# HARBOUR LANDING NORTH

## CONCEPT PLAN

December | 2020


BEAUCORP
VENTURES LTD.
b&a
Associated
Engineering

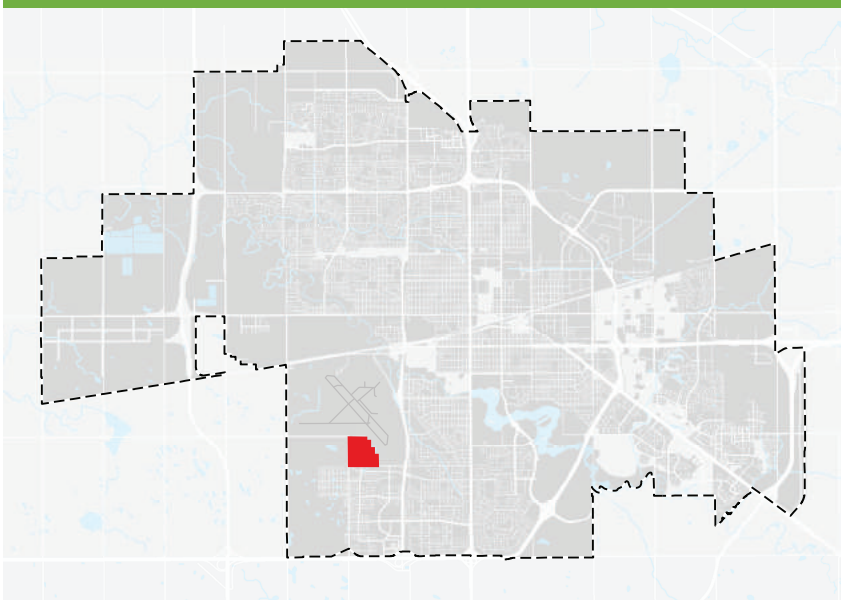
## FIGURES

# 1.0 INTRODUCTION

## 1.1 BACKGROUND

The Harbour Landing North Concept Plan (HLNCP) consists of approximately 60.3 hectares (149.1 acres) of land located in the southwest sector of the City of Regina (COR) and within lands annexed by the City in 1953, as shown in **Figure 1: Site Location** and **Figure 2: Site Context**. The plan area is bound to the north and east by the Regina International Airport, to the south by 25th Avenue, and to the west by Campbell Street.

**Figure 1: Site Location**

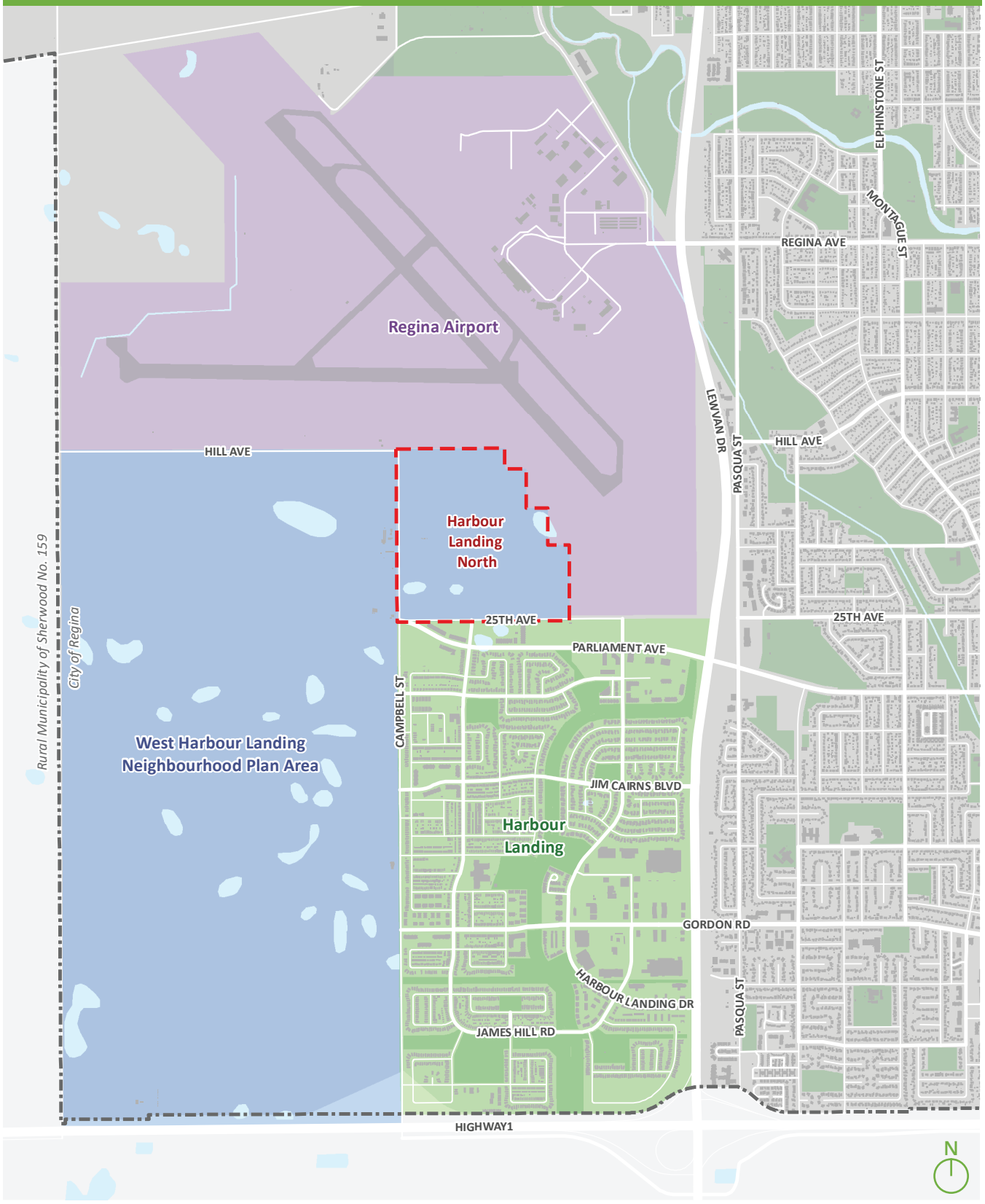


The east portion of the plan area is identified within the Design Regina Growth Plan as a "New Employment Area" which according to policy 14.20A "shall be considered for approval, by the City, on a case-by-case basis." The west portion of the lands are identified as a "Special Study Area". A "Special Study Area [is] an area, determined by the City, which requires further, more detailed study to determine future land use and phasing or timing of development based on impact to the City." The Harbour Landing North Concept Plan and associated supporting studies are being prepared in order to provide this additional information to demonstrate feasibility, be assigned an appropriate phasing designation, and initiate development of the lands.

The Harbour Landing North development concept consists of approximately 25.4 hectares (62.7 acres) of employment lands and approximately 33.4 hectares (82.6 acres) of neighbourhood residential lands located in the 'Special Study Area' portion of the plan. At full build-out the community is anticipated to accommodate a future population of approximately 2,230 people and 1,310 jobs.

The plan area has been designed and is intended to be a natural extension of the existing community of Harbour Landing and the completion of development east of Campbell Street.

## Figure 2: Site Context



## 1.1.2 GUIDING PRINCIPLES

The Harbour Landing North Concept Plan is envisioned as a complete neighbourhood, aligning with the goals of the Design Regina Official Community Plan (OCP). The key planning principles that guide this Concept Plan include:

**Contiguous Development**: Harbour Landing North will ensure a natural extension of the Harbour Landing neighbourhood to the south. Road networks and development forms are complementary and ensure a seamless transition between the two plan areas. The HLNCP has also been designed to integrate with future development to the west of Campbell Street.

**Connectivity**: The Concept Plan is structured with a modified grid network that supports efficient movement for all modes of travel. The plan ensures a high degree of walkability and convenient access to destinations within the plan area, including parks, the neighbourhood hub, and areas of employment. The network strikes a balance between ample connectivity while also ensuring an appropriate level of separation between the residential and employment uses.

**Neigbourhood Hub**: A centrally located mixed-use neighourhood hub is intended to provide a combination of local commercial services and higher density residential development, creating a destination within the neighbourhood. The hub would support both the neighbourhood residents, the employees of the business park, and the users of the neighbourhood park.

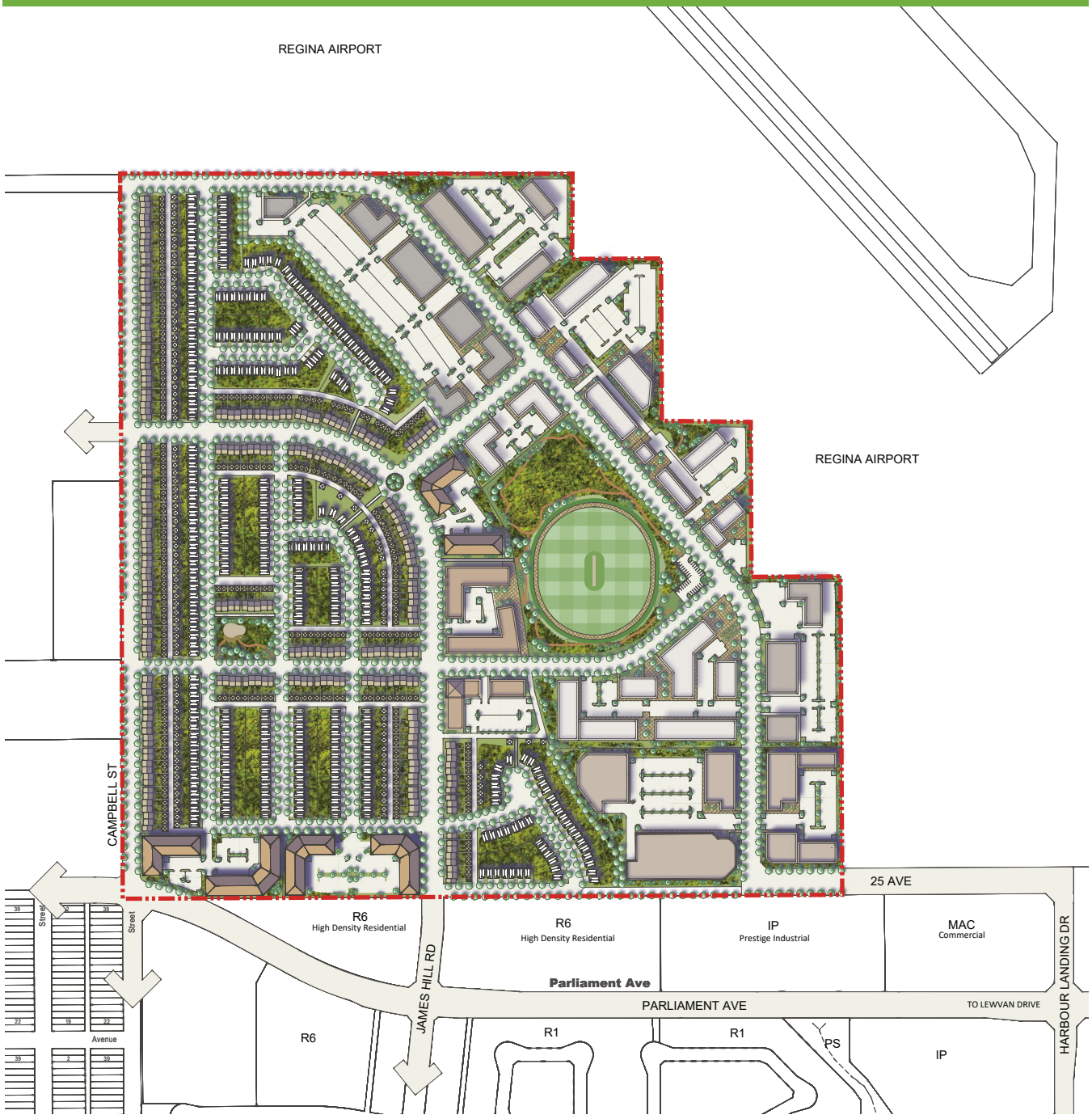
**Housing Mix**: A diversity in housing form will offer choice to Regina residents and provide options for residents at all stages of life. Various residential forms will be included within the low, medium, and high-density areas of the Concept Plan.

**Parks and Open Space**:The parks within the HLNCP will provide needed recreation amenities for both local and city-wide residents. The large neighbourhood park located in the centre of the plan area, will also provide a connection between the residential and employment areas and enhance the vibrancy of the Neighbourhood Hub.

**Unique Character:** The Harbour Landing North Concept Plan is best defined by the concept of Live, Work, Play. The residential neighbourhood is paired with a large employment area that is integrated through thoughtful transitions and connected through a central mixed use and park space for all to enjoy.

