

Vanier Woods

Neighbourhood Area Structure Plan

Prepared for Melcor Developments Ltd.

**Stantec Consulting Ltd.
Adopted by Red Deer City Council
April 24, 2006
112870943**

Amended January 9, 2017

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1.0 Introduction

1.1 PURPOSE

The purpose of the Vanier Woods Neighbourhood Area Structure Plan (NASP) is to describe the land use framework and development objectives for the SW $\frac{1}{4}$ Section 02-38-27-W4M, which is located in southeast Red Deer, south of the existing Lancaster Green Neighborhood and east of 30 Avenue. The Vanier Woods quarter section encompasses an area of approximately 63.8 hectares (157.7 acres). It was first contemplated in the East Hill Major Area Structure Plan (MASP) as one of a number of neighborhood units accommodating future residential growth in south and east Red Deer.

This report has been prepared by Stantec Consulting Ltd. on behalf of Melcor Developments Ltd.

Melcor's intent through the Vanier Woods NASP is to develop a balanced community of residential and recreational opportunities with complimentary land uses. In order to achieve this, Melcor intends to integrate the area with interconnected parks and open space linkages, in addition to the development of high-quality residential opportunities. Together, these aspects will provide the City of Red Deer with a unique area for community development.

This document will describe the land use pattern and the development objectives for the Vanier Woods NASP. The NASP will implement the land use framework and development objectives by identifying the following:

- the size and location for various land uses;
- the alignment of roadways and lanes;
- the open park system;
- the proposed development density;
- servicing concepts for deep utility servicing; and
- the development staging sequence.

The detailed design of each phase (re-districtings and plans of subdivision) will refine the concept presented by the NASP Bylaw for the Vanier Woods NASP.

1.2 PLAN AREA

Figure 1.0 shows that the subject lands are located in the southwest quarter of Section 02-38-27-W4M in the extreme southeast corner of the City of Red Deer, directly south of the existing Lancaster Green neighborhood. The NASP is defined by the following boundaries:

North Boundary – Lancaster Green and 22 Street

West Boundary – 30 Avenue

East Boundary – SE $\frac{1}{4}$ Section and the Red Deer County/City of Red Deer Boundary.

South Boundary – Delburne Road (Secondary Highway 595)

The property is legally described as the SW $\frac{1}{4}$ Section 02, Township 38, Range 27, West of the 4th Meridian. Figure 2.0 – Legal Boundaries, illustrates the boundary of this development.

The Vanier Woods NASP constitutes a logical planning unit with respect to identifiable plan boundaries and servicing considerations and is consistent with the area identified in the East Hill Major Area Structure Plan.

1.3 POLICIES & RELEVANT PLANNING DOCUMENTS

The following relevant documents have been reviewed and referenced in preparation of this outline plan report:

- City of Red Deer East Hill Major Area Structure Plan
- City of Red Deer Municipal Development Plan
- City of Red Deer – Neighbourhood Planning and Design Guidelines – 2005 Edition
- Geotechnical Investigation on the Vanier Woods Property
- Phase 1 Environmental Assessment on the Vanier Woods Property
- City of Red Deer Ecological Profile on these lands.

The Vanier Woods Neighbourhood Area Structure Plan has been prepared as a Statutory Plan. It adheres to Section 633 of the Municipal Government Act of Alberta and follows the guidelines and policies set forth by the City of Red Deer for the development of new areas. These policies and guidelines are outlined in the City's Municipal Development Plan, The East Hill Major Area Structure Plan and the City of Red Deer Neighbourhood Planning and Design Guidelines.

The East Hill Major Area Structure Plan provides a framework for orderly and economic growth of the City's southeast residential neighbourhoods in order to create safe and healthy living environments. It was created in 1977 and has been amended on several occasions since this time and it is currently going through another major amendment to include lands recently annexed in the northeast corner of Red Deer. This Plan sets out the broader transportation and land use objectives for multiple quarter sections in East Red Deer, which includes locations of



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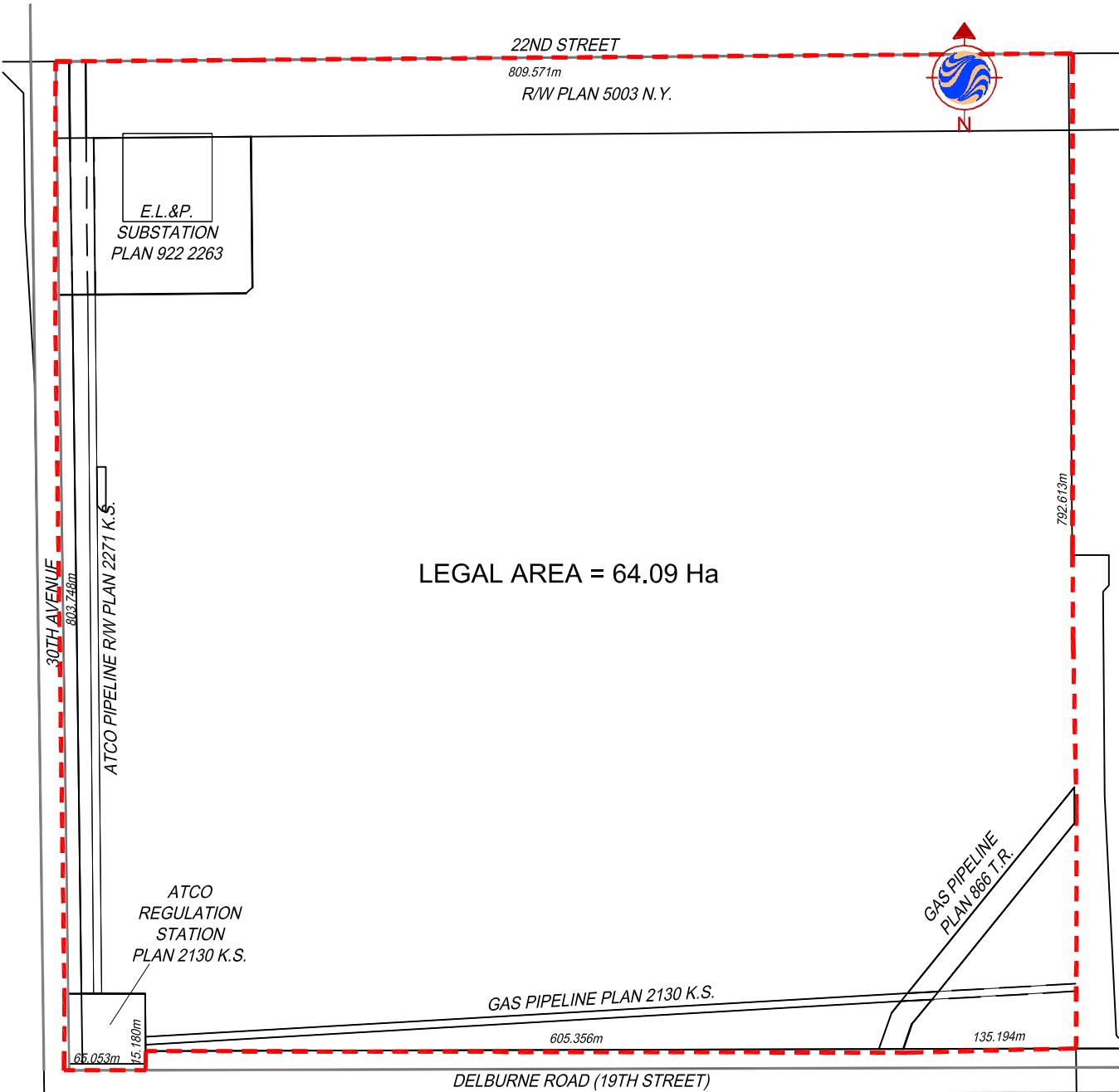
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Figure No.
1.0
Title

LOCATION PLAN



LEGEND

ASP BOUNDARY

SCALE

0 50 150 250m
1:5000



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collector roads, locations of arterial roads, identifying school and recreational sites, identifying trail systems, and allocating commercial and residential land uses.

The City of Red Deer Municipal Development Plan outlines broad policies for guiding growth and changes in the City for the next 25 years, and has been updated recently. Among many other things the MDP sets out the following policies regarding neighbourhood designs:

- The Neighbourhood Planning and Design Guidelines and Standards to guide the creation of sustainable neighbourhoods.
- The residential density in new neighbourhoods shall be between the range of 12.35 to 17.30 dwelling units per gross developable hectares.
- The City shall continue to require a mix of housing types and forms in all residential neighbourhoods.
- The City shall encourage the creation of a wide variety of housing forms.

The Vanier Woods NASP Bylaw complies with both of these plans.

2.0 Site Context & Development Considerations

2.1 TOPOGRAPHY & VEGETATION

As shown on Figure 3.0 – Existing Conditions, the site topography is gently rolling with the ground surface elevation ranging from 900 m to 904.5 m. The highest ground contour is in the north central portion of the quarter section and in the lowest area there exists a semi-permanent slough with some standing water. There is also a lower area located along the east boundary of the development. Generally the runoff from the property is from north to south with a portion of the development draining to the east.

