

Lancaster/Vanier East



NEIGHBOURHOOD AREA STRUCTURE PLAN

Melcor Developments
City of Red Deer

Amended xxxx, 2023
Bylaw xxxx/x-2023

Approved June 13, 2011
Bylaw 3217/B-2011

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Stantec
Lancaster/Vanier East
Neighbourhood Area Structure Plan
June 2020

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1.0 Introduction

1.1 PURPOSE

The purpose of the Lancaster/Vanier East Neighbourhood Area Structure Plan (NASP) is to describe the land use framework and development objectives for the NE and SE quarters of Section 02-38-27-W4M, located in the southeast of The City of Red Deer. The Lancaster/Vanier East quarter sections encompass approximately 123 hectares (304 acres).

In order to meet the continued demand for land, The City of Red Deer sought to annex additional lands in 2007 from Red Deer County. The application for annexation was submitted in July of 2007, in September of 2009 the application was approved. Phase One of the annexation included the Lancaster/Vanier East lands.

On behalf of Melcor Developments, Stantec Consulting Ltd. has prepared this NASP; which delineates land uses, parks and open space, stormwater management, and neighbourhood staging.

1.2 PLAN AREA

Lancaster/Vanier East is located on the southeast edge of The City of Red Deer, as shown in **Figure 1.0 – Location Plan**. These parcels of land are directly east of the existing communities of Lancaster Green and Vanier Woods and are defined by the following boundaries:

North Boundary: Lonsdale residential subdivision

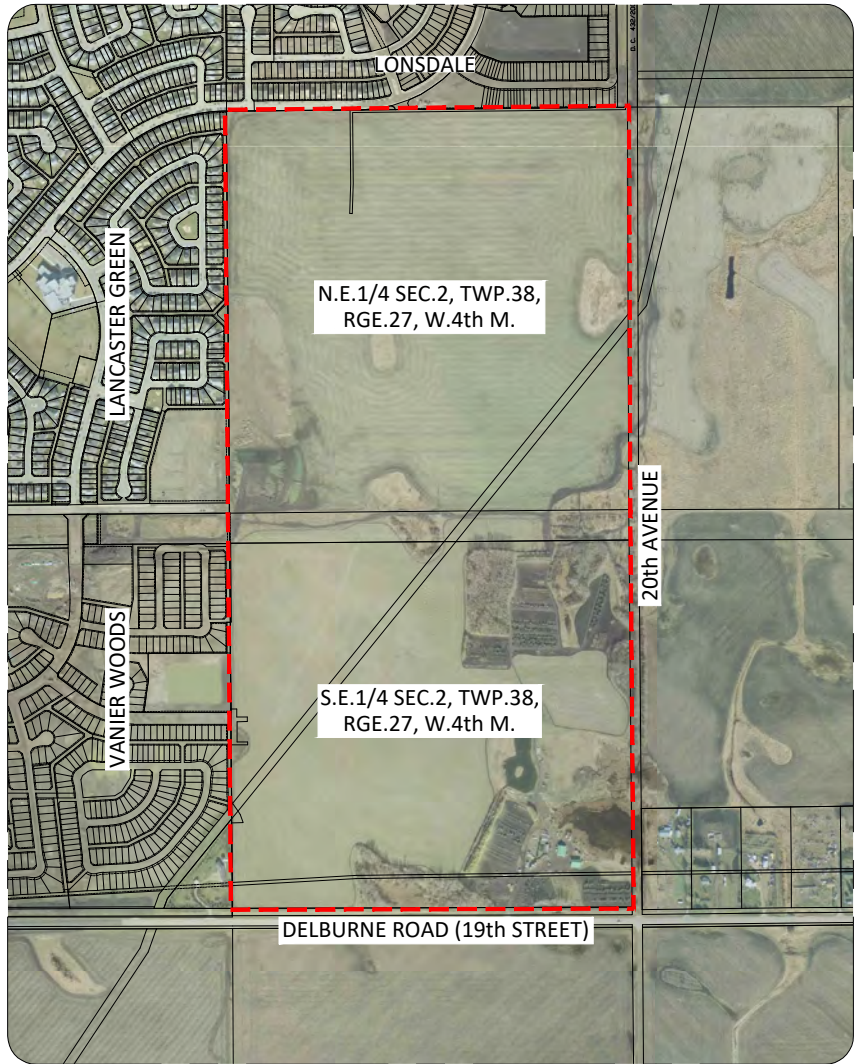
West Boundary: Lancaster Green and Vanier Woods residential subdivisions

South Boundary: 19th Street (Delburne Road)

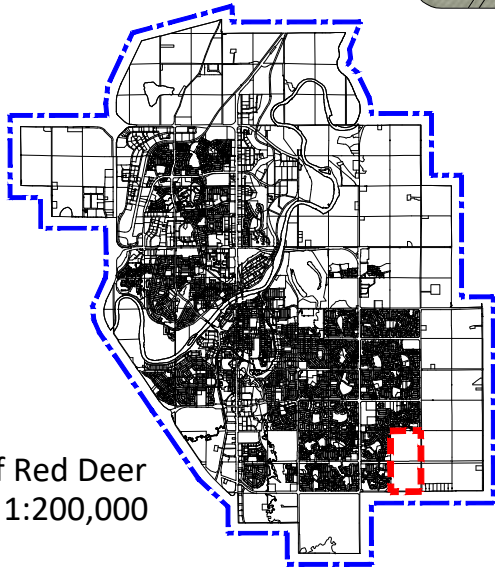
East Boundary: Future 20th Avenue expressway

The Plan Area encompasses 123 hectares (304 acres) and is legally described as the NE $\frac{1}{4}$ Section 02, Township 38, Range 27, West of the 4th Meridian and SE $\frac{1}{4}$ Section 02, Township 38, Range 27, West of the 4th Meridian as shown on **Figure 2.0 – Legal Boundary**.

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



Site Location
Scale: 1:10,000



Legend

- City of Red Deer Boundary
- NASP Boundary



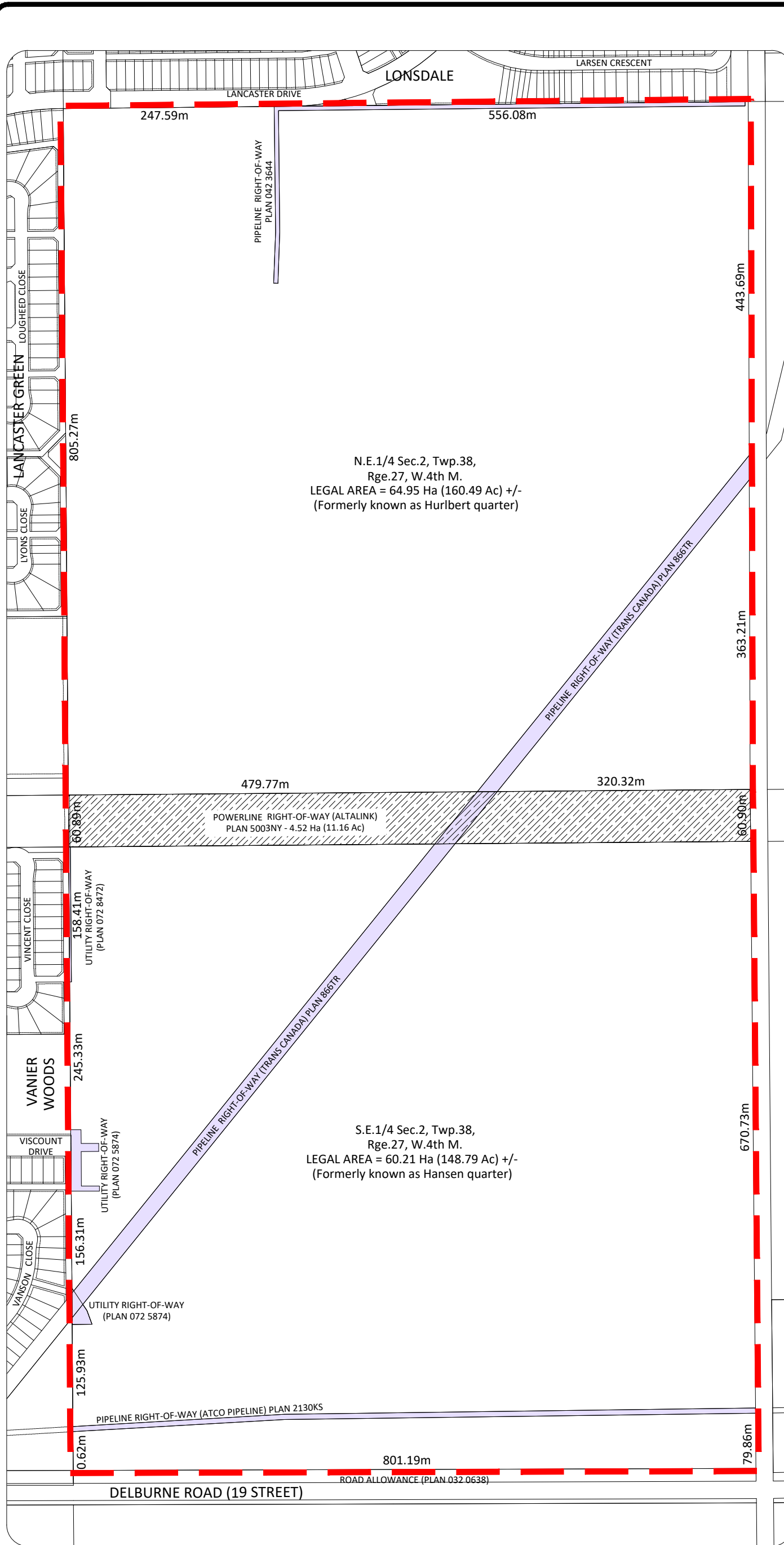
Figure 1.0
Location Plan
Lancaster/Vanier East

Prepared for:
Melcor Dev. Ltd.
Red Deer, AB



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July, 2023



Legend:
 Altalink Parcel
 Existing Right of Way
 NASP Boundary



Figure 2.0
 Legal Boundary
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB



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 PROJECT #: 112870983

July, 2023

1.3 POLICIES & RELEVANT PLANNING DOCUMENTS

The following relevant documents have been reviewed and referenced in preparation of this NASP:

- Parkland Geotechnical – Phase 1 Environmental Site Assessment Hansen & Hurlbert Quarter Sections NE & SE 02-38-27-W4M Red Deer County, AB (2009)
- Stantec Consulting Ltd – Wetland Assessment of Two Properties in Red Deer, AB NE 02-38-27-W4M & SE 02-38-27-W4M (2009)
- Stantec Consulting Ltd – Northland Drive/20 Avenue Functional Planning Study (2008)
- The City of Red Deer – 2004 Growth Study (2005)
- The City of Red Deer – East Hill Major Area Structure Plan (2021)
- The City of Red Deer – Land Use Bylaw (2006)
- The City of Red Deer – Municipal Development Plan (2013)
- The City of Red Deer – Neighbourhood Planning Guidelines and Standards (2013)
- The City of Red Deer – Trails Master Plan (2005)
- The City of Red Deer – Commercial Opportunities Study (2010)

The Lancaster/Vanier East 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 and *The City of Red Deer Neighbourhood Planning Guidelines and Standards*.

The City of Red Deer 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. The East Hill Major Area Structure Plan sets out the broader transportation and land use objectives for multiple quarter sections in east Red Deer. Some of these objectives include identifying the locations of collector roads, arterial roads, recreational sites, trail systems, and allocating the various 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 twenty-five years. Among many other things, the MDP sets out the following policies regarding neighbourhood designs:

- Density in new neighbourhoods shall ensure a minimum of 14.80 dwelling units per net developable hectare.
- The City shall continue to require a mix of housing types and forms in all residential neighbourhoods.

There are no constraints listed for the development of the Plan Area within *The City of Red Deer Land Use Bylaw*. This Plan has been developed to conform to the Land Use Bylaw in regards to land use and regulations.

The City of Red Deer prepared a Functional Planning Study for the Highway 11A/Northland Drive/20th Avenue/ McKenzie Road corridors from Highway QE2 north to Highway QE2 south. The Functional Planning Study has formed the foundation for design and construction of these segments of roadway. In preparation of the Concept Plan, the *Northland Drive/20 Avenue Functional Planning Study* was reviewed for its potential road alignment and to ensure an adequate right-of-way within the Plan Area. The roadway improvements and intersection has been incorporated into the Concept Plan.

The City of Red Deer Commercial Opportunities Study defines a vision for commercial growth for the City of Red Deer and aids in the forecasting of retail/service/office development. This NASP has been developed to conform to the recommendations for District Centres as identified within the *Commercial Opportunities Study*.

The City of Red Deer Trails Master Plan identifies a future collector trail connection in the adjacent subdivision and potential connections. This type of trail takes the form of a 2.5m wide concrete sidewalk that is required on one side of the collector roadways. Neighbourhood trails located throughout Lancaster/Vanier East will be designed to the standards set out within the Trails Master Plan.

The design of Lancaster/Vanier East has been based on the policies set out within *The City of Red Deer Neighbourhood Planning Guidelines and Standards*.

1.4 AMENDMENTS

In 2020, the Lancaster/Vanier East NASP was amended to provide additional housing options in the neighbourhood of Laredo. A revision to the Land Use Concept was made to accommodate two land use districts within a defined area. The overall density and potential population were unchanged.

In 2023, the developable area of NE 2-37-27-W4 was revised along with the removal of commercial land uses. An area within the 20th avenue road ROW, known as the “jughandle” was purchased back from the City, thus increasing the developable area. The jughandle and previous commercial area was replaced with various residential land uses.

2.0 Site Context and Development Considerations

2.1 NATURAL FEATURES

The majority of the land within the Plan Area is agricultural farm land with several areas of upland trees as shown on **Figure 3.0 - Existing Features**. Two large groupings of trees are located near the center and along the south boundary of the Plan Area. Vegetation within the Plan Area is mostly cultivated with a mosaic of aspen and prairie vegetation.

Seasonal wetlands are present throughout the Plan Area while more prominent wetlands are located in the southeast corner. A Wetland Assessment completed by Stantec Consulting Ltd. identified and classified four semi-permanent ponds and lakes, two seasonal ponds and lakes, and four temporary wetlands. These features are shown on **Figure 4.0 – Wetland Assessment**.