## 1.1.3 HARBOUR LANDING NORTH ILLUSTRATIVE CONCEPT

Figure 3: Harbour Landing North Illustrative Concept




*Concept is illustrative only and subject to change

# 1.2 POLICY CONTEXT

## 1.2.1 DESIGN REGINA OCP PHASING AMENDMENT

In 2015, the Design Regina OCP introduced a growth strategy and phasing map that identified lands required to accommodate a population of 300,000 people in the city of Regina. It divided greenfield lands along the edges of the city into Phase 1a, Phase 1b, Phase 1c, Phase 2 or Phase 3, with the stipulation in Policy 14.20D.1 that "a succeeding phase may be approved for development when 75% of the preceding phase, as determined by the City, has been developed".

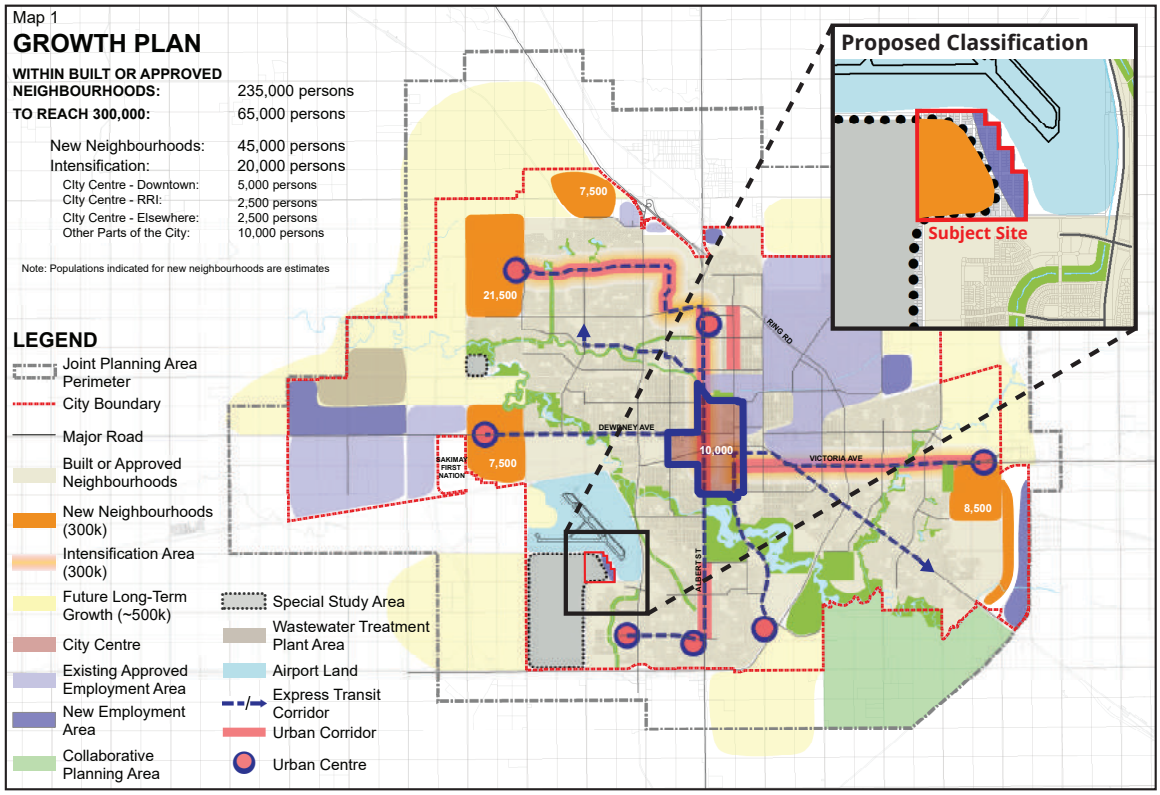
At the time of the growth strategy approval, the west portion of the Beaucorp Lands (Harbour Landing North) were identified as a "Special Study Area" and the east portion of the subject lands as a "New Employment Area", as demonstrated in **Figure 4: Design Regina Growth Plan** and **Figure 5: Design Regina Phasing of New Neighbourhoods and New Neighbourhoods**.

According to Policy 14.20A of the OCP, a Concept Plan for the employment area may proceed at any time and will be evaluated on a case-by-case basis. However, a Special Study Area is defined as "an area, determined by the City, which requires further, more detailed study to determine future land use and phasing or timing of development based on impact to the City" and "must be assigned a phasing designation before proceeding with development" (Policy 14.20D.3). Based on the direction provided in the OCP, the subject lands are contemplated for development by the City of Regina but require additional study to identify an appropriate phasing designation, and a subsequent amendment to the OCP.

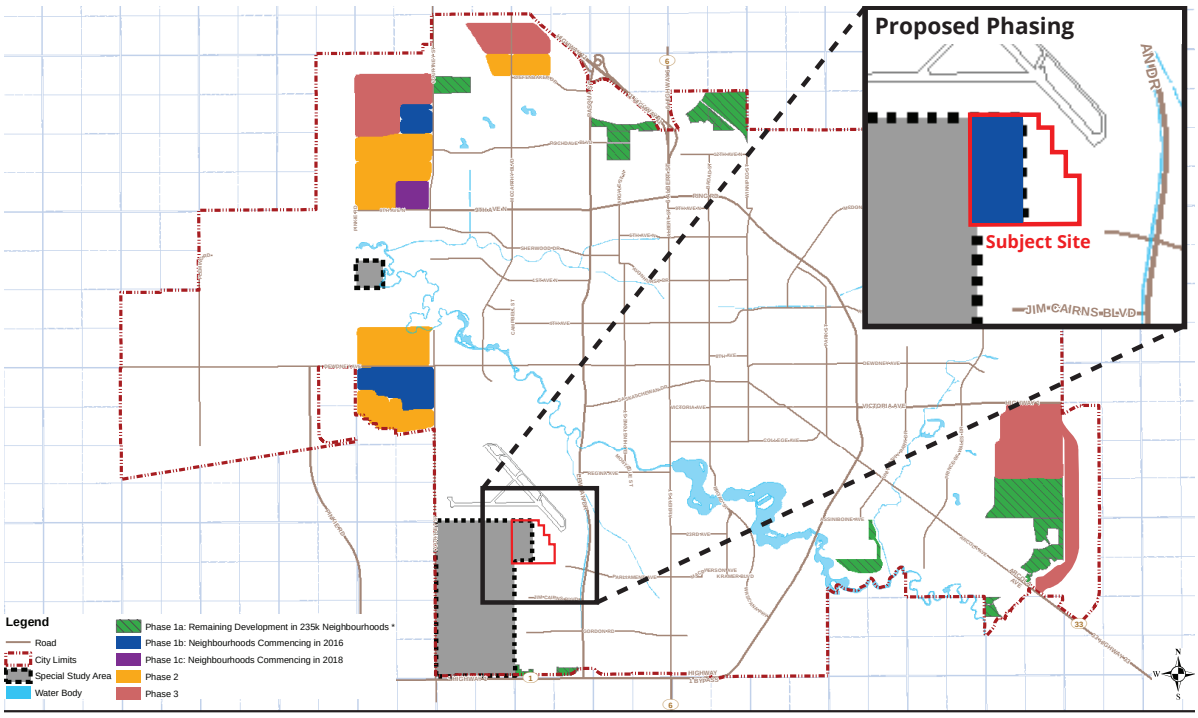
In conjunction with this Concept Plan, an OCP amendment application has been submitted to the City of Regina to amend Maps 1 and 1b of the OCP as follows:

- **Map 1**: Growth Plan should be amended to demonstrate the Special Study Area portion of Harbour Landing North as **"New Neighbourhood (300k)"**. Refer to **Figure 4**.
- **Map 1b:** Phasing of New Neighbourhoods should be amended to demonstrate the Special Study Area portion of Harbour Landing North as **"Phase 1"**. Refer to **Figure 5**.

## Figure 4: Design Regina Growth Plan




## Figure 5: Design Regina Phasing of New Neighbourhoods



## 1.2.2 DESIGN REGINA OCP PHASING AMENDMENT

Key elements of the Design Regina OCP that apply to the HLN Concept Plan are identified in **Table 1** below.

**Table 1 : Policy Alignment**

| Key Element of the Concept Plan | Policy / Goal | Design Response |
|---|---|---|
| **CONTIGUOUS DEVELOPMENT** | **Section C, Goal 2, Policy 2.4**<br><br>Develop compact and contiguous neighbourhoods. | The Beaucorp lands (HLN) were annexed in the 1950s and represent a natural extension of the Harbour Landing Community to the south. Development of both the employment area and residential area support the continuity of development. |
| **MULTI-MODAL TRANSPORTATION** | **Section D3, Goal 3**<br><br>Integrate transportation and land-use planning in order to better facilitate walking, cycling, and transit trips. | The transportation network within HLN will be designed for multi-modal transportation that integrates with the existing road network and provides opportunity for connection with future development (in West Harbour Landing). |
| **COMPLETE NEIGHBOURHOOD** | **Section D5, Goal 1, Policies 7.1 & 7.2**<br><br>Enable the development of complete neighbourhoods. | HLN will consist of both residential and employment areas centred around a commercial and recreational neighbourhood hub. The plan area will include a diverse mix of housing types, goods and services and opportunities for employment integrated with parks and open spaces. The guidelines detailed in Design Regina Appendix A will be implemented throughout the plan area. |
| **EMPLOYMENT AREA** | **Section D5, Goal 4 – Employment Areas**<br><br>Provide appropriate locations and development opportunities for a full range of industrial, commercial and institutional activities. | HLN will include a large employment area adjacent to the Regina Airport lands. This employment area may include a diversity of industrial, commercial and office development providing a range of employment opportunities. The employment area will be designed to support multi-modal transportation and include sensitive transitions to the neighbouring residential areas. |
| **INDUSTRIAL** | **Section D5, Goal 4 – Industrial, Policies 7.20-7,27**<br><br>Provide a variety of industrial uses within employment areas that integrate with the surrounding context | The employment area within HLN is anticipated to include a variety of light and prestige industrial uses. The intent is to provide the opportunity for a range of uses and end users that support and enhance existing industry as well as encourage diversity of new business, supporting the economic development of the City of Regina. |
| **DIVERSITY OF HOUSING** | **Section D6, Goal 3**<br><br>Increase the diversity and innovation of housing forms and types to support the creation of complete neighbourhoods across Regina. | The residential portion of HLN will contain a variety of low, medium, and high density residential forms that will cater to a variety of residents at different stages of life. |

| | | |
|---|---|---|
| **MIXED-USE NEIGHBOURHOOD HUB** | **Section D5**<br><br>Mixed-Use: Any urban, suburban or development, or a single building, that combines residential with various uses such as commercial, employment, cultural, institutional or industrial where those functions are physically and functionally integrated and provide pedestrian connections, as well as access to multi-modal transportation options . | The HLN Concept plan will be centred around a mixed-use neighbourhood hub (medium-high density residential, local commercial uses, and a park space) that provides a vibrant centre that caters to residents of the neighbourhood and employees of the business park. The area will represent an effective transition space and provide a hub for recreational uses and multiple transportation options. The areas identified as 'Flex Zone 1' are intended to accommodate complementary retail uses, residential uses, and/or live-work units within horizontal or vertical mixed-use developments. |
| **PARKS AND OPEN SPACE SYSTEM** | **Section D7, Goals 1& 2**<br><br>Maintain, enhance and extend an interconnected and accessible open space system. Ensure access to a variety of recreation programs and services in all neighbourhoods. | The park spaces within HLN are accessible to all residents and business park employees and are intended to support neighbourhood recreational uses and broader City recreational needs. The large 'Neighbourhood Park' is anticipated to accommodate a regulation-sized cricket pitch and an off-leash dog park. Both amenities will benefit a wider variety of city residents than just the HLN neighbourhood. A 'Pocket Park' has been provided in the central part of the residential area to cater to neighbourhood residents, including a playground and passive park space. |
| **AIRPORT ADJACENT DEVELOPMENT** | **Section D9, Goal 3, Policies 11.13 & 11.14**<br><br>Coordinate the development of unique or special areas to ensure orderly and compatible development. | Business park, industrial and commercial development have been located on the east side of the plan, ensuring no residential uses are located within the 30 NEF contour. The specified height restrictions for the airport will be adhered to during construction and ultimate development.<br><br>Stormwater management for HLN will be accommodated in a detention facility in order to minimize the potential to attract migratory birds. |
| **SUSTAINABLE DESIGN** | Section D2, Goal 4, Policies 4.14.1 to 4.14.4<br><br>Build a resilient city and minimize Regina's contributions to climate change. | HLN encourages sustainable design and the minimization of Regina's contribution to climate change by:<br><br>Developing a dense mixed-use neighbourhood with a variety of residential and employment uses. Connections to the employment area will provide the opportunity for people to live, work, and play in the same neighbourhood.<br><br>A central mixed-use neighbourhood hub will promote active modes of transportation to access local services.<br><br>Transit service will be accessible to residents and business park employees. Cyclist infrastructure is proposed throughout the plan area. |