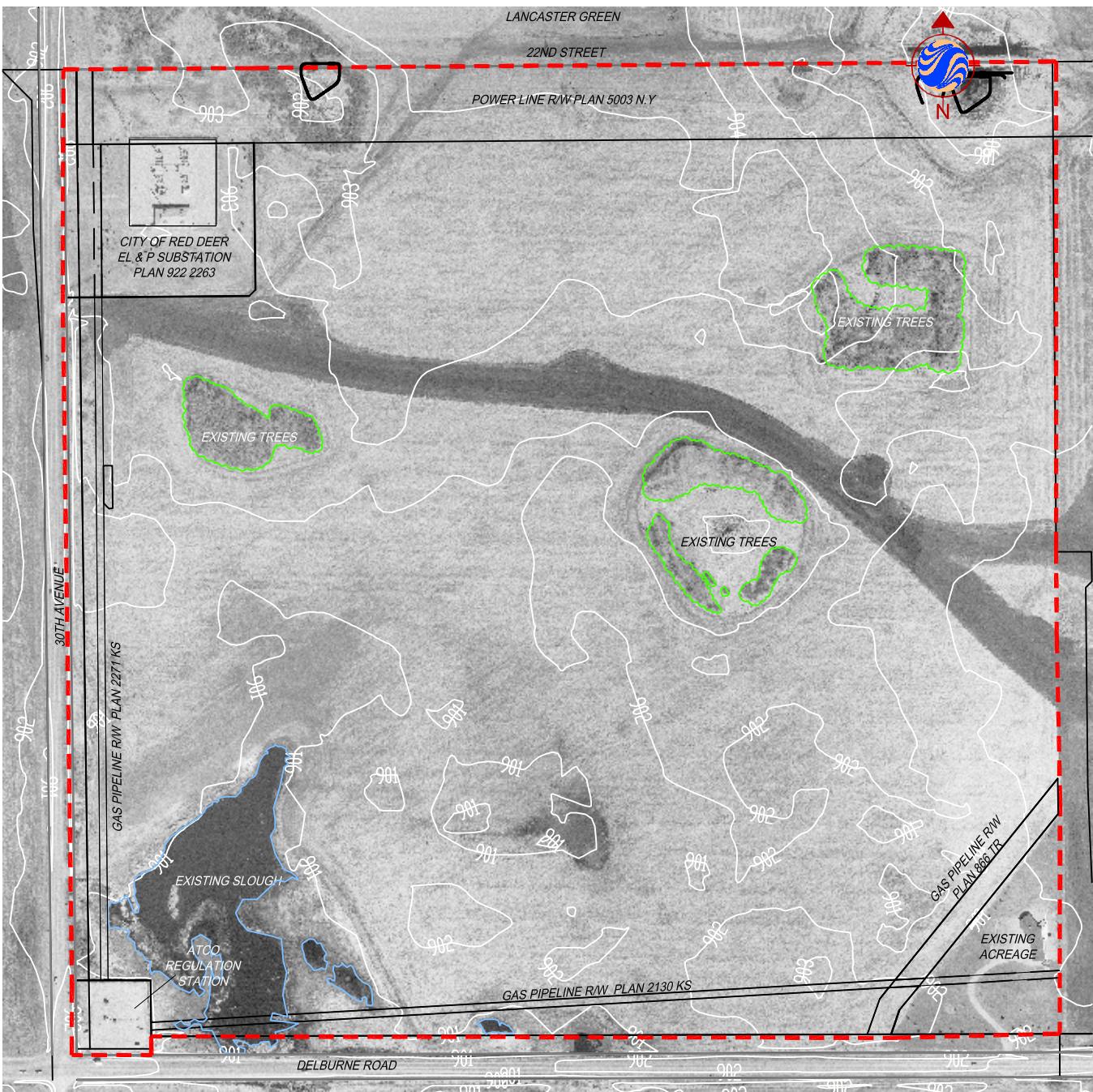
The local vegetation consists of trees and bushes around the west side of the slough, as well as in three existing tree stands in the northwest, northeast, and the central portion of the Plan as shown in the aerial photograph on Figure 3.0. The remainder of the quarter section has remained as vacant agricultural land for several decades.

Based on the geotechnical report prepared by Parkland Geotechnical Consulting Ltd., in July of 2005, the soils on this site consist of topsoil and lacustrine soils overlying a sandy clay till. This report also identifies that some fill was imported and placed around the perimeter of the slough area and this material will need to be removed and replaced with clean fill in locations where housing development is proposed. As concluded in the report, the subsurface conditions are considered to be fair for residential development and are very typical to those found throughout southeast Red Deer.

2.2 NATURAL FEATURES

The most significant natural feature of the subject lands is the large wetland area, located in the southwest corner of the quarter. As is evident by aerial photographs taken in the 1960's this is not a naturally occurring wetland. These aerial photographs show that this feature did not exist previously to this time frame. In discussions with the original landowner, it is apparent that the wetland was created when material was hauled out of this corner of the development as a source of borrow material. Over the past decade, several Contractors have hauled and placed fill along the north perimeter of this slough, which has reduced the size of the wetland area to its current size of 2.5 hectares. The majority of this imported material was topsoil, but some mixed marginal material was also imported and placed as well. The majority of the imported material came from a topsoil stockpile located in Eastview Estates.

The drainage on this quarter section is north to south, with the balance of the quarter experiencing some runoff from the adjacent quarter to the east draining to the existing wetland area. Once this quarter is fully developed complete with storm sewers and urban roadways, the main source of water that feeds this wetland will be cut off. This reduction in the natural volume of storm water runoff will dramatically impact the riparian qualities of the wetland to the point that the wetland would no longer be sustainable.



LEGEND

- - - ASP BOUNDARY
- CONTOURS
- EXISTING TREES

SCALE

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EXISTING
CONDITIONS PLAN



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From discussions with Alberta Environment, there is no Provincial regulation mandating the preservation of this existing wetland area. Despite this, Melcor Developments felt that this was an important feature that should be preserved in its existing location. Therefore, a reconstructed wetland feature/amenity is proposed in the southwest corner of the development. This will be achieved by salvaging the existing organic material on top of the existing wetland area and then lowering the elevation of the wetland. In so doing the wetland will then function as an integral part of the overall Vanier Woods storm sewer system and then can be fed with a constant supply of water. In order to re-establish the biological features of the original wetland area, the organic material, which was salvaged, will be replaced on the reconstructed wetland.

The other natural features on this property include three significant stands of existing trees. The first one is located directly south of the City's substation in the northwest corner of the quarter and is 0.38 hectares in size. The second one is located in the middle of the quarter and occupies an area of 0.95 hectares. The final tree stand is in the northeast corner. It is 0.70 hectares. Each of these tree stands consists primarily of poplar trees. The most prominent and healthy of these features is the tree stand in the northwest corner, which will be retained and incorporated into the Plan. This will be a prominent landscape feature near the entry into the neighbourhood.

2.3 ENVIRONMENTAL SITE ASSESSMENT

In June of 2003, on behalf of Melcor Developments Ltd, Parkland Geotechnical completed an Environment Site Assessment for this property. As part of this investigation, the area of the southwest slough was investigated to determine the limits and the type of materials used for filling in the north part of the slough. All material used is considered to be clean fill composed of clay and topsoil. From this report, this proposed development has been assigned an environmental risk rating of "low" and no additional environmental site investigation is required.

Because the material imported at the north end of the wetland includes some topsoil, all imported material on site will be excavated and removed since this material is unsuitable for basement foundations. Under the direction of a Geotechnical Consultant, this material will either be exported from the site or utilized for arterial berm construction.

The City of Red Deer owns the quarter section to the southwest of this property, which will eventually be developed as an expansion of their landfill operations. These future landfill operations will be set back so that the regulatory setbacks do not impact development on the north side of Delburne Road.

2.4 HISTORICAL LAND USE

The subject area has been used for agricultural purposes since the early 1900's. There was an existing homestead located in the northeast corner of these subject lands, but the buildings on this site were demolished a few years ago when the homestead was vacated.

In the early 2000's an acreage, which has one newly constructed home, was developed in the extreme southwest corner of the Plan area. This acreage is separated from the remainder of the development by an existing TransCanada Pipeline right-of-way. Access to this acreage is accommodated by an existing driveway that connects directly to Delburne Road (19 Street). It is anticipated that once the adjacent quarter section to the east develops then access to this site, or any re-development in this parcel, which may occur, will be provided via a connection to the proposed collector road, which will be located directly east of this parcel of land.

The City of Red Deer's substation No. 17 is located in the northwest corner of the quarter section and occupies 1.67 hectares. Also Atco Pipelines has a gas regulating station located in the southwest corner of the Plan.

2.5 ADJACENT LANDS AND SURROUNDING DEVELOPMENT

The existing Lancaster Green neighbourhood is located north of the Vanier Woods Lands across 22 Street. This development has been completed with the exception of the large multi-family development proposed in the southeast corner of this quarter section and the neighbourhood commercial site proposed in the southwest corner. The remainder of this development is primarily residential housing.

West of 30 Avenue is the newly developed Ironstone Development (Inglewood East). It is anticipated that this residential development will be developed out by the end of 2006. There is a large multi-family development proposed at the east boundary of this development at the collector connection to the Vanier Woods Lands at 30 Avenue. The remainder of this development, which bounds 30 Avenue, will be single-family homes.

The adjacent quarter section to the east has been farmed as agricultural land since the early 1900's. There is also an existing acreage and landscaping business, Apollo Landscaping, located in the southeast corner of this quarter section.

The quarter section to the south, across Delburne Road, has been used for agricultural purposes for many years. There is also an existing Fire Hall located in the northwest corner of this property, which is operated by Red Deer County. As shown in the City of Red Deer's 2005 Growth Study, this quarter section could eventually be re-developed for Industrial use. Presently the City is planning to upgrade this intersection (19th Street and 30 Avenue) to a four lane divided arterial standard.

2.6 EXISTING UTILITIES

Atco Pipelines owns a 0.28-hectare parcel of land in the southwest corner of this quarter section where they operate a gas regulating station, which adjusts natural gas pressures for two existing high-pressure gas lines, which enter this facility from both the north and the east. The gas line to the north parallels the entire west boundary of the Vanier Woods Lands and the gas line to the east parallels the entire south boundary of this property. Both of these high-pressure gas lines are protected by a 20-foot right-of-way and since ATCO's facilities contain sweet gas as opposed to sour gas, Alberta Energy Utilities Board regulations will allow development to the

boundary of these facilities with no setbacks required. ATCO does however have tight restrictions on development within their right-of-way and these rights-of-way should be developed as green areas.

As part of this development, a new access to the ATCO regulating station will be provided along their Right of Way from the adjoining lane as shown on Figure 4. The access will be a gravel roadway with controlled entry.

Preliminary discussions were held with ATCO Pipelines about the feasibility of relocating their existing high pressure gas line that is located along the south boundary. The purpose of this relocation was to realign the gas line on a parallel alignment to the south boundary of the property and then develop lands currently encumbered by this gas line. However, a preliminary cost estimate for this relocation determined that this relocation was unfeasible.

