

**QUEEN ELIZABETH II BUSINESS PARK LOCAL AREA  
STRUCTURE PLAN  
BYLAW NO. 19-23  
LEDUC COUNTY**

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**A BYLAW FOR THE ADOPTION OF THE QUEEN ELIZABETH II BUSINESS PARK LOCAL AREA STRUCTURE PLAN  
AND THAT BYLAWS 23-12 AND 01-22 BE REPEALED.**

**WHEREAS**

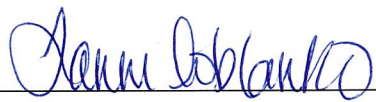
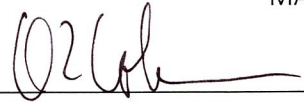
pursuant to Section 630 of the *Municipal Government Act*, being Chapter M-26, Revised Statutes of Alberta, 2000, and amendments thereto, the council of Leduc County wishes to adopt a Local Area Structure Plan Bylaw for the purposes of directing the use and development of lands within the County.

**NOW THEREFORE**

be it resolved that the council of Leduc County, duly assembled, enacts as follows:


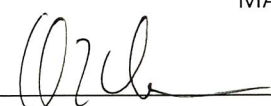
1. That the attached Schedule A, "Queen Elizabeth II Business Park Local Area Structure Plan" is hereby adopted.
2. That Bylaws 23-12 and 01-22 are repealed upon this bylaw coming into force.
3. This bylaw shall take effect on the date of third reading.

Read a first time this 26th day of September, A.D. 2023.

  
\_\_\_\_\_  
MAYOR  
  
\_\_\_\_\_  
COUNTY MANAGER

Read a second time this 14 day of Nov, A.D. 2023.

Read a third time and finally passed this 14 day of Nov, A.D. 2023.

  
\_\_\_\_\_  
MAYOR  
  
\_\_\_\_\_  
COUNTY MANAGER



Bylaw No. 19-23  
Schedule A



**LEDUC  
COUNTY**

**Queen Elizabeth II  
Business Park  
Local Area Structure Plan**

Created: September 2012

Last updated: September 2023

Prepared by: Lovatt Planning Consultants  
and Al-Terra



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# 1 Introduction

## 1.1 Purpose

The purpose of this Local Area Structure Plan (LASP) is to provide a framework to guide the future subdivision and development of a site located within the boundaries of the Nisku Major Employment Centre Area Structure Plan (Nisku MEC). The Nisku MEC is a broad policy-based document that requires the preparation of more detailed plans to consider land use, patterns of development, location of roads and municipal servicing at the local level.

The LASP is referred to as the Queen Elizabeth II Business Park and was originally prepared on some 96.2 hectares. The plan boundary was expanded to include a second phase consisting of an additional 31.5 hectares of land in 2022.

Because the LASP is a statutory plan and not a plan of subdivision, all boundaries shown on the maps contained herein need to be verified at the time of subdivision. It is assumed that minor deviations to the Future Land Use Concept will be permitted. Any major deviations to this LASP will require an amendment.

## 1.2 Background

The LASP is supported by the following documents:

- Geotechnical Investigation Report (September 2007, CT & Associates Engineering Inc) with April 2012 Update by same
  - CTA File No. 02-647
- Phase I Environmental Site Assessment (March 2012, CT & Associates Engineering Inc)
  - CTA File No. 02-647.01
- Traffic Impact Assessment (May 2012, Bunt & Associates)
  - Project Number 3279.02A
- Geotechnical Investigation Proposed Balkan Land Industrial Subdivision (November 2020, Hoggan Engineering & Testing (1980) LTD.)
  - Report No. 6449 – 91
- QE II Local Area Structure Plan Amendment Transportation Impact Assessment (August 2021, bunt & associates)
  - Project No. 03-21-0037

The LASP, adopted in 2012 and amended in 2022, was previously contained within the North Major Area Structure Plan, which was repealed in 2022.



### **1.3 Location and Boundaries**

The QEII LASP area is in Leduc County directly east of the QEII Highway and CP Rail corridor, and 1.5 miles north of Township Road 510. The Plan area is bounded to the north, south and west by existing industrial development, and to the east by cultivated agricultural lands.

The majority of Phase 1 of the QE II LASP area has been developed. The plan area was amended to add approximately 31.5ha in 2022 described as part of N.E. ¼ Section 5 Township 51 Range 24 W4M, to the plan area as Phase 2, east of Nisku Spine Road. (See Figure 1 Regional Context). The Phase 2 amendment area is located east of Nisku Spine Road, north of 30 Avenue, south of 35 Avenue, and west of Range Road 244. The address is 51056 Range Road 244, Leduc County.

### **1.4 Public Participation**

Public Participation has been conducted through the standard County referral and Legislative Public Hearing processes.

### **1.5 Land Ownership**

The lands within Phase 1 are subdivided into privately owned industrial small holdings in accordance with the approved LASP. Phase 2 expansion area is owned by Pioneer Skies Business Park Inc. (See Figure 2).



## 2 Policy Framework

The LASP complies with Leduc County's statutory plans, the Intermunicipal Planning Framework (IPF), the Airport Vicinity Protection Area (AVPA) Regulation, and the principles and policies of the Edmonton Metropolitan Region Growth Plan (EMRGP).

### 2.1 *Alberta Municipal Government Act*

Statutory plans are regulated under Section 633 of the Municipal Government Act. It states that an area structure plan must describe the sequence of development proposed for the area; the land uses proposed for the area; and the general location of major transportation routes and public utilities. An area structure plan must be consistent with all higher-order plans, including the Municipal Development Plan and Intermunicipal Development Plans.

Leduc County's planning hierarchy includes two levels of area structure plans being "Major" and "Local" area structure plans. If an area is identified for significant development, such as the Major Employment Area, then the County will often undertake a high level "Major Area Structure Plan" to provide a holistic view of how the larger area is expected to develop. However, a plan at that level is not able to provide the specific policies and directions that are necessary for development to proceed, and so they are supported by the creation of "Local Area Structure Plans" that provide specific direction for growth in the smaller areas in accordance with the general direction provided by the overarching plan.

In this instance, the Nisku Major Employment Centre Area Structure Plan is the overarching plan, which provides general direction for the entire area. This overall direction is then refined through Local Area Structure Plans such as this one.

### 2.2 *Edmonton Metropolitan Region Growth Plan*

Compliance with the Edmonton Metropolitan Region Growth Plan is provincially mandated through the Municipal Government Act. A fundamental requirement of the EMRGP is to intensify development to minimize the development footprint and utilize existing and future infrastructure as efficiently as possible.

The Plan area is within the boundaries of the EMRGP and is described as a major employment area. Major employment areas are lands with a concentration of industrial, commercial and/or institutional land uses that have regionally significant business, economic activities, and high levels of employment.

Development west of Nisku Spine Road is already complete with internal rural industrial roadways and many industrial businesses currently operating on site. Approximately 31.5 ha of undeveloped land east of Nisku Spine Road has been added to the plan area and is proposed to be developed as a Light Industrial Business Park land use. The QEII Business Park LASP conforms to the policies of the EMRGP and based off a review of section 4.1(a) of the Regional Evaluation Framework, it does not require approval from EMRB to proceed because it conforms to the higher order Nisku Major Employment Centre Area Structure Plan.



## 2.3 Airport Vicinity Protection Area

The Edmonton International Airport Vicinity Protection Area regulations are governed by provincial legislation as part of the Municipal Government Act (MGA). The regulations were adopted to control how land is developed in certain areas around the airport, due to the potential noise from aircrafts flying overhead as they arrive or depart the Edmonton International Airport.

The AVPA regulation allows a variety of industrial and commercial activities however may apply acoustical conditions on buildings within certain areas of the 2040 Noise Exposure Forecast contours (NEF). No electronic facilities protection zones or height restrictions are imposed within the QEII Business Park LASP and the proposed lands are in alignment with the regulations of the AVPA.