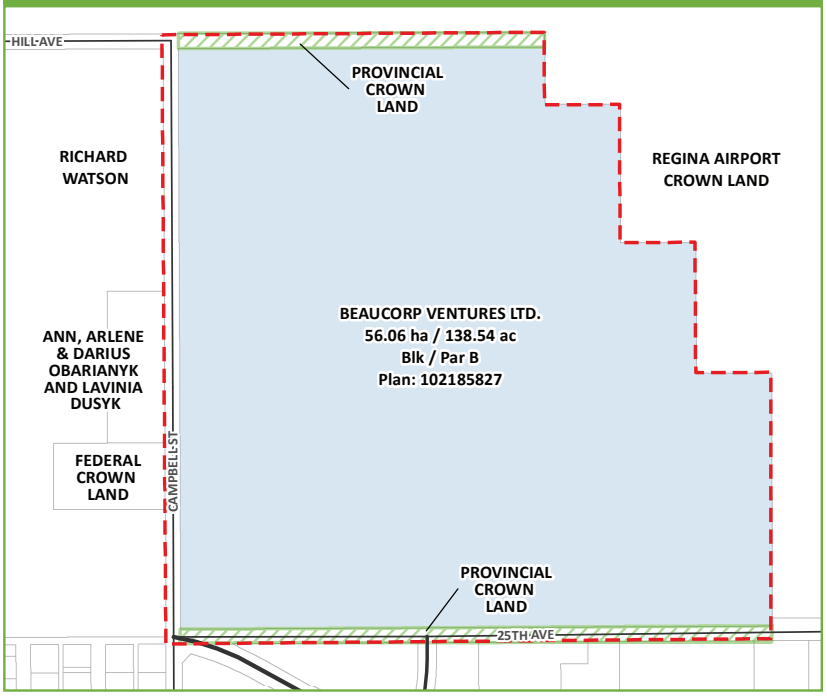
# 2.0 EXISTING CONDITIONS

## 2.1 LOCATION & OWNERSHIP

As demonstrated in F**igure 6: Land Ownership** the HLN Concept Plan consists of the following elements:

- Legally described as Blk / Par B-Plan 102185827 Ext 0;
- Total plan area of ± 60.35 hectares (± 149.12 acres):
  - 56.066 ha (138.54 ac) is legally owned by Beaucorp Ventures Ltd
  - 4.28 ha (10.58 ac) is Provincial road allowances of 25th Avenue, Campbell Street, and Hill Avenue;
- Is bordered by:
  - Hill Avenue and the Regina International Airport to the north;
  - The Regina International Airport to the east;
  - 25th Avenue and Harbour Landing to the south; and
  - Campbell Street and undeveloped urban land holdings to the west.

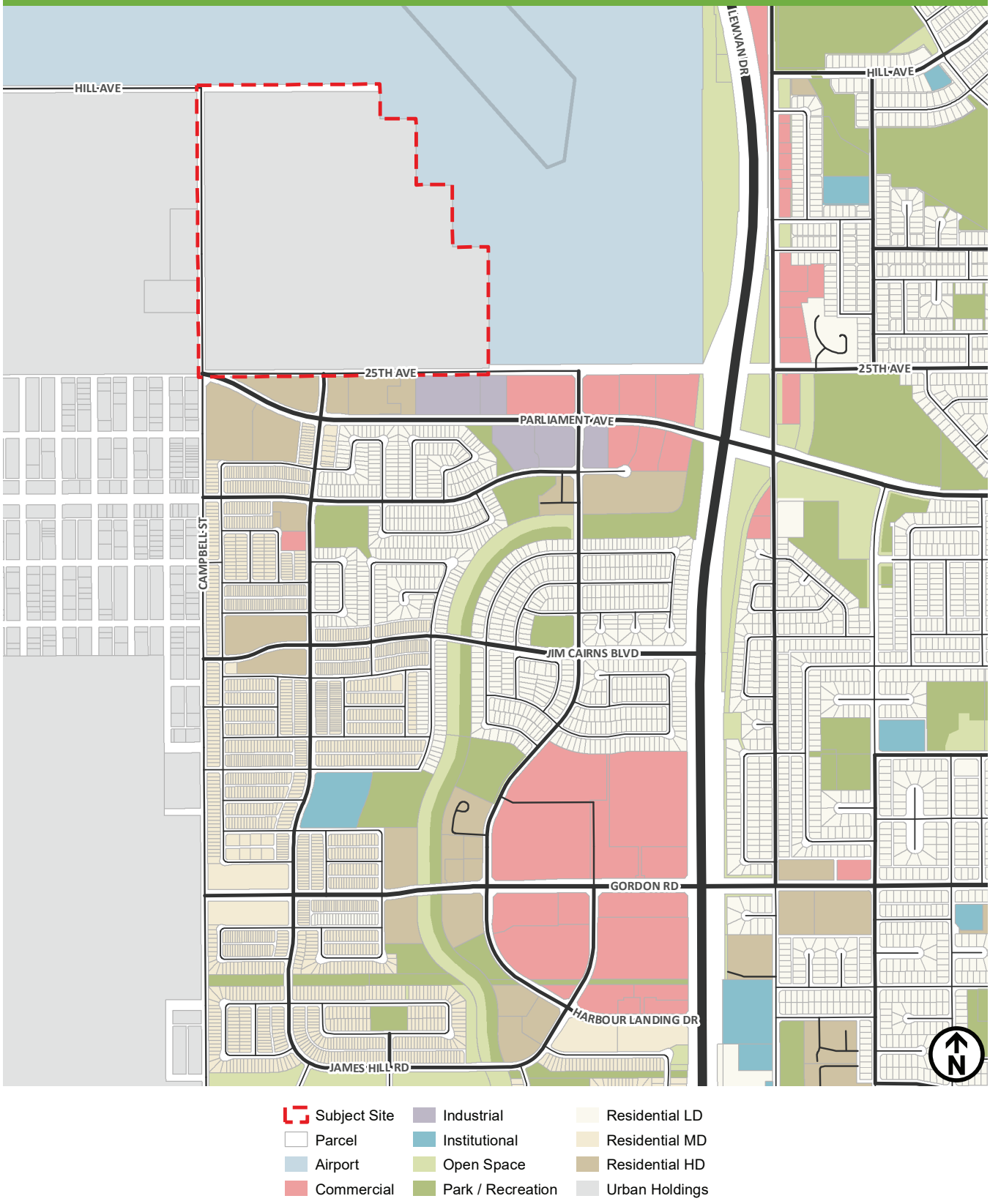
**Figure 6: Land Ownership**




## 2.2 EXISTING LAND USE

Lands within the HLNCP are currently zoned Urban Holding District as per Regina Zoning Bylaw No. 9250, as demonstrated in **Figure 7 : Existing Land Use**. Adjacent land uses directly south of the plan area, within Harbour Landing, consist of high-density residential uses, industrial uses (business uses and Humane Society), commercial uses (grocery store), and a hotel. Future zoning bylaw amendments within the HLNCP area shall be evaluated for consistency with the approved Concept Plan, Design Regina OCP, and City of Regina Zoning Bylaw.

## Figure 7: Existing Land Use



## 2.3 COMMUNITY AMENITIES

Many community services are within close proximity to support the development of HLN as shown in **Figure 8: Community Amenities.**

### Schools

The subject lands are approximately 1200m from the St Kateri Tekakwitha School (Catholic) and Ecole Harbour Landing School (Public), both Kindergarten to Grade 8 schools. One additional school is anticipated within the proposed Harbour Landing West Concept Plan. School aged residents of the HLN Concept Plan are anticipated to be accommodated within Harbour Landing schools.

### Commercial Amenities

In addition to the commercial and employment amenities proposed for the subject lands, there are other major commercial amenities located in proximity to the plan area. A grocery store is located on Parliament Ave and Harbour Landing Drive and the Grasslands shopping area is located south at Gordon Road and Lewvan Drive. A hotel is also located on Parliament Ave and Harbour Landing Drive.

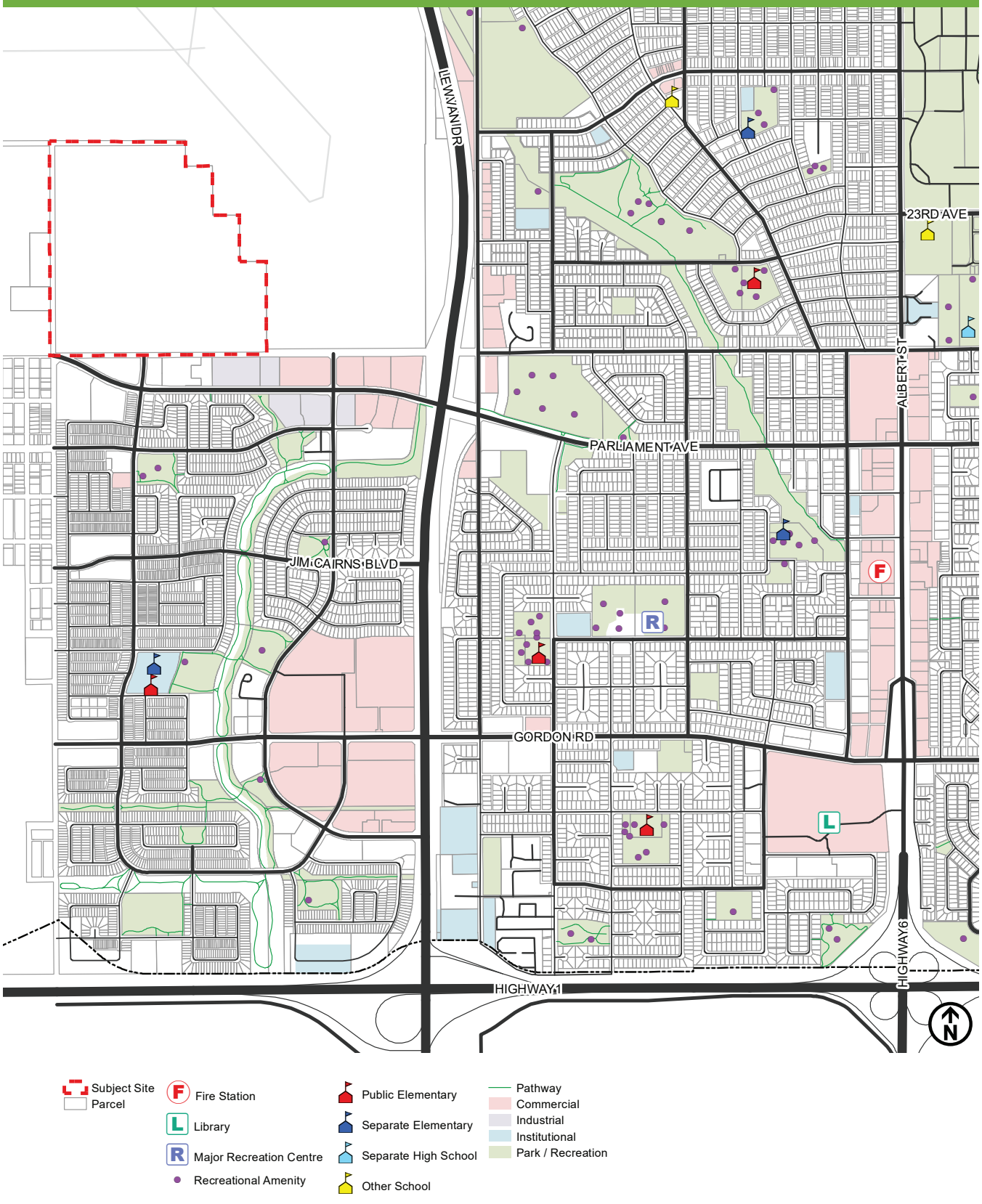
### Recreation Amenities

Major recreational amenities including athletic fields, arenas, curling rinks, the Regina Rugby Park, and the South Leisure Neighbourhood Centre are minutes away. The HLNCP is located within 400m of Canuck Park and the start of the pathway system in Harbour Landing. In addition, the recreational amenities proposed for HLN include a playground, a cricket pitch, and an off-leash dog park.

### Emergency Services

Fire services should be provided by Regina Fire Station #3, which is located 3 kilometres away and can access the subject Lands in 5-7 minutes.

## Figure 8: Community Amenities



## 2.4 NATURAL FEATURES

The subject lands are relatively flat and gently sloping from west to east, with elevations ranging between 574.6m and 578.2 m. The high points of the site are located in the northeast corner and the across the middle of the site. The lowest point of the site is located near the southwest corner, as illustrated on **Figure 9: Natural Features.**

Generally, the grades across the site are quite flat, under 2% slopes, with approximately 2.0 to 2.5 m change in elevation from high points to low points. These depressions or sloughs may hold water for a few weeks in the wet season and have been cultivated through in previous years.