2.2 TOPOGRAPHY, SOILS & VEGETATION

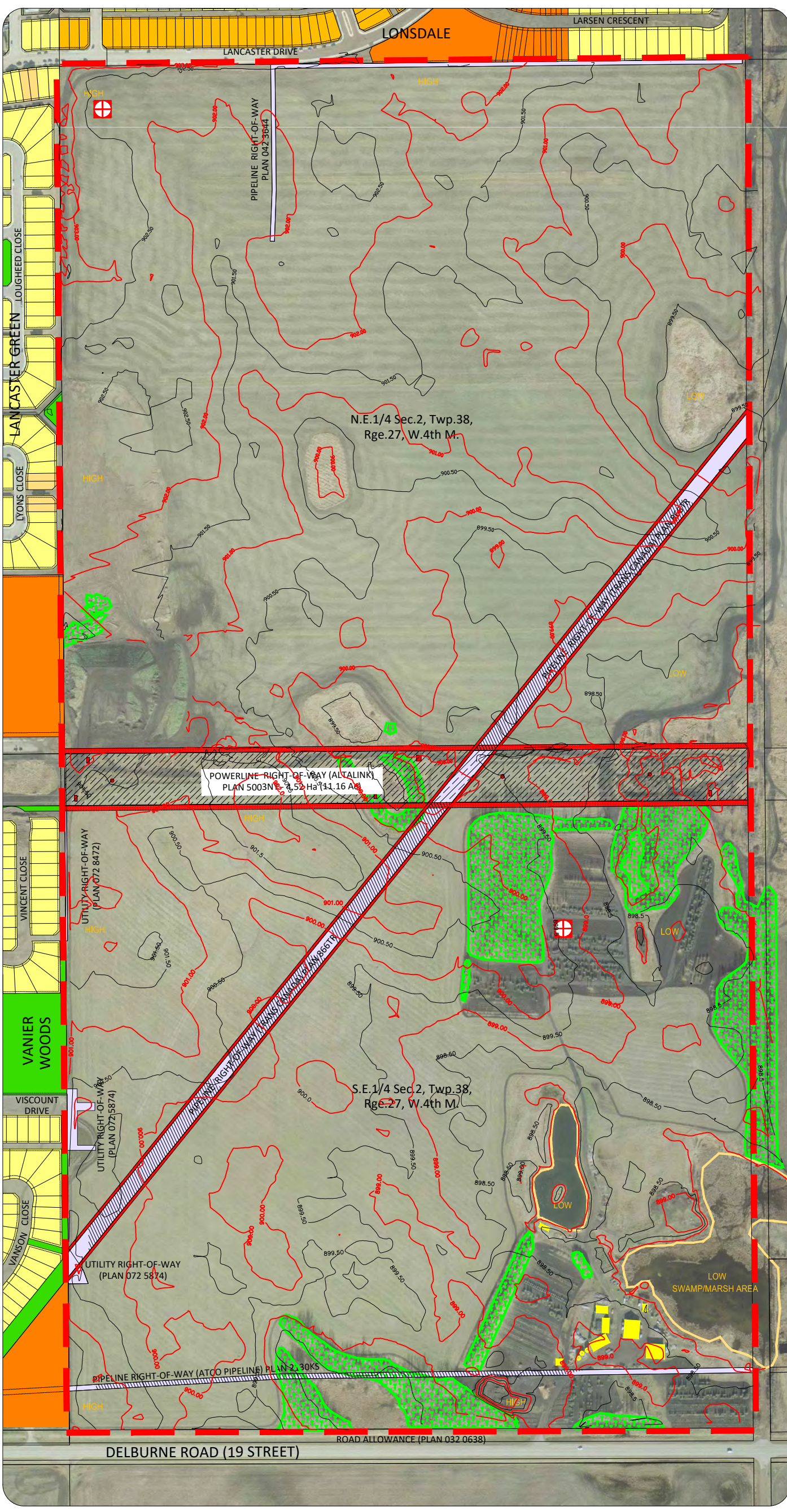
As shown on **Figure 3.0 - Existing Features**, the site topography is relatively flat with the overall slope going south/southeast toward 19th Street (Delburne Road). There is a recorded elevation of 903.0 m in the west of the Plan Area with the lowest elevation of 898.0 m located in the southeast for a total change in ground elevation of approximately 5.0 m.

Parkland Geotechnical Ltd. completed a Geotechnical Investigation for the property in October of 2008. The general soil profile on these two quarter sections consists of topsoil and glacio-lacustrine deposits overlying till. In some locations, right below the topsoil, there is surficial silt and fine grained sand. These soils are typical of what is generally found in south Red Deer. Based on ground water readings, the ground water table is expected to vary between 0.3 m and 4.9 m below grade. These ground water levels are also typical for south Red Deer.

As summarized in Parkland Geotechnical's study, the subsurface conditions are considered to be suitable for residential/commercial development.

2.3 ENVIRONMENTAL SITE ASSESSMENT

In April 2008, an Environmental Site Assessment (ESA) report was completed for the Plan Area by Parkland Geotechnical Ltd., the majority of the Plan Area has been assigned with a rating of low, in terms of environmental risk. No additional environmental site investigation was recommended.



- Legend:**
- HIGH / LOW Elevation High / Low Slope
 - 0.5m Existing Ground Contours
 - Existing Power Poles & Towers
 - Abandoned Oil Well
 - Wetland
 - Existing Vegetation
 - Existing Building
 - Altalink Right-of-Way
 - Existing Right-of-Way
 - Low Density Residential (R1)
 - Narrow Lot Residential (R1N)
 - Semi-Detached Residential (R1A)
 - Multi-Family Residential (R2/R3)
 - Parks and Recreation (P1)
 - Utility Right of Way Setback
 - NASP Boundary



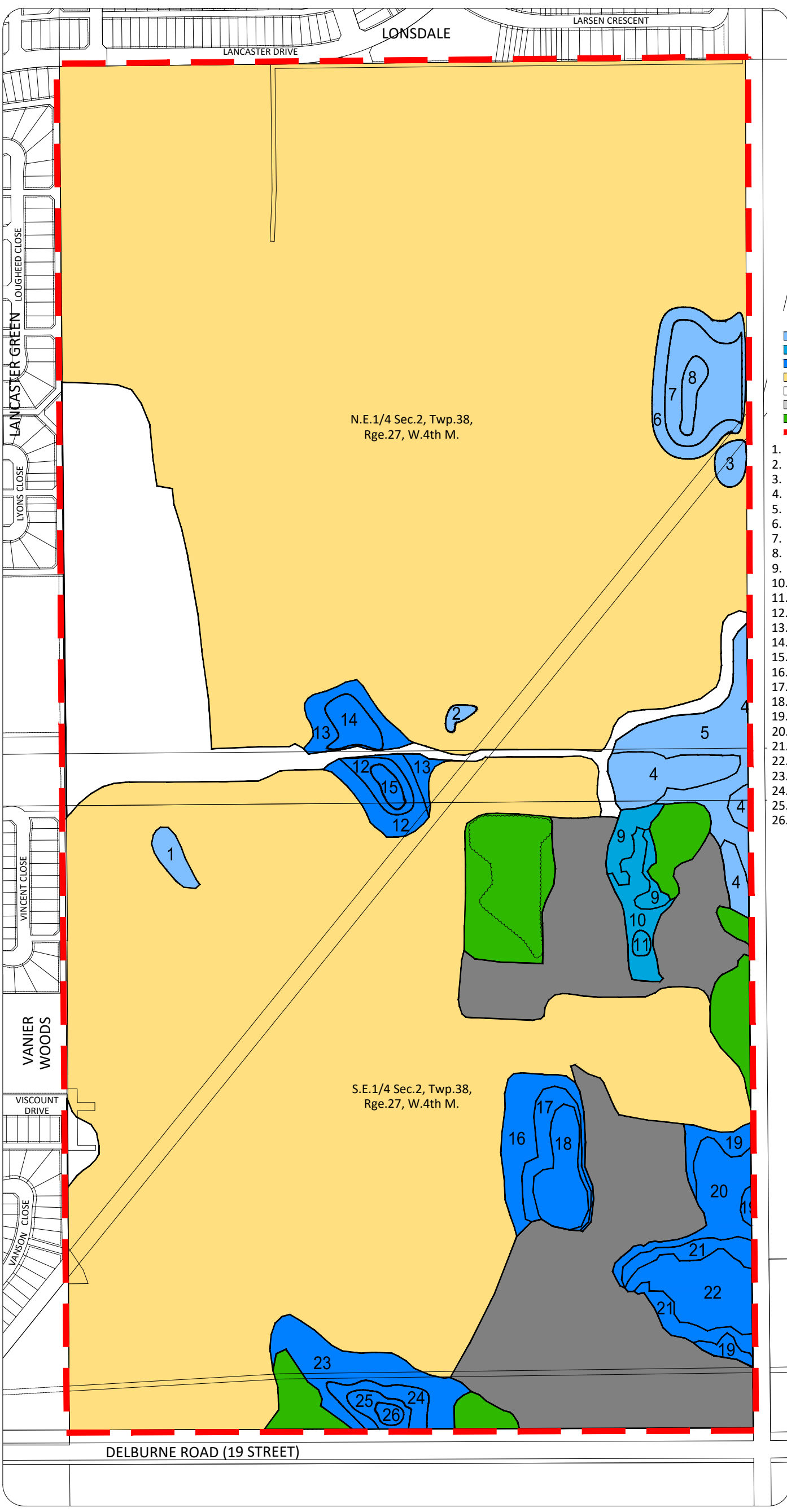
Figure 3.0
Existing Features
Lancaster/Vanier East

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- Legend:**
- 2 - Temporary
 - 3 - Seasonal Ponds & Lakes
 - 4 - Semi-Permanent Ponds & Lakes
 - Crop
 - Disturbed Lands
 - Rural
 - Upland Tree
 - NASP Boundary
1. Wet meadow, normal emergent phase
 2. Wet meadow, normal emergent phase
 3. Wet meadow, normal emergent phase
 4. Low prairie, shrubby phase
 5. Wet meadow, normal emergent phase
 6. Low prairie, normal emergent phase
 7. Wet meadow, normal emergent phase
 8. Shallow marsh, normal emergent phase
 9. Low prairie, Shrubby phase
 10. Wet meadow, normal emergent phase
 11. Shallow marsh, normal emergent phase
 12. Low prairie, shrubby phase
 13. Wet meadow, normal emergent phase
 14. Shallow marsh, normal emergent phase
 15. Deep marsh, normal emergent phase
 16. Low prairie, normal emergent phase
 17. Shallow marsh, normal emergent phase
 18. Deep marsh, open water phase
 19. Low prairie, normal emergent phase
 20. Wet meadow, normal emergent phase
 21. Shallow marsh, normal emergent phase
 22. Deep marsh, open water phase
 23. Low prairie, treed phase
 24. Wet meadow, shrubby phase
 25. Shallow marsh, normal emergent phase
 26. Deep marsh, open water phase.

*Based on the NE2-38-27-W4M & SE2-38-27-W4M Wetland Assessment Final Report.

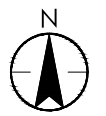


Figure 4.0
Wetland Assessment
Lancaster/Vanier East

Prepared for:
Melcor Dev. Ltd.
Red Deer, AB



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July, 2023

The Environmental Site Assessment report identified two potential issues:

1. An abandoned oil well site is located on the subject property at LSD 15-02-38-27-W4M. The exact well site was not identified during their investigation but the general area appeared to be successfully reclaimed to farmland. A surface reclamation certificate was issued for this facility in March 2004 following remediation efforts.
2. An abandoned well site is located on the subject property at LSD 8-02-38-27-W4M. This non-producing well was completed on February 7, 1960 and abandoned on February 9, 1960. Only minor hydrocarbon contamination is expected to be present in the well bore area due to the drilling activities; there is no indication of vegetation impact surrounding this well site.

While identified, none of the risks are expected to bare any environmental impact on the Plan Area. In the fall of 2009, Stantec Consulting unearthed both abandoned wellheads in order to precisely survey and photograph them. Based on the inspection, it appears that the well areas have been properly reclaimed with no evidence of contamination.

The Alberta Energy and Utilities Board currently recommends that abandoned oil wells should have a minimum setback of 5.0 m from any permanent structure, 3.0 m from any underground utilities, and sufficient working space should be provided incase drilling service vehicles require access to the well. In order to meet this requirement, public utility lots have been located around both sites.

Setback policies are currently under review by the Alberta Energy and Utilities Board and a potential increase to the setback may be recommended. Should a new setback be approved, lotting will be adjusted at the time of subdivision to be consistent with the new standards.

2.4 HISTORIC AND CURRENT LAND USE

A historical review of aerial photos of the Plan Area, confirmed by local interviews, indicates the land's agricultural use has remained unchanged dating from 1962. Since 1988, Apollo Landscaping and Nursery has operated on the southeast portion of the SE ¼ Section 02-38-27-W4M. This business consists of several buildings and two pond areas.

An oil well was operating on the northwest portion of the property from 1984 until 1999.

2.5 ADJACENT LANDS & SURROUNDING DEVELOPMENT

The existing subdivisions of Lancaster Green and Vanier Woods are located directly west of the Lancaster/Vanier East Plan Area and another residential subdivision, Lonsdale, is located to the north. Land use within these adjacent properties consists primarily of single and multi-family residential development.

A section of land located to the east of the Plan Area is currently undeveloped agricultural land. Within *The City of Red Deer 2004 Growth Study*, these lands were identified for potential future commercial development. lands located to the east have been identified.

The property located south of the Lancaster/Vanier East Plan Area, across 19th Street, has been identified in the East Hill Major Area Structure Plan as future industrial/limited commercial land; the same intention is reflected within the City's Growth Study where it is shown as future industrial lands.

2.6 EXISTING UTILITIES

A total of five utility rights-of-way have been identified within these two quarter sections. The major rights-of-way are:

- An existing high pressure TransCanada pipeline (sweet gas) cuts diagonally through the Plan Area in a southwest to northeast manner. This pipeline is protected by an 18.0 m wide right-of-way. Lot boundaries are permitted directly to the edge of the right-of-way, but TransCanada does recommend a 7.0 m setback to any permanent structure. Non-permanent structures shall not be permitted within the first 3.0 m of the boundary. The Development Authority, after consultation with TransCanada, may at its discretion relax the setback. There are also restrictions on what can be constructed on the pipeline right-of-way. Multi-use trails have been proposed for development on this right-of-way subject to approval of TransCanada.
- There is an existing 60.0 m wide right-of-way in the center of the Plan Area separating the two quarters. This right-of-way contains high voltage overhead transmission lines. AltaLink currently owns this right-of-way and all of the utilities contained within.

AltaLink has recommended a 12.0 m setback on the south side of the right-of-way and a 19.0 m setback along the north to any permanent structure. Depending on the location of the structure, relative location to the sag point and required public safety setbacks; the Development Authority, after consultation with AltaLink, may at its discretion relax the setback.

- ATCO Pipelines maintains a 6.0 m wide high-pressure gas line (sweet gas) in the south that runs in an east to west manner. This pipeline is located roughly 70.0 m north of the 19th Street roadway right-of-way. ATCO has restrictions on development within their right-of-way but will allow development up to the boundary.

3.0 Planning Objectives

3.1 OVERVIEW

The Lancaster/Vanier East Neighbourhood Area Structure Plan outlines the future pattern of subdivision by defining:

- land uses by type, size, and location;
- the transportation network;
- the scheduling of services;
- the general location of community facilities;
- the sequencing of development; and
- other development issues specific to the Lancaster/Vanier East Plan Area.

Lancaster/Vanier East is a comprehensively planned residential neighbourhood that takes advantage of the location, conditions, and topography of the site. The main objectives of the Lancaster/Vanier East 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 City of Red Deer East Hill Major Area Structure Plan*.
- Provide a framework for delivery of a high-quality, comprehensively planned residential community by defining the general pattern and composition of land uses, linkages, servicing, and development staging.
- Ensure the implementation of the Plan takes place in an orderly manner by using a construction phasing structure.