## 2.4 Intermunicipal Planning

The LASP is contained within the Intermunicipal Planning Framework. The IPF is an agreement between the municipalities of Edmonton, Beaumont, and Leduc County that provides a high-level conceptual framework to identify land use, infrastructure, and transportation concepts for the Study Area to inform future projects, plans, and studies.

## 2.5 Municipal Development Plan

Leduc County's Municipal Development Plan (MDP) describes planning objectives and policies for a range of land uses throughout the County. The MDP supports growth and prosperity across all regions of the County by identifying and recognizing unique assets and building upon them.

This LASP is described within the MDP as being a major employment area which aims to provide opportunities for a wide range of business development opportunities including commercial, and light and medium industrial development that can be serviced by transit. This LASP complies with the MDP policies and regulations, therefore, no amendment to the approved MDP is required.

## 2.6 Nisku Major Employment Area Structure Plan

The Nisku Major Employment Centre (MEC) Area Structure Plan was adopted on September 28, 2021. The purpose of this ASP is to guide and direct development of local area structure plans to accommodate new and future business, while supporting existing industrial land use by outlining objectives, policies, natural areas, transportation, utility networks and staging plans for the next 30 years.

The QEII Business Park LASP is described within the Nisku MEC ASP as being part of the North Nisku area where both primary and secondary developments are permitted. Warehousing and logistics are primary developments and are highly encouraged to develop within Nisku North. Secondary developments such as, commercial, retail and hospitality are also encouraged along major arterial roads such as the Nisku Spine Road. The QEII Business Park LASP meets the goals, objectives, and policies of the Nisku MEC ASP, therefore, no amendment is required.



## 2.7 Land Use Bylaw

Leduc County Land Use Bylaw (LUB) specifies a range of permitted and discretionary land use districts as well as standards, regulations, and other provisions to administer the use, development, and subdivision of land within each district.

Edmonton Metropolitan Region Growth Plan Policy Review		
Section	Policy Statement	How does the plan meet the policy
<b>5.1.1</b>	Consistent with the CRB Regulation, existing area structure plans that were adopted in accordance with the MGA prior to the date this Plan comes into force will remain in effect and will be grandfathered. Substantive amendments to these approved plans will be subject to the Regional Evaluation Framework (REF) evaluation, as established through the REF submission criteria	The QE2 LASP is an adopted Statutory Plan under the CRB regulation and therefore is grandfathered.
<b>REF 4.1(a)</b>	All new statutory plans must be referred to the EMRB for approval except for:  a) a new sub-area structure plan that is subordinate to and consistent with its higher order area structure plan or area redevelopment plan;	The LASP is a “sub-area structure plan” under the Nisku Major Employment Centre Area Structure Plan. As such, it is not required to be submitted to the EMRB.

Intermunicipal Planning Framework Policy Objective Review		
Section	Policy Objective	How does the plan meet the policy objective
4.1.4	The Employment Area identifies where regionally significant businesses and economic activities may occur. Generally, these areas will have high concentrations of employment in the form of industrial parks. Employment Areas, due to the high concentration of jobs, should be supported with an appropriate level of servicing. This land use may include local, neighbourhood serving commercial businesses, and services.	The LASP is contained within the Employment Area identified in the IPF and proposed land uses in accordance with the direction of the IPF.
4.2	This section provides the preferred infrastructure servicing for water, wastewater, and transportation. North Nisku is a Stage 1 development area.	The LASP proposes cost effective and logical infrastructure development in accordance with the IPF.

Municipal Development Plan Policy Review		
Section	Policy Statement	How does the plan meet the policy
<b>3.2.0.1</b>	The development pattern in the Nisku Area shall be contiguous.	Development is contiguous
<b>3.2.0.2</b>	The County shall promote an orderly progression and staging of development to prevent the premature conversion of agricultural lands to non-agricultural uses and to minimize land use conflicts with existing agricultural operations.	The LASP is contained with the Nisku Major Employment Centre Area Structure Plan and follows a natural development progression in accordance with that plan

<b>3.2.0.7</b>	Revisions proposed to existing Area Structure Plans and Local Area Structure Plans within the Nisku Area will be subject to the provisions of the Regional Evaluation Framework (REF)	All revisions will be compared against REF and the County will comply with the requirements found therein,
<b>3.4.1.2</b>	A broad range of employment uses are encouraged within the Major Employment Area with a focus on light and medium industrial development and agribusiness.	The LASP focuses on industrial development while still containing the flexibility to adapt for medium industrial uses or agribusinesses.
<b>3.4.1.3</b>	Commercial, retail, and institutional uses are encouraged within the Major Employment Area where they meet the needs of the local employment base and are compatible with adjacent land uses.	The LASP allows for flexibility in land uses as needed to meet the needs of the immediate area and the region as a whole.
<b>3.4.1.8</b>	Heavy industrial development is not supported within Major Employment Areas due to its offsite impacts.	Heavy industrial uses are not supported in the LASP
<b>7.2.0.1</b>	Municipal and school reserve shall be provided at no less than 10 per cent in land, money in place of land, or a combination of land and money in accordance with the Municipal Government Act (MGA) to ensure the educational, recreational, and social needs of residents are met.	Reserve dedications in the LASP area shall be conducted in accordance with the provisions of the MGA
<b>8.1.0.2</b>	As part of any land use decision, the County shall consider the safe, efficient, and cost-effective provision of transportation infrastructure services to ensure a sustainable development pattern within the County.	Transportation planning in the LASP is guided by the supporting Traffic Impact Assessment.
<b>8.1.1.1</b>	Development and subdivision adjacent to local and regional roads and over dimensional corridors as identified in Map 8: Transportation Infrastructure shall not impede the existing or future flow of traffic on local and regional roads or over dimensional corridors.	Development within the LASP will be designed to ensure it does not impede area traffic.
<b>8.1.1.10</b>	All development proposals must include information assessing the traffic and intersection implications of the development on road networks to the satisfaction of the County and, where applicable, Alberta Transportation.	The LASP is supported by a suitable Traffic Impact Assessment.
<b>8.1.1.11</b>	A traffic impact assessment, prepared by a qualified engineer, may be required for development proposals, including Area Structure Plans, land use bylaw amendments, subdivision, and development permit applications as deemed necessary by the County.	The LASP is supported by a suitable Traffic Impact Assessment. All development within the LASP will be required to provide suitable supporting studies as deemed necessary by the County.

Nisku MEC Area Structure Plan Policy Review		
Section	Policy Statement	How does the plan meet the policy
<b>4.3.1</b>	The Nisku MEC Area Structure Plan encourages redevelopment and infill of brownfields or under-utilized properties and the reuse of structures. A leapfrog approach of development is not supported	Development within the LASP is contiguous.
<b>4.3.3</b>	No heavy industrial development shall be allowed within the Nisku Major Employment Center Area Structure Plan	The LASP does not enable heavy industrial development.

	Development shall follow architectural and landscape design guidelines along key entrances, roadways and nodes as outlined in policy or in Local Area Structure/Redevelopment Plans	At the time of adoption, these have not yet been developed. Once developed they will be applicable within the LASP area.
<b>4.3.6</b>	<p>Local Area Structure Plans (LASP's) and Local Area Redevelopment Plans (LARP's) are required prior to development in order to provide more specific and detailed information and a localized vision. LASP's and LARP's should include at minimum:</p> <ul style="list-style-type: none"> <li>• Objectives,</li> <li>• Policies,</li> <li>• Transportation and infrastructure,</li> <li>• Environment Constraints,</li> <li>• Parks and Recreation,</li> <li>• Staging and Development Pattern(s),</li> <li>• Public Engagement,</li> <li>• Outline Plan Requirements and</li> <li>• Other requirements such as floor area ratios to maximize building sites, relevant statistical data, and specific background information.</li> </ul>	The LASP is a grandfathered document and met the standard of the day when adopted. Should it see a significant amendment it will be expected to comply with all applicable policy at that time.