There is also an existing 150mm high-pressure TransCanada pipeline that cuts through the southeast corner of the quarter, adjacent to the existing acreage. This pipeline is protected by a right-of-way, which is 60 feet in width. Development is permitted to the edge of this right-of-way, but TransCanada does recommend a 7.0-meter setback from any habitable buildings. They also have tight restrictions on what can be constructed over their pipeline right-of-way. They typically prefer that their right-of-way be re-developed as park space as opposed to any other land use.

There is an existing 200-foot wide right-of way that bounds the north boundary of the lands owned by Melcor. This right-of-way contains 3 high voltage, overhead transmission lines and AltaLink currently owns this right-of-way and the utilities contained within.

3.0 Development Objectives & Principles

3.1 DEVELOPMENT OBJECTIVES

The Vanier Woods NASP has been prepared as a comprehensively planned residential neighbourhood taking advantage of the existing wetlands, the existing gas line right-of-ways, and the power line corridor. The main objectives of the Vanier Woods NASP are:

- to develop a plan consistent with the general intent and purpose of the City of Red Deer Municipal Development Plan (MDP) and the East Hill Major Area Structure Plan;
- to provide a framework to deliver high quality, comprehensively planned residential areas by defining the general pattern and composition of land uses, linkages, servicing designs and development staging;
- to address and accommodate existing uses (i.e. the utility corridor and surrounding transportation routes) affecting the plan; and
- to ensure the implementation of the plan takes place in an orderly, phased basis.

3.2 DEVELOPMENT PRINCIPLES

Development of the various land uses within the Vanier Woods NASP is defined through the following general principles:

3.3 RESIDENTIAL

- Encourage a variety of housing types, including single detached housing, semi detached housing, row housing and apartments. All housing forms and options will recognize consumer preferences and be in conformance with municipal standards and policies set forth by the City of Red Deer.
- Encourage pedestrian friendly streetscapes.
- Provide direct and safe pedestrian linkages to the community nodes such as the adjacent power line corridor, commercial development on adjacent lands to the north and northwest, open space, and transit areas.
- Locate residential development to take advantage of features such as Stormwater Management Facilities, parks / open spaces and utility corridors.
- Orient larger parcels of medium density residential development adjacent to the collector and / or arterial road system to provide easy access and, where appropriate, to provide a transitional land use between adjacent single family development and major roads.

3.4 MUNICIPAL RESERVES AND EDUCATIONAL / COMMUNITY FACILITIES

- Provide a park site to service the active recreational needs for this community as well as for adjacent neighbourhoods.
- Allow for the provision of dispersed park space within the neighbourhood to provide open space and opportunities for recreation for residents through the dedication of Municipal Reserves.
- Where possible and economically viable and sustainable, utilize the existing utility corridor and future Storm Water Management Facilities to provide pedestrian linkages and open space recreational opportunities.
- Reconstruct the existing wetlands to provide a passive recreational amenity, complete with pedestrian linkage, for the whole community to enjoy.

3.5 TRANSPORTATION

- Provide a logical, safe and efficient transportation system within the plan area to address pedestrian, bicycle and other multi-use modes of transportation, and the transit / vehicular transportation needs of residents moving to, from and within the Vanier Woods NASP as well as to the adjacent areas.
- Protect a corridor for the future improvement and widening of arterial roadways along the west side (30 Avenue) and south side (Delburne Road) of the neighborhood.
- Provide non-vehicular circulation options throughout the Vanier Woods area with special attention to linkages to the Recreational Park site, Stormwater Management Facilities, and the existing utility corridor.
- Minimize walking distances by creating an interconnected street network and providing walkways where roadway connections are not feasible.

3.6 ECOLOGICAL STEWARDSHIP

- Develop land in an efficient manner and encourage intensive urban development.
- Reconstruct the existing wetland in order to protect this important natural feature.
- Incorporate open spaces into compatible land uses such as the Storm Water Management Facilities and the utility corridor to optimize the use of these areas.
- Encourage naturalized landscaping on public and private lands to the extent acceptable to the City of Red Deer to minimize environmental and economic costs associated with their maintenance.

- Promote the development of open spaces and walkway linkages for pedestrian, bicycle and other multi-use travel, and connect them to the surrounding areas.

Encourage energy efficient construction and other innovative building and infrastructure techniques.

4.0 DEVELOPMENT CONCEPT

4.1 NEIGHBOURHOOD UNIT

The Vanier Woods neighbourhood development concept is based upon a response to current and anticipated market trends within Red Deer and the Red Deer region. An analysis of these trends and an assessment of their implications assist in shaping the plan with respect to the type, shape, size, and locations of various land uses.

The Vanier Woods NASP is comprised of 63.8 hectares of land and is bounded on the north, south, and west side by major roadways and on the east side by the City of Red Deer boundary. These boundary conditions create a logical planning unit and the basis for the design as shown on Figure 4.0 – Development Concept. The land use statistics and number of residential units are represented in Table 1 and Table 2 following the Development Concept.

4.2 RESIDENTIAL

All land within the Vanier Woods development is intended for residential development complemented with a significant amount of open space. A mix of low, medium, and high-density residential dwelling units is described and will be implemented based on market conditions and consumer preferences at the time of development.

4.2.1 Low Density Residential (R1)

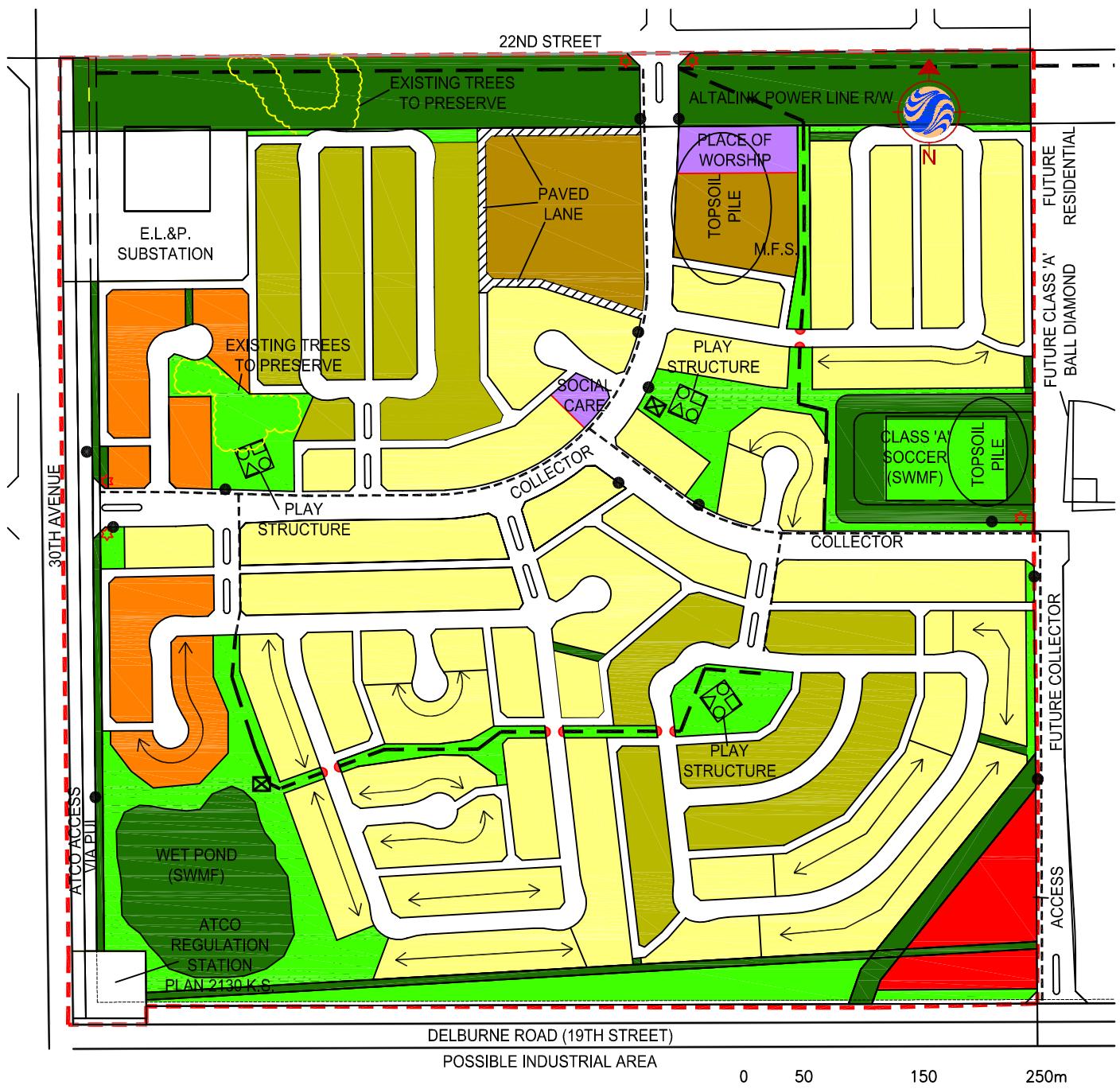
The vast majority of lots proposed in the Vanier Woods development will be conventional detached dwellings with the R1 designation. These lot types are spread throughout the development concept and are in close proximity to the many amenities offered in this development, which include the constructed wetlands, the recreational park, several small parkettes, the AltaLink green corridor, and the lineal linkages between these amenities.

Within the low density (R1) areas identified in the plan, the housing forms will consist of single detached housing catering to a variety of lot and home sizes. These lots will typically be around 35 meters with shallower and deeper lots around expanded bulbs and in the closes. It is anticipated that the larger lots will be concentrated around the constructed wetlands in the southwest corner.

Development of the low density and smaller lot residential areas will be planned in clusters / cells to provide a greater sense of identity for the various sub-areas and to help create a safe pedestrian environment. The area, number of dwelling units and population attributed to the low density and smaller lot residential developments are identified in Table 1.