3.2 RESIDENTIAL POLICIES

- Encourage a variety of single and multi-family housing options by recognizing consumer preferences while conforming to the 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, and adjacent subdivisions.

- Locate residential development in a manner which takes advantage of parks, trails, stormwater management facilities, and existing natural features.
- Orient larger parcels of medium density residential development adjacent to the collector roadways to provide easy access and provide a transitional land use between adjacent single family development and major roads where appropriate.
- Develop multi-family residential development to interact and take advantage of the surrounding commercial areas.
- Ensure a minimum housing density of 14.8 du/net developable hectare (6 du/ac).

3.3 PARKS AND OPEN SPACE POLICIES

- Provide park sites to service the active and passive recreational needs of Lancaster/Vanier East residents, as well as for adjacent neighbourhoods, by way of Municipal Reserve dedication.
- Utilize stormwater management facilities to provide informal pedestrian linkages and open space recreational opportunities which are economically viable and sustainable.
- Utilize the existing AltaLink and pipeline ROWs to provide pedestrian linkages, trail connections, and a space for recreational opportunities.

3.4 GATHERING AREA POLICIES

- Provide adequate open space in centrally located areas for community gathering, allowing for convenient access by all residents.

3.5 TRANSPORTATION POLICIES

- Provide a safe and efficient multimodal transportation system within the Plan Area with strong connections to adjacent developments.
- Provide non-vehicular circulation options throughout Lancaster/Vanier East with special attention to park sites and multi-family housing linkages.
- Minimize walking distance by creating an interconnected network of trails and sidewalks.
- Develop land efficiently so that it does not hinder the layout and future development of 20th Avenue.

3.6 ECOLOGICAL STEWARDSHIP POLICIES

- Develop land in an efficient manner by allowing for intensive urban development through a variety of housing forms.

- Encourage naturalized landscaping on public and private lands to a level that is acceptable by The City of Red Deer to minimize environmental and economic costs associated with the land's maintenance.
- Promote the development of open spaces and walkway linkages for pedestrians, cyclist, and non-vehicular methods of travel.
- Encourage energy efficient construction and other innovative building and infrastructure techniques.

4.0 Planning Concept

4.1 OVERVIEW

Melcor Developments' intent, through the Lancaster/Vanier East development, is to develop a residential neighbourhood balanced with complementary uses and recreational opportunities. In addition to the development of high-quality residential opportunities, Melcor intends to integrate interconnected parks and open space linkages throughout the Plan Area. Together, these elements will provide The City of Red Deer with a unique neighbourhood.

The Concept Plan has been developed to take advantage of the natural and existing characteristics which form the basis for the design as shown on **Figure 5.0 – Concept Plan** and **Figure 6.0 – Concept Plan with Aerial Photo**. The land use statistics and number of dwellings units are separated per title and represented in **Table 1.1, 1.2, 1.3 – Land Use Allocation, Table 2.1, 2.2, 2.3 – Municipal Reserve Dedication, Table 3.0 – Density, and Table 4.0 – Housing Mix**. A table has been formulated to present the 30% dedication to roads and PULs and is shown on **Table 5.1, 5.2, 5.3 – Roads and Utilities**.

4.2 OVERALL CONCEPT

Lancaster/Vanier East is a logical extension of growth within The City of Red Deer and a proper extension of the existing communities of Vanier Woods and Lancaster Green. This neighbourhood will primarily consist of residential development combined with commercial, community, and spiritual facilities. Recreational opportunities will be provided through open spaces and trails.

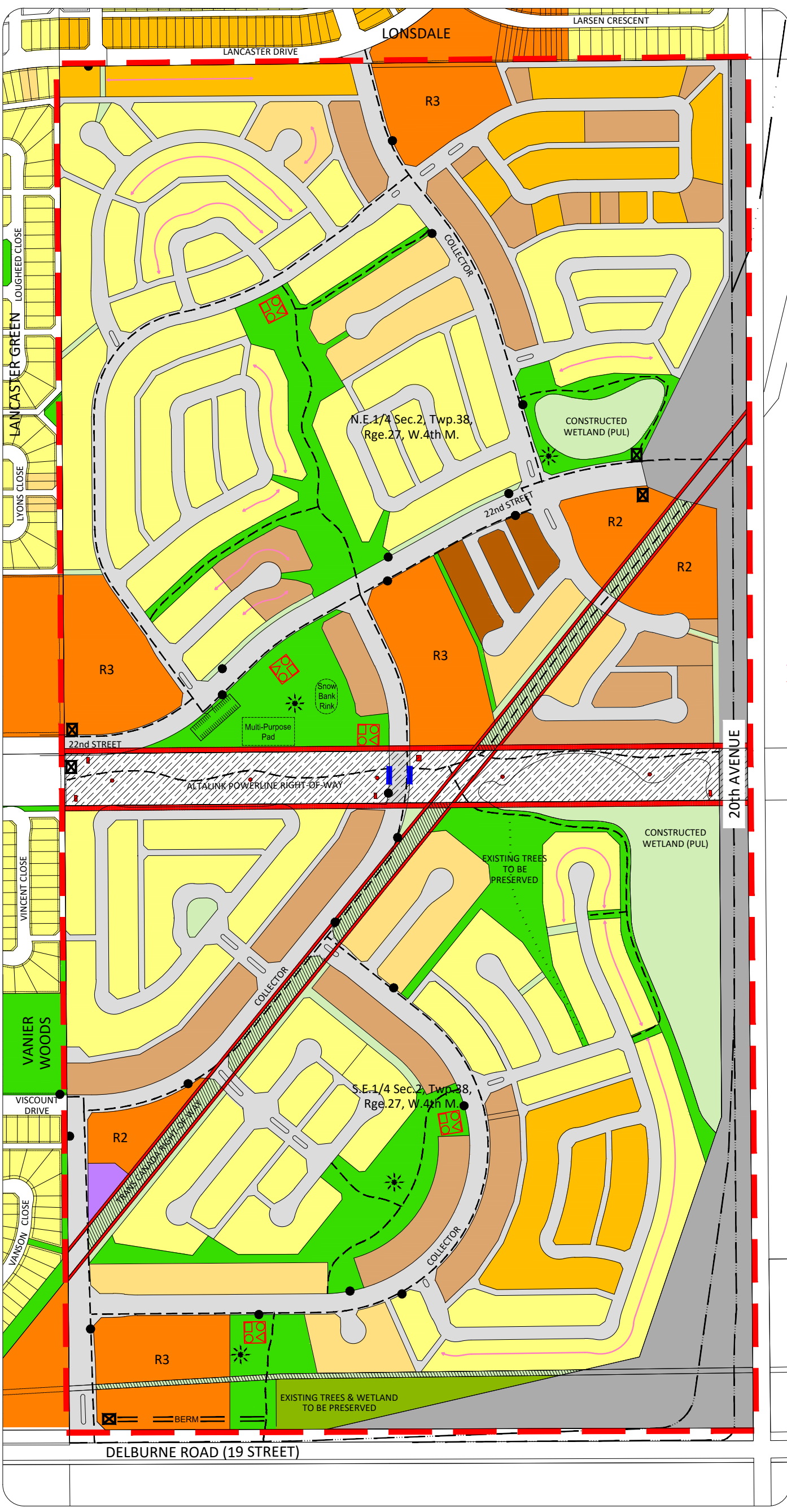
Once fully developed, Lancaster/Vanier East should include approximately 2041 dwelling units for a density of 18.87 dwelling units per net developable hectare. All assumptions for dwelling unit density projections are as per Appendix F of *The City of Red Deer Neighbourhood Planning Guidelines & Standards*. Final density may vary dependent on final lotting, product type and market conditions.

4.3 RESIDENTIAL

A mixture of low, medium, and high density residential dwelling units is described based upon *The City of Red Deer Land Use Bylaw*.

4.3.1 R1 Residential (Low Density) District

The general purpose of the R1 Residential (Low Density) District is to provide land which will be used for low density single-family detached residential development. The minimum lot area within the R1 district is 360.0 m² with a minimum width of 12.0 m and depth of 30.0 m respectively.



- Legend:**
- Low Density Residential (R1)
 - Semi-Detached Residential (R1A)
 - Narrow Lot Residential (R1N)
 - Residential Small Lot (R1G)
 - Multi-Family Residential (R2/R3)
 - Residential Town House (R2T)
 - Place of Worship [R2]
 - Environmental Reserve (ER)
 - Municipal Reserve (MR)
 - Public Utility Lot (PUL)
 - Roads
 - 20th Avenue Expressway
 - Altalink Parcel
 - Utility Right of Way Setback
 - Potential Bus Stops
 - Traffic Calming
 - Existing Power Poles & Towers
 - Gathering Area
 - Playground Structure
 - Entry Feature Sign
 - Abandoned Oil Well
 - Multi-Purpose Trail
 - Northland Drive/20th Avenue
 - Multi-Purpose Trail
 - Potential 2 Storey, Walkout Lot
 - NASP Boundary



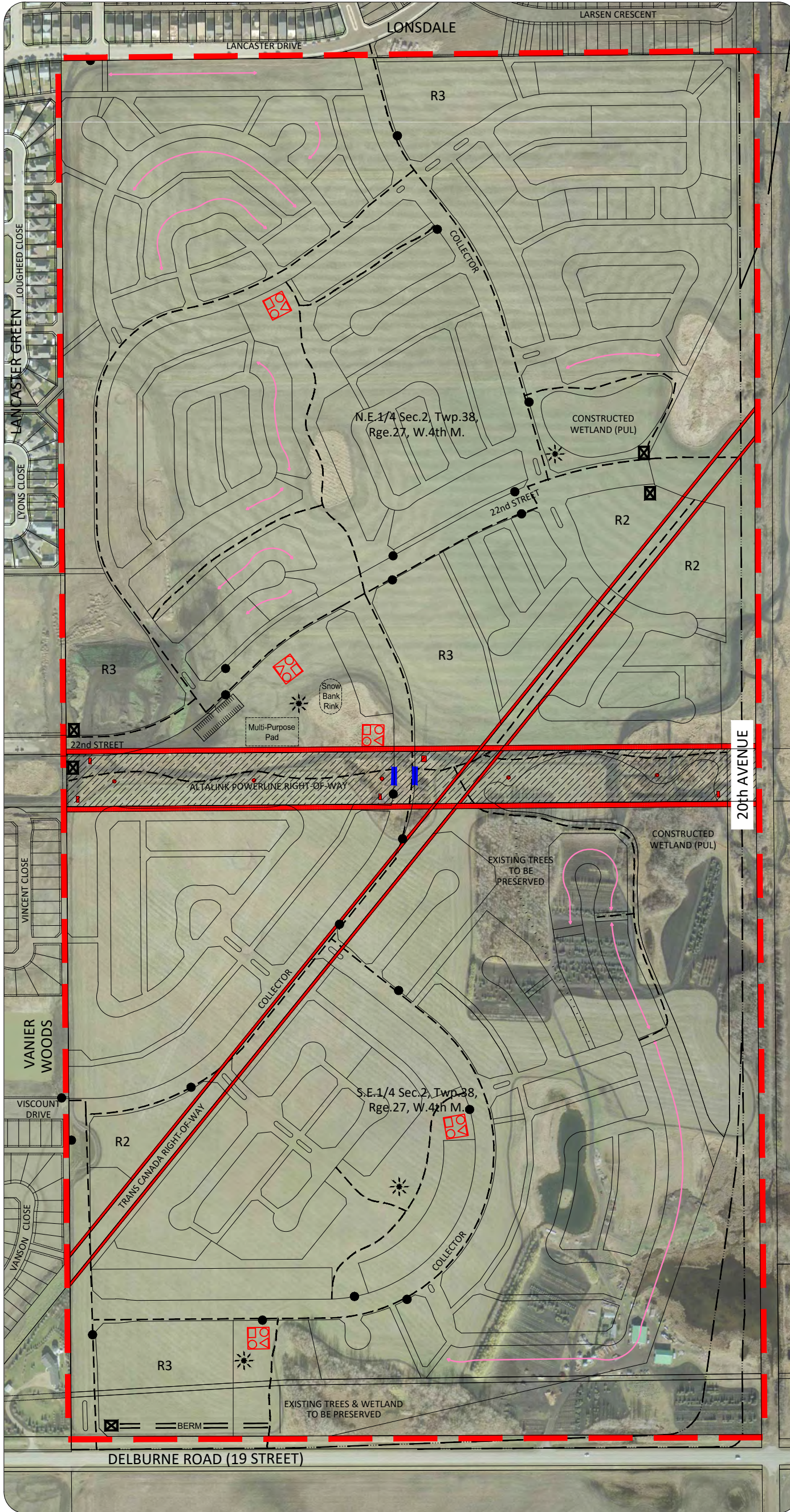
Figure 5.0
Concept Plan
 Lancaster/Vanier East

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 SCALE: NTS
 PROJECT #: 112870983

July, 2023



- Legend:**
- Altalink Parcel
 - Utility Right of Way Setback
 - Potential Bus Stops
 - Traffic Calming
 - Existing Power Poles & Towers
 - Gathering Area
 - Playground Structure
 - Entry Feature Sign
 - Abandoned Oil Well
 - Multi-Purpose Trail
 - Northland Drive/20th Avenue
 - Multi-Purpose Trail
 - Potential 2 Storey, Walkout Lot
 - NASP Boundary



Figure 6.0
 Concept Plan - Aerial
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB



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 PROJECT #: 112870983

July, 2023

Low Density Residential has been scattered throughout the Plan Area and is in close proximity to the many amenities, constructed wetlands, recreational parks, parkettes, the AltaLink ROW, and the linear park linkages.

Development of the low density and smaller lot residential areas has been planned in clusters/cells to provide a greater sense of identity for the various sub-areas and to help create a safe pedestrian environment.

4.3.2 R1N Residential (Narrow Lot) District

R1N Residential (Narrow Lot) Districts will provide more affordable single-family housing options within Lancaster/Vanier East. The lot area minimum within the Narrow Lot Residential district is 380.0 m² with a minimum width and depth of 10.5 m by 36.6 m respectively. All R1N district lots will have direct access to a laneway as this district does not permit front driveways.

Several clusters of Narrow Lot Residential have been located throughout the development, the largest clusters being in the northeast corner of the Plan Area. A second cluster has been located in the southeast corner, near the Storm Water Management Facility. A single row of R1N housing also fronts onto Lancaster Drive to the northwest.

Several areas in the northeast corner have been identified to include a mix of R1N and R1G lots. This land use district allows for a more affordable attached garage housing option while having negligible impacts to the character, feel and streetscape of the area. The overall density and number of units will be the same regardless of R1N or R1G lots.

4.3.3 R1G Residential (Small Lot) District

This NASP introduces a new residential land use in an effort create more affordable housing options. R1G Residential (Small Lot) Districts will be similar to R1N Narrow Lot Residential, but would accommodate front driveways/garages. The lot area minimum within the Small Lot District is 320.0 m² with a minimum width and depth of 10.5 m by 30.0 m respectively.