## 3 Plan Area Context


### 3.1 Topography

The Plan area contains no significant physical features (see Figure 3). The land slopes from east to west into the Blackmud Creek drainage channel that parallels CP Rail and the QE II Highway to the west. The creek then trends to the northwest under both CP and the Highway. Much of the property has been under agricultural production for many years. Following a wildlife sweep of the property, in accordance with Provincial requirements, a number of trees surrounding the central homestead were removed in the summer of 2021 to allow for demolition activities of existing buildings.

Soil and near surface groundwater conditions were investigated by CT & Associates Engineering Inc. in 2007. CT Engineering also provided a 2012 addendum to the 2007 investigation to recognize elapsed time. The addendum concludes that site conditions have not changed.

Generally, the site is covered with 0.1 to 0.3 metres of topsoil, underlain with clay/clay till. Multiple locations show the clay/clay till being underlain by bentonite and bedrock. At completion of drilling, no groundwater or sloughing was encountered at most of the borehole locations.

Generally, the site is considered feasible for commercial/industrial development, though based on the shallow high plastic bedrock soils and bentonite, special considerations in design and construction will be necessary. The full geotechnical report and the addendum letter are provided under separate cover.



An additional Geotechnical Investigation was completed for the Phase 2 lands in November of 2020 by J.R. Paine and Associates Ltd. Eight test holes were located throughout the east half of NE 5-51-24 W4M. Soil samples from the eight test holes were tested for moisture content and contamination. Groundwater levels were within 3 meters of the surface in three (3) of the eight (8) test holes drilled on the property. Groundwater seepage may occur in some trenches on site while servicing, and some considerations will need to be made when constructing on site stormwater management facilities, but no other concerns of note were found through the investigation.

## **3.2 Existing Land Uses**

The lands within the existing Plan area are a mix of business park and business industrial. The lands west of Nisku Spine Road are designated for Business Industrial uses, while the east side of the Nisku Spine Road is districted for Business Park land uses. The entire plan area is approximately 75% built out.

## **3.3 Adjacent Land Uses**

The lands adjacent to the Plan area are a combination of Business Park, Industrial and Agricultural land use. Adjacent to Phase 1 of the Plan area is Business Park land uses located north and a mix of Industrial and Agricultural land use to the south. Adjacent to Phase 2, all lands are future Business Park Land Uses identified in the Nisku MEC Area Structure Plan. The land is currently being farmed on the South, East and North areas of Phase 2.

## **3.4 Existing Infrastructure**


### **3.4.1 Transportation**

Development permit applications will need to consider the Highway 2 Corridor Design Guidelines. Although the QE II Highway (Gateway Boulevard/ Calgary Trail) does not directly border the Plan area, all highly visible developments in this area adjacent to the QE II are governed by the Highway 2 Corridor Landscape Design Guidelines to ensure high quality appearance. No direct access to the QE II from the Plan area exists now or in the future. The Phase 2 lands are not visible from the QE II and are not subject to the design guidelines.

Existing businesses located within Phase 1 are accessed from 35 Avenue at the Nisku Spine Road on the east and from 8 Street on the west. 8 street runs parallel to QE II Highway and north through the WAM LASP, but no longer connects to 41 Avenue as the connection was removed with the construction of the QE II interchange.

The Nisku Spine Road is currently constructed as a four-lane divided arterial between 41 Avenue and Township Road 510. Two further lanes have been constructed from Township Road 510 south past Airport Road to Allard Ave in Leduc. It is planned to be a future 6 lane divided arterial





connecting the City of Leduc to the City of Edmonton through the Nisku Business Park. The Spine Road divides the LASP in two with Phase 1 on the west and Phase 2 on the east.

#### **3.4.2 Stormwater Management**

A Storm Water Management Facility is contained within a 4.71 hectare future Public Utility Lot located in the northwest corner of the plan area to take advantage of the natural topography. An additional storm water management facility is located in the Pioneer Skies expansion area to the LASP.

#### **3.4.3 Shallow Utility Services**

Shallow utilities including street lighting, natural gas, power, and communication lines are available for extension into the Plan area from adjacent developments. Gas, power, telephone, and cable TV lines will be located in the road right-of-way or through easements on private land. Services will be available to all parcels. Connections to lots will be the responsibility of landowners and individual developers. Shallow utilities including street lighting, natural gas, power, and communication services are available for extension into Phase 2 from the adjacent developments.

#### **3.4.4 Oil & Gas Infrastructure**

According to the Alberta Energy Regulator (AER) there are no abandoned wells located within the phase 2 lands.


### **3.5 Existing Environmental Features**

#### **3.5.1 Environmentally Significant Areas**

Two Phase 1 Environmental Sites Assessments were undertaken in 2006 for the Plan area: one for the westerly two thirds of the Plan area by CT & Associates Engineering; and a second by Stantec Consulting for the easterly one third. The Site Assessments are provided under separate cover.

The CT & Associates Assessment concludes that no environmental concerns related to historic or current activities exist. However, the Assessment also determined that a small four by six metre area of unknown fill material that appears to be related to a former roadway should be further investigated although it appears unlikely that any environmental risk exists. The type of fill will be determined at the time of site grading and if warranted will be further investigated.

The Stantec Assessment determined that no potential environmental concerns exist. Given that the existing five lot subdivision was registered in 2001, it is assumed that this subdivision is also unencumbered by any environmental concerns. An additional Phase 1 environmental site assessment was completed by Pinchin Ltd. in support of the phase 2 lands. Based on the findings of the Phase 1 ESA completed by Pinchin Ltd., it has been determined that the plan area is generally flat, vacant and has fallen into overall disrepair. Three aboveground storage tanks (ASTs) were observed in the central portion of the Site. Two ASTs were observed adjacent to the east and west of a shed, while the third AST was located within the shed. All the ASTs were observed on elevated metal stands with no secondary containment. The use of polychlorinated biphenyls (PCBs) was commonplace circa 1980, given the construction of structures before 1980, there is



potential that on-Site electrical equipment may contain PCBs. Asbestos-containing materials (ACMs) are commonly found in building construction materials. Asbestos use in Canada was formally banned in December 2018. Given the building of construction of on-Site structures (circa 1960), there is potential for ACMs to be present in the buildings.

### **3.5.2 Wetlands and Water Courses**

A Wetlands Assessment was completed by Stantec Consulting Ltd. in 2009. Although there are several wetlands within the subject property, Public Lands will not be claiming any of the wetlands (per meetings held in May 2009).

Compensation is required for the disturbance of any existing wetland in order to comply with Alberta Environment's no net loss policy. The Stantec report proposes that any compensation required under the Water Act be completed through financial payment, perhaps financing a wetland project off-site. The total wetland area of the Plan area that would require compensation if disturbed is 2.193 hectares. Compensation is required at a minimum ratio of 3:1. The Wetland Assessment is provided under separate cover.

An additional Wetland Assessment and Impact Report was completed by EnviroMak Inc. in September of 2021, for the Phase 2 lands, found that the assessment area contained five wetland/waterbody features. Of the five features found, one is classified as a natural wetland, two are classified as ephemeral waterbodies and two are considered man-made wetlands. The ephemeral water bodies and the natural wetland will require water act approval for any alterations. Compensation will need to be paid for any alterations required to be made to the 2.85 ha natural wetland due to the development, while ephemeral water bodies are not required to be compensated for. The natural wetland is considered as a 'C' value wetland. No significant wildlife or plant species were found within the waterbody features on site, however nesting birds' vulnerable periods and the general amphibian breeding periods will need to be respected when alterations to the wetland are to occur.