4.2.2 Smaller Lot Residential (R1N)

Because of a continuing demand and need for more affordable lot and housing options, this plan has made provision for narrow detached lots which fall under the R1N land use designation. Front yard driveways are prohibited on these lots and therefore rear lane access is a necessity to meet the parking needs for these homes. These lots will range in width from 10.4



LEGEND

Single Family (R1)	Commercial (C5)
Single Family Narrow (R1N)	Municipal Reserve
Semi Detached (R1A)	Public Utility
Multi Family (R2/R3)	Place of Worship(R2/R3)/Social Care Facility(R1)/Day Care/Retirement/Assisted Living

- - - ASP Boundary
- Lot Designd for permitted use as Secondary Suites
- Potential Bus Stop
- ★ Entry Feature Sign
- ↔ 2 Storey Walkout

- - - Multi-Purpose Trail
- Trail
- Traffic Calming Measures
- ☒ Gathering Area

SCALE 1:5000

0

50

150

250m

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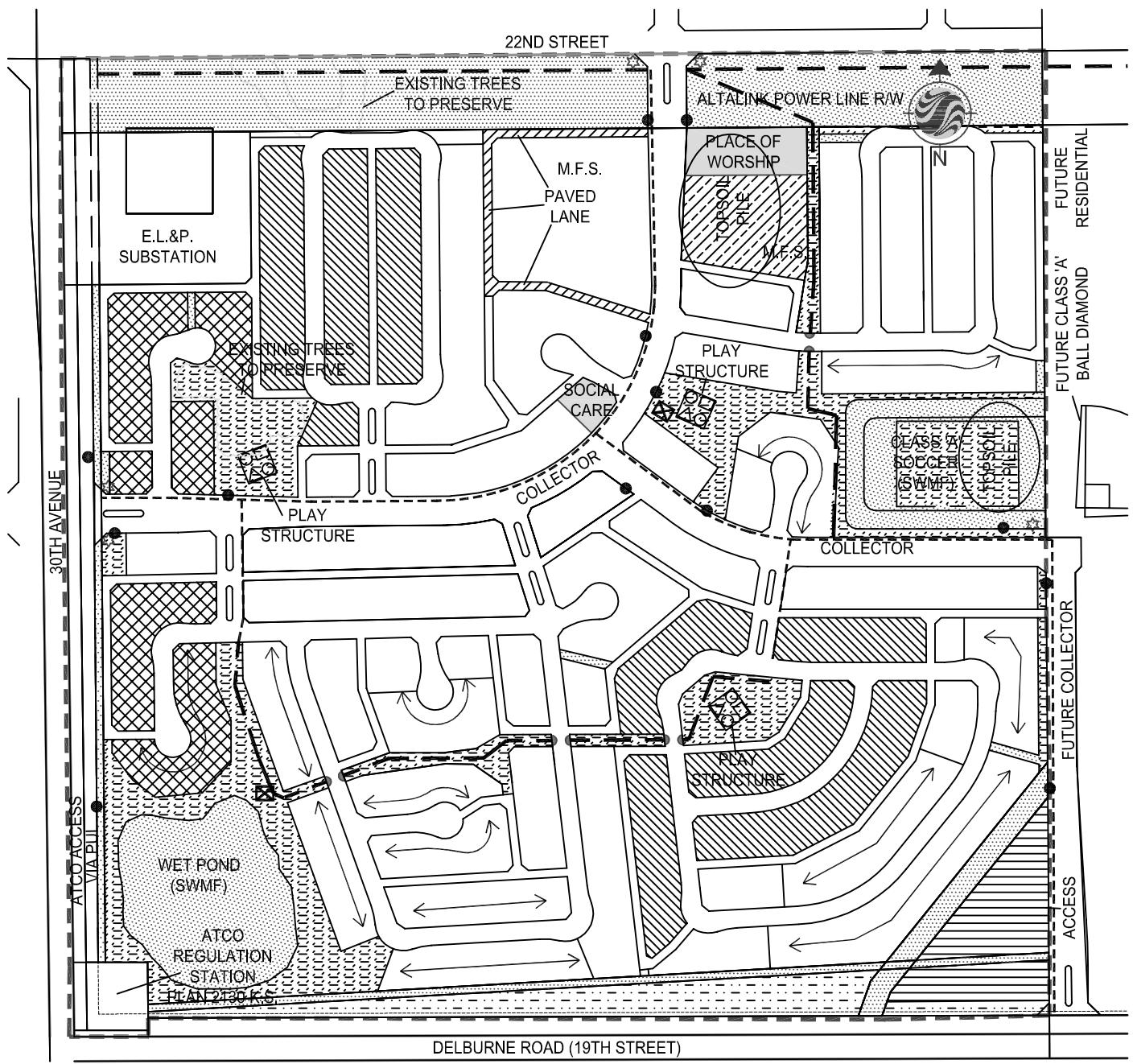
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DEVELOPMENT
CONCEPT REV 1



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LEGEND

- [White Box] Single Family
- [Hatched Box] Single Family Narrow Lot
- [Cross-hatched Box] Semi Detached
- [Grey Box] Place of Worship(R2/R3)/Social Care Facility(R1)

- [Horizontal Lines] Commercial (C5)
- [Vertical Hatching] R2/R3 Multi-Family
- [Dotted Pattern] Public Utility Lot
- [Dashed Pattern] Municipal Reserve
- [Solid Black Box] Berm

- ↔ 2 Storey Walkout
- Traffic Calming Measures
- ☒ Gathering Area
- Potential Bus Stop
- ◊ Entry Feature Sign

- Ex Trees to be Preserved
- - - Multi-Purpose Trail
- - - Trail
- - - ASP Boundary

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Figure No.

4.0

Title

DEVELOPMENT
CONCEPT



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Table 1: Land Use Allocation

LAND USE CATEGORY / COMPONENT	AREA (ha)	% OF PLAN AREA	NUMBER OF DWELLING UNITS
Gross Plan Area	63.84		
Arterial Road Widening on 19 Street / 30 Avenue	1.10		
Atco Regulation Station	0.28		
Atco Pipeline ROW	0.90		
TransCanada Pipeline ROW	0.43		
Alta Link ROW	4.71		
EL&P Substation	1.56		
East Collector Road	1.05		
Net Developable Area	53.81	100.00%	
Scenario A Total Residential Development, Place of Worship Site, and Social Care Site	30.80	57.24%	784
Scenario B Total Residential Development, Place of Worship Site Developed as Multi-Family, and Social Care Site	31.19	57.96%	823
Scenario C Total Residential Development, Place of Worship Site, and Social Care Site Developed as Multi-Family	31.31	58.19%	826
The total housing stock in the base scenario is made up as follows:			
Conventional Detached Dwellings (R1)	18.36	34.12%	386
Detached Dwellings with Secondary Suites (R1)	0	0.00%	0
Narrow Lot Detached Dwellings (R1N)	6.42	11.93%	148
Semi-Detached Dwellings (R1A)	2.41	4.48%	60
Multi-Family Dwellings (R2/R3) - west site	1.74	3.23%	78
Multi-Family Dwellings (R2/R3) - acreage site**	1.07	1.99%	48
Multi-Family Dwellings (R2/R3) - east site	0.8	1.49%	64
Option: Place of Worship Site Developed as Multi-Family Dwelling (R2/R3)	0.39	0.72%	39
Option: Place of Worship Site Developed as Detached Dwellings (R1)			
Option: Social Care Site Developed as Detached Dwellings (R1)	0.12	0.22%	3
Place of Worship Site	0.39	0.72%	
Social Care Site	0.12	0.22%	
Open Space	9.67	17.97%	
Municipal Reserves	6.65	12.36%	
Public Utility Lots	3.02	5.61%	
Transportation	12.83	23.84%	
Collector Roadways	2.73	5.07%	
Local Roadways	7	13.01%	
Lanes	3.1	5.76%	

* For density calculations each secondary suite to count as a half of a detached dwelling unit

** This site has been identified and redesignated for commercial uses (Bylaw 3217/E-2016 and Bylaw 3357/HH-2016)

Table 2: Density and Housing Mix

Density (du/ha)	Scenario A (church site and social care site developed for intended use)	14.56
	Scenario B (church site and social care site developed for residential use)	14.86
Housing Mix	Detached and semi-detached dwellings as a % of the total housing stock	0.72
	Multi-family dwelling units as % of the total housing stock	0.28
	Ratio of detached dwellings to semi-detached dwelling units	8.9:1
		0.22
	Lots for detached dwelling with secondary suite as a % of the total number of R1 lots	0.00

meters to 11.6 meters and will typically be 36.6 meters in depth except around expanded bulbs and at the end of a close.

In the Vanier Woods plan narrow lots are proposed in two locations. The first is adjacent to the AltaLink corridor and the E.L. and P. Substation in the northwest corner of the NASP. The second is in the southeast corner of the proposed development. Both of these residential clusters are situated in close proximity to park space, playground structures and lineal parks to access the remainder of the development by foot or bicycle.

4.2.3 Semi-detached Residential (R1A)

To accommodate the continuing demand for some semi-detached homes within a development, two clusters of R1A- semi-detached lots have been identified within the Vanier Woods NASP. These will be located in the two closes located on both the north and south sides of the entrance road from 30 Avenue. The north site will be situated directly south of the E.L. and P. Substation and adjacent to the proposed parkette to the east. The south site backs onto the constructed wetlands and will be an attractive backdrop for development of this land parcel.

These lots will typically be 35 meters deep and have a minimum width of 7.6 meters per dwelling unit.

4.2.4 Multi-Family Residential (R2/R3)

Three Multi-Family sites are proposed for this neighborhood. The first two are situated at the north end of the development adjacent to the main collector access to 22 Street. These two sites are ideally situated to benefit from the direct roadway access to and from the development with little traffic disruption to the remainder of the neighborhood. Also both sites are well served by adjacent lineal parks, which includes the power transmission line corridor. This green belt will provide an excellent link to the commercial areas in the southwest corner of Lancaster Green and the southeast corner of Aspen Ridge. The third site is identified in the southeast corner of the neighbourhood on the existing acreage site. The owner of this site has indicated that he has no intention of redeveloping this parcel in the near future. He may also seek amendment of the NASP to re-designate this parcel to a commercial use in the future. However, for now, this site is identified as a potential future multi-family development. *This site has been identified and redesignated for commercial uses (Bylaw 3217/E-2016 and Bylaw 3357/HH-2016.*

It is anticipated that these sites may be developed with row housing, duplex homes, or a multi story apartment building

4.3 PLACE OF WORSHIP SITE AND SOCIAL CARE SITE

One Place of Worship is proposed for the Vanier Woods Development and will be located on the east side of the entrance from 22 Street. This site is adjacent to the AltaLink power line right-of-way, which provides park linkage to many other adjacent neighborhoods. Also because it is at the extreme north end of the development, and adjacent to 22 Street, there is little traffic disturbance to the rest of the Vanier Woods neighborhood. In the event that a place of worship does not occur on this site, the site would then revert to multi-family residential (R2/R3) zoning.