### 2.4.1 ENVIRONMENTAL SITE ASSESSMENT

A Phase 1 Environmental Site Assessment was completed by Associated Engineering (AE) in January 2020. Based on the results of the Phase I ESA, there is low potential of contamination caused by current or past land use activities on the subject site and neighbouring properties. The existing land use has low potential for contamination of soil, vapour and/or groundwater with respect to applicable environmental standards and guidelines for agricultural land use, and for the protection of drinking water and aquatic life standards. Further environmental assessment (a Phase II ESA) is not warranted at this time. The full Phase 1 Environmental Site Assessment has been submitted under separate cover.

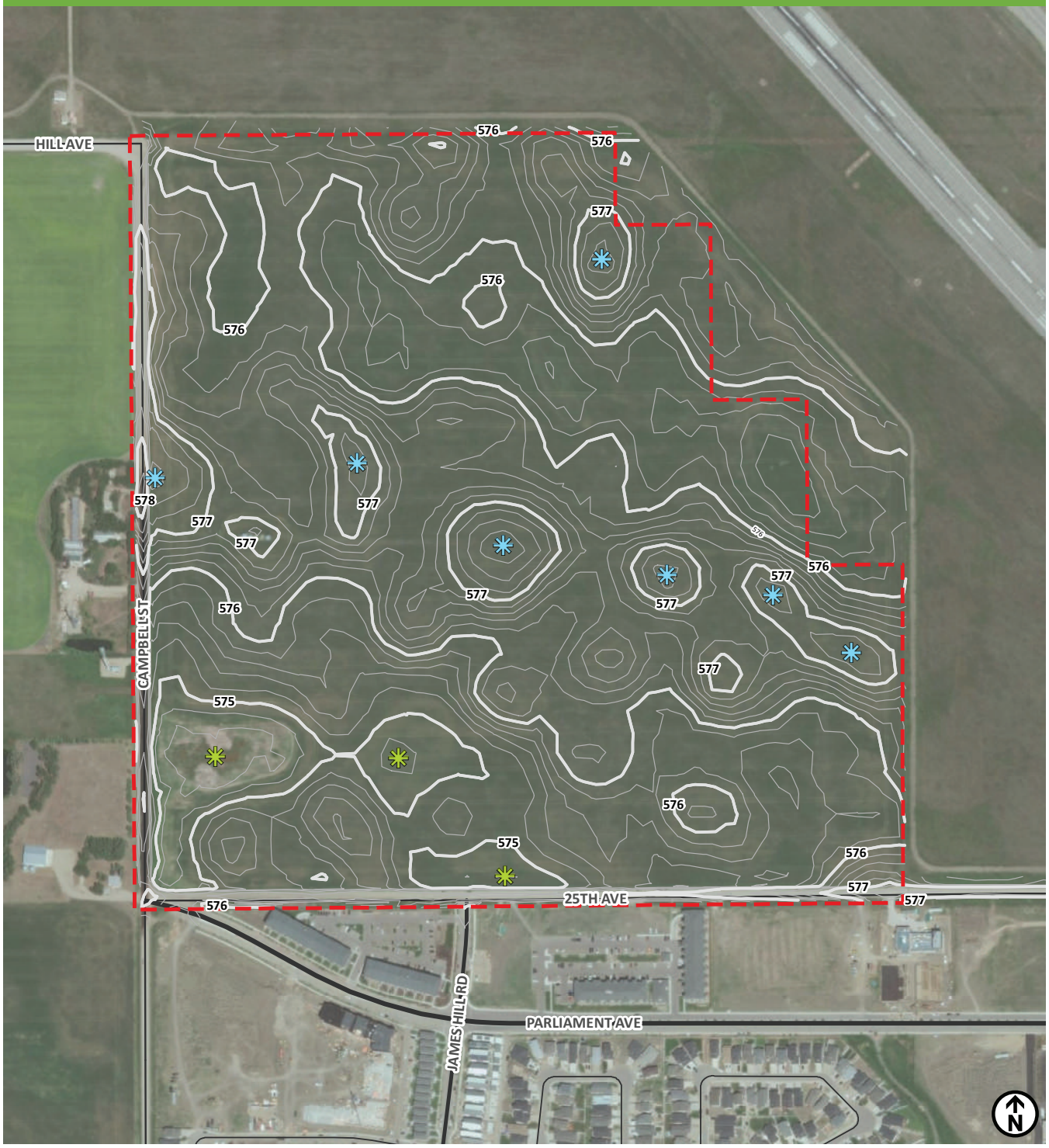
### 2.4.2 GEOTECHNICAL ASSESSMENT

A Geotechnical Assessment of the subject site was performed by Ground Engineering Consultants Ltd in December 2019. Eleven (11) test borings were drilled in strategic locations across the parcel based on the provided draft Concept Plan. Ground Engineering analyzed the subsurface soil conditions, groundwater levels, and overall geotechnical conditions. A number of development recommendations were provided and overall, the lands are very conducive to land development. The drilling did not encounter any aquifer; therefore, the City's aquifer protection overlay zone does not apply to these lands. The full Geotechnical Analysis and Recommendations has been submitted under separate cover.

## 2.5 HERITAGE / HISTORICAL RESOURCES

An inquiry was made online through the Government of Saskatchewan "Developers Online Screening Tool" regarding the heritage sensitivity of the subject lands on February 21, 2019 and it was identified that the quarter section is NOT heritage sensitive. Therefore, it is not necessary to submit the project to the Heritage Conservation Branch. No further study was completed.

## Figure 9: Natural Features



## 2.6 AIRPORT PROXIMITY

Harbour Landing North is situated immediately adjacent to the Regina International Airport, therefore, policies and recommendations to ensure the ongoing operational viability and safety of the airport and the safety of future development within the subject site have been reviewed and considered. The following documents have been used for reference:

- Design Regina OCP
- Regina Land Use Bylaw (Chapter 8- Height Overlay and NEF Overlay)
- Regina Airport Zoning Regulations
- Land Use in the Vicinity of Aerodromes (Transport Canada, TP1247E, 2013/14)
- Regina International Airport Master Plan (2037)
- Regina International Airport Runway 13/31 Extension Study
- Province of Saskatchewan website (Communities and The Statements of Provincial Interest Regulations)

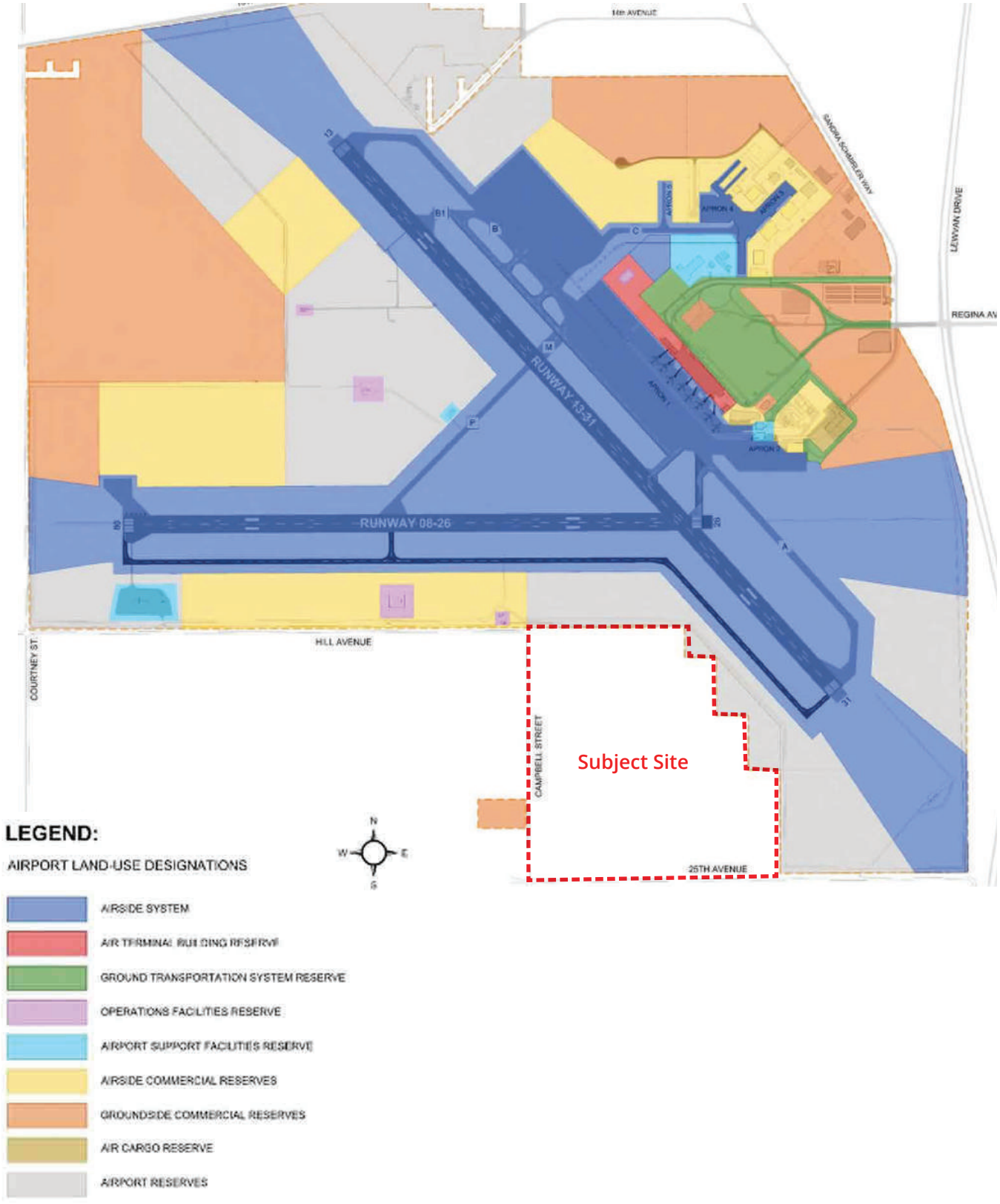
In addition to these documents, several discussions with the Regina Airport Authority (RAA) has occurred over the past few years in order to understand current and projected airport uses and implications on the Harbour Landing North Lands. Based on the referenced documents and discussion with the RAA, the impacts and future considerations on Harbour Landing North are detailed in the following sections.

### 2.6.1 REGINA INTERNATIONAL AIRPORT MASTER PLAN 2037

The airport master plan was updated in 2018 and is intended to set the blueprint for future development of the airport over the next 20 years. Beaucorp Ventures was involved as a stakeholder throughout the development of the Airport Master Plan. As part of the update, the airport evaluated aviation trends, runway requirements, terminal upgrades, groundside facilities, and associated commercial needs. The proposed land uses for the airport are shown in **Figure 10: YQR 2037 Land Use Plan**. Through discussions with the Regina Airport Authority and findings included in the Airport Master Plan, no portion of the HLN plan area was identified for any future airport uses. Proposed land uses illustrated on the 2037 Land Use Plan that are directly adjacent to the property are as follows:

- **Airport Reserves:** lands protected for long-term Airport use, which are not required within the planning period. Airport Reserve is located on the north and east side of the subject lands.
- **Airside Commercial Reserves:** includes commercial activities requiring direct access to the airside system. The land to the northwest (directly south of Runway 08-26) is planned to support general aviation (smaller private aircraft) including hangars with limited service.
- **Operations Facilities Reserve:** accommodates the Airport's radar installation and other NAV CANADA facilities. The facilities on the south side of Runway 08-26 are for a weather station (AWAS) and a transmitter site.
- **Groundside Commercial Reserves:** the small area west of Campbell Street was previously used for a navigational tower that is no longer in use. The site is now used for a Sasktel tower.