The Residential (Small Lot) District has been primarily located along most collector roadways, in areas where supporting a laneway may not be possible, and/or adjacent to green space. Like the rest of the development, these clusters have been situated to take full advantage of park space, playground structures, and linear parks. Special considerations have been given to R1G lots to ensure adequate spacing for snow removal, parking and safety.

Table 1.1 - Land Use Allocation: NE ¼ 02-38-27 W4M

Land Use Category	Hectares	Acres	% of Developable Area	# of Dwelling Units
Gross Plan Area	64.64	159.66		
Arterial Roadway Widening (20 th Ave)	3.58	8.84		
Constructed Wetlands (PUL)	0.95	2.35		
Developable Plan Area	60.11	148.47	100.0%	
Residential*	41.95	103.62	69.9%	1251
R1 Residential Low Density**	17.77	43.89	29.6%	411
R1A Residential Semi-Detached	3.02	7.46	5.0%	101
R1G Residential Small Lot	6.89	17.02	11.5%	215
R1N Residential Narrow Lot	3.96	9.78	6.6%	104
R2 Residential Medium Density	4.25	10.50	7.1%	150
R2T Residential Townhome	0.94	2.32	1.6%	40
R3 Residential Multiple Family	5.12	12.65	8.5%	230
Open Space	6.67	18.82	11.1%	
Municipal Reserve (MR)***	5.69	14.05	9.5%	
TransCanada (Pre-existing ROW)	0.42	1.04	0.7%	
Public Utility Lot (PUL)	0.56	1.38	0.9%	
Constructed Wetland (PUL)****	0.95	2.35		
Transportation	15.30	37.80	25.5%	
Collector Roadways	3.08	7.55	5.1%	
Local Roadways	9.23	22.80	15.4%	
Lanes	2.99	7.39	5.0%	

*All assumptions for dwelling unit density projections are as per Appendix F of *The City of Red Deer Neighbourhood Planning Guidelines & Standards*. A 45 dwelling units per hectare is assumed for R3 Residential Multiple Family due to the various potential product types.

**Up to 15% of R1 Residential Low Density is calculated with secondary suites at 1.5 units as per *The City of Red Deer Guidelines and Standards*.

***Refer to Table 2.1, 2.2, 2.3 for detailed Municipal Reserves Calculations

****Not included within the % of Developable Area

Table 1.2 - Land Use Allocation: SE ¼ 02-38-27 W4M

Land Use Category	Hectares	Acres	% of Developable Area	# of Dwelling Units
Gross Plan Area	58.72	145.04		
Environmental Reserve	1.17	2.89		
Arterial Roadway Widening (20 th Ave)	6.23	15.39		
Constructed Wetlands (PUL)	3.28	8.10		
Developable Plan Area	48.04	118.66	100.0%	
Residential*	28.56	70.54	59.5%	790
R1 Residential Low Density**	15.89	39.25	33.1%	367
R1A Residential Semi-Detached	3.09	7.63	6.4%	104
R1G Residential Small Lot	4.17	10.30	8.7%	130
R1N Residential Narrow Lot	2.75	6.79	5.7%	72
R2 Residential Medium Density	0.66	1.63	1.4%	23
R3 Residential Multiple Family	2.00	4.94	4.2%	94
Social Use	0.21	0.52	0.4%	
Place of Worship	0.21	0.52	0.4%	
Open Space	8.00	19.77	16.5%	
Municipal Reserve (MR)***	5.50	13.59	11.4%	
TransCanada (Pre-existing ROW)	1.27	3.14	2.6%	
ATCO Pipeline (Pre-existing ROW)	0.36	0.89	0.7%	
Public Utility Lot (PUL)	0.87	2.15	1.8%	
Constructed Wetland (PUL)****	3.28	8.10		
Transportation	11.26	27.82	23.5%	
Collector Roadways	4.17	10.30	8.7%	
Local Roadways	5.48	13.54	11.4%	
Lanes	1.61	3.98	3.4%	

*All assumptions for dwelling unit density projections are as per Appendix F of *The City of Red Deer Neighbourhood Planning Guidelines & Standards*. A 45 dwelling units per hectare is assumed for R3 Residential Multiple Family due to the various potential product types.

**Up to 15% of R1 Residential Low Density is calculated with secondary suites at 1.5 units as per *The City of Red Deer Guidelines and Standards*.

***Refer to Table 2.1, 2.2, 2.3 for detailed Municipal Reserves Calculations

****Not included within the % of Developable Area

Table 1.3 - Land Use Allocation: Plan Area

Land Use Category	Hectares	Acres	% of Developable Area	# of Dwelling Units
Gross Plan Area	123.36	304.70		
Environmental Reserve	1.17	2.89		
Arterial Roadway Widening (20 th Ave)	9.81	24.23		
Constructed Wetlands (PUL)	4.24	10.47		
Developable Plan Area	108.15	267.13	100.0%	
Residential*	70.51	174.16	65.1%	2041
R1 Residential Low Density**	33.66	83.14	31.1%	778
R1A Residential Semi-Detached	6.11	15.09	5.6%	205
R1G Residential Small Lot	11.06	27.32	10.2%	345
R1N Residential Narrow Lot***	6.71	16.57	6.2%	176
R2 Residential Medium Density	4.91	12.13	4.5%	173
R2T Residential Townhome	0.94	2.32	0.9%	40
R3 Residential Multiple Family	7.12	17.59	6.6%	324
Social Use	0.21	0.52	0.2%	
Place of Worship	0.21	0.52	0.2%	
Open Space	14.67	31.13	11.6%	
Municipal Reserve (MR)****	11.19	27.64	10.3%	
TransCanada (Pre-existing ROW)	1.69	4.17	1.6%	
ATCO Pipeline (Pre-existing ROW)	0.36	0.89	0.3%	
Public Utility Lot (PUL)	1.43	3.53	1.3%	
Constructed Wetland (PUL)*****	4.23	10.45		
Transportation	26.56	65.60	24.6%	
Collector Roadways	7.25	17.91	6.7%	
Local Roadways	14.71	36.33	13.6%	
Lanes	4.60	11.36	4.3%	

*All assumptions for dwelling unit density projections are as per Appendix F of *The City of Red Deer Neighbourhood Planning Guidelines & Standards*. A 45 dwelling units per hectare is assumed for R3 Residential Multiple Family due to the various potential product types.

**Up to 15% of R1 Residential Low Density is calculated with secondary suites at 1.5 units as per *The City of Red Deer Guidelines and Standards*.

****Refer to Table 2.1, 2.2, 2.3 for detailed Municipal Reserves Calculations

*****Not included within the % of Developable Area

Table 2.1 – Municipal Reserve Dedication: NE ¼ 02-38-27 W4M

Municipal Reserve Dedication	Hectares	Acres
Gross Plan Area	64.64	159.66
Net Area For Municipal Reserve Land Dedication	64.64	159.66
Required MR Dedication	6.46	15.96
Actual Municipal Reserve Land Dedication in Plan*	6.11	15.10
Percentage MR Dedication	9.45%	

*Includes portions of pre-existing ROW (TransCanada)

Table 2.2 - Municipal Reserve Dedication: SE ¼ 02-38-27 W4M

Municipal Reserve Dedication	Hectares	Acres
Gross Plan Area	58.72	145.04
Subtract Out Parcel:		
Environmental Reserve	1.17	2.89
Net Area For Municipal Reserve Land Dedication	57.55	142.15
Required MR Dedication	5.75	14.22
Actual Municipal Reserve Land Dedication in Plan*	6.77	16.72
Percentage MR Dedication	11.76%	

*Includes portions of pre-existing ROW (TransCanada)

Table 2.3 - Municipal Reserve Dedication: Plan Area

Municipal Reserve Dedication	Hectares	Acres
Gross Plan Area	123.36	304.7
Subtract Out Parcel:		
Environmental Reserve	1.17	2.89
Net Area For Municipal Reserve Land Dedication	122.19	301.81
Required MR Dedication	12.21	30.18
Actual Municipal Reserve Land Dedication in Plan*	12.88	31.82
Percentage MR Dedication	10.54%	

*Includes portions of pre-existing ROW (TransCanada)

Table 3.0 – Density

Density	Dwelling Units	Density (units/ha)
	2041	18.87

Table 4.0 – Housing Mix

Land Use Category	Dwelling Units	Hectares
	2041	70.51
Residential - Low Density R1	778	33.66
Residential - Semi-Detached R1A	205	6.11
Residential - Small Lot R1G	345	11.06
Residential - Narrow Lot R1N	176	6.71
Residential - Medium Density R2/ Residential - Multiple Family R3	497	12.03
Residential - R2T Residential Townhome	40	0.94

Table 5.1 Roads and Utilities: NE ¼ 02-38-27 W4M

Land Use Category	Hectares	Acres	% of Gross Plan Area
Gross Plan Area	64.64	159.66	
Pre-existing ROW (TransCanada)	0.42	1.04	
Gross Plan Area Less Pre-existing ROW	64.22	158.62	
30% of Gross Plan Area Less Pre-existing ROW	19.27	47.59	
Arterial Roadway Widening (20 th Ave)	3.58	8.84	5.6%
Public Utility Lot (PUL)	1.51	3.73	2.4%
Collector Roadways	3.08	7.61	4.8%
Local Roadways	9.23	22.80	14.4%
Lanes	2.99	7.39	4.7%
Total	20.39	50.37	31.9%
Over 30% Dedication	1.12	2.77	1.9%

Table 5.2 Roads and Utilities: SE ¼ 2-38-27 W4M

Land Use Category	Hectares	Acres	% of Gross Plan Area
Gross Plan Area	58.72	145.04	
ER	1.17	2.89	
Pre-existing ROW (TransCanada)	1.27	3.40	
Pre-existing ROW (ATCO)	0.36	0.89	
Gross Plan Area Less ER & Pre-existing ROW	55.92	137.86	
30% of Gross Plan Area Less ER & Pre-existing ROW	16.78	41.36	
Arterial Roadway Widening (20 th Ave)	6.23	15.39	10.6%
Public Utility Lot (PUL)	4.15	10.25	7.1%
Collector Roadways	4.17	10.30	7.1%
Local Roadways	5.48	13.54	9.3%
Lanes	1.61	3.98	2.7%
Total	21.64	53.46	37.6%
Over 30% Dedication	4.86	12.10	

Table 5.3 Roads and Utilities: Plan Area

Land Use Category	Hectares	Acres	% of Gross Plan Area
Gross Plan Area	123.36	304.70	
ER	1.17	2.89	
Pre-existing ROW (TransCanada)	1.72	4.51	
Pre-existing ROW (ATCO)	0.36	0.89	
Gross Plan Area Less ER & Pre-existing ROW	120.11	296.41	
30% of Gross Plan Area Less ER	36.03	88.92	
Arterial Roadway Widening (20 th Ave)	9.81	24.23	8.2%
Public Utility Lot (PUL)	5.66	13.98	4.7%
Collector Roadways	7.24	17.88	5.9%
Local Roadways	14.71	36.33	12.2%
Lanes	4.60	11.36	3.8%
Total	42.02	103.78	34.7%
Over 30% Dedication	5.98	14.87	

4.3.4 Residential (Semi-Detached Dwelling) District (R1A)

The R1A Residential (Semi-Detached Dwelling) District will provide additional housing options within Lancaster/Vanier East. Semi-detached housing will have a minimum area of 232.0 m² per dwelling unit with a minimum lot width of 7.6 m per unit.

R1A clusters have been located in individual cul-de-sacs throughout the Plan Area, with one concentration located in the southwest corner along the collector road. R1A lots have been located to back onto open space or in close proximity to open space and trails.

4.3.5 Residential (Town House) District R2T

The R2T Residential (Town House) District is available to provide for an additional multi-family option. The Town House housing will have a minimum area of 185m² with a minimum width of 6.1m per unit. This product will be situated where both laned and non-laned product is available.

4.3.6 Residential (Medium Density) District (R2)/ Residential (Multiple Family) District (R3)

Seven multi-family sites have been proposed for the Lancaster/Vanier East development:

1. The first, a R3 Residential (Multiple Family) District site has been located along the northern boundary of the Plan Area and will be accessible via a collector roadway connected to Landry Gate subdivision.
2. The second, a R3 Residential (Multiple Family) District site, has been located in the southwest corner of the NE quarter section, adjacent to the Vanier Woods subdivision and accessible via 22nd Street.
3. The third R3 Residential (Multiple Family) District site has been located in the middle of the Plan Area, just north of the AltaLink ROW.
4. The fourth and fifth sites are situated in the southwest corner of the 22nd Street and 20th Avenue intersection. These will both be R2 Residential (Multiple Family) District sites.
5. The sixth, a R2 Residential (Multiple Family) District site has been located along the west boundary of the SE quarter section, adjacent to the AltaLink ROW and Viscount Drive.
6. The seventh site has been designated as a R3 Residential (Multiple Family) District site, and has been located in the southwest corner of the SE quarter section. This site will be accessible via the future collector roadway off 19th Street.

All residential multi-family site locations within Lancaster/Vanier East have been determined with a combination of key elements to ensure accessibility, near-by public transit routes, and easy walking distances to open spaces.

4.4 PLACE OF WORSHIP

The Lancaster/Vanier East NASP has a 0.21 ha (0.52 ac) site reserved for development of a place of worship, as shown on **Figure 5.0 – Concept Plan**.

In compliance with *The City of Red Deer Neighbourhood Planning Guidelines and Standards*, if these sites are not purchased for their intended uses within a given timeframe they will be used for residential development. The alternative land use for the place of worship may be rezoned to a R2 land use district.

The site will be advertised through local media and The City of Red Deer website. The place of worship site will be on the market for six months before it is developed for residential purposes.

4.5 PARKS AND OPEN SPACE

Lancaster/Vanier East has been developed to tie into The City of Red Deer Waskasoo Park System by connecting various active and passive recreational open spaces throughout the development as shown on **Figure 7.0 – Open Space/Trails**. A combination of Municipal Reserve, public utility lots, and rights-of-way create a complete and seamless open space system. A portion of the pre-existing TransCanada ROW will be credited as MR due to its intended usage and connection to the overall open space network.

Based on the developable plan area within the Lancaster/Vanier East; 12.9 ha of land would be provided as Municipal Reserve for a total dedication of 10.5%.

4.5.1 Pedestrian Network

Within Lancaster/Vanier East, the open space system has been designed with linear parks that act as a pedestrian network and connect the entire community; the linear park is a shortcutting tool for pedestrians and non-vehicular modes of transportation. While connecting all the portions of the Lancaster/Vanier East development, the linear park system also leads pedestrians to public areas such as the central park site, preserved natural areas, the commercial district, and surrounding communities.

4.5.2 Active Recreation Park Site (Central Park Site)

A 2.24 ha active recreation park has been proposed north of the AltaLink right-of-way. This active recreation park will be developed with The City of Red Deer park amenities which may include playground structures, a snow bank rink, a boarded rink, an activity center, and a multipurpose pad.

Once each of the quarter sections has reached a predetermined developed state, The City of Red Deer's Recreation, Parks, and Culture Department will construct the playgrounds and playfields. The construction of the remaining facilities, such as the multipurpose pad and snow bank rink will be constructed once a community association for the neighbourhood has been formed.