## **4 Land Use Concepts**

The Development Concept proposed for the Plan area is illustrated by Figure 4. The development of the QE II Business Park will enhance the strong industrial base already existing in Leduc County. The proximity of the Business Park to major transportation facilities such as the Queen Elizabeth II Highway (Gateway Boulevard/ Calgary Trail) Corridor, the Nisku Spine Road, Anthony Henday Drive, Highway 19/625, the Edmonton International Airport, and the CP Rail line makes the Plan area a very attractive location for industrial businesses.

The development concept for phase 1 focused on efficiency by minimizing road length while maximizing the number of industrial lots. The plan for the Pioneer Skies expansion area includes several business industrial lots with individual access from 35 Avenue and 16<sup>th</sup> Street. The development will allow for Business Park and Light Industrial uses, in accordance with the land use policies for Nisku North, contained in the recently approved Nisku MEC ASP.

## 4.1 Land Use Statistics

	Area (ha)	% of GDA
Plan Area	127.7	
Other Land Uses	16.4	12.8
Roads – Arterial & Collector	7.6	5.9
Roads - Local	9.85	7.7
Stormwater Management PUL's	6.97	5.5
Net Developable Area	86.88	
Light Industrial	60.6	47.5
Business Park	26.28	20.6

## 4.2 Warehousing & Distribution

Due to the strategic location of a number of transportation corridors within Leduc County, warehousing, distribution and logistics uses may be appropriate. These will typically be on larger serviced parcels in industrial parks with good access to major transportation and high load corridors.


## 4.3 Industrial Uses

The lands within the plan area are a mix of business park and business industrial. The lands within Phase 2 are currently agricultural, however the existing homestead and related buildings are in the process of being removed in advance of the lands being developed for light industrial and business park uses.

# 5 Natural Areas and Reserves

## 5.1 Reserves

### 5.1.1 Municipal Reserves



There are currently no municipal reserve parcels in the plan area and any municipal reserve for Phase 2 is anticipated to be provided as cash in lieu as occurred with Phase 1.

#### ***5.1.2 Environmental Reserves and Easements***

While there are no environmental reserves or easements within the plan area, Leduc County retains the right to require the dedication of lands qualifying for Environmental or Conservation Reserve within any future subdivisions in the plan area in accordance with the Municipal Government Act and relevant regulations.

## **5.2 Historic Resources**

A Historical Resources Assessment was undertaken by The Archaeological Group in February 2012. The Overview concluded that due to the poorly drained nature of the western two thirds of the Plan area and the intensive previous agricultural disturbance in the eastern one third, the potential for the discovery of intact, previously unrecorded heritage resources is low, and no further Historical Resources Assessment work is recommended. A Historical Resources Act clearance has been granted by Alberta Culture. Both the Assessment and the Clearance from Alberta Culture are contained in Appendix A. A Historical Resource Act clearance was granted for the subject lands of Pioneer Skies Business Park and is included under separate cover.





## 6 Transportation

The Nisku Spine Road is planned to be a future 6 lane divided arterial connecting the City of Leduc to the City of Edmonton through the Nisku Business Park. The Spine Road divides the LASP in two with Phase 1 on the west and Phase 2 on the east. Direct access to parcels from the Spine Road will not be permitted. The access to parcels is planned to be from future extension of 35 Avenue across the Spine Road and from 16<sup>th</sup> Street.

The proposed internal local road network is based on a rural cross section with ditches. The local network will provide direct access to all internal industrial parcels. All internal road rights-of-way will be in accordance with Leduc County's Municipal Standards at the time of development. A Transportation Impact Analysis (TIA) was undertaken by Bunt & Associates to determine the impacts of the proposed development traffic on the existing roadway network and identify connections with future roadway systems. The findings within the TIA anticipate no modifications to the 41 Avenue/Nisku Spine Road Intersection based on the additional development. 35 Avenue shall be constructed as a two-lane undivided collector roadway from the Spine Road to service the subject lands, however rights-of-way for an ultimate four-lane undivided collector roadway should be protected for when the road is extended east to Range Road 243 to service future industrial development.

## 7 Utilities


### 7.1 Water

Water service extends from the west and carries through the site to provide servicing for the plan area as shown in Figure 5. Water main service will be extended east along 35 Avenue from the existing 450mm diameter water main located on Spine Road and south through the future development (Phase 2) area. Water servicing will be provided to each lot and include a fire hydrant network along the roadway for protection. The water main will also be extended to the east end of 35 Avenue to provide service to the future lands east of Phase 2. Water main looping within Phase 2 is currently conducted through a connection on the south boundary of the Phase 2 lands. It is anticipated that this will be abandoned when the watermain extends south to Township Road 510 and loops there instead.

### 7.2 Wastewater

Sanitary servicing in the plan area is provided by the existing 375mm sewer main that runs parallel to 8th Street on the east side of the roadway. This sanitary sewer main connects to the South East Regional Trunk line (SERT) near the north boundary of the LASP.

Sanitary sewer servicing will be brought into the future development from the existing 300mm sanitary sewer main located on the east side of Spine Road (See Figure 6). The existing sanitary sewer main connects to the Southeast Regional Trunk line (SERT) near the north boundary of the LASP. The sanitary sewer will be extended east along 35 Avenue. Due to the insufficient pipe size



and shallow depth, the sanitary sewer will not be able to accommodate sanitary flows from the future lands east of Phase 2.

### **7.3 Stormwater Management**

Onsite overland drainage patterns are generally from the east to the west (see Figure 7). The proposed site grading will shift the overland drainage to flow southeast to the northwest. A 4.71 hectare SWMF is in the northwest corner of the site with overland flows directed to the SWMF through the roadway ditch system. From the SWMF, an underground storm pipe discharges water into the 8th Street ditch system where it flows through a system of culverts to the west into the Blackmud Creek. Discharge from the facility will be limited to a flow rate of 4.0 L/s/ha.


The Storm Water Management Facility will adhere with the requirements of the Airport Vicinity Protection Area Regulations. The wetland vegetation and naturalization of the facility considers passive bird hazard mitigation measures to ensure that birds do not use the site, especially large flocking waterfowl such as gulls and geese. The facility was designed to comply with Alberta Environment's regulations for water quality and treatment at the time of approval.

The existing overland drainage patterns for Phase 2 are also generally from the east to the west. The proposed site grading will slightly alter the drainage patterns to ensure the flows are directed to the proposed 2.3 hectare SWMF, which will be located on the west end of Phase 2 in a centralized location. Overland flows will be directed to the SWMF through the roadway ditch system. From the SWMF, an underground storm pipe will discharge water into the existing Spine Road ditch where it flows through a system of ditches and culverts to the south and west, ultimately into Blackmud Creek. Discharge from the facility will be limited to a flow rate of 2.0 L/s/ha. The Storm Water Management Facility will be designed as a low maintenance naturalized facility with a shallow vegetated swale along the bottom to provide necessary water quality treatment. Open water within the facility will be restricted to adhere with the requirements of the Edmonton International Airport. The wetland vegetation and naturalization of the facility will consider passive bird hazard mitigation measures to ensure that birds do not use the site, especially large flocking waterfowl such as gulls and geese. The facility will be designed to comply with Alberta Environment's regulations for water quality and treatment.