## Figure 10: YQR 2037 Land Use Plan



### 2.6.2 NEF CONTOURS

The Noise Exposure Forecast (NEF) Contours related to aircraft noise within the HLN Concept Plan area is shown on **Figure 11: Airport Vicinity Map**. The Airport Master Plan (2037) suggested the continued use of the 2024 Noise Exposure Prediction (developed in 2007) to be retained for land use planning purposes. As a result, the NEF contours shown in the Regina OCP will remain the same. Noise contours are used to encourage compatible land use in the vicinity of the Airport. The Regina OCP states the following policies in relation to the Regina International Airport:

- *"Apply noise attenuation standards to new residential development in the area between 25 and 30 NOISE EXPOSURE FORECAST in accordance with the Zoning Bylaw."*
- *"Prohibit residential land use within the 30 NOISE EXPOSURE FORECAST contour"*

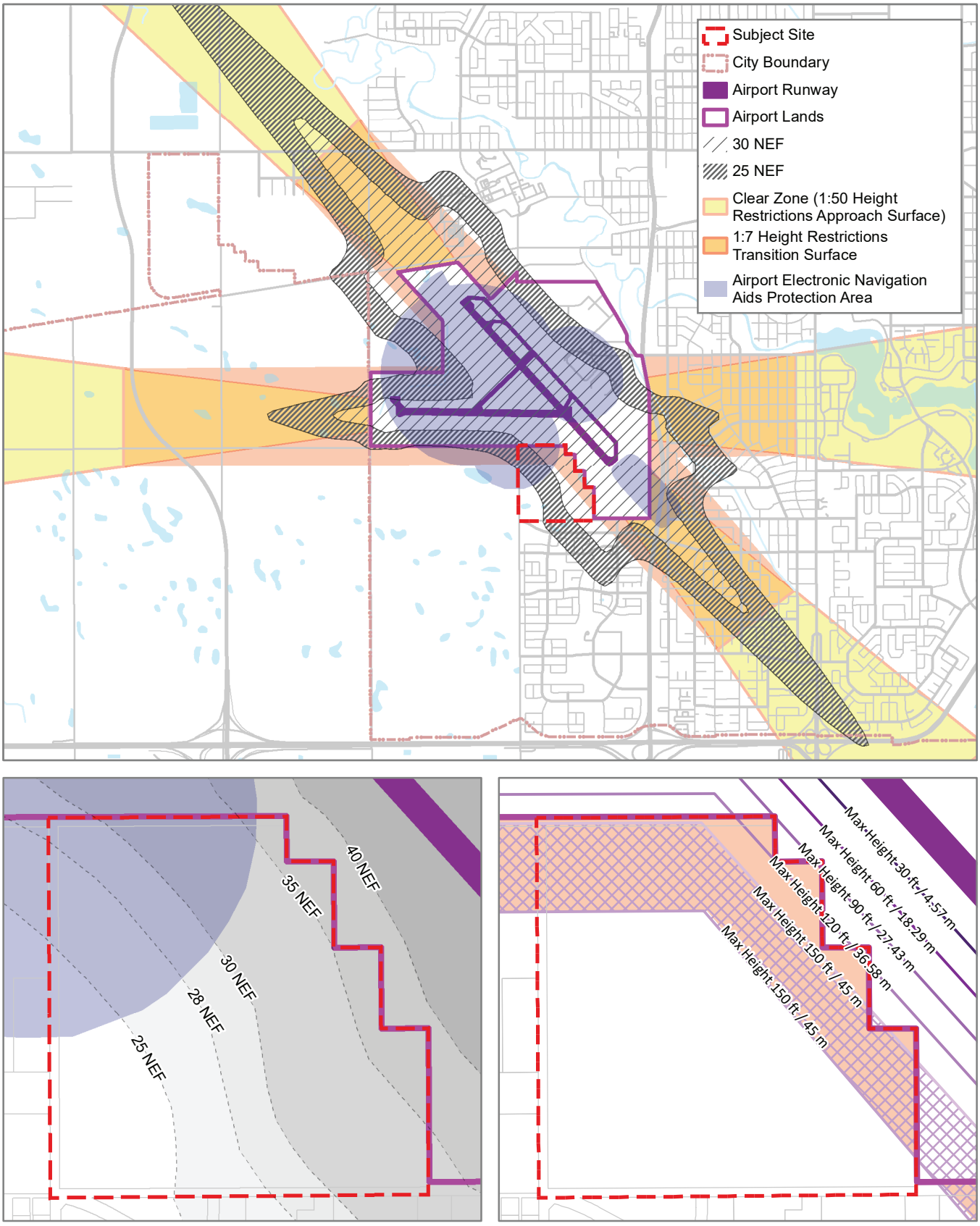
As illustrated on **Figure 11** the 30 NEF contour transects a portion of the plan area. Lands within the 30 NEF contour will be utilized for non-residential land uses. Noise attenuation measures in accordance with the land use bylaw will be applied to residential lands within the 25 NEF contour and will be reviewed at the development permit stage.

### 2.6.3 HEIGHT RESTRICTIONS

Map 10 of the Regina OCP (**Figure 11: Airport Vicinity Map**) identifies airport vicinity considerations, including height restrictions for the transition surface of the airport runways. The transitional surface is an imaginary inclined plane that extends upward and outward from the sides of the runway strip and pan of the approach surface. Its purpose is to ensure the safety of aircraft at low altitudes displaced from the runway centre line in the approach or missed approach phase. The height restriction is measured at a 1:7 ratio (one foot measured vertically to seven feet measured horizontally) extending upward and outward from the outer limits of a runway strip. The maximum height restriction for the Regina Airport runways are up to 150 feet (45 metres). Based on the 1:7 height ratio, the maximum heights allowed in the plan area within the Height Restriction Surface is illustrated in **Figure 11: Airport Vicinity Map**.

A recent study to extend Runway 13-31 at the Regina airport shows the extension of the runway in a southeast direction away from the subject lands. There appears to be no impact to the HLN subject site based on possible revisions to the NEF contours or height restrictions from this runway extension.

## Figure 11: Airport Vicinity Map



### 2.6.4 NAVIGATIONAL AID PROTECTION

Electronic protection areas are also established at and around airports to ensure that objects and structures do not interfere with the operation of telecommunications and electronic systems (navigational aids, radar and communications). There are several different standardized types of navigational aids used to support air navigation, however they share the common characteristic that the navigation guidance is derived partially as a function of the direction from which the navigation signals are received. Any structure that causes unwanted reflections of guidance signals will cause some of those signals to be received from a different direction, altering the navigation guidance in a potentially hazardous way.

An Instrument Landing System (ILS) that supports operations on a given runway generally consists of two complementary components: a localizer transmitter installed near the stop end of the runway and a glide path transmitter installed alongside the runway roughly 300 m from the beginning of the runway. ILS supports all-weather precision approach and landing operations. To maintain the safety of landing aircraft, it is critical that the accuracy of ILS navigation signals not be compromised by unwanted reflections or interference. The most significant sources of interference for ILS facilities are metallic objects having appreciable horizontal dimensions such as structural steel towers, metal-clad buildings and power/telephone transmission lines.

Policy 11.14.4 of Design Regina states the following: "*Protect navigation aids by applying the development standards set out by federal regulations. This will apply to development in the area shown on Map 10 – Airport Vicinity*."

The Airport Electronic Navigation Aids Protection Area (illustrated on **Figure 11: Airport Vicinity Map**) extends into the northwest corner of the plan area. The HLNCP has situated low and medium density residential uses within this protection area to ensure large horizontal structures and metal-clad structures are minimized. NAV CANADA is the agency responsible for the air navigation system and supports the use of these protection areas for managing land use and protection of their infrastructure at YQR. At the time of writing of this Concept Plan, we have yet to receive feedback or comments from NAV CANADA.

### 2.6.5 ADDITIONAL AIRPORT PROXIMITY CONSIDERATIONS

The Regina OCP provides additional considerations for development of lands in close proximity to the airport, including:

- *"Minimize the potential to attract migratory birds by discouraging stormwater retention and reducing the amount of natural ponding";*
- *"Prohibit uses with emissions that may affect airport visibility on lands adjacent to the airport".*

The Province of Saskatchewan also provides high level guidance through The Statements of Provincial Interest Regulations (SPI) to ensure municipalities are ensuring consistency in areas of common planning interest between the province and municipality. A proposed revision to Section 6.14 of the SPI states:

- *"To assist in meeting the province's transportation interests, planning documents and decisions shall, insofar as is practical: Ensure the current and future runway expansion plans, aviation and navigation needs of the Saskatoon and Regina International Airports are not compromised by development in proximity to these airports."*

The HLN Concept Plan through its application of applicable OCP policies, guidance from key documents, and correspondence with the Regina Airport Authority has endeavored to ensure that the airport lands or operations will not be compromised by the development of this neighbourhood.

### 2.6.6 AIRPORT PROXIMITY DESIGN GUIDELINES

In response to the various policies and regulations regarding development in proximity to airports, the following design guidelines will be enforced within the plan area:

- No residential land uses will occur within the 30 Noise Exposure Forecast (NEF) Contour.
- Noise attenuation standards will be applied in the area between the 25 and 30 NEF Contours in accordance with the Zoning Bylaw.
- Building heights within the Concept Plan area will not exceed those specified in Figure 13: Airport Height Limits.
- For the lands within the "Airport Electronic Navigation Aids Protection Area" demonstrated in Figure 11: Design Regina Airport Vicinity Map, navigation aids will be protected by applying the development standards set out by federal regulations. Guidelines apply to building features such as setbacks from the navigation aids, building size, or building construction material.
- For the lands within the "Airport Electronic Navigation Aids Protection Area", consultation with the radar, navigational aid or telecommunication system owner should take place at the detailed design stage prior to development permit approval.
- The stormwater facility will be designed as stormwater detention area, as opposed to stormwater retention in order to minimize the potential to attract migratory birds. The stormwater detention facility within the HLN plan area is anticipated to accommodate programmed recreation uses, including a Cricket Pitch and off-leash dog park, which will also assist in minimizing bird activity.
- Uses with emissions that may affect airport visibility on lands adjacent to the airport will be prohibited.

## 2.7 EXISTING TRANSPORTATION NETWORK

The subject lands are currently bordered by Hill Avenue to the north, Campbell Street to the west and 25th Avenue to the south.

The site is well connected regionally, with connection to the Regina Bypass to the west currently via Hill Avenue and Pinkie Road, and to Lewvan Drive to the east via Parliament Avenue (**Figure 12: Design Regina Transportation Map**). Development of Harbour Landing North will utilize existing major transportation infrastructure and transit services, as shown in **Figure 13: Existing Connectivity Plan.**

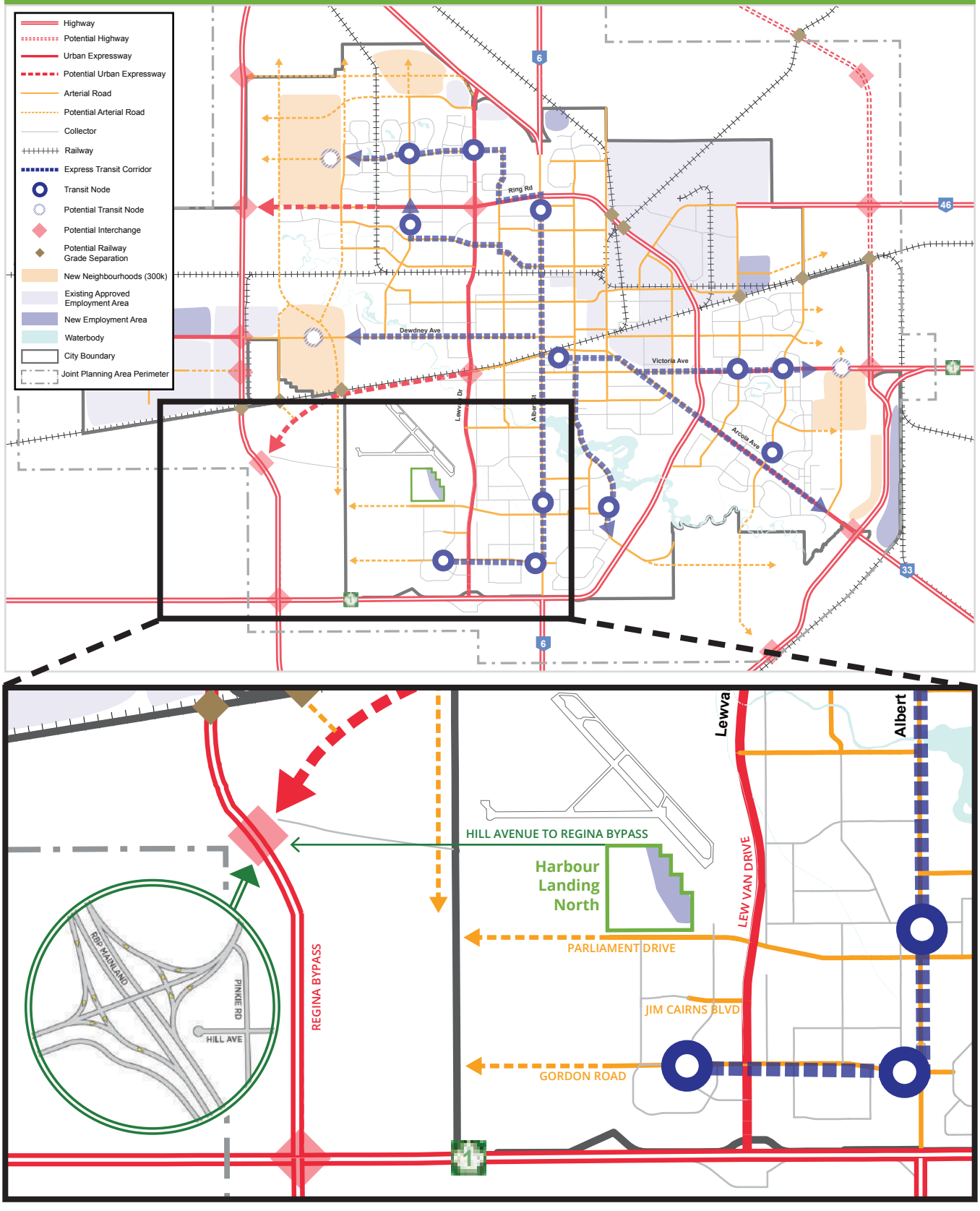
- **Parliament Avenue** is currently a 4-lane arterial road connecting to Lewvan Drive. Parliament Ave is also part of a major transit route with a proposed transit stop at the intersection of Parliament Ave and James Hill Road. The City of Regina OCP shows Parliament Avenue with future connections to Courtney Street and the Regina Bypass, enhancing connectivity to the regional road network (**Figure 12** & **Figure 13**).

