlled flow will discharge downstream of Basin 1 SWMF through an interim open channel/ditch drainage system. Minor flow from the Deer Ridge Park Development may be incorporated into the Basin 1 SWMF. This would reduce the pipe size downstream of Basin 1 SWMF. Major flows from Deer Ridge Park may also be incorporated into the three basins. Open channel improvements downstream may be required to receive concentrated flows.

A controlled flow piped trunk sewer will run southeast along McKenney Avenue. The trunk outfall will cross the CNR railroad tracks near Lacombe Park Lake. Open channel improvements downstream may be required to receive concentrated flows.

5.4 Shallow Utilities

Telephone, cable, gas and power will be able to service the area through their existing facilities along Hogan Road. Additional television cable and telephone fibre ducts will be looped through the neighbourhood from McKenney Avenue. All utilities shall be provided in accordance with City Policies.

5.5 Soil Conditions

Through development agreements, all public utilities and roads will be designed to overcome any site constraints like a high water table or difficult soil conditions.
Through the ongoing preparation of geotechnical reports, soil conditions will be evaluated to ensure that the area subject to this Area Structure Plan is suitable for subdivision and development. At the time of subdivision, geotechnical reports may be required.

Through the City of St. Albert's Municipal Engineering Standards, all public utilities and roads will be designed and constructed to those standards. As required by the City, builders must provide an engineer's foundation design based on soil testing at the time of excavation before being issued a building permit.
NOTES:
Circulation pattern does not constitute subdivision design and is subject to change (excepting collectors and arterials).

Proposed trail and walkway alignment is subject to change.

Figure 3
Transportation
North Ridge Area Structure Plan
NOTES:
Circulation pattern does not constitute subdivision design and is subject to change (excepting collectors and arterials).
See Engineering as-built drawings for sizing and detailed alignment.

Figure 5
Wastewater Collection System
North Ridge Area Structure Plan
NORTH RIDGE AREA STRUCTURE PLAN

Figures

NOTES:
Circulation pattern does not constitute subdivision design and is subject to change (excepting collectors and arterials).
See Engineering as-built drawings for sizing and detailed alignment.

Figure 6
Stormwater Management
North Ridge Area Structure Plan