## **8 Implementation**

### **8.1 Phasing of Development**

The land and infrastructure located west of Nisku Spine Road (Phase 1) is almost at full buildout. The Phase 2 area contains approximately 31.5 hectares of land east of the Nisku Spine Road, which may take about 5 years to develop depending on market demand for business industrial land use. With only one access planned, development will proceed from the north off 35 Avenue. It is important to note that the staging being proposed is conceptual. Construction will proceed in an orderly fashion dependent upon market conditions and development constraints. Redistricting

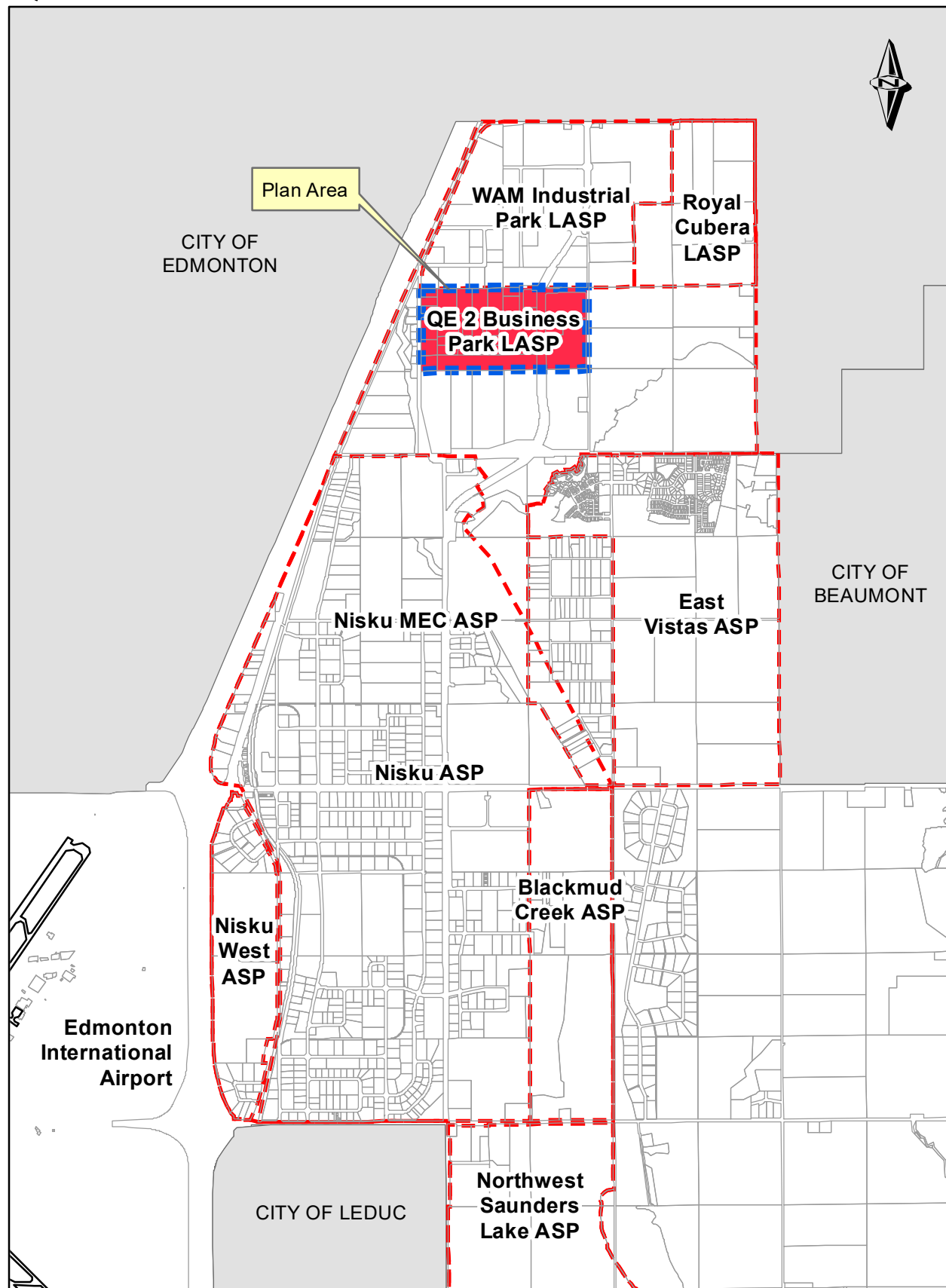


and subdivision applications will be submitted to Leduc County for review and approval by the Subdivision Authority. (See Figure 8)

## **8.2 Subsequent Plan Requirements**

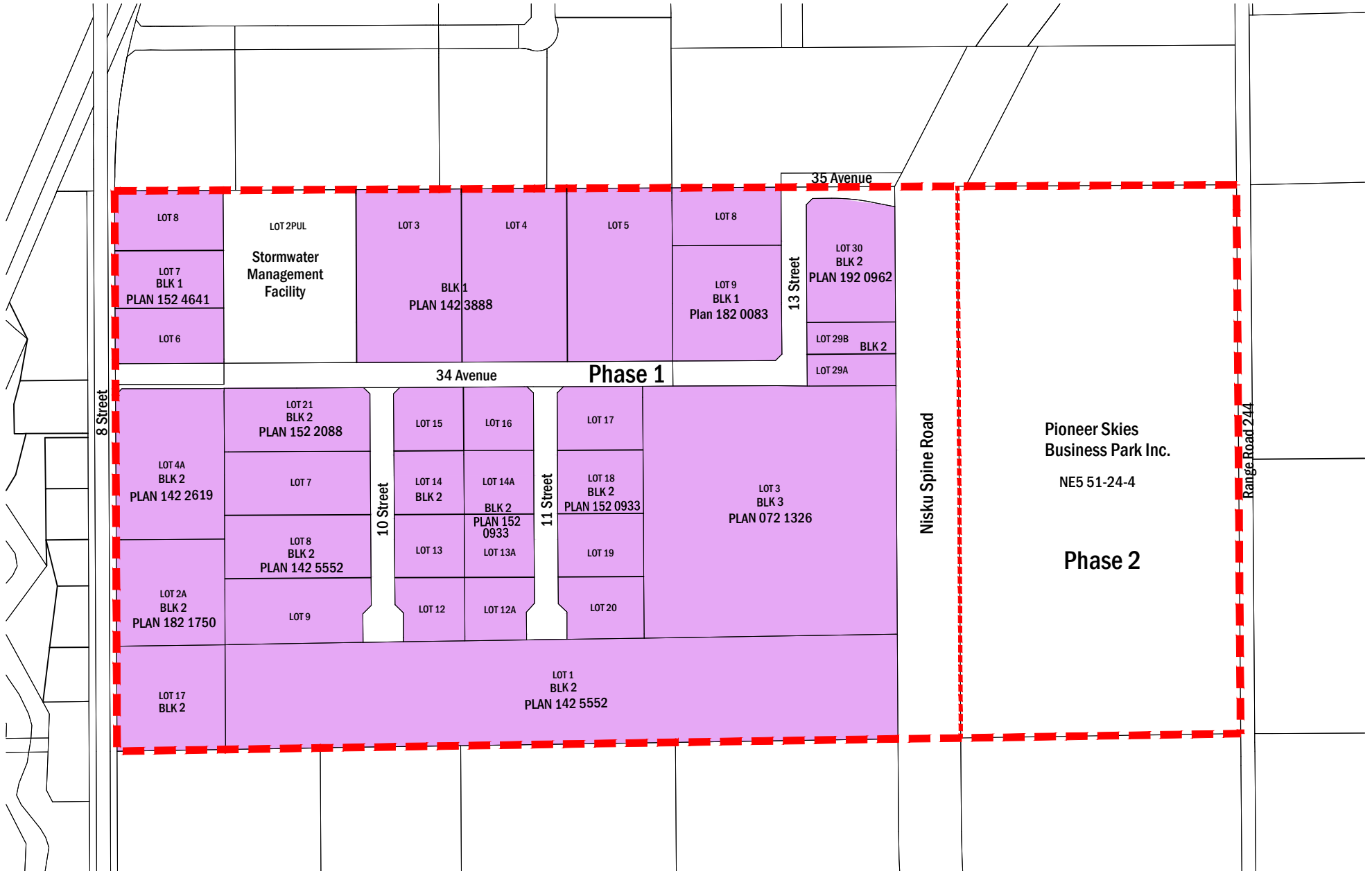
It is anticipated that development within the plan area will proceed directly to subdivision, followed by development and building permits.