In review of *The City of Red Deer Environmental Master Plan*, community gardens have been recognized as a future need as they are able to support local agriculture, contribute to better human health and reduce the negative environmental effects associated with food transport. Lancaster/Vanier East has identified a potential location that may be devoted to community gardens, should The City of Red Deer determine the need. Parks will need to determine the necessary size and appropriate bylaws for this area.

4.5.3 Passive Recreation Park Site

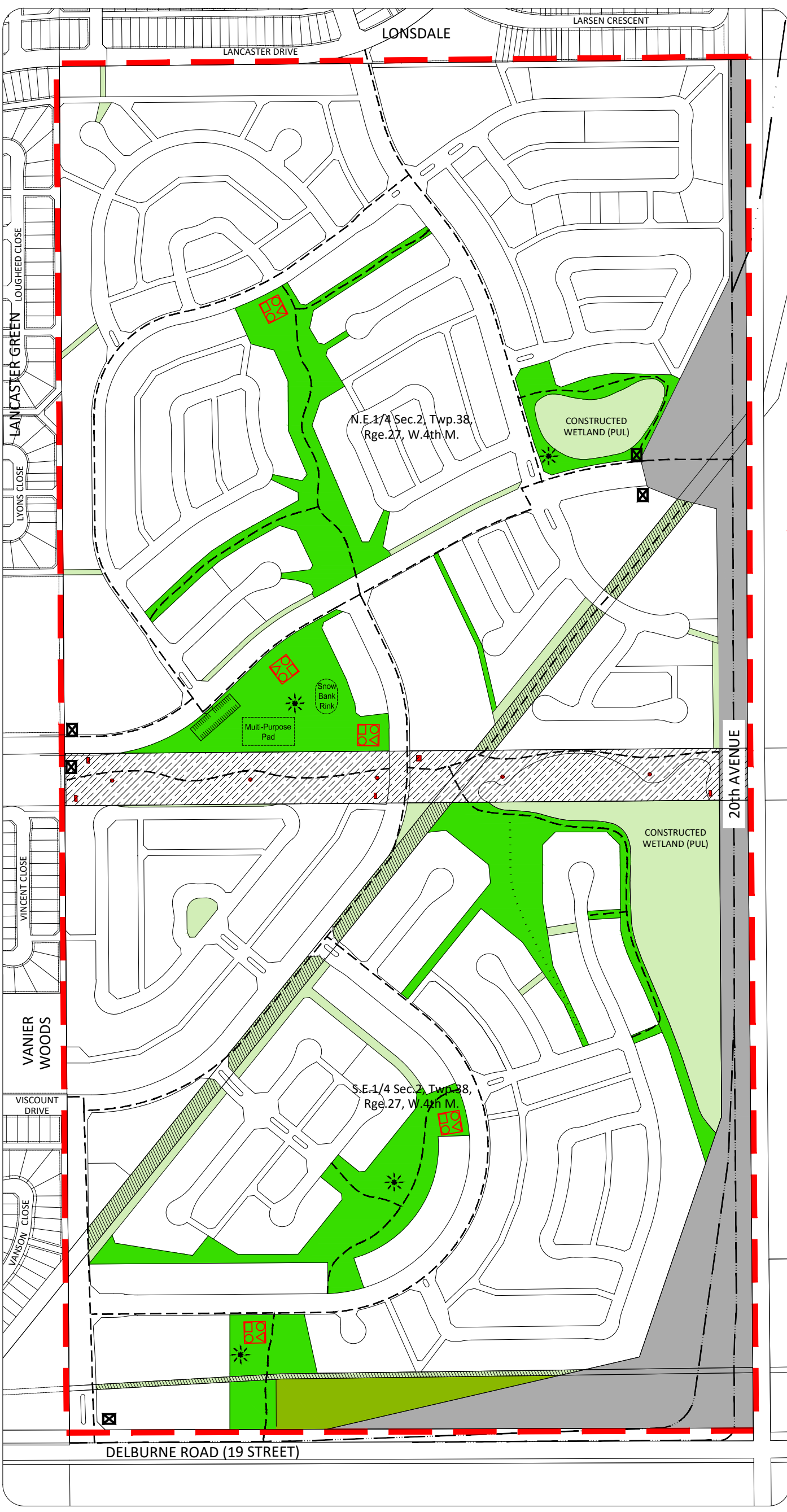
Green spaces in Lancaster/Vanier East that are not formal parks will serve as passive recreational sites and contribute to the linear park system that connects the development within and to the surrounding neighbourhoods. In order to prevent vehicle traffic from accessing these parks, as well as any of the public utility lots, bollards and post and cable fences will be installed.

4.5.4 Preserved Natural Areas

Several locations within Lancaster/Vanier East have been preserved as natural areas. These areas are to be protected with 3.0 m setbacks along with fencing prior to any development.

Significant stands of trees have been identified as natural areas and incorporated into Municipal Reserve area. The SWMF will also provide natural areas as described in Section 4.5.7. All preserved natural areas in Lancaster/Vanier East will provide passive recreation opportunities for the area.

One existing wetland in the south has been identified as an Environmental Reserve. This area will be left in its existing state and protected from any negative impacts. Some storm water from the adjacent areas will be directed to this wetland in a controlled manner in order to provide a consistent source of water to sustain the wetland.



- Legend:**
- Environmental Reserve (ER)
 - Municipal Reserve (MR)
 - Public Utility Lot (PUL)
 - 20th Avenue Expressway
 - Altalink Parcel
 - Utility Right of Way Setback
 - Existing Power Poles & Towers
 - * Gathering Area
 - * Playground Structure
 - * Entry Feature Sign
 - * Abandoned Oil Well
 - * Multi-Purpose Trail
 - * Northland Drive/20th Avenue
 - * Multi-Purpose Trail
 - NASP Boundary



Figure 7.0
 Open Space / Trails
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB



DRAWN BY: SAS
 CHECKED BY: GCL
 SCALE: NTS
 PROJECT #: 112870983

July, 2023

4.5.5 Pedestrian Network and Trails

Lancaster/Vanier East has been designed with an extensive neighbourhood pathway system for non-vehicular traffic and link to adjacent arterial roadways, adjacent developments, and the community recreational node.

The AltaLink right-of-way will continue to serve as a major trail and open space in the south of Red Deer. Due to the use restrictions of the right-of-way, this area is envisioned to have only trails and minimal vegetation. A major traffic calming measure will be developed within the road right-of-way as a mid-block crossing of the regional trail which will consider accommodation for vehicles, buses, pedestrians, cyclist and other uses impacted at this location subject to approval from AltaLink. Details and measures will be determined at the servicing study stage. While the location of this crossing is not desirable by the City, the importance of the AltaLink regional pedestrian trail network is recognized.

The majority of the other PULs located within Lancaster/Vanier East are envisioned to form additional trail linkages. Two separate trail alignments for 20th Avenue have been shown throughout the NASP based upon its alignment and level of upgrades.

A 2.5 m separated sidewalk will be constructed along all collector roadways to create a primary linkage throughout the Plan Area. Additional trails have been identified throughout the Plan Area to create a complete pedestrian network.

4.5.6 Gathering Places

Four formal gathering places have been identified within Lancaster/Vanier East to create common areas where residents can come together and interact as shown on **Figure 7.0 – Open Space/Trails**. Gathering places are determined based on the functional elements as described within *The City of Red Deer Neighbourhood Planning Guidelines and Standards*.

- The first, located within the Central Park along 22nd Street, will incorporate recreation, transit, and trail connection elements.
- The second, will be sited with community mailboxes in NE.
- The third and fourth gathering spaces have been located within the south; both sites will include recreation, transit, and trail connection elements.

4.5.7 Stormwater Management Facility (SWMF)

Two stormwater management facilities have been identified within Lancaster/Vanier East to manage and control major stormwater events. One of these facilities will be located along the northeast boundary of the SE quarter section. The second facility will be located along the eastern boundary of NE quarter section. Both facilities will manage stormwater from both the minor and major storm system for the entire development. The SWMFs will be sized to accommodate stormwater detention for a 1:100 year storm event.

Both SWMF's are envisioned to be reconstructed wetlands that will utilize existing materials, seeds, roots, and biomass to retain their present states. These stormwater management facilities will be functional while adding aesthetics and recreational opportunities to the neighbourhood.

4.6 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 of the four minute average travel time planning guidelines.

5.0 Transportation

The system of roads proposed for Lancaster/Vanier East provides its residents, and the surrounding traveling public, with safe access to, from and within the area as well as to the rest of Red Deer as shown on **Figure 8.0 – Transportation Network**.

5.1 EXISTING TRANSPORTATION NETWORK

The Lancaster/Vanier East Plan Area is currently accessible by 19th Street (Delburne Road), 22nd Street, Lancaster Drive, and Viscount Drive. Several roadway extensions will connect the Lancaster/Vanier East community to its surrounding areas. Viscount Drive, in the adjacent community of Vanier Woods, will be extended to provide access to the west. Landry Gate, in the adjacent community of Lonsdale, will be extended to provide access to the north. Situated in the center of the Plan Area, 22nd Street will be extended east to connect to the 20th Avenue expressway. These extensions will provide for connectivity between Lancaster/Vanier East and the rest of The City of Red Deer.

A traffic Impact Assessment has been prepared for the Lancaster/Vanier East NASP. The major items outlined in the TIA for improvements are discussed below and the recommended improvements to the transportation network will be implemented through the course of built-out, subject to any necessary revisions.

5.2 FUTURE 20TH AVENUE EXPRESSWAY

The City of Red Deer is proposing the construction of a new expressway along the east boundary of Lancaster/Vanier East. This roadway will function as part of a ring road around the east side of Red Deer. Initially this roadway will be developed with two lanes but could ultimately be upgraded to include six lanes. The Lancaster/Vanier East development will not impact the design identified within the adopted *Northland Drive/20 Avenue Functional Planning Study* at the future intersection of 22nd street or 19th street.

These future transportation improvements have a dramatic impact on the amount of developable land along the east boundary of Lancaster/Vanier East. Approximately 9.81 ha (24.23 ac) of land will need to be purchased by the City for the future roadway right-of-way to accommodate the future improvements.

The TIA has indicated that 20th Avenue, two lane road will be required from 22nd Street to 32nd Street along with the associated 32nd Street arterial extension prior to significant build out of Lancaster East. This would provide access to the development from 20th Avenue. Without this extension, more extensive improvements to the intersection 22nd Street and 30th Avenue is required.

At the intersection of 20th Avenue and 22nd Street, the *Northland Drive/20 Avenue Functional Planning Study* identified a signalized at-grade intersection with a jughandle loop operation to facilitate the left turning movement from southbound 20th Avenue to eastbound 22nd Street.

Since the original approval of the study, The City of Red Deer has successfully utilized other forms of intersection treatments that can both handle the anticipated traffic volumes, while also utilizing a smaller footprint than that of the proposed intersections in the study. In 2022, Melcor Developments completed analysis to determine whether a smaller intersection footprint was viable at 20th Avenue and 22nd Street, so that the land previously identified for the jughandle could be better utilized and incorporated into the Plan area. The technical memo, under separate cover, investigated the potential of a roundabout and establish the required road ROW.

The review and design of the roundabout was completed with consultation with the City of Red Deer Engineering Department. A three-lane roundabout and its required footprint has been proposed in the technical memo and been reviewed by the City. Following the adoption of the NASP, Melcor Development will continue to work with various City departments to acquire the roadway ROW's that are no longer required. Future processes will require road closures and transfer of surplus municipal land prior to rezoning and subdivision.

5.3 19TH STREET EXPRESSWAY (DELBURNE ROAD)

According to *The City of Red Deer East Hill Major Area Structure Plan*, 19th Street is designated as an expressway. To provide a buffer, a 2.5 m high berm will be established in the south, adjacent to 19th Street.

The southern access into Lancaster/Vanier East will be via a new collector roadway that runs along the western boundary of the Plan Area and connects to 19th Street.

The 19th Street right-of-way was annexed by The City of Red Deer in the fall of 2009. Prior to this annexation, this section of roadway was under the jurisdiction of Alberta Transportation along with the rest of Highway 595 to the east. Since the 19th Street ROW is now within The City of Red Deer Boundary, it will be upgraded to facilitate the first phase of development.

5.4 22ND STREET

The TIA identified the need for the existing section of 22nd Street between 30th Avenue and 20th Avenue to be upgraded to a undivided roadway with two driving lanes in both the east and west directions. 22nd Street, east of 30th Avenue, will require modifications to the road right-of-way in order to increase the carriage from its current width of 11.5 m to 14.0 m.

The proposed road cross-section of 22nd Street within the Lancaster/Vanier East Plan Area is shown on **Figure 9.2 – Transportation Details**.

5.5 COLLECTOR ROADWAYS

This NASP identifies five collector roadways linking the local roads to the rest of the City. Branching off 22nd Street are two collector roadways: one going north and one going south; the collector that goes north will extend to Landry Gate; the collector that goes south will extend into Viscount Drive. As the collector roadway going south turns into Viscount Drive, the fourth collector branches off directly south, running along the west boundary of the Plan Area, and will

connect to 19th Street (Delburne Road). A collector road is proposed to extend throughout the southeast corner of the Plan Area and connect back to Viscount Drive and the existing collector road. A fifth collector roadway will serve the commercial area and 20th Avenue as discussed in Section 5.2.

A modified collector roadway design standard has been developed for a section of the south collector in order to take advantage of the adjacent TransCanada pipeline and the open space it provides. This right-of-way is envisioned to include a pedestrian-friendly trail system along with enhanced landscape features. Final placement of the trail and landscaping will be located based upon the location of the pipeline and subject to the approval of TransCanada.

A typical cross-section of collector roadways roads is shown on **Figure 9.1 – Transportation Details**.

5.6 REQUIRED OFF SITE IMPROVEMENTS

Based on the TIA, additional improvements have been identified, final configurations will be determined at a later time.

- 30th Avenue and 22nd Street - two new left turn bays east and west, new right turn bays northbound and extending north south turn bays
- 30th Avenue and Lancaster Drive – extending the southbound left turn bay and new right turn lane
- 19th Street and 30th Avenue – implement a second turn lane east bound and extended the southbound left turn lane
- 22nd Street and Lindsay Avenue – new signals and improvement to left turn lanes.

Required lane configuration for the ultimate build out of the development is identified in Figure 4.6 of the TIA and shown on **Figure 10.0 – Required Lane Configurations**

5.7 LOCAL ROADWAYS

The system of local roads within the development has been planned to provide access to individual development clusters while at the same time discouraging outside traffic from shortcutting through local roads. These roadways will have a 15.0 m wide right-of-way with a 10.0 m wide carriage way.

An area within the northwest has been designed with a modified roadway consisting of a 16.0 m wide right-of-way and a 10.0 m wide carriage way as well as an area required in the east R2T zoned area. To further encourage safe and efficient pedestrian movement within Lancaster/Vanier East and this area, a 2.5 m sidewalk has been proposed on one side of the roadway. The developer will provide a tree for each of lot adjacent to the 16.0 m local roadway to ensure an enhanced landscape treatment is achieved.