A social care site is provided on the west side of the main collector access across from the park and playground located on the east side of the north south collector. If the social care site is not acquired for this purpose, it will revert to semi-detached residential (R1). Prior to the sites identified for Place of Worship and Social Care reverting to residential land uses, the sites must be advertised for a six month period in the local paper.

4.4 PARKS AND OPEN SPACES

4.4.1 Active Recreational Park Site

An Active Recreational Park is proposed at the east end of the proposed development. This site is approximately 2.5 hectares in size and will be developed with standard City of Red Deer parks amenities, which would include a Class A soccer field, and a play structure. In order to fulfill the City's N.N. Planning Standards & Guidelines, the Eastern Park Area will be expanded when the ¼ Section to the east is developed, and the required amenities are identified on the development concept map.

Once the quarter section has reached a point where it is 50% developed the City of Red Deer's Recreation, Parks and Culture Department constructs the playgrounds and playfields.

4.4.2 Linear Park Sites

There are two lineal parks planned for this neighbourhood, as well as the existing power transmission corridor, which facilitate a passive recreational network throughout this community as well as access to adjacent neighborhoods. These lineal parks will have a minimum width of 10 meters.

The first of these parks provides a green link between the constructed wetlands, to the small parkette at the east side of the plan, then to the active recreational park on the east side of the plan and finally to the power line transmission line at the north end of the plan. Also at the south side of the neighborhood, the existing ATCO Pipelines right-of-way and the TransCanada Pipelines right-of-way are to be utilized as a lineal linkage between the southwest and southeast corner of the neighborhood. In order to prevent vehicular traffic from accessing these parks as well as any public utility lots, bollards will be installed to prevent shortcutting.

As identified on the Plan, traffic-calming measures are considered for locations where the linear parks cross any local roadways at mid block locations.

4.4.3 Walkways and Multi Use Trail

The Vanier Woods NASP is designed with an extensive neighbourhood pathway system to convey pedestrian and bike traffic throughout the neighbourhood and linking to adjacent arterial roadways, adjacent developments and the community recreational node.

A 2.50 meter separate walk will be constructed along the collector road network to link the proposed regional pathway on 30 Avenue to the regional pathway on 22 Street. Also a 2.50

meter separate walk will be constructed along the east/west collector to connect this development to the future development to the east as well as to the proposed 2.50 meter walkway which will extend along the future collector link to 19 Street. Also a trail is proposed along the lineal park that links the constructed wetlands, in the southwest corner of the Plan to the recreational park, on the east side of the Plan, and finally to the power transmission line corridor at the north end of the Plan.

Typical cross sections of the proposed trails are shown on Figure 7.0.

4.4.4 Utility Corridors and Stormwater Management Facilities

The AltaLink utility corridor and public utility lots provide additional opportunities for pedestrian linkages. As well, the Stormwater Management Facility will be used for recreational activities to the extent acceptable to the City of Red Deer. These facilities however must ensure a safe environment for all users while maintaining the integrity of the stormwater control function for which they are designed.

4.4.5 Topsoil Stockpiles

Two temporary topsoil stockpiles are proposed for this development during the construction of utility services. The first one will be located on the multi family site at the north end of the development. The second one will be located on the park site at the east end of the development. These piles will be sized to accommodate the landscaping needs of residential lots in this development. Any excess topsoil will be disposed of in the arterial roadway berms or disposed of off-site.

4.5 EDUCATIONAL AND COMMUNITY FACILITIES

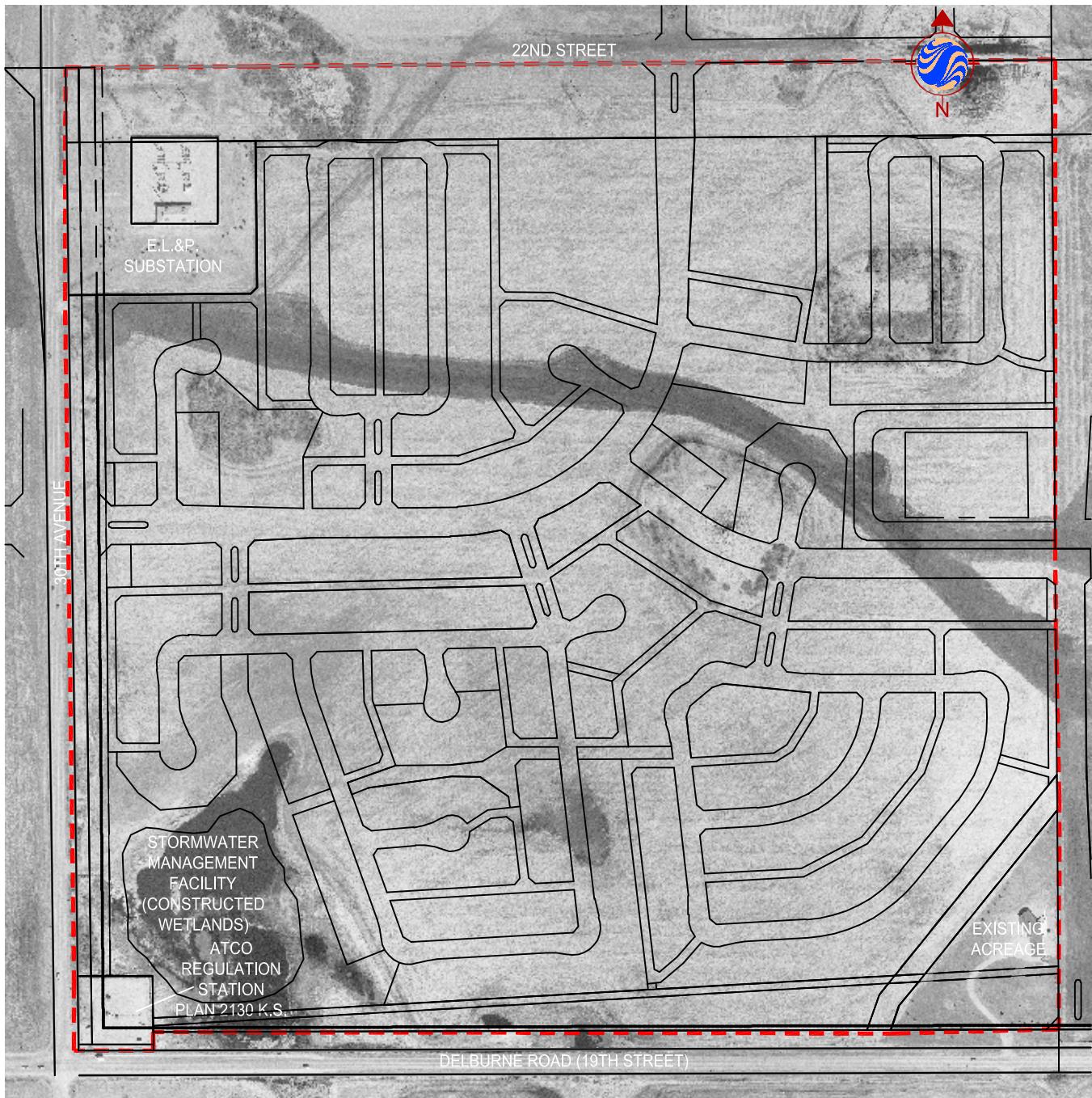
As identified on the East Hill Major Area Structure Plan and also reflected within this NASP, there is no School site contemplated on these lands.

On Figure 4.0, two Gathering Places have been identified. The first location is at the proposed storm water management / wetland reconstruction in the SW corner of the plan. This site will be located at the junction of the linear park trail system and the wetland site. The second location proposed will be in the park on the east side of the north south collector. This park will contain a playground and will have a transit stop adjacent to it.

4.6 STORMWATER MANAGEMENT FACILITIES

The two stormwater management facilities have been located to take advantage of the existing topography and low lying areas. The facilities also provide for recreational opportunities and have been configured to provide views from residential enclaves as well as from the linear open space linkages and the roadway network.

The stormwater management facility in the southeast corner is to be developed as a constructed wetland. This facility will be located in virtually the same location and in the same



LEGEND

ASP BOUNDARY

SCALE

0 50 150 250m
1:5000

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Figure No.