- **Harbour Landing Drive and James Hill Road** are collector roads running north south through the existing community of Harbour Landing, connecting regional commercial uses with residential areas. These roads provide the primary collector access to Harbour Landing North.

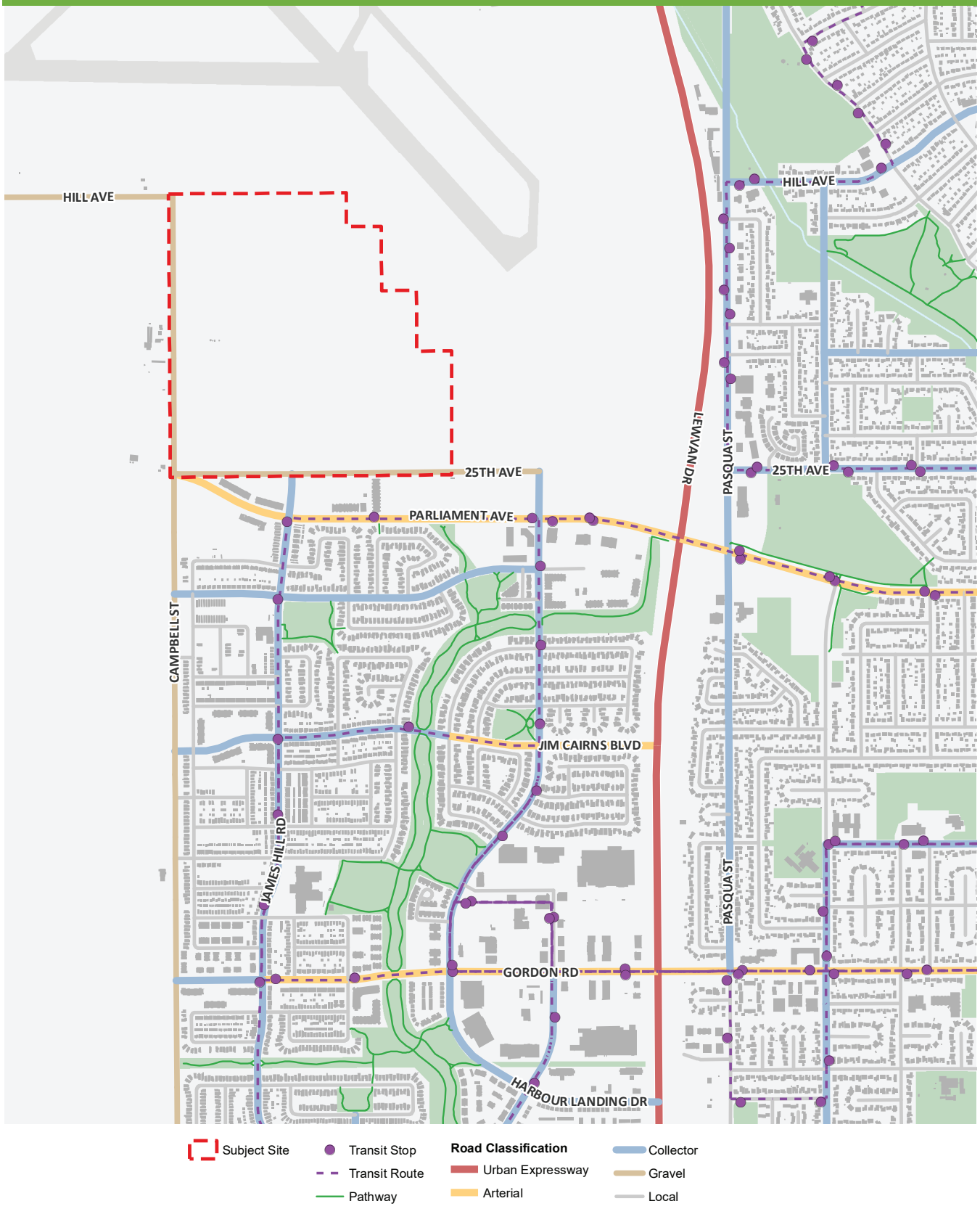
- **Campbell Street** is a gravel road on the west boundary of the plan area. Current development within Harbour Landing is bound by Campbell Street. Campbell Street is proposed as a collector roadway when future urban development occurs to the west.

- **Hill Avenue** is an existing undeveloped right-of-way along the north boundary of the plan area and then advances westward, connecting to the Regina Bypass via Pinkie Road. Ultimate connection to the bypass is anticipated to be routed through lands to the west of Campbell Street, once development of those lands occur.

## Figure 12: Design Regina Transportation Map



## Figure 13: Existing Connectivity Plan



## 2.8 MARKET ANALYSIS

In support of the HLN Concept Plan a Market Analysis was completed by Nichols Applied Management to identify the anticipated demand for both the residential and employment areas of Harbour Landing North. The full Market Analysis has been submitted under separate cover. Some of the key findings of the report include:

### RESIDENTIAL:

- Preferences in the Regina housing market favour development in the southwest part of the city and a land shortage is expected in the southwest in the near-term. The HLN lands represent an opportunity for contiguous growth in this desirable sector of the city.
- Some of the lands the City of Regina has allocated for "Phase 1" growth are not being actively developed and have no current applications with the City. The Harbour Landing North residential lands could accommodate a portion of the additional land needed for growth to 300,000 people.
- The need for new residential land in the city, such as the HLN Lands, is related, in part, to the degree to which redevelopment occurs within established and mature areas as part of the City's 30% infill goal. As Regina may need some time to achieve this goal, the HLN lands can help to meet the housing need in the short-medium term.
- Based on the projected residential units and anticipated population growth rates, the residential portion of HLN could be absorbed in approximately two years, once Harbour Landing is fully built out.

### EMPLOYMENT:

- Currently, the industrial market in Regina has experienced lower demand due to economic conditions that have impacted key industries. Recovery of the industrial land market is anticipated in the long term, following a recovery of the economy.
- The employment lands within HLN present unique advantages due to location. Most notably, their proximity to the Regina International Airport coupled with good highway access, and proximity to existing industrial and commercial uses along Parliament Avenue.
- The absorption of commercial and retail space will occur by virtue of basic retail services growing to serve the resident population of HLN and the existing neighbourhood of Harbour Landing.
- The relative employment land supply represented by the HLN lands is sufficiently small so as to have no detrimental impact (e.g. price change) on the broader market conditions for non-residential lands in the city.

# 3.0 LAND USE STRATEGY

## 3.1 VISION

*The vision of the Harbour Landing North Concept Plan (HLN CP) is to create a balanced community in Regina that is based on the principles of Live -Work -Play.*

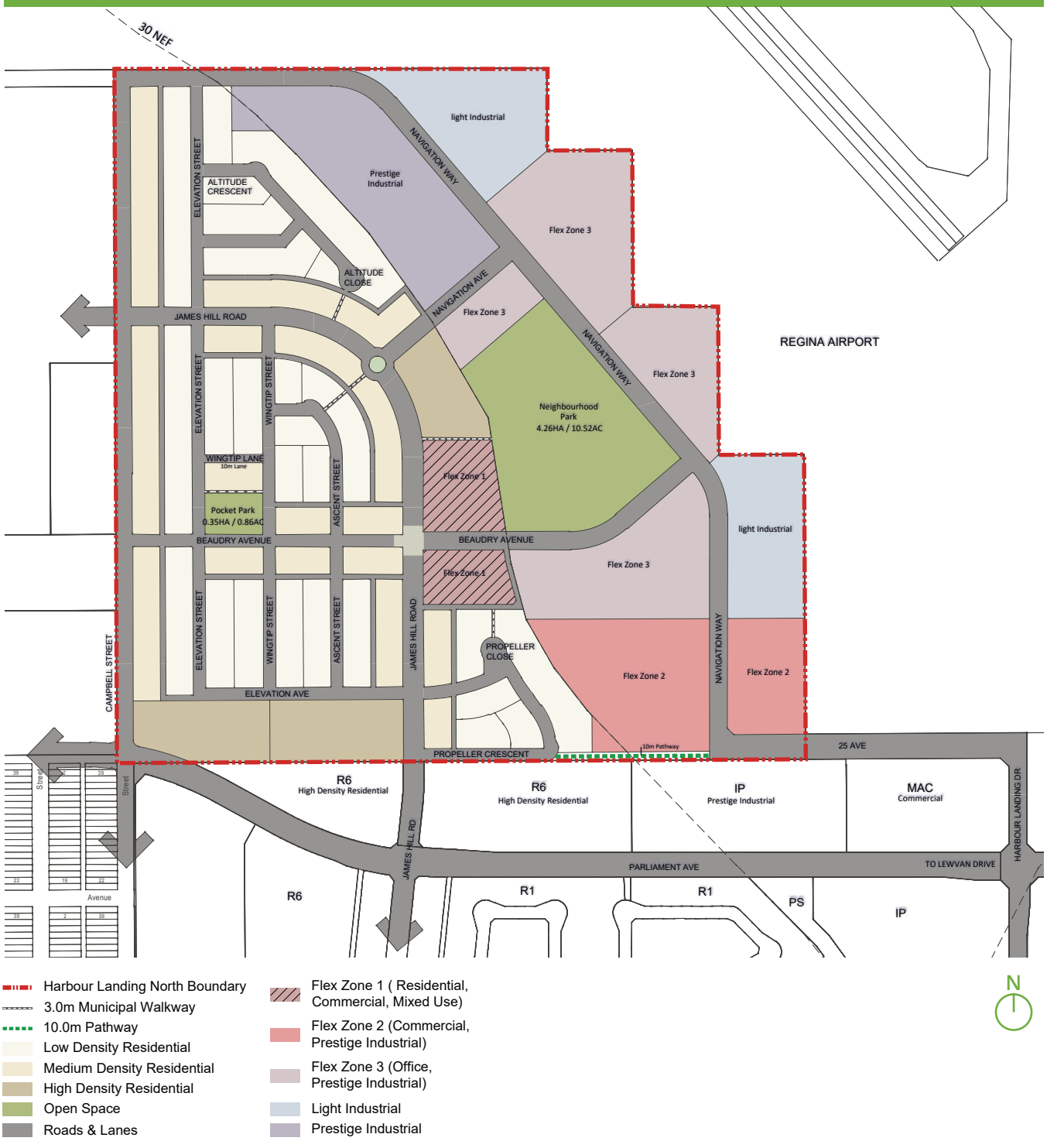
Harbour Landing North will be a complete community that develops into a diverse and vibrant employment hub and a residential area that provides multiple housing options. The two areas will be interconnected while also providing appropriate and attractive transitions. Park spaces will be areas of activity, providing general passive recreation, play opportunities for children, a space for residents to take their dogs to run and play, and a regulation cricket pitch for sports teams to utilize. The HLN concept advances on numerous fronts the City's aspirations for complete community development.

The HLNCP has been designed to respond to both its current and future surrounding conditions. It is a logical and contiguous extension of Harbour Landing to the south, it responds to airport proximity requirements and design considerations, and the western boundary of the plan has been designed to seamlessly connect and interface with future development to the west of Campbell Street. Although responding to its surrounding conditions, the plan also creates a unique sense of place with its distinct neighbourhood and employment areas centered around a vibrant Neighbourhood Hub.

## 3.2 LAND USE CONCEPT

The development concept, as illustrated in **Figure 14: Harbour Landing North Land Use Concept** provides an overview of the general land uses and transportation network for the Beaucorp Lands.

### Figure 14: Harbour Landing North Land Use Concept



## 3.3 LAND USE STATISTICS

The following tables provide a breakdown of all development lands within the HLN Concept Plan. The concept plan is split between the residential and employment areas by the NEF 30 Contour.

At full build-out, the residential portion of the Concept Plan will meet a projected density of 30 units per gross residential hectare (12 units per gross residential acre) and provide approximately 1,019 units. The anticipated population of the plan area is 2,228 people, achieving a population density of approximately **66 people per hectare (pph).** This density exceeds OCP Policy 2.11.2 that requires new neighbourhoods to meet a minimum gross population density of 50 people per hectare.