# QE II Business Park Local Area Structure Plan



**Figure 1. - Regional Context**

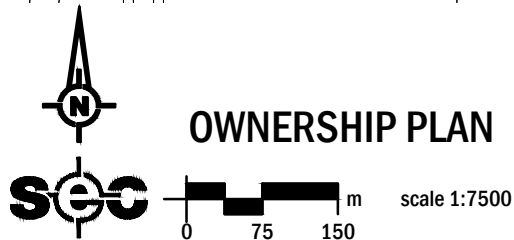


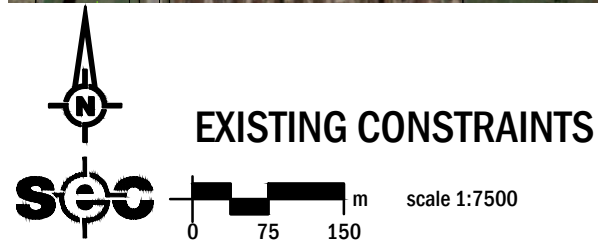


**LEGEND**

- Private Owner (Phase 1)
- LASP Boundary
- Phasing Boundary

**QE II BUSINESS PARK**  
LEDUC COUNTY



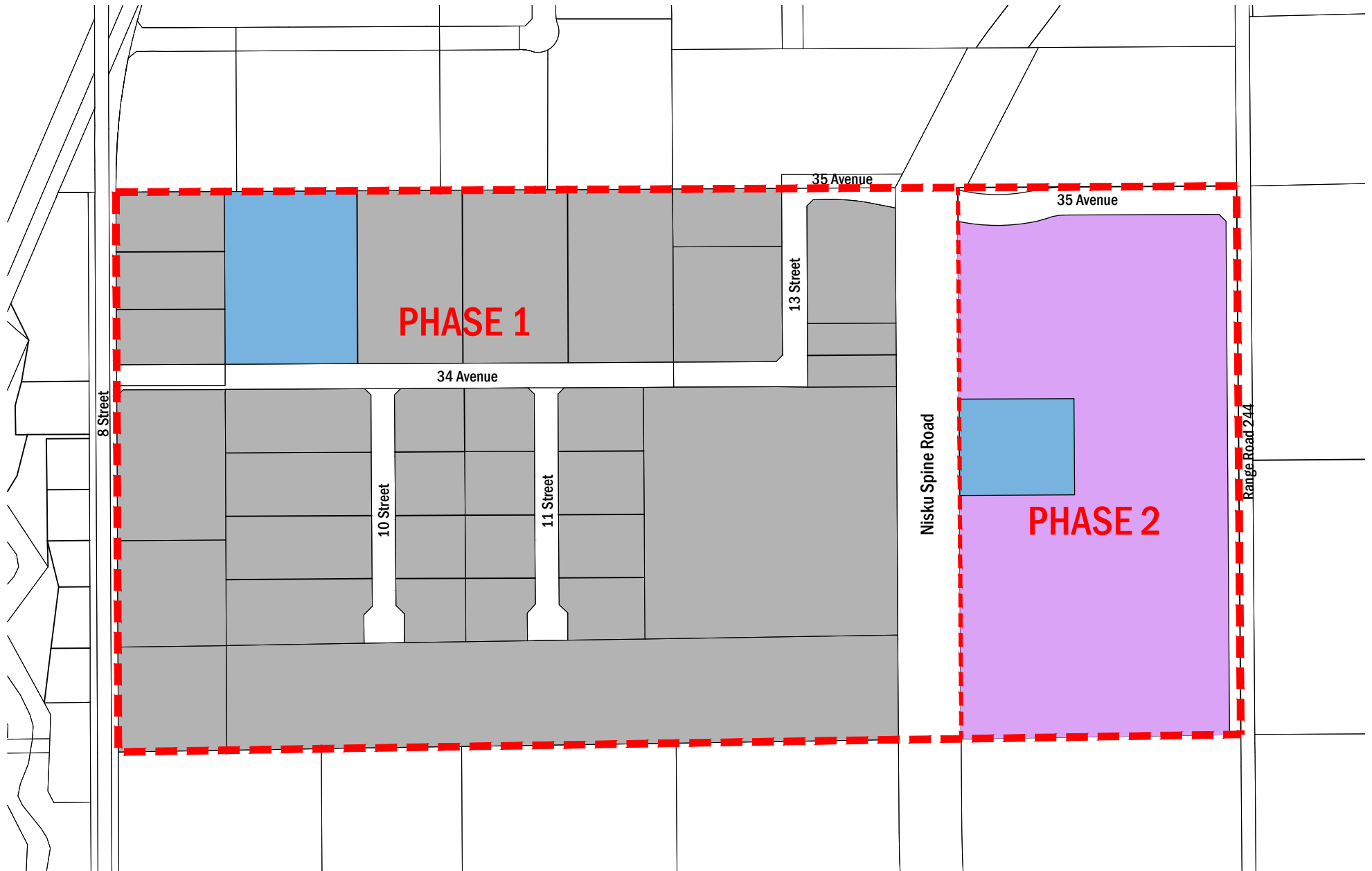


— — — Easement/Utility Right of Way






■ ■ LASP Boundary

**QE II BUSINESS PARK**  
**LEDUC COUNTY**

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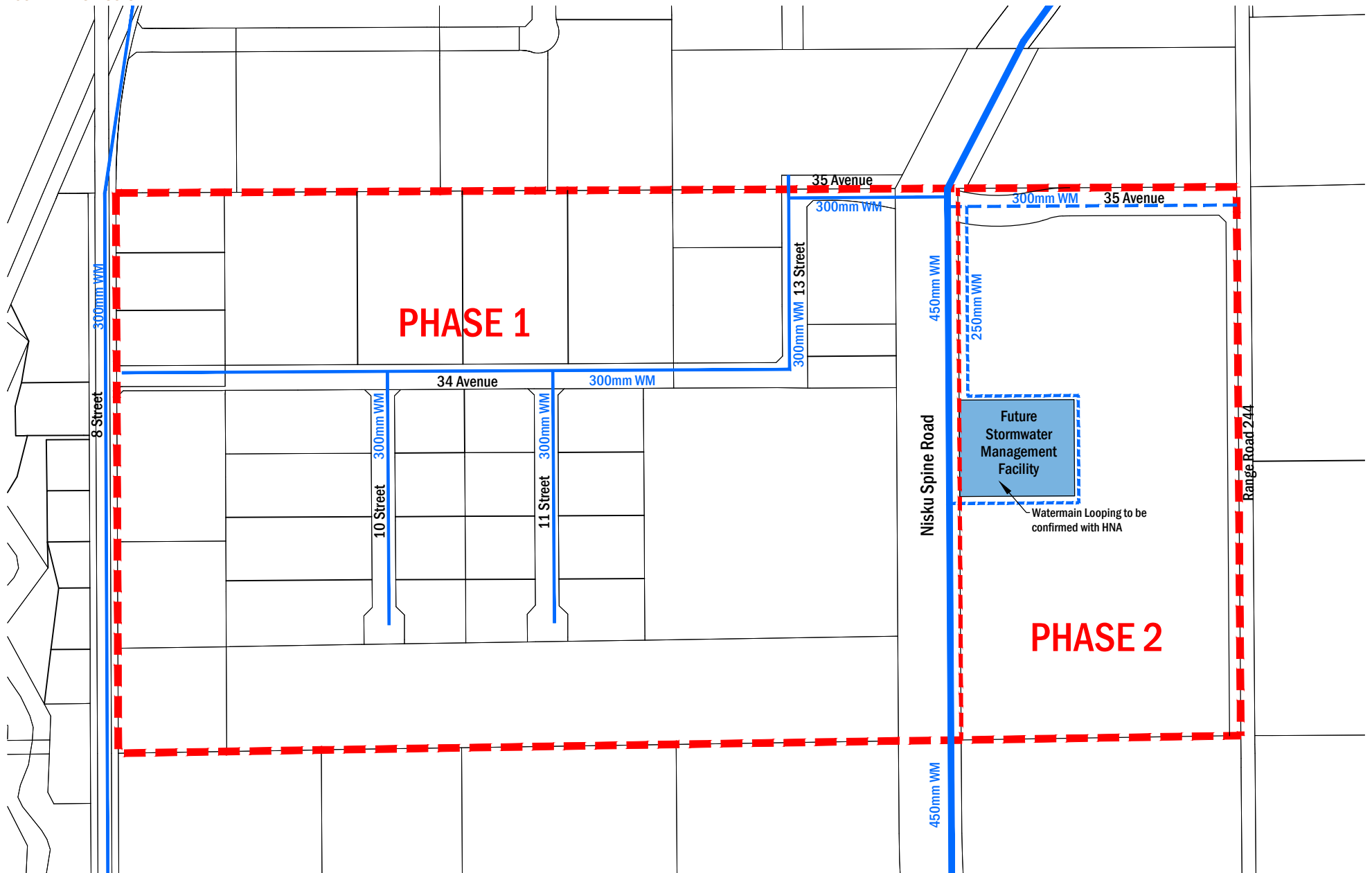