5.0

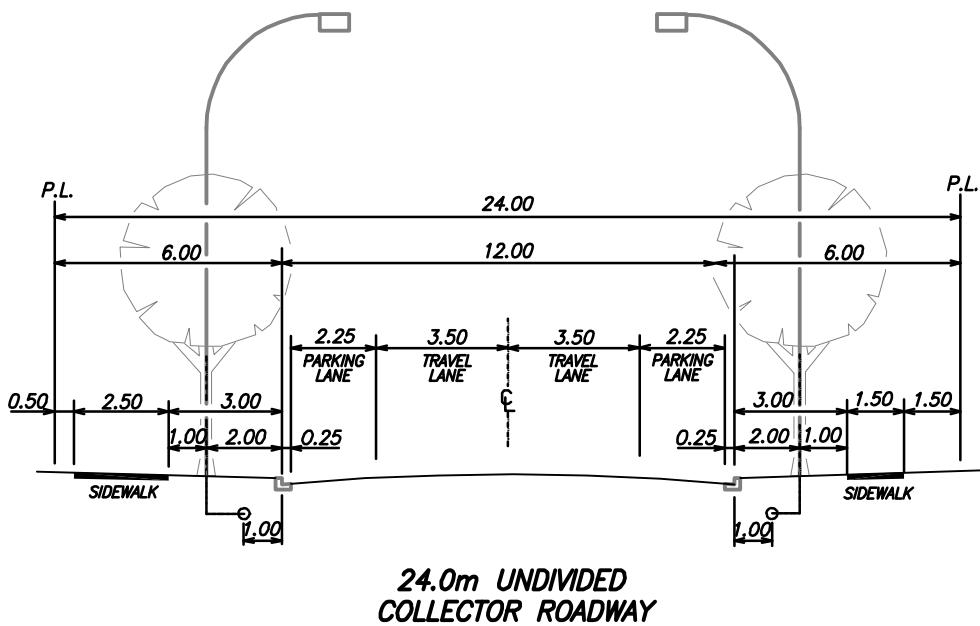
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AERIAL PHOTO
WITH CONCEPT OVERLAY



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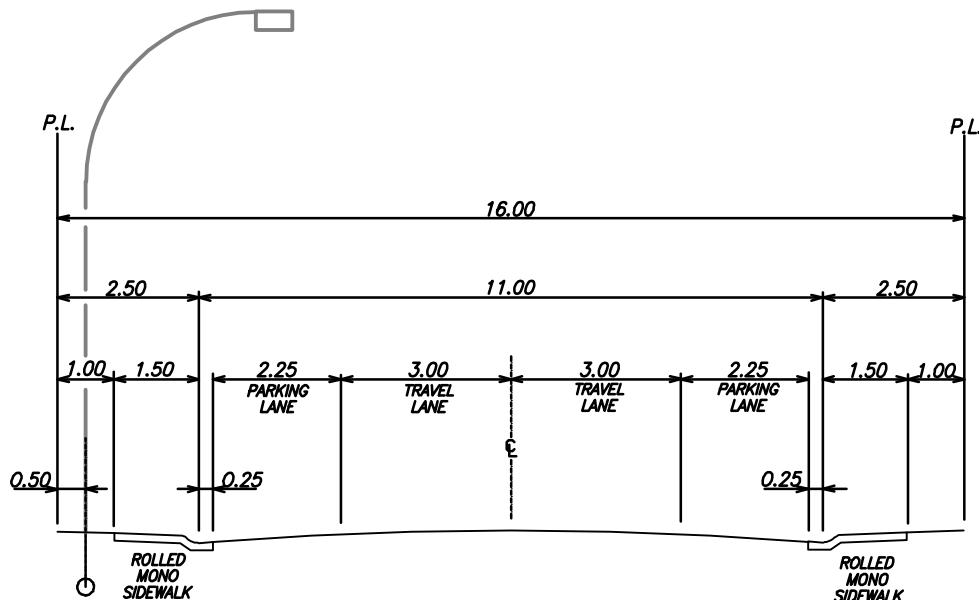
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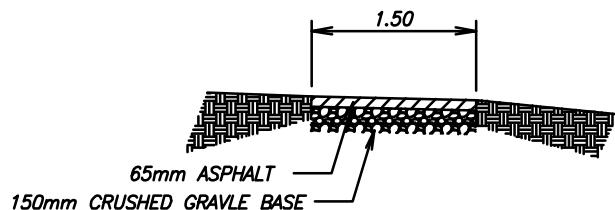
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Figure No.
6.0

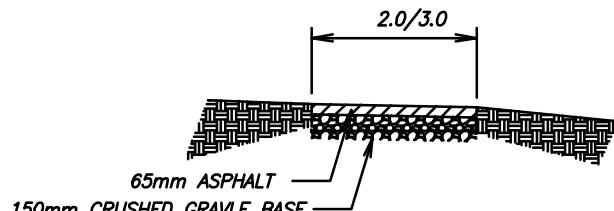
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ROAD CROSS SECTIONS



16/11 UNDIVIDED LOCAL ROADWAY



1.50m PAVED PATH



2.0m OR 3.0m PAVED PATH



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Figure No.
7.0

Title
ROAD/PAVED TRAIL
CROSS-SECTIONS

configuration as the existing wetland. The existing plant material and other organic material from the wetland will be salvaged and the existing wetland will be lowered in order make this wetland viable once development proceeds. This material will then be replaced and supplemented with additional planting material to make this wetland an amenity for the entire development. In consultation with the parks department, consideration may be given to develop this wetland as an ice skating facility in the winter and other potential active and passive uses.

The stormwater management facility at the east end of the development will be a dry stormwater detention pond. This storm pond will increase in size and be extended east once development on the adjacent development to the east proceeds, to form a common storm detention pond for both of these developments. It is anticipated that a class A soccer field will be developed adjacent to this storm pond. The final size of the pond will be determined as part of the detailed servicing study.

4.7 TRANSPORTATION

The system of roads proposed for the Vanier Woods neighbourhood provides its residents and the surrounding, traveling public with safe and efficient access for this area of Red Deer.

According to the updated East Hill Major Area Structure Plan, 19 Street is designated as an expressway. In order to accommodate this designation, additional right-of-way on the north side of the 19 Street right-of-way will be required to accommodate a 2.5m high berm. Access onto 19 Street is restricted to a single new location centered on the quarter line that bounds the Vanier Woods property and the adjacent quarter section to the east.

4.7.1 Arterial/Expressway roadways

The updated East Hill Area Structure Plan designates the following roadways adjacent to the Inglewood NASP as arterial roadways or collector roadways:

- 30 Avenue (east side) – arterial roadway
- 22 Street (north side) – collector
- 19 Street/Delburne Road (south side) – arterial roadway

In order to accommodate improvements and the widening of 30 Avenue scheduled for 2006, an additional right-of-way will be required from the Vanier Woods Lands. This widening will be approximately 20 meters in width. A proposed collector entrance off 30 Avenue is proposed directly opposite the access to the Inglewood East development to the west. A 1.5 meter high berm is proposed along the east side of 30 Avenue.

Similarly, a road widening of approximately 20 meters in width is contemplated along 19 Street to accommodate a 2.5 meter high arterial berm and future widening improvements on this roadway.

22 Street has been constructed to its ultimate standard and no additional right-of-way is required.

4.7.2 Collector Roadways

The Neighborhood Area Structure Plan provides three collector roadways linking the expressway, and arterial roads and their collector alignments match those dictated in the East Hill Major Area Structure Plan.

As indicated in the East Hill MASP, a collector roadway is shown extending south from the Lancaster Green neighborhood, then shifting to the west, and connecting to 30 Avenue, opposite Inglewood East (Ironstone). A second collector road connects the first collector to the future development to the east. There is also a third collector proposed, which would provide access to 19 Street at the east limit of the development. This roadway is an important link to the neighborhood and the Developer will provide the roadway when required by the City of Red Deer. The Developer will be responsible to acquire the land, and construct this roadway to the City of Red Deer standards when it is required by the City of Red Deer.

All Collector roads will have a carriage width of 12.0 meters wide, except for junctions to arterials where the roadway will be divided by a landscaped median. All collector roadways as per the new City of Red Deer Guidelines will have separate sidewalks complete with boulevard tree planting, as shown in Figure 6.0.

The collector road entrances at 30 Avenue, 22 Street and Delburne Road will include entrance features to enhance the character and provide distinct identity for the Vanier Woods community.

4.7.3 Local Roads

The system of local roads has been planned to provide access to individual development cells while at the same time discouraging outside traffic from short cutting through local roads. Local roads will have a 10.0 meter wide carriage way and a 15.0 meter wide right-of-way. All local roads will have monolithic curb and gutter sidewalks on each side of the roadway.

Where there is higher density housing, some local roads have been upsized to an 11.0 meter wide carriage way and a 16.0 meter wide right-of-way. These 11 / 16 roads have been identified on Figure 4.0.

Typical cross sections of 10 / 15 and 11 / 16 local roads are shown on Figures 6.0 and 7.0.

4.7.4 Laneways

The Inglewood East NASP has been designed with the majority of lots backing on to laneways, however lanes have not been provided for lots backing onto the Storm Water Management Facilities, Municipal Reserves or P.U.L.'s. Rear laneways will be designed to the City of Red Deer standards and will be 7.0 meters wide. Any lanes adjacent to M.R. or P.U.L. will have bollards installed to prevent shortcutting.

4.7.5 Emergency Services

The East Hill Major Area Structure Plan does not identify an emergency site for this development.

The City's Emergency Services Department indicates that presently the Plan area falls outside the four-minute travel time planning guideline. Once Station 3 is relocated to the proposed location in Aspen Ridge, the Plan area will be within the four-minute travel time planning guideline. The Anticipated trigger for the relocation of Station 3 to Aspen Ridge is just as the City's population nears 90,000.

5.0 MUNICIPAL SERVICING

5.1 STORMWATER MANAGEMENT

Two stormwater management facilities (SWMF) are proposed for the Vanier Woods Lands to manage and control major stormwater events. The larger of these facilities will be located in the southwest corner of the development and will manage stormwater from both the minor storm system for the entire development as well as stormwater from the major storm system for the west half of the development. This SWMF will be a stormwater retention pond, which will be sized to accommodate stormwater detention for a 1:100 year storm event.

The second SWMF will be located in the large open space at the east end of the Vanier Woods development. This facility will not have an inlet from the storm pipe system and will only detain stormwater from the major storm system (overland runoff during major rain events that exceeds the capacity of the pipe system) for the east half of the development. This storm detention pond will be a dry pond, which will also be utilized as an active recreational amenity and will be sized to accommodate 1:100 year storm events. This facility will also be expanded to the east once the adjacent quarter section is annexed and developed.