The employment portion of the Concept Plan is anticipated to support approximately 1,310 jobs. The lands will contain a mix of business park / office, commercial, light industrial and prestige industrial uses as well as some additional mixed-use commercial within the Neighbourhood Hub.

**Table 2 : Harbour Landing North Concept Plan Areas**

| | Area (ha) | Area (ac) | Percent of Total Area (%) |
|---|---|---|---|
| **Total Plan Area** | **60.35** | **149.12** | **100%** |
| Residential Gross Developable Area | 33.44 | 82.63 | 55.4% |
| Employment Gross Devevlopment Area | 25.39 | 62.73 | 42.1% |
| Existing Campbell Street Right-of-Way | 1.52 | 3.76 | 2.5% |

## Table 3 : Harbour Landing North Land Use Composition

| | Area (ha) | Area (ac) | Percent of Developable Area (%) | Density | Units | PPU | People |
|---|---|---|---|---|---|---|---|
| Total Developable Area | 58.83 | 145.36 | 100% | | | | |
| **Residential Area Land Uses** | | | | | | | |
| Low Density Residential[1] | 11.19 | 27.64 | 19% | 25 upha | 280 | 3.0 | 839 |
| Medium Density Residential[2] | 6.62 | 16.35 | 11% | 50 upha | 331 | 2.1 | 695 |
| High Density Residential[3] | 3.24 | 8.01 | 6% | 100 upha | 324 | 1.7 | 551 |
| Flex Zone 1 (50% High Density REsidential | 0.84 | 2.09 | 1% | 100 upha | 84 | 1.7 | 143 |
| **TOTAL** | **21.88** | **54.09** | **37%** | **30 upha** | **1,019** | | **2,228** |

| **Employment Area Land Uses** | Area (ha) | Area (ac) | Percent of Developable Area (%) | Approx. FAR | Job Ratio | # of Jobs |
|---|---|---|---|---|---|---|
| Flex Zone 1 (50% Commercial) | 0.84 | 2.09 | 1% | 0.3 | 1/50m² | 51 |
| Flex Zone 2 (Commercial, Prestige Industrial) | 4.07 | 10.05 | 7% | 0.3 | 1/50m² | 244 |
| Flex Zone 3 (Office, Prestige Industrial) | 7.52 | 18.56 | 13% | 0.3 | 1/25m² | 902 |
| Light Industrial | 3.98 | 9.83 | 7% | 0.15 | 1/100m² | 60 |
| Prestige Industrial | 3.58 | 8.86 | 6% | 0.15 | 1/100m² | 54 |
| **TOTAL** | **19.99** | **49.39** | **34%** | | | **1,310** |

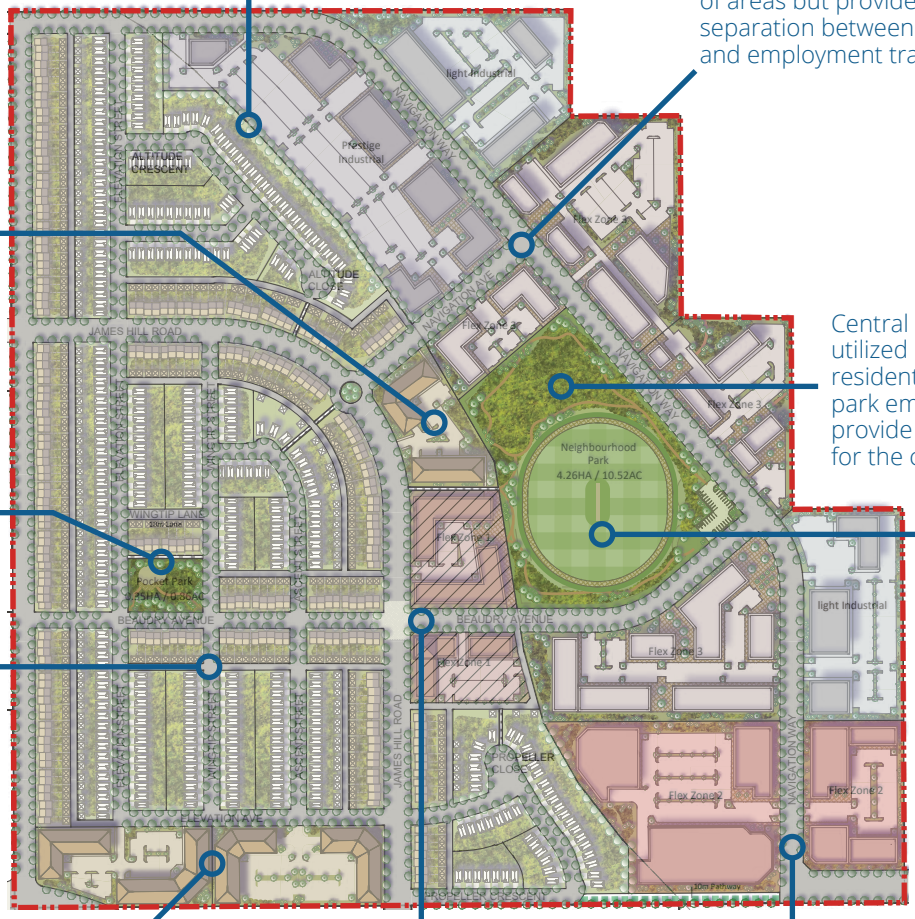
| | Area (ha) | Area (ac) | Percent of Developable Area (%) |
|---|---|---|---|
| Municipal Reserve | 4.61 | 11.38 | **8%** |
| Roads & Lane Area | 12.36 | 30.51 | **21%** |

## Table 4 : Harbour Landing North Population Density

| **Residential Gross Development Area** (hectares) | **# of People in Concept Plan** | **HLN Population Density** (people per hectare) | **OCP Minimum Population Density** (people per hectare) |
|---|---|---|---|
| 33.44 ha | 2,228 | 66 pph | 50 pph |

# 3.4 KEY PLAN ELEMENTS

**Figure 15: Key Plan Elements**




No Residential Land Uses Within the NEF 30 Contour

Linear road network through employment area with two access points into residential area to encourage integration of areas but provide some separation between residential and employment traffic.

High density residential to support a dense neighbourhood hub and create an area of activity.

Central park space to be utilized by neighbourhood residents and business park employees and provide needed amenities for the city of Regina.

Pocket Park to provide accessible green space for neighbourhood residents

Park space integrated with storm water requirements to create functional joint use site.

Modified grid road network through neighbourhood area to encourage walkability.

Mixed-use area to create a defined neighbourhood hub.

High density residential to interface with existing high density residential in Harbour Landing.

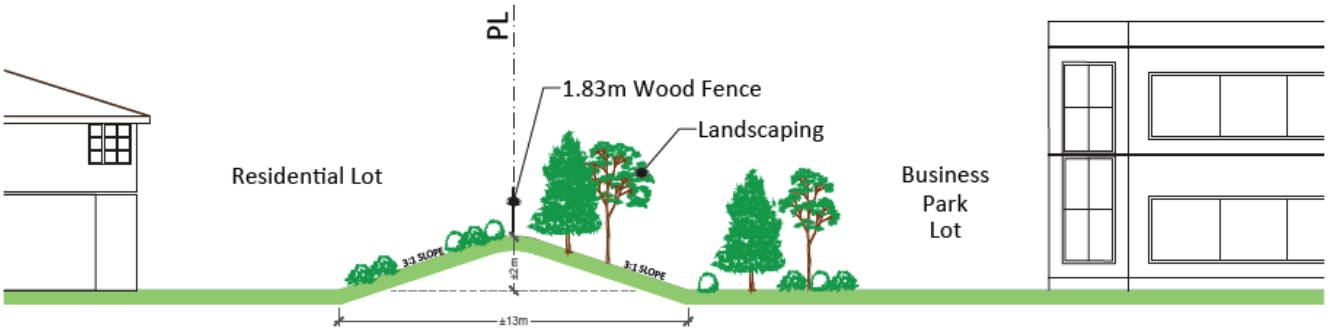
Community retail or prestige industrial uses leading into employment area along 25th Avenue and complementing existing uses along Parliament Avenue.

## 3.5 RESIDENTIAL AREA

The residential portion of the plan area will be comprised of low, medium and high-density housing, strategically distributed across the plan area to support a well-connected and vibrant community. Main thoroughfares and activity centres are accented with medium and higher density residential uses. High density uses are located adjacent to similar density residential development on the south boundary of the plan area, as well as within and adjacent to the Neighbourhood Hub and park space.

Figure 16: Residential Area


Figure 17: Residential Industrial Transition Conceptual Section



### 3.5.1 LOW DENSITY RESIDENTIAL

The low-density housing portion of the Concept Plan consists of approximately 11.19 ha (27.64 ac) distributed throughout the neighbourhood area, consisting of predominantly laned and laneless single detached housing.

Portions of these low-density units back onto the employment area containing prestige industrial, office and/or commercial uses. Deeper residential lot depths (40 metres) have been accommodated for to allow for rear landscaping and a berm to ensure an appropriate transition and buffer between the residential and employment uses. An example of what the transition area may look like is provided in Figure 17. The berm would be constructed by the developer and maintenance responsibilities would be assumed by lot owners.

### 3.5.2 MEDIUM DENSITY RESIDENTIAL

The medium-density residential area fronts the main collector network and is comprised of approximately 6.62 ha (16.35 ac). Housing mix may include semi-detached, townhouses, stacked townhouses, or row housing. The laned product will support safe and efficient driving conditions along the collector network, and act as an appropriate transition with the low-density residential.

### 3.5.3 HIGH DENSITY RESIDENTIAL

High-density residential encompasses approximately 3.24 ha (8.01 ac) of land within the plan area. Opportunity for additional medium-high density residential development is accommodated within the Neighbourhood Hub with the identified 'Flex Zone 1'. High density residential situated adjacent to the central park will allow residents convenient access to open space and help to support local services within the Hub. The southwest community gateway area between Campbell Street and James Hill Road will also support a pocket of high-density residential. It will concentrate density between collector roadways and complement the adjacent high-density residential uses in Harbour Landing.

### 3.5.4 FLEX ZONE 1 (POTENTIAL MIXED-USE RESIDENTIAL/COMMERCIAL)

Flex Zone 1 is located in the centre of the community encompassing a total land area of approximately 1.68 ha (4.18 ac). The intent is for a combination of medium-high density residential and local commercial uses within a horizontal or vertical mixed-use setting. Other combinations for the site may include all residential uses or all local commercial uses. More detailed market analysis at the land use redesignation stage will refine the composition of the Flex Zone 1 site.

Figure 18: Neighbourhood Hub

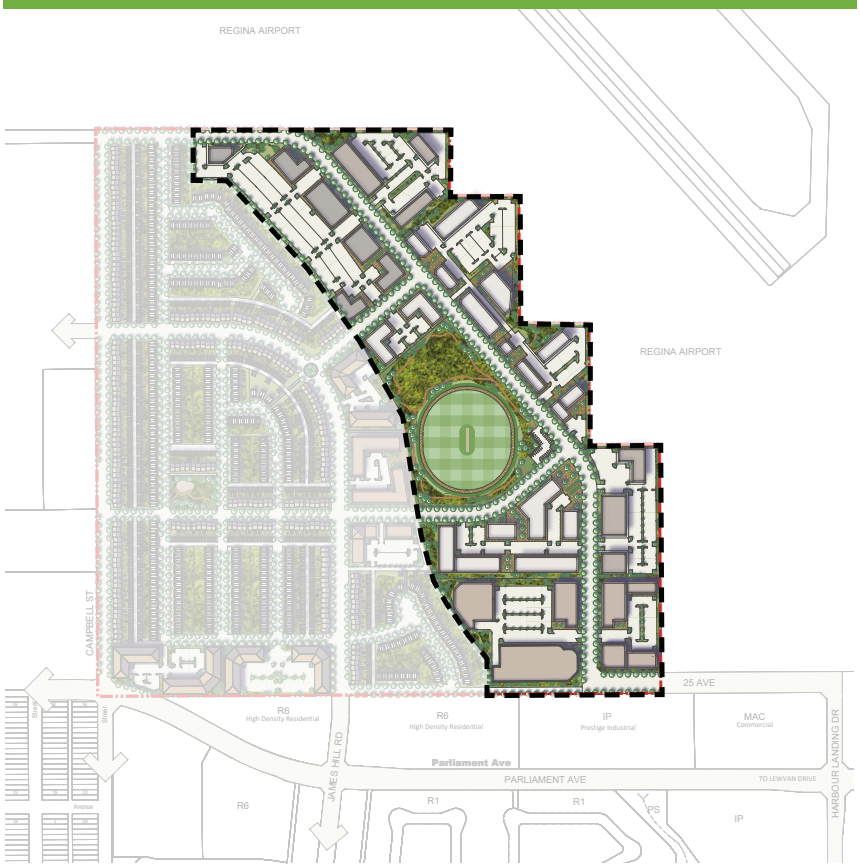

## 3.6 NEIGHBOURHOOD HUB

The Neigbbourhood Hub is comprised of the high-density residential site, the Flex Zone 1 site, and the neighbourhood park located in the centre of the community spanning both the residential and employment areas. In alignment with the Design Regina policies for complete Neighbourhoods, this central gathering space will support daily lifestyle needs, such as services and convenience shopping and an optimally located park and recreation space. The unique location spanning two distinct plan areas and a focus on urban design will facilitate a unique identity and sense of place.

## 3.7 EMPLOYMENT AREA

The employment area are those lands within the NEF 30 Contour in the east half of the Concept Plan area. The employment area will provide the opportunity for a mix of light industrial, prestige industrial, business park / office and community commercial. This variety of uses will provide approximately 1,310 jobs within a range of sectors, for both area residents and the wider region.

Figure 19: Employment Area




The absorption of the employment area is generally tied to the recovery of the industrial market in Regina. Due to the medium-longer term timeframe of industrial land absorption, the employment area has been designed to allow some flexibility of uses in the future. Overall, general services would include commercial uses to serve the residential population of HLN and Harbour Landing, general warehousing, distribution centres, sales, storage, processing, assembly, office, transportation, and other 'clean' industries that are compatible with development near the airport.

### 3.7.1 LIGHT INDUSTRIAL

The light industrial consists of 3.98 ha (9.83 ac) along the eastern edge of the plan area, transitioning with the Regina Airport and therefore will be subject to the development and height restrictions specified by the City of Regina, the Regina Airport Authority and NAV Canada. The light industrial is buffered from the residential area with other employment uses and will provide a compatible interface with the adjacent airport runway. Industrial uses could include processing, assembly, packaging, storage, sales, and distribution of a wide range of products.



### 3.7.2 PRESTIGE INDUSTRIAL

The prestige industrial encompasses 3.58 ha (8.86 ac) and is located in the north part of the employment area. It will provide the opportunity for well-designed business / industrial uses that will create an attractive and compatible transition with the surrounding residential area.

The development of the Prestige Industrial Area shall be undertaken in a sensitive manner that ensures interface treatment is consistent and addresses security, visual, aesthetic and safety requirements to support business operations while also ensuring that the nature and character of the development viewed to and from the residential area is appropriate. The proposed transition features for the interface with residential land uses have been detailed in Section 3.5.1 and **Figure 17.**

### 3.7.3 FLEX ZONE 2

Flex Zone 2 consists of 4.07 ha (10.05 ac) and is located in the southeast corner of the plan area. This area is anticipated to provide either community commercial or prestige industrial uses, similar to the existing uses along Parliament Avenue. This type of use is also compatible with adjacent residential areas to the west. The proposed transition features for the interface with residential land uses have been detailed in Section 3.5.1 and **Figure 17.**

### 3.7.4 FLEX ZONE 3

Flex Zone 3 includes 7.52 ha (18.56 ac) and is situated around the central park space. This area is anticipated to provide prestige industrial or business park office uses. This portion of the employment area is visible from the Neighbourhood Hub and central park and should include higher quality urban design, architecture, and landscaping to ensure an aesthetically appealing interface.

The parcels directly adjacent to the Regina Airport boundary will be subject to the development and height restrictions specified by the City of Regina, the Regina Airport Authority and NAV Canada.

## 3.8 PARKS AND OPEN SPACE

The parks and open space within Harbour Landing North are intended to provide diverse recreation amenities that are accessible and welcoming to all residents. The two parks within the Concept Plan provide different classifications of recreation facilities and serve the neighbourhood in different ways. The 'Neighbourhood Park' is located within the central Neighbourhood Hub and shares it's borders with both the residential and employment portions of the Concept Plan. The amenities within the 'Neighbourhood Park' serve as "community destination spaces", catering to residents within Harbour Landing North as well as the greater community beyond the plan area boundary. See **Figure 20: Parks and Open Space** for the conceptual layout of the park spaces.

The 'Pocket Park' is located within the core portion of the residential area in order to provide the most accessible and attractive park space for local resident use. This park space is intended as more of a 'neighbourhood destination', serving the recreation needs of those residents within walking distance to the park.

Both park spaces will be connected along an east-west connection through the plan area, ensuring walkable streets and accommodation of cyclist infrastructure within the road network.

### NEIGHBOURHOOD PARK

The Neighbourhood Park consists of approximately 4.26 ha (10.52 ac) within the central Neighbourhood Hub, serving as a valuable amenity to residents, business park employees, and the broader community. Through discussions with the City of Regina, this park has been designed to support an off-leash dog park of approximately 1.65 ha (4.07ac) and a cricket pitch consisting of approximately 2.61 ha (6.45 ac), see **Figure 21: Conceptual Neighbourhood Park Design.**

The City of Regina Recreation Master Plan outlines the strategic action to increase the quantity and provision of cricket pitches within the city, since the existing pitches currently experience high levels of utilization. Cricket pitches meet the needs of organized sport groups across the city and are available for spontaneous resident use. The space provided within the HLNCP will allow for a regulation-sized cricket pitch in accordance with the City of Regina's 2020 Cricket Design Standard.

An off-leash dog park is also provided within the Neighbourhood Park space. Currently, there is more demand for dog parks within the city than is being met in existing parks. Off leash dog areas enable dog owners and their pets to gather and socialize and tend to serve a community level, while also attracting residents from other areas of the city. The dog park will include a 30-stall parking lot and will be fenced around the perimeter of the off-leash area.

The location of the Neighbourhood Park will ensure a vibrant and well-used park space during all hours of the day. The park is situated adjacent to high density residential uses, local commercial services, and business park

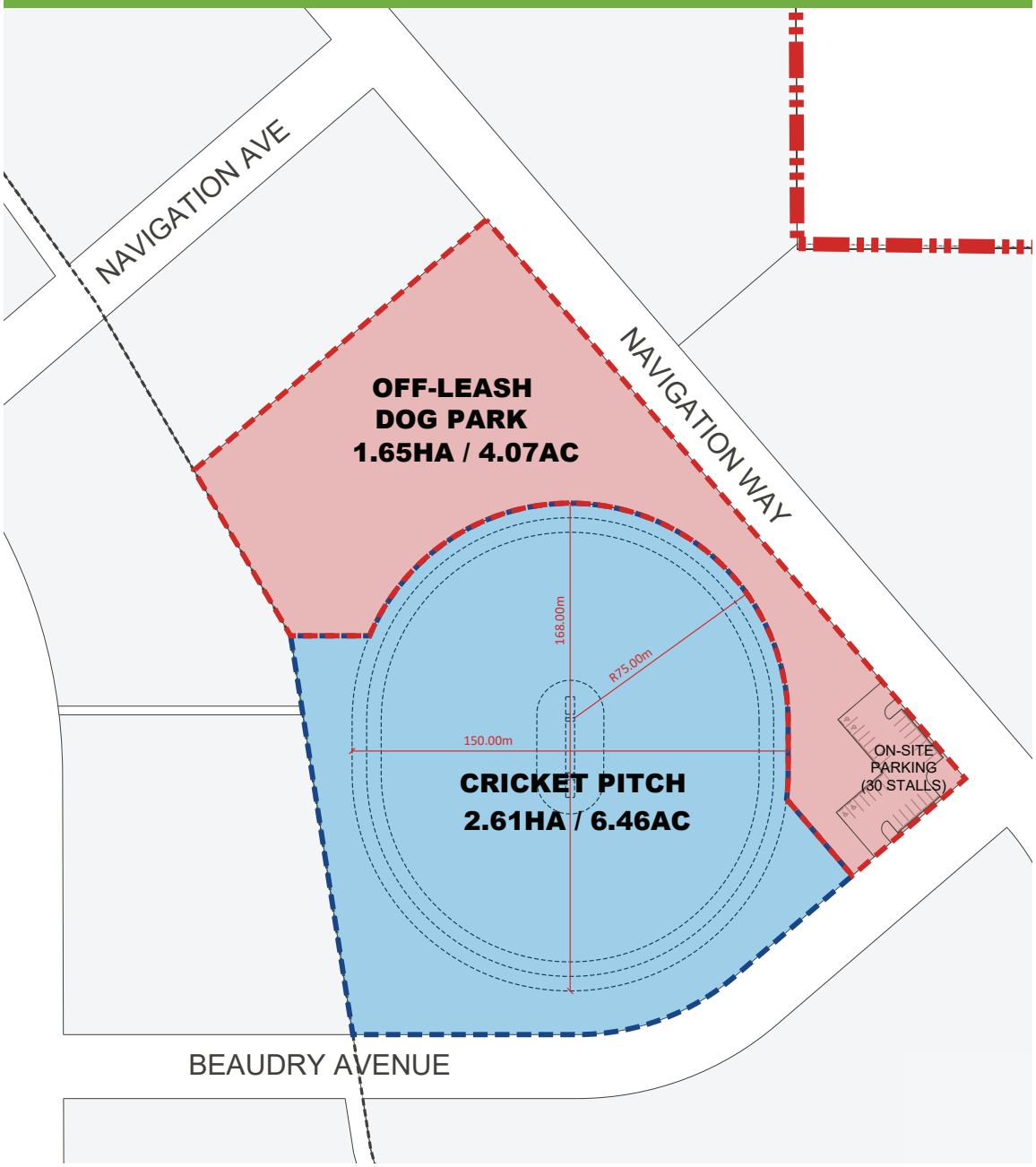
employment uses. The road network surrounding the park will accommodate the traffic flows to the area and provide ample on-street parking.

This park space has also been sized and designed to accommodate the stormwater detention functions required for the plan area. Information regarding the stormwater detention facility are provided in Section 5.4 of this report. The park space has been designed to ensure the recreation amenities within the park space are maintained as the primary use on the site.

## Figure 20: Parks and Open Space


Concept only, subject to change.

Figure 21: Conceptual Neighbourhood Park Design




### POCKET PARK

A 0.35 ha (0.86 ac) Pocket Park is located within the residential area that will accommodate a playground and passive park space. The pocket park is a neighbourhood destination, intending to be an accessible park space within reasonable walking distance for all HLN residents.

While the Regina OCP and Recreation Master Plan value the clustering of recreation opportunities, where appropriate, to achieve economic activities and maximize sport at centralized locations, the amenities located within the proposed Pocket Park are best suited in the residential portion of the plan. The OCP Guidelines for Complete Communities also states that parks should be compatible with other amenities and are readily accessible by walking, cycling, and transit. The more "community-level" uses within the Neighbourhood Park, notably the off-leash dog park, are not suitable to co-locate with a playground. Additionally, the location of the Neighbourhood Park would require most residents to cross a collector road and pass commercial or employment uses before reaching the park space. This is not ideal for young children using the playground space.

## 3.9 MUNICIPAL RESERVE

**Table 6: Municipal Reserve Dedication** provides a summary of the municipal reserve requirements and dedications for the plan area. The total amount of Municipal Reserve required for the plan area is intended to be provided in lands required for the Neighbourhood Park and Pocket Park. Future Municipal Reserve dedication shall be in accordance with the Planning and Development Act and only required at the time of subdivision.

**Table 6 : Municipal Reserve Dedication**

| | Area (ha) | Area (ac) |
|---|---|---|
| Total Plan Area / | 60.35 | 149.12 |
| Gross Developable Area | 58.83 | 145.36 |
| Residential Area | 33.44 | 82.63 |
| Municipal Reserve Owing (10%) | 3.34 | 8.26 |
| Non-Residential Area (Employment) | 25.39 | 62.73 |
| Municipal Reserve Owing (5%) | 1.27 | 3.14 |
| **Total MR Required (Non-Residential & Residential)** | 4.61 | 11.40 |
| **Total MR Provided** | 4.61 | 11.40 |

# 4.0 TRANSPORTATION

## 4.1 TRANSPORTATION SYSTEM OVERVIEW

The intent of the transportation system in Harbour Landing North is to allow for the efficient movement of people through the plan area, connecting both the residential and employment areas, while also minimizing short-cutting of employment traffic through the residential area. The primary road network consists of a modified grid of collector roads between the employment and neighbourhood areas, with James Hill Road, the main north-south collector, moving traffic towards Campbell Street and Parliament Ave. The employment area has one north-south collector ('Navigation Way') that will convey traffic through the business park area, connecting on the north side of the plan to Campbell Street, and on the south side of the plan are to 25th Avenue and eventually to Parliament Avenue. A smaller modified grid network of local roads ensures efficient movement within the neighbourhood interior and convenient access to the collector network.

The road network has been designed to seamlessly connect with the existing Harbour Landing neighbourhood to the south, from Campbell Street, James Hill Road and 25th Avenue, and provide future connections into West Harbour Landing.