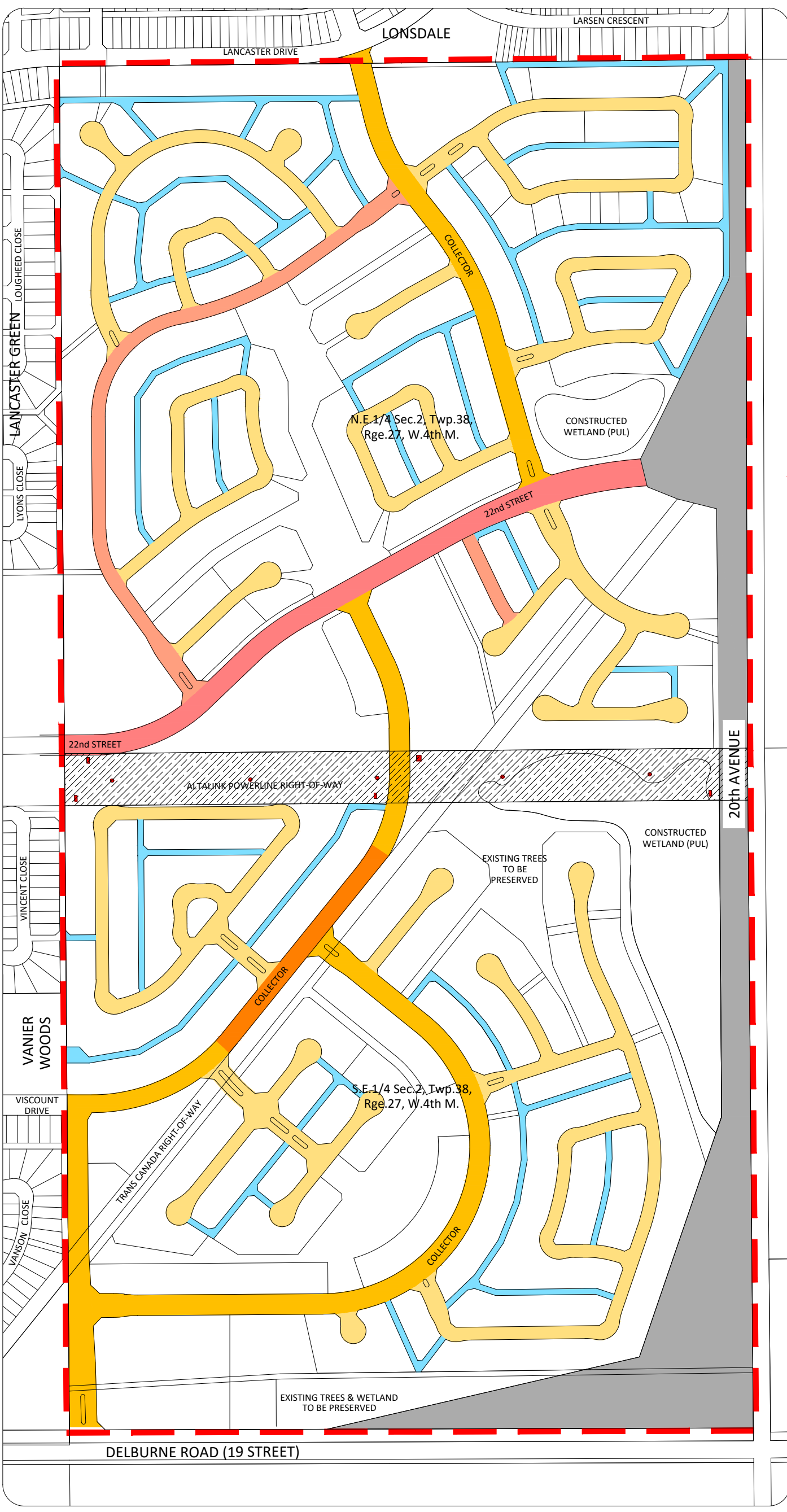
All local roads will have monolithic curb and gutter sidewalks on each side of the roadway. As with the other roadways within the Lancaster/Vanier East neighbourhood, local roads have been designed as per The City of Red Deer standards.

5.8 LANEWAYS

The Lancaster/Vanier East NASP has been designed with the majority of lots backing onto laneways; however, lanes have not been provided for lots backing onto the stormwater management facilities, Municipal Reserves, or public utility lots. Rear laneways will be designed to The City of Red Deer standards and will be 7.0 m wide. Any lanes adjacent to Municipal Reserves or public utility lots will have bollards installed to prevent shortcutting.

5.9 PUBLIC TRANSIT

Transit stops have been identified within the Concept Plan and located based on consultation with the Transit Department. Each transit stop has been placed based on convenience, safety, distance, and to encourage ridership. All residents should be within 400.0 m walking distance of a stop with the majority of residents within 200.0 m.



- Legend:**
- Lane (7m)
 - Local Roadway (15m)
 - Local Roadway (16m)
 - Collector Roadway (24m)
 - Modified Collector (21m)
 - 22nd Street (24m)
 - 20th Avenue Expressway
 - Altalink Parcel
 - Potential Bus Stop
 - Existing Power Poles & Towers
 - NASP Boundary



Figure 8.0
 Transportation Network
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB

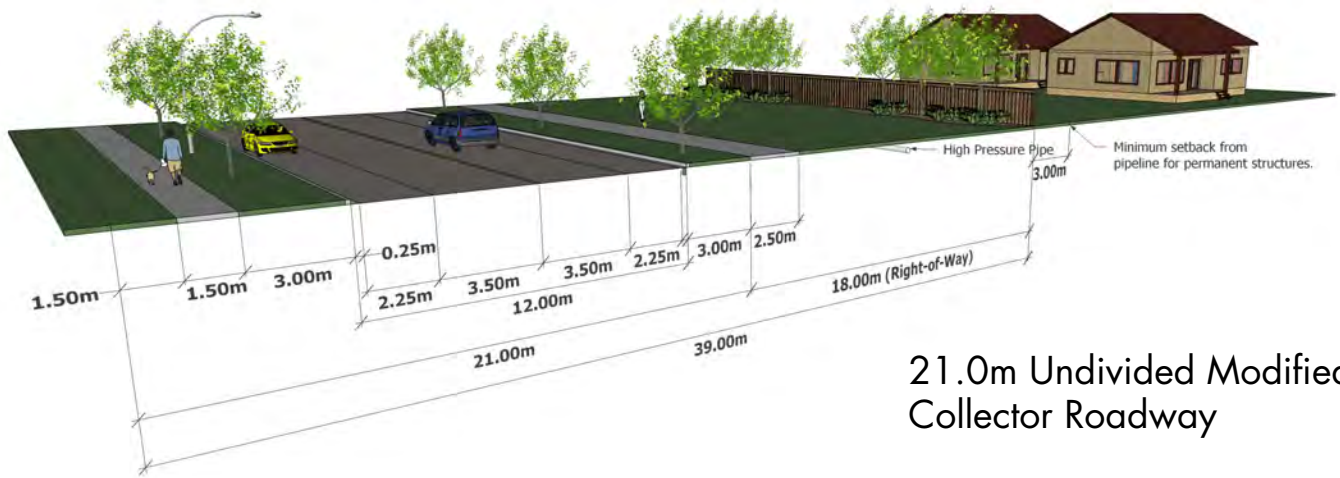


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24.0m Undivided Collector Roadway



21.0m Undivided Modified Collector Roadway

Figure 9.1

Transportation Details

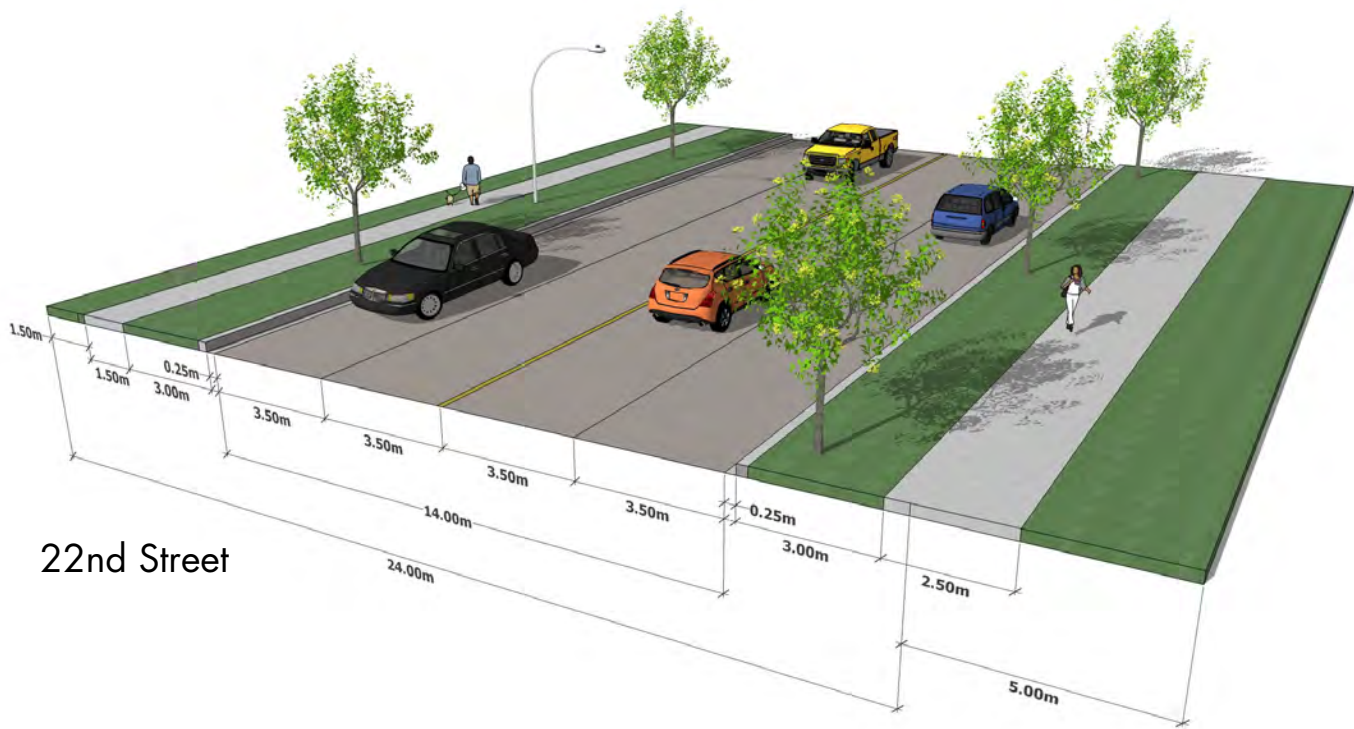
Lancaster/Vanier East

Prepared for:
Melcor Dev. Ltd.
Red Deer, Alberta
403.343.0817

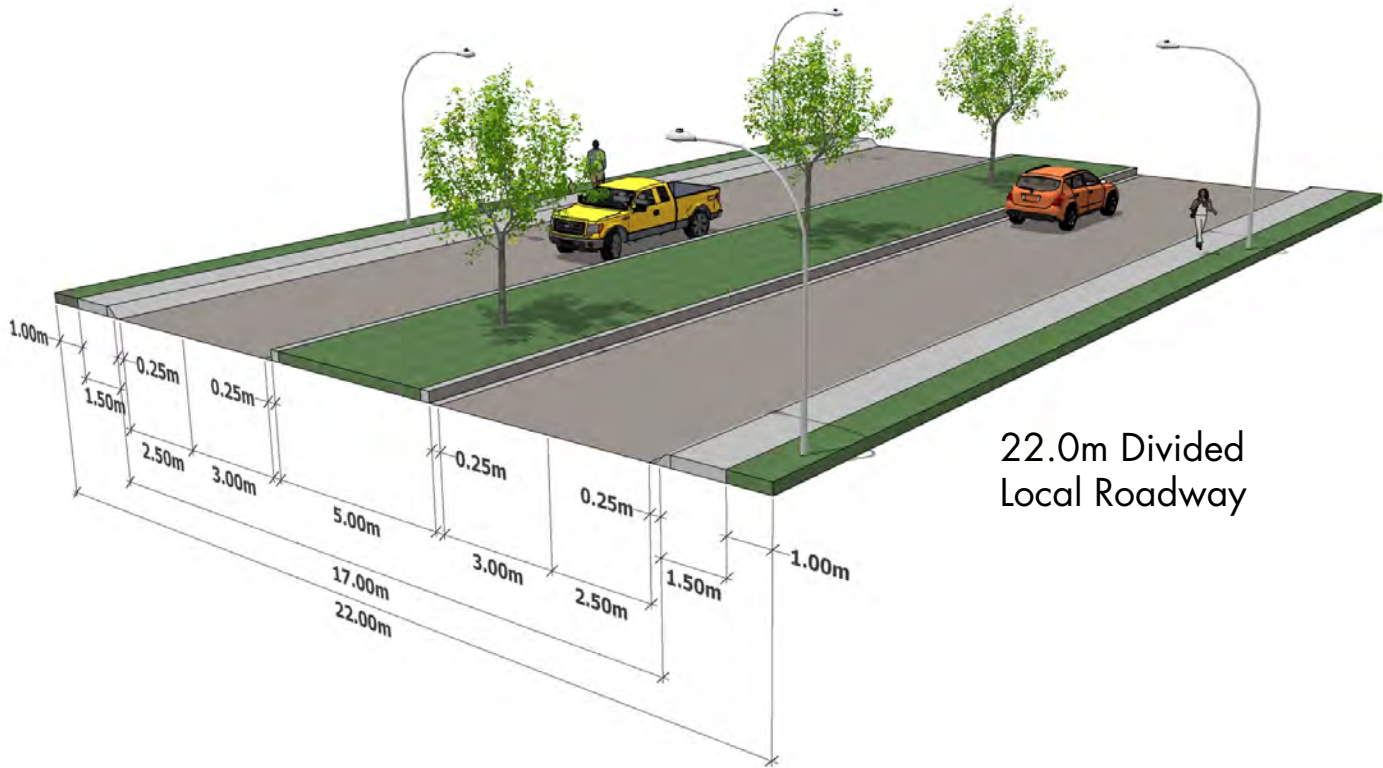
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22nd Street



22.0m Divided Local Roadway

Figure 9.2

Transportation Details

Vanier East / North

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Red Deer, Alberta
403.343.0817