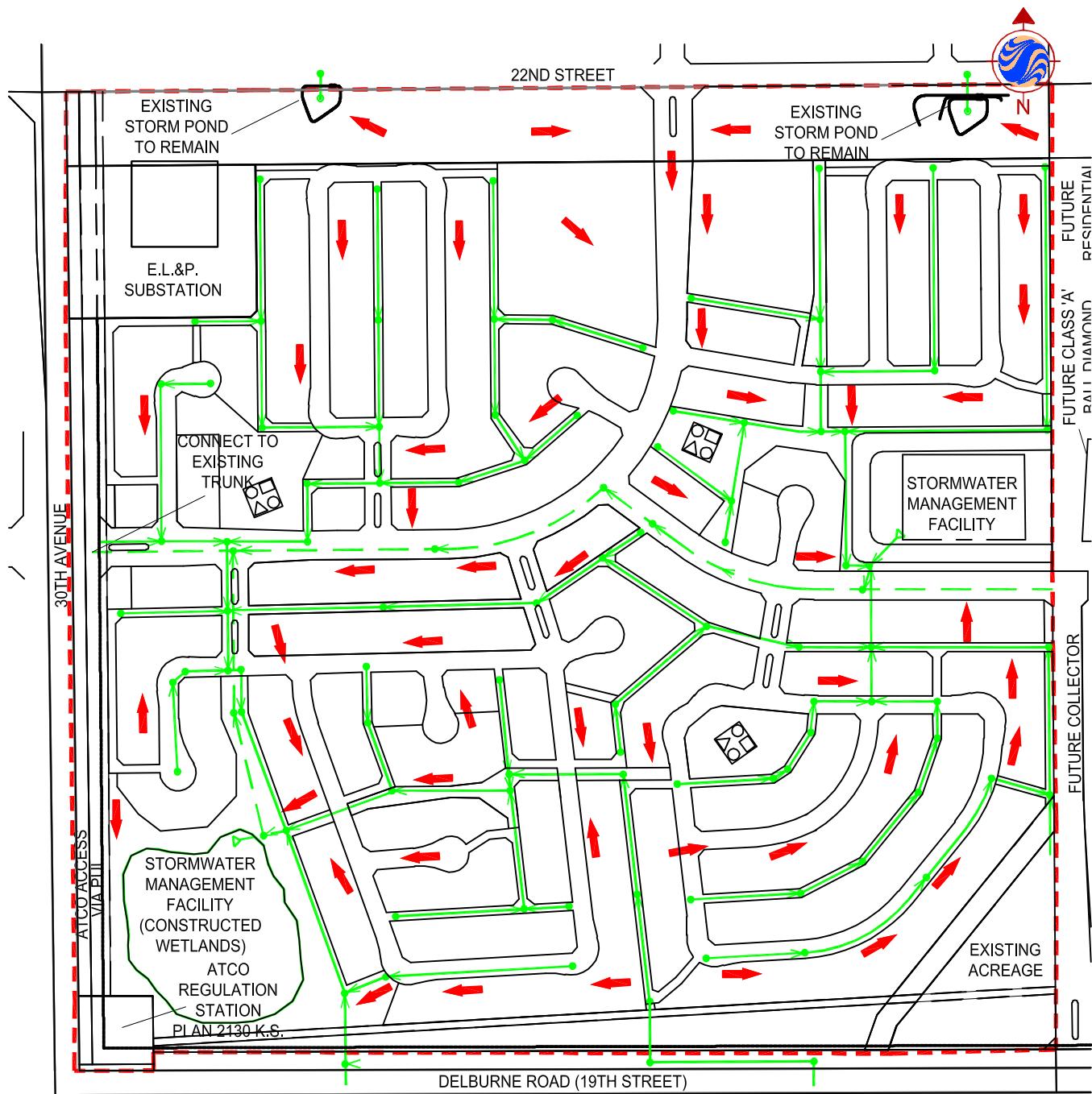
All storm sewers within the development will be sized to accommodate a 1 in 5 year stormwater event with stormwater being conveyed on the streets to the stormwater management facilities during large stormwater events. All stormwater from the Vanier Woods development will discharge into the 750mm storm trunk, which was recently extended across 30 Avenue to service these lands, at a restricted rate. This trunk extends through the Ironstone Lands and then down 22 Street before discharging into Piper Creek.

All stormwater facilities and storm sewers will be designed in accordance with the City of Red Deer Design Guidelines and will become the responsibility of the City of Red Deer to maintain after a two year period.

The major drainage and overall storm system are shown on Figure 8.0. This also illustrates that the storm trunk that services this development will be extended to the east boundary of the development to service future residential development on lands to the east.

5.2 SANITARY SEWER SERVICING

The proposed development will be serviced from the existing sanitary trunk that was recently extended under 30 Avenue from the Ironstone development. From Ironstone this trunk extends into Aspen Ridge and will eventually become an extension of the East Hill Trunk Sewer Main. This trunk line will be extended easterly along the collector road and then through the proposed park at the east side of the site in order to service future lands to the east once they are annexed from Red Deer County. The overall conceptual sanitary sewer system is shown on Figure 9.0.



LEGEND

- - - ASP BOUNDARY
- - - STORM TRUNK PIPING
- - - STORM PIPING
- MAJOR OVERLAND DRAINAGE
- MANHOLE AND FLOW DIRECTION

SCALE

0 50 150 250m
1:5000

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Figure No.

8.0

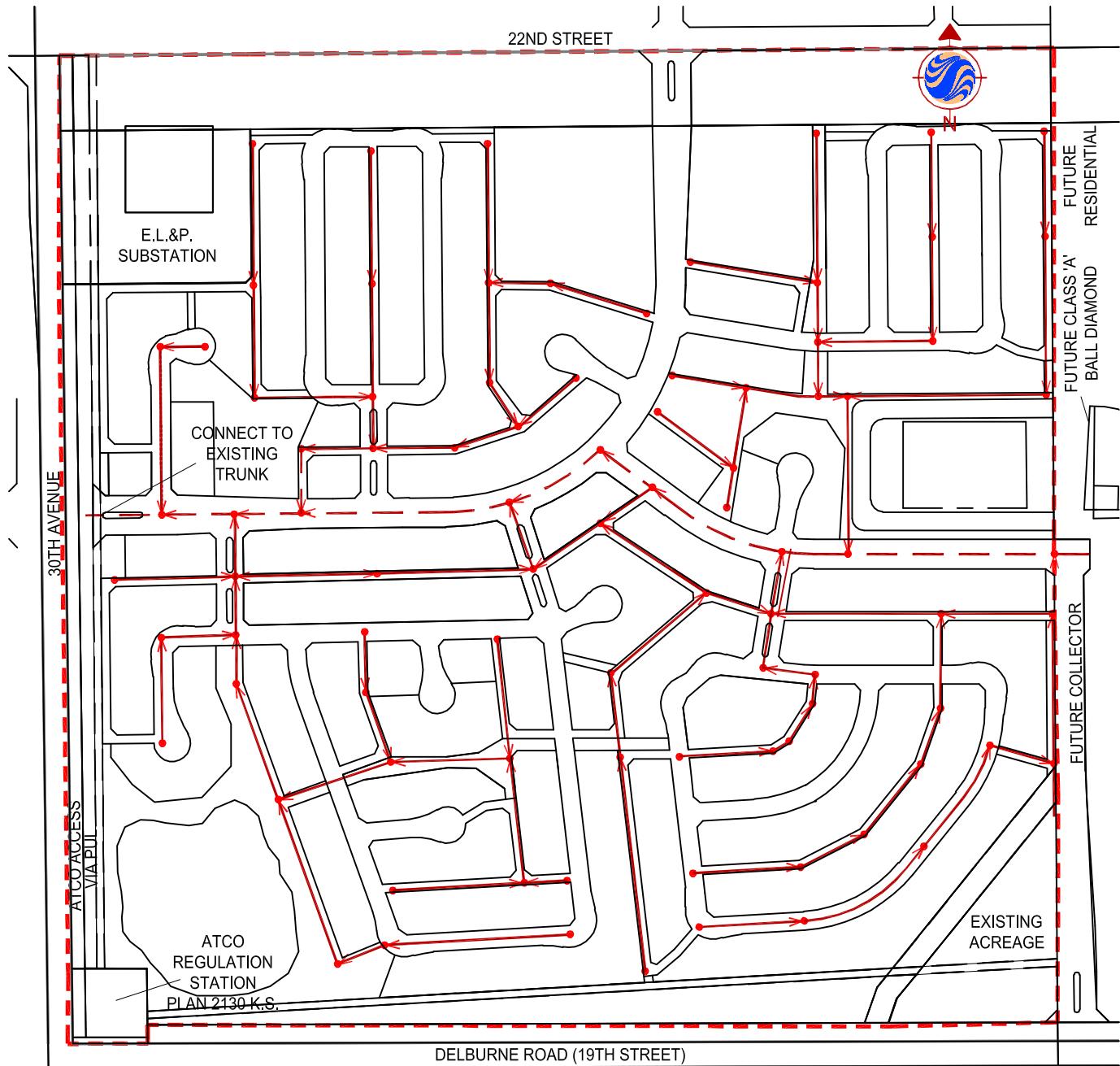
Title

PROPOSED STORM WATER
MANAGEMENT PLAN



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LEGEND

- ASP BOUNDARY
- PROPOSED SANITARY TRUNK PIPING
- PROPOSED SANITARY PIPING
- MANHOLE AND FLOW DIRECTION

SCALE



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Figure No.

9.0

Title

PROPOSED SANITARY
SEWER PLAN

The majority of the sanitary pipes will be 200mm in diameter, except for the sanitary trunk, which will be between 375 to 525 mm in diameter. In most instances the sanitary lines will be located in the lanes except in instances where there are conflicts with the ATCO Pipeline right-of-way, conflicts with the sanitary trunk, or when there is no lane to service from.

All sanitary sewer facilities will be designed in accordance with the City of Red Deer Design Guidelines and will become the responsibility of the City to maintain after a two year period.

5.3 WATER DISTRIBUTION

The overall water distribution system needed to service the Vanier Woods Lands is shown on Figure 10.0. In 2006 the City of Red Deer will extend a 400mm diameter water trunk down the west side of 30 Avenue, which will serve as the main feeder to this development.

All water main facilities will be designed in accordance with the City of Red Deer Design Guidelines and will become the responsibility of the City of Red Deer to maintain after a two year period.