**LEGEND**

- |   |                        |   |                                |   |               |
|---|------------------------|---|--------------------------------|---|---------------|
|  | Existing Business Park |  | Stormwater Management Facility |  | LASP Boundary |
|  | Business Industrial    |  | Phasing Boundary               |   |               |

QE II BUSINESS PARK  
LEDUC COUNTY

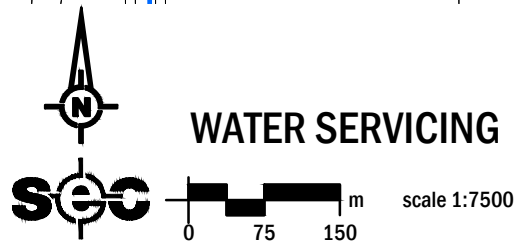




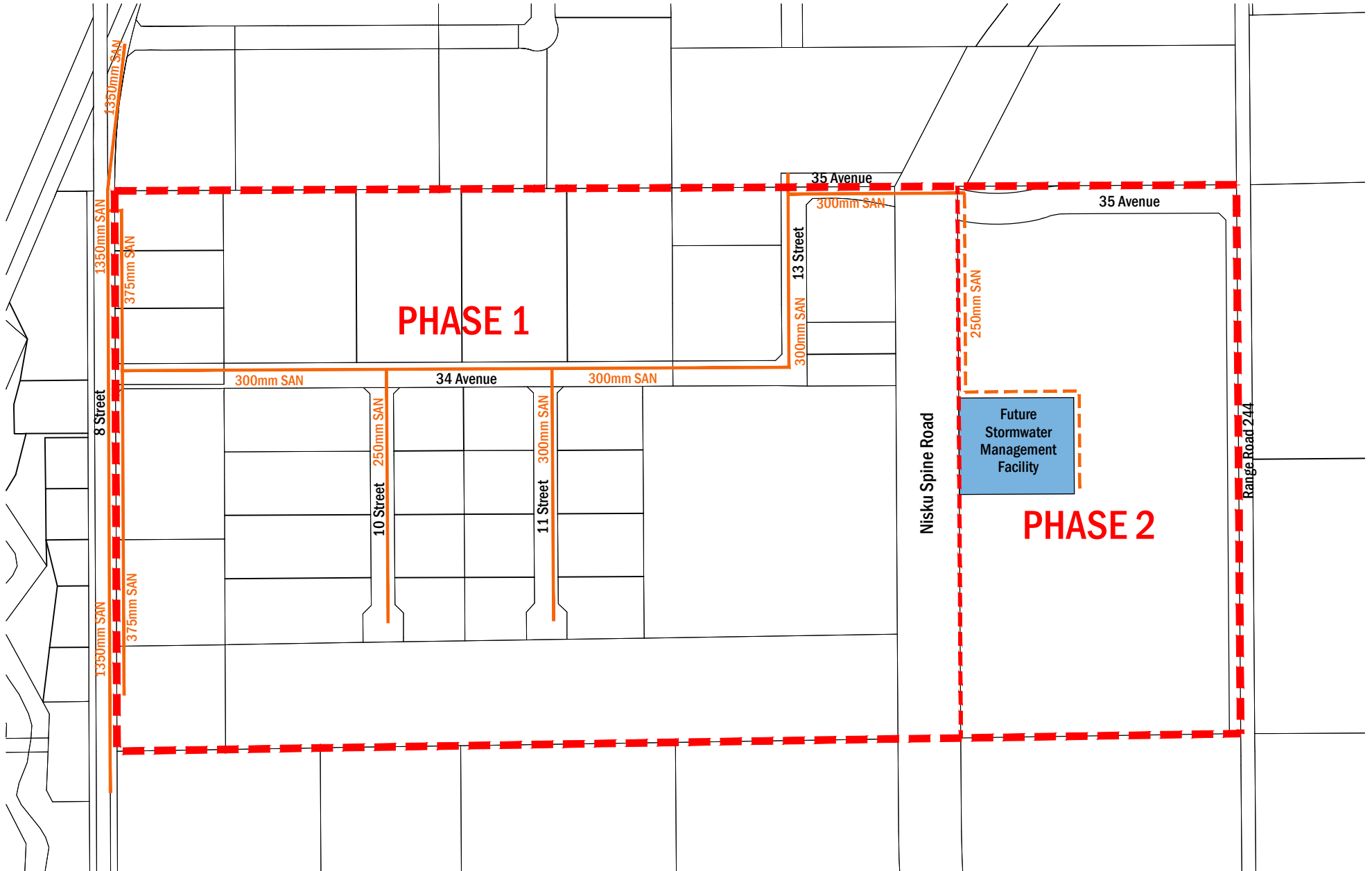
**LEGEND**

- |  |                          |  |                        |  |                  |
|--|--------------------------|--|------------------------|--|------------------|
|  | Existing 300mm Watermain |  | Future 300mm Watermain |  | LASP Boundary    |
|  | Existing 450mm Watermain |  | Future 250mm Watermain |  | Phasing Boundary |