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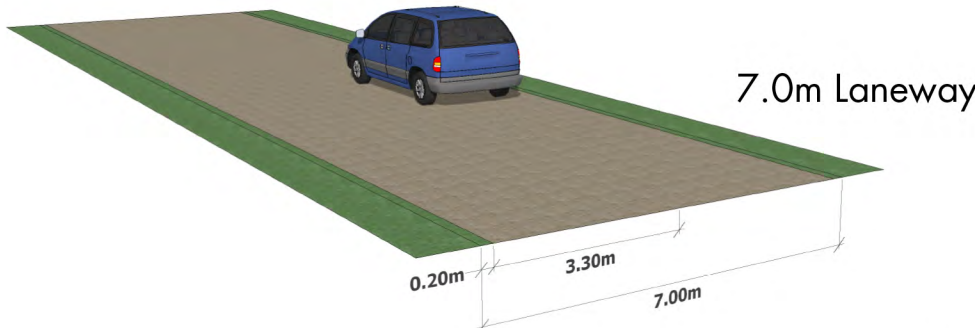
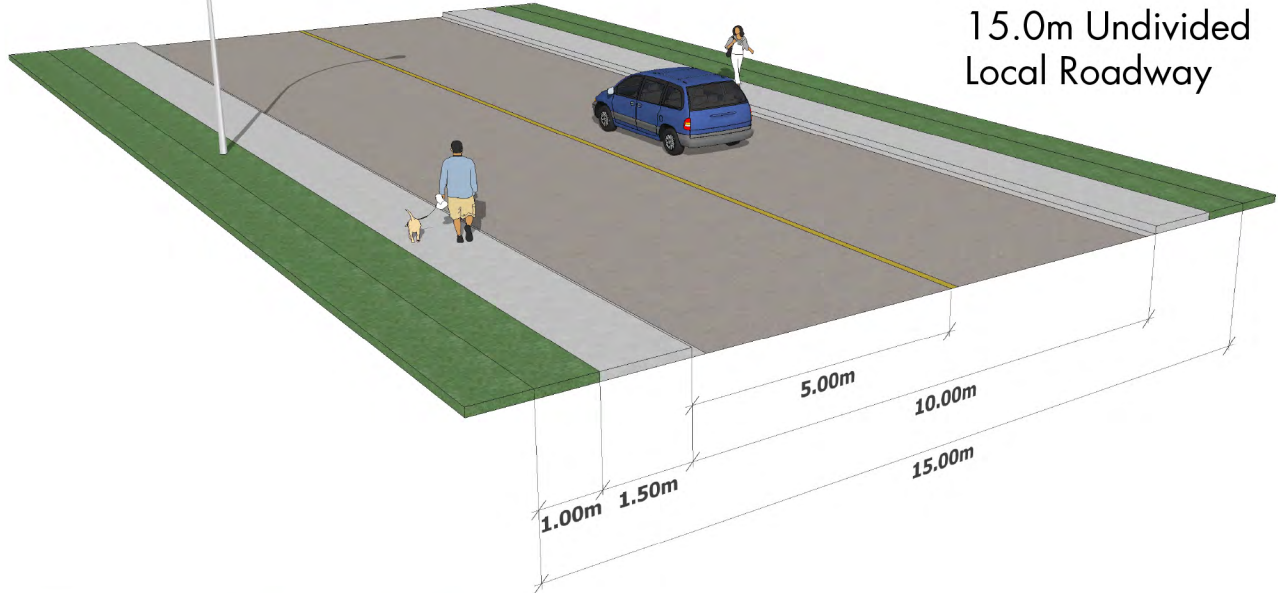
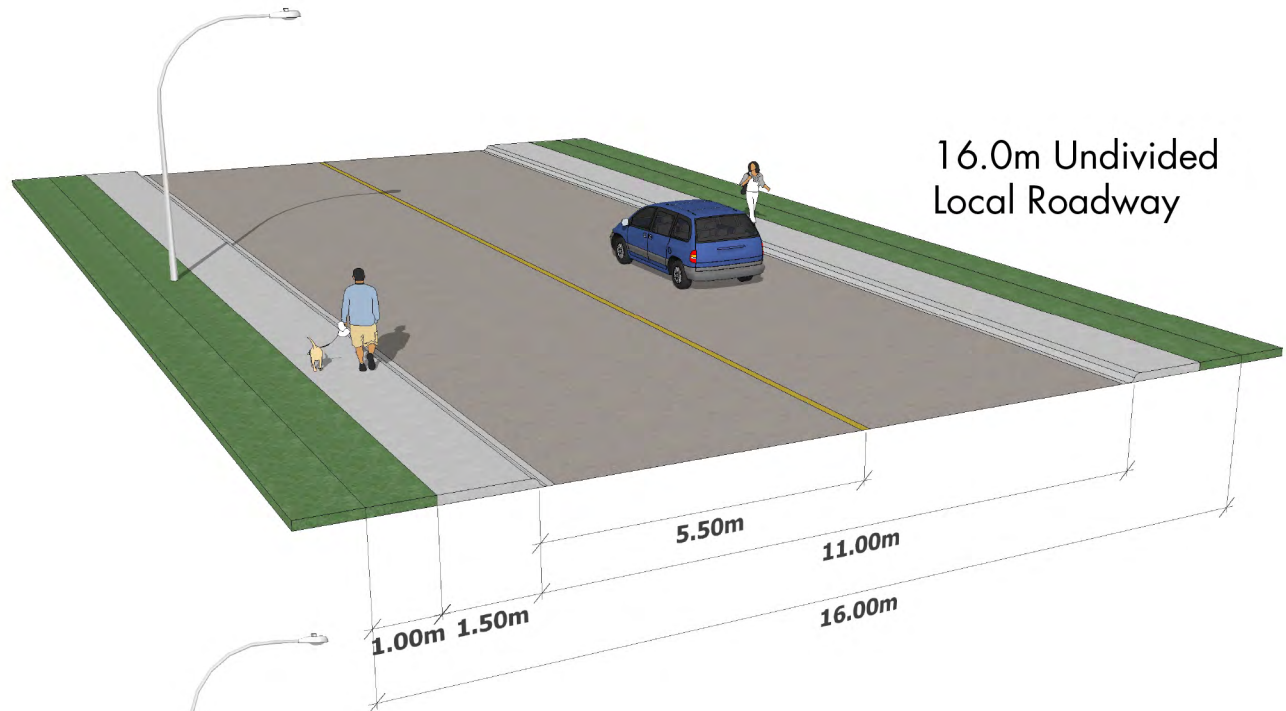


Figure 9.3
 Transportation Details
 Vanier East / North

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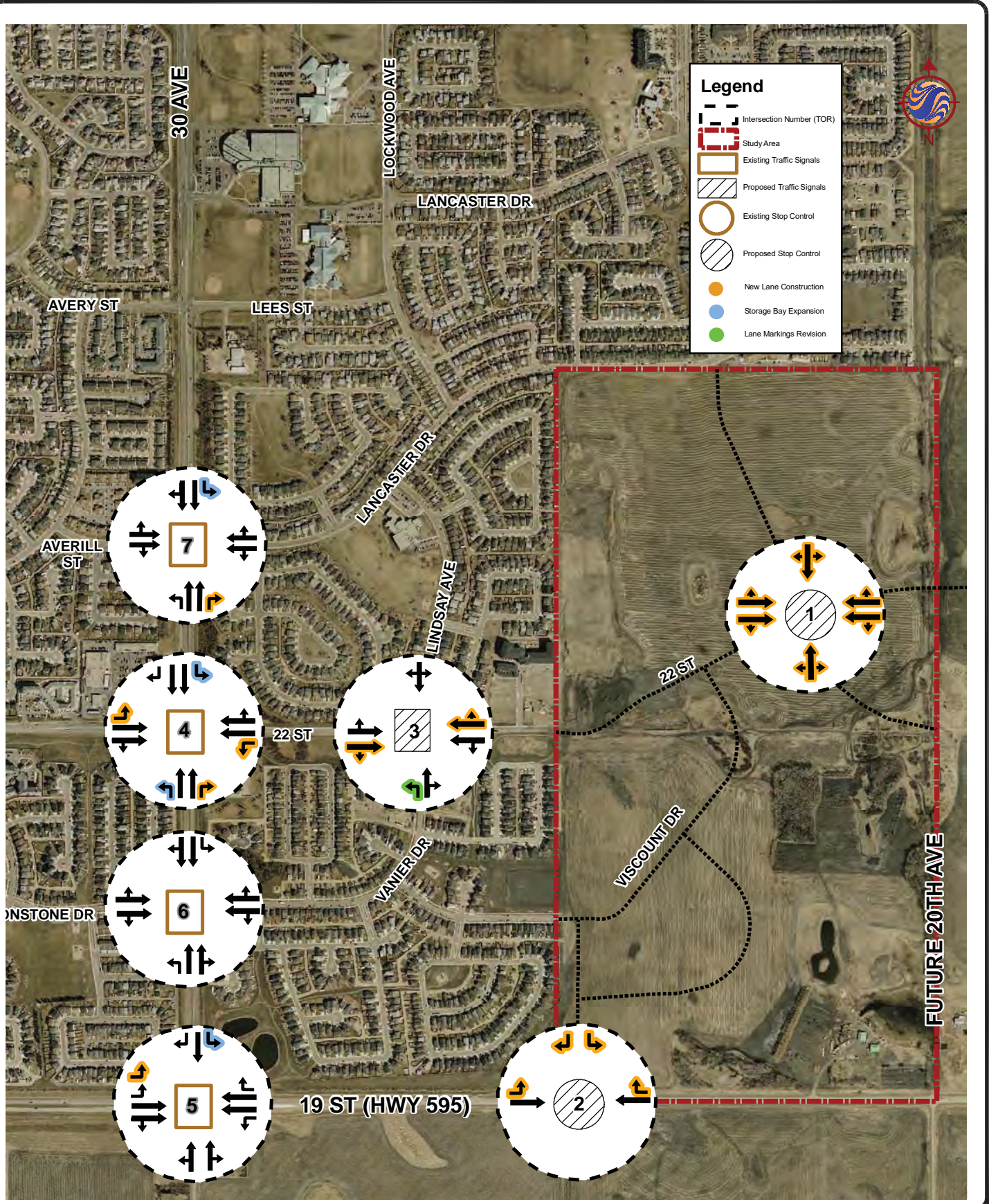


Figure 9 4
 Required Lane Configurations 2018
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, Alberta
 403.343.0817

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6.0 Servicing

6.1 SANITARY SEWER SYSTEM

The Lancaster/Vanier East lands will be serviced from the existing sanitary trunk that has been stubbed to the end of Viscount Drive at the west boundary of Plan Area. This trunk line will be extended northeast, along Viscount Drive, and across the AltaLink right-of-way in order to service both quarter sections.

The majority of the sanitary pipes will be 200 mm in diameter, except for the sanitary trunk, which will be a minimum of 375 mm and at least 6.0 m deep.

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 of Red Deer to maintain after a two year maintenance period. The overall conceptual sanitary sewer system for the Lancaster/Vanier East Plan Area is shown on **Figure 11.0 – Sanitary Servicing**.

6.2 STORM SEWER SYSTEM

Both quarter sections will be serviced from the existing 675 mm storm trunk that is located in Viscount Drive. This trunk extends through Vanier Woods, Ironstone, Inglewood West, and then discharges to Piper Creek. The line has been sized to restrict outlet flows from the Lancaster/Vanier East lands to 2.20 L/sec/ha.

Two stormwater management facilities (SWMF) have been proposed for the Lancaster/Vanier East Plan Area to manage and control major stormwater events. One of these facilities will be located in the central-east portion of the Plan Area along the boundary between the two quarter sections and then continuing south. The second SWMF will be located along the eastern boundary of the NE quarter section. These facilities will manage stormwater from both the minor storm system as well as stormwater from the major storm system for the entire development. These SWMFs have been proposed to be developed as constructed wetlands, which will be sized to accommodate stormwater detention for a 1:100 year storm event.

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 maintenance period.

The major drainage and storm system is shown on **Figure 12.0 – Storm Servicing**.

6.3 WATER DISTRIBUTION SYSTEM

The overall water distribution system needed to service Lancaster/Vanier East is shown on **Figure 13.0 – Water Servicing**.

There is an existing 250 mm watermain that runs through the lane that borders the NE quarter section to Lancaster Green. There are also two 250 mm stubs and a 300 mm stub from Vanier Woods that will be utilized to service the Plan Area. Connections into Lonsdale for looping are also proposed. An existing water reservoir located in Lancaster Green will be used to service the Lancaster/Vanier East development which is in the same pressure zone as Lonsdale.

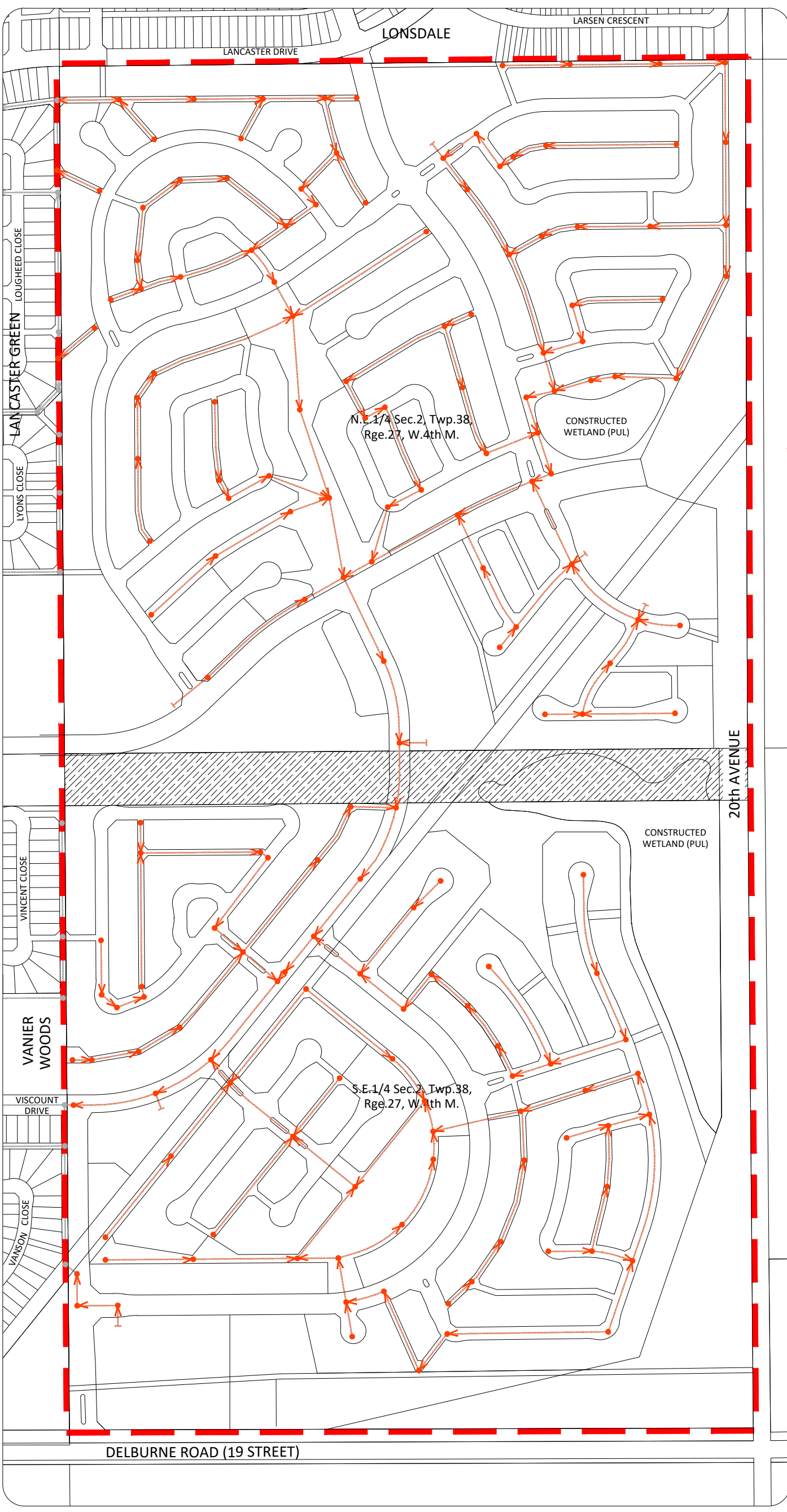
All water mains will be designed in accordance with *The City of Red Deer Design Guidelines* and will become the responsibility of The City of Red Deer to maintain after a two year maintenance period.