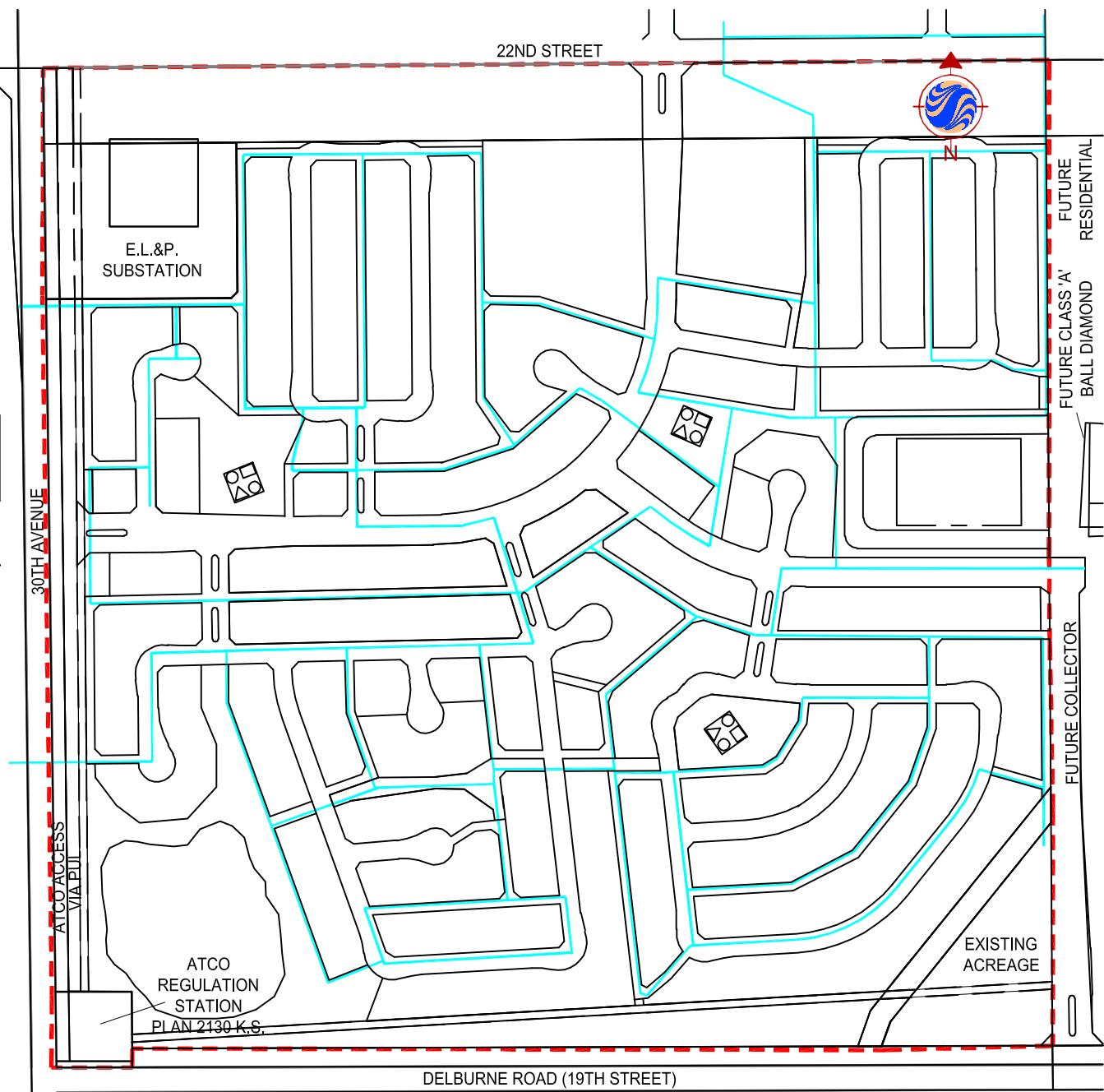
5.4 SHALLOW UTILITIES

Shallow utility services will be provided by the following companies:

- ATCO Gas (Natural Gas)
- City of Red Deer E.L. & P. Department (Electricity and Streetlights)
- Telus Communications (Telephone)
- Shaw Cable (Cable Television)

ATCO Gas will be servicing this development with gas from their existing high-pressure gas line, which parallels the east side of 30 Avenue. Similarly, Telus is currently extending their duct bank along the east side of 30 Avenue to service the Ironstone Development. This fiber optics line will also service the Vanier Woods Lands. E.L. and P. will service this development from their existing overhead power line, which also parallels the east side of 30 Avenue. This overhead line will be located to a side slope of the proposed 30 Avenue berm. A new alignment for an overhead transmission line will be required along the south boundary adjacent to the 19 Street right of way.

The shallow utility alignments will be established during preparation of the servicing study for the Vanier Woods Lands.



LEGEND

- ASP BOUNDARY (dashed red line)
- WATER MAIN (solid cyan line)

SCALE



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Figure No.

10.0

Title

PROPOSED WATER
DISTRIBUTION PLAN

6.0 Plan Implementation

6.1 DEVELOPMENT STAGING

Infrastructure to service the Vanier Woods Lands will be extended into this development from the existing trunks located on 30 Avenue. Each successive stage will be developed with the logical and economical extension of these municipal services with the intent of meeting the needs of the regional and local housing market.

As shown on Figure 11.0 – Phasing, the phasing is generally expected to begin in the west and extend easterly. The phasing boundaries are shown conceptually and may vary from those shown when redistricting and subdivision applications are made. As well, portions of separate phases may be developed concurrently if there is sufficient demand and / or if the municipal servicing is made more efficient as a result.

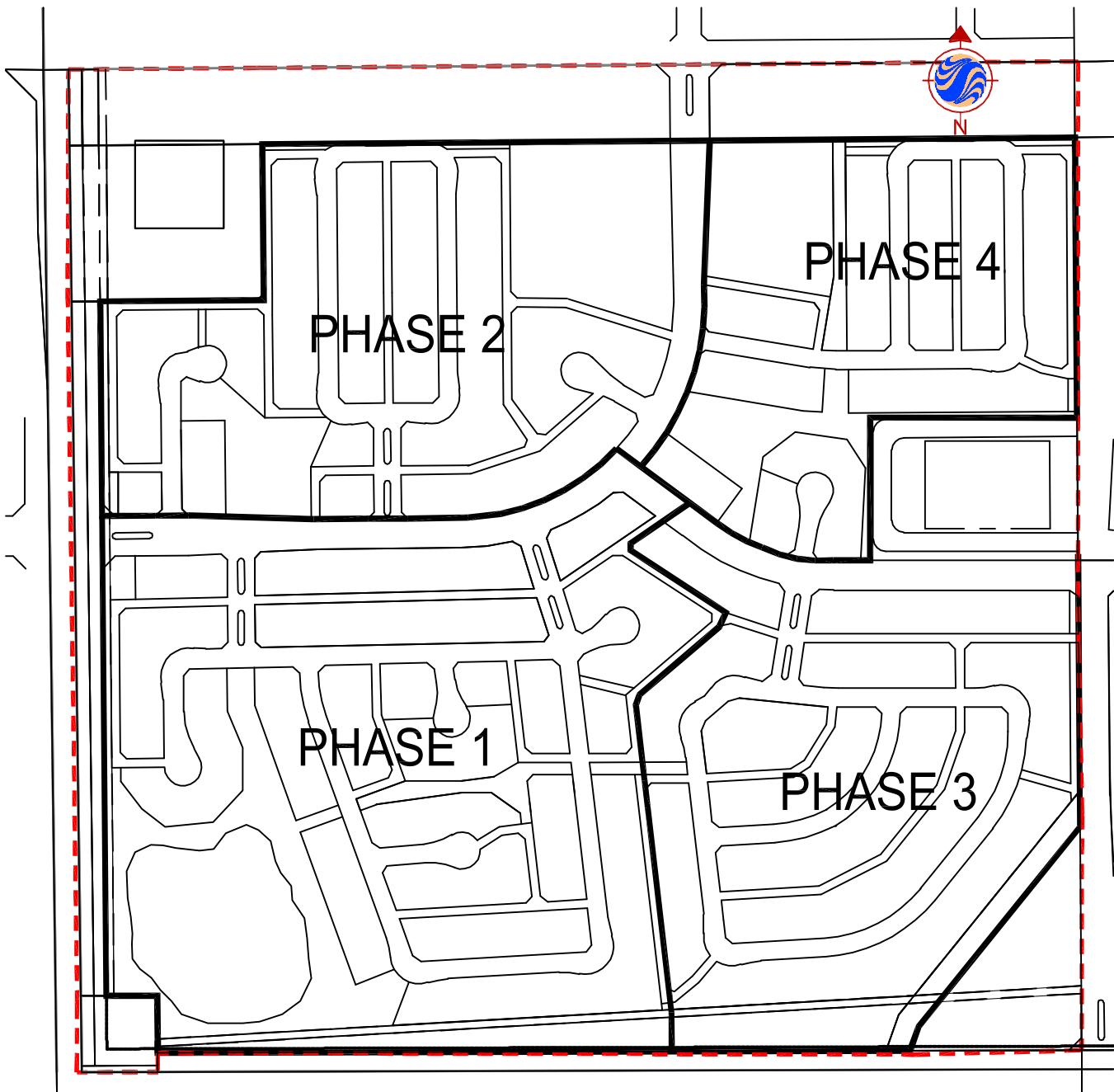
6.2 REDISTRICTING AND SUBDIVISION

Redistricting and subdivision applications, to conform to the land use designations described in the NASP, will be undertaken as necessary. Guided by the City of Red Deer MDP, the East Hill MASP and the Vanier Woods NASP, redistrictings and subdivisions will be required to adhere to the City of Red Deer Land Use Bylaw and the informational requirements necessary for each application.

6.3 PLAN AMENDMENTS

An amendment to an adopted NASP is required for any change in the Plan, such as:

- A change in proposed land use (such as, from single-family to narrow-lot housing, or multi-family housing, or vice-versa);
- To reflect a change in other documents affecting planning and land use in the area (such as an amendment to a Major Area Structure Plan);
- The elimination or addition of any public road or lane, or reclassification of a road, unless the road or lane is self-contained within a multi-family site.



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ORIGINAL SHEET - ANSI A

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Figure No.
11.0

Title
**PROPOSED
PHASING**