QE II BUSINESS PARK  
LEDUC COUNTY







**LEGEND**

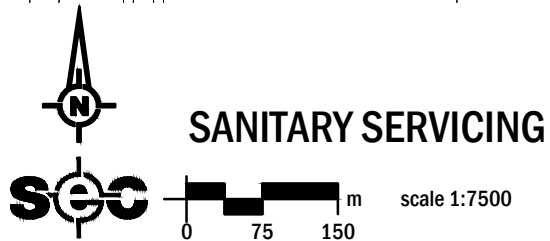
— Existing Sanitary

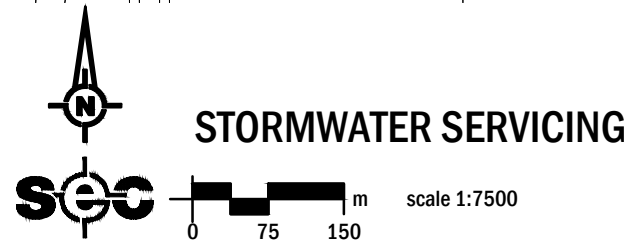
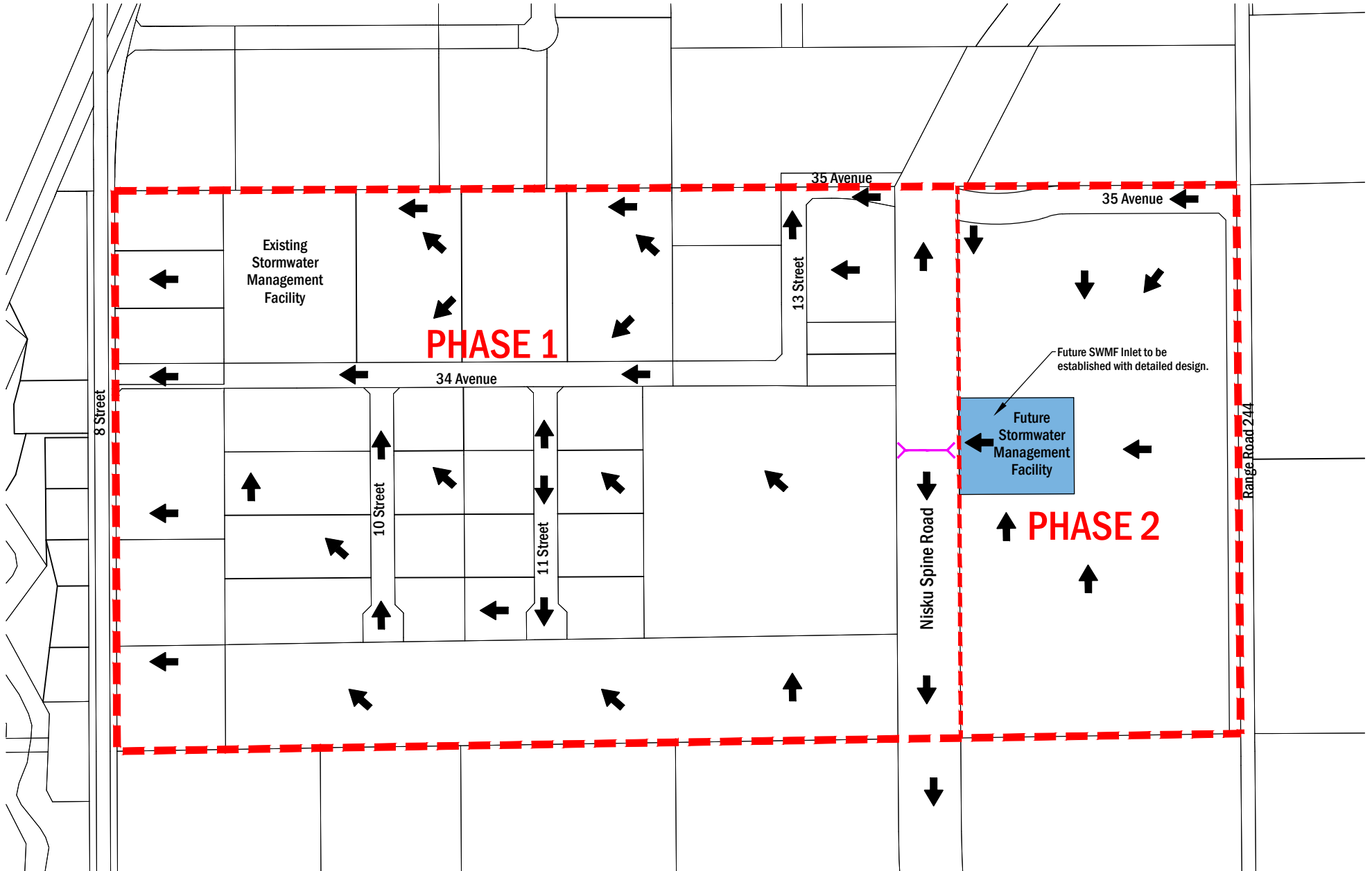
- - - Future Sanitary

— LASP Boundary

- - - Phasing Boundary

QE II BUSINESS PARK  
LEDUC COUNTY

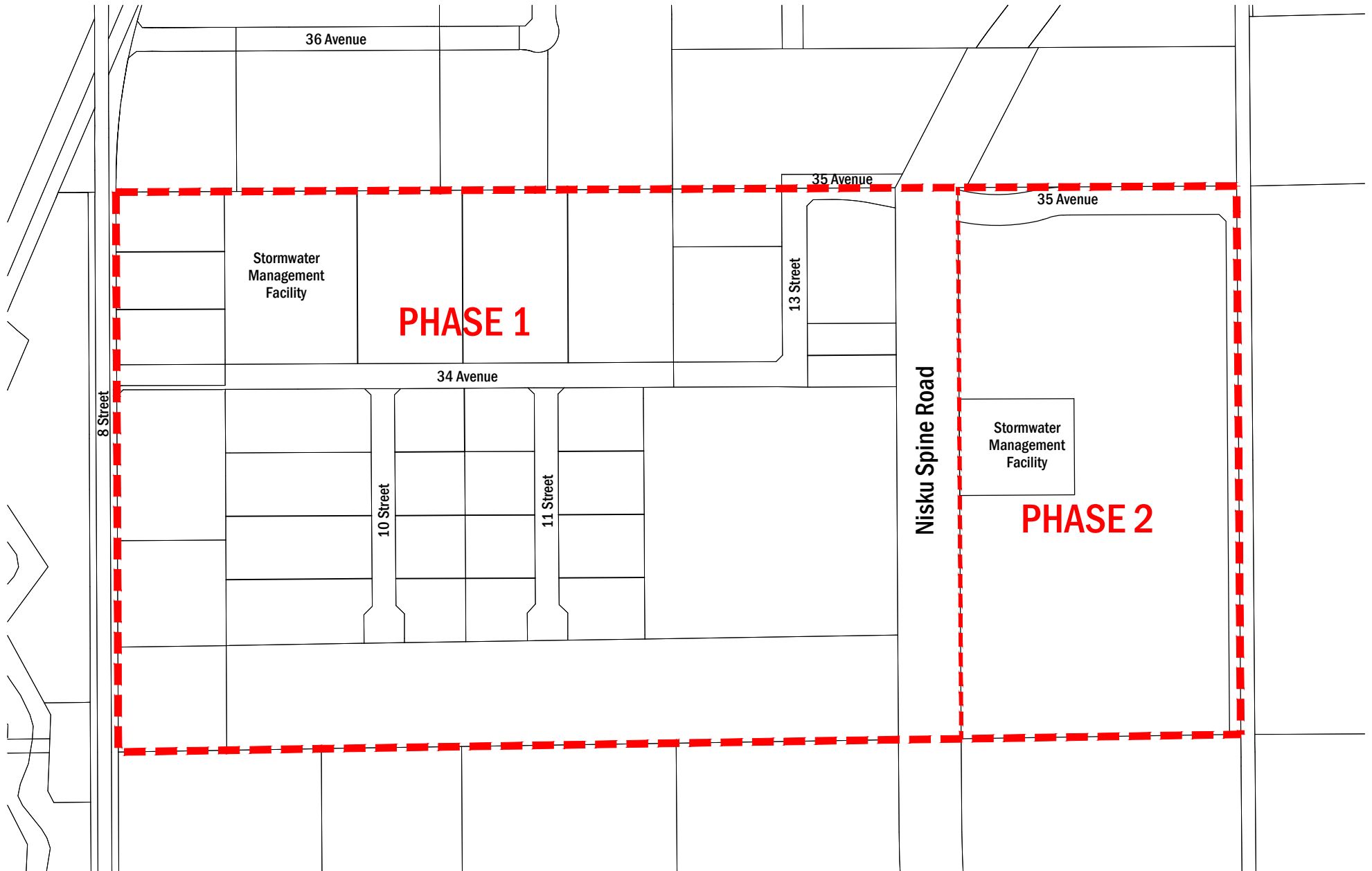




**LEGEND**

- Stormwater Management Facility
- Direction of Major Flow
- 800mm Culvert Drainage Crossing
- Phasing Boundary
- LASP Boundary

QE II BUSINESS PARK  
LEDUC COUNTY



**LEGEND**

- LASP Boundary
- .- Phasing Boundary

**QE II BUSINESS PARK**  
LEDUC COUNTY