6.4 SHALLOW UTILITIES

Shallow utility services will be provided by the following companies:

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

These utility providers are intended to extend their infrastructure from Vanier Woods and Lancaster Green in order to service the Plan Area. The shallow utility alignments will be established during preparation of the servicing study of the Lancaster/Vanier East Plan Area.



- Legend:**
- Sanitary Manhole
 - Sanitary Flow Direction
 - Existing Sanitary Manhole
 - Existing Sanitary Flow Direction
 - Sanitary Stub
 - Sanitary Servicing
 - Existing Sanitary Main
 - Altalink Parcel
 - NASP Boundary



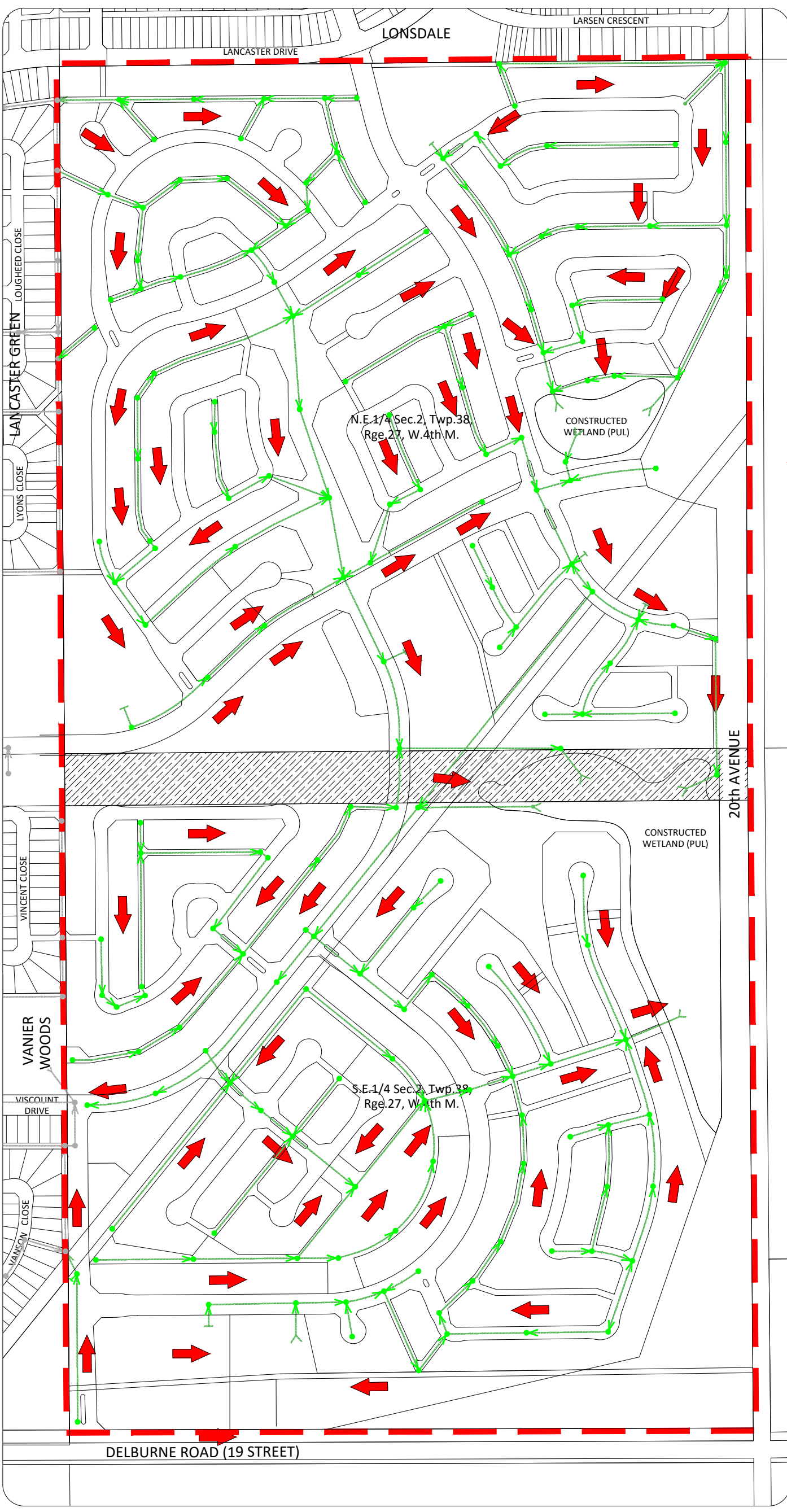
Figure 11.0
Sanitary Servicing
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB



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- Legend:**
- Storm Manhole
 - Storm Flow Direction
 - Existing Storm Manhole
 - Existing Storm Flow Direction
 - Storm Outlet/Inlet
 - Storm Stub
 - Storm Servicing
 - Existing Storm Main
 - Major Overland Drainage
 - Altalink Parcel
 - NASP Boundary

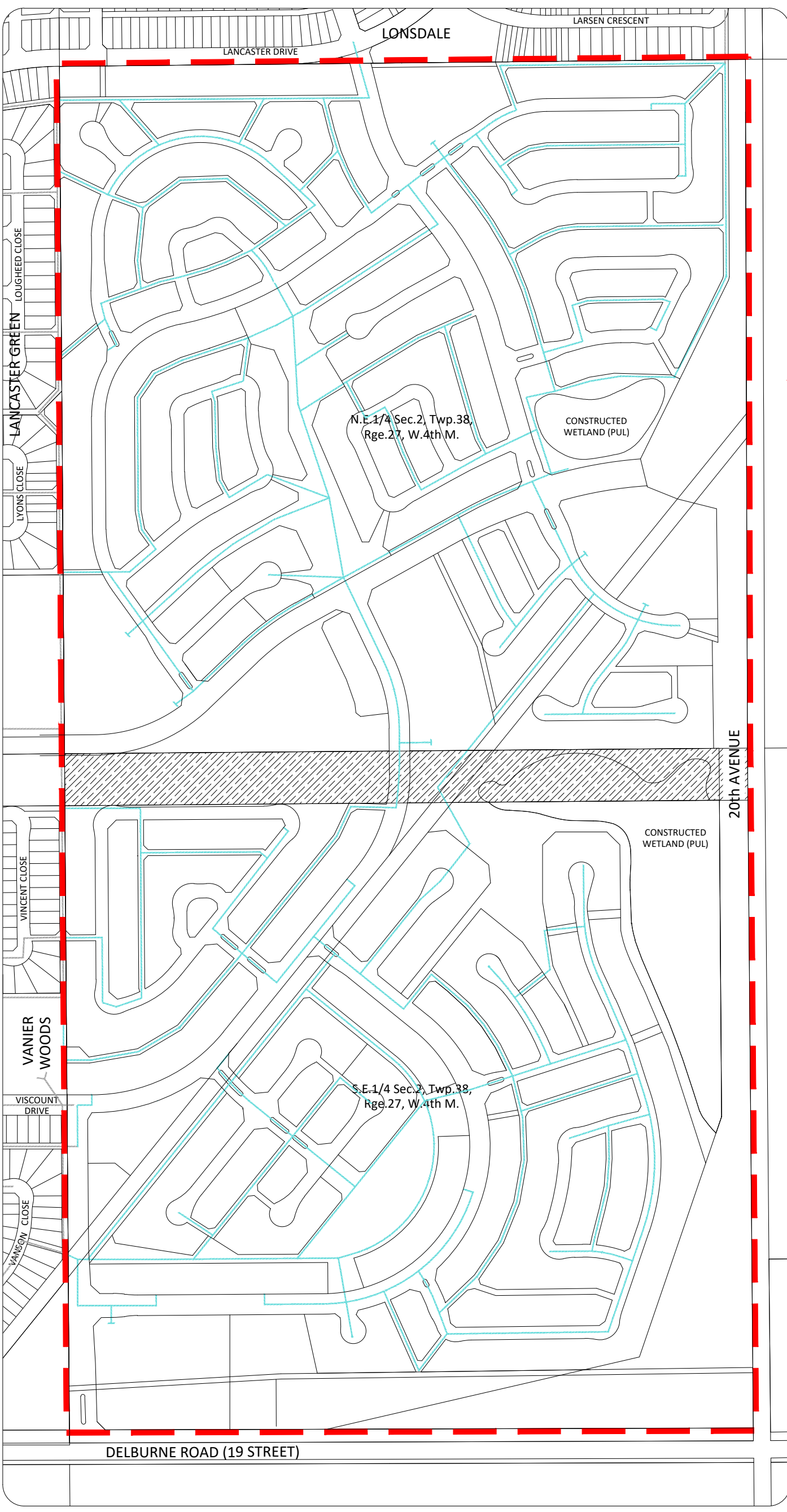
Figure 12.0
Storm Servicing
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB

Stantec
 #1100, 4900-50th Street, Red Deer, AB T4N1X7
 Ph: (403) 341-3320 Fx: (403) 342-0969

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- Legend:**
- Water Stub
 - Water Servicing
 - Existing Water Main
 - Altalink Parcel
 - NASP Boundary



Figure 13.0
Water Servicing
 Lancaster/Vanier East

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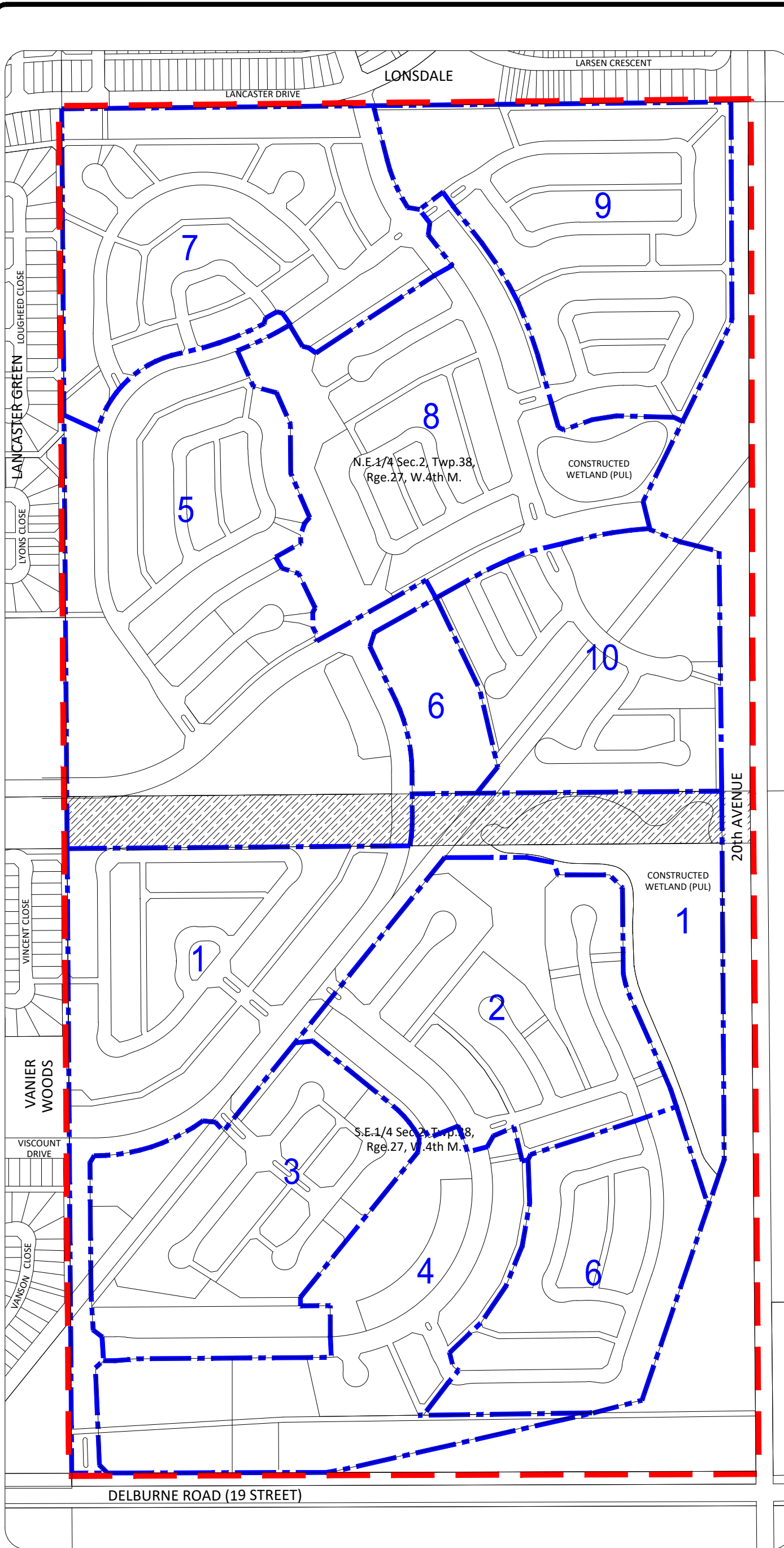
7.0 Phasing of Development

Infrastructure to service the first phase of the Lancaster/Vanier East development will be extended from the existing sanitary and storm trunks located at the end of Viscount Drive at the boundary of Vanier Woods. Each successive stage will be developed with the logical and economical extension of municipal services with the intent of meeting the needs of the regional and local housing market.

As shown on **Figure 14.0 – Phasing Plan**, the early phases are expected to start as an extension of Viscount Drive and move in an easterly direction. Development will then proceed as an extension of 22nd Street and move in a northerly direction. The later phases will be adjacent to the east boundary of the Plan Area. The phasing boundaries shown are conceptual in nature and may vary from those shown when redesignation and subdivision applications are made. As well, portions of separate phases may be developed concurrently if there is sufficient demand and/or if municipal servicing is made more efficient as a result.

7.1 REDESIGNATION AND SUBDIVISION

Redistricting and subdivision applications, to conform to the land use designations described in this NASP, will be undertaken as necessary. Guided by *The City of Red Deer Municipal Development Plan*, *The City of Red Deer East Hill Major Area Structure Plan*, and the Lancaster/Vanier East NASP, redesignation and subdivisions must conform to *The City of Red Deer Land Use Bylaw* and all applicable statutory plans in addition to the informational requirements necessary for each application.



- Legend:**
- - - Phasing Boundary
 - Altalink Parcel
 - - - NASP Boundary



Figure 14.0
Phasing Plan
 Lancaster/Vanier East

Prepared for:
 Melcor Dev. Ltd.
 Red Deer, AB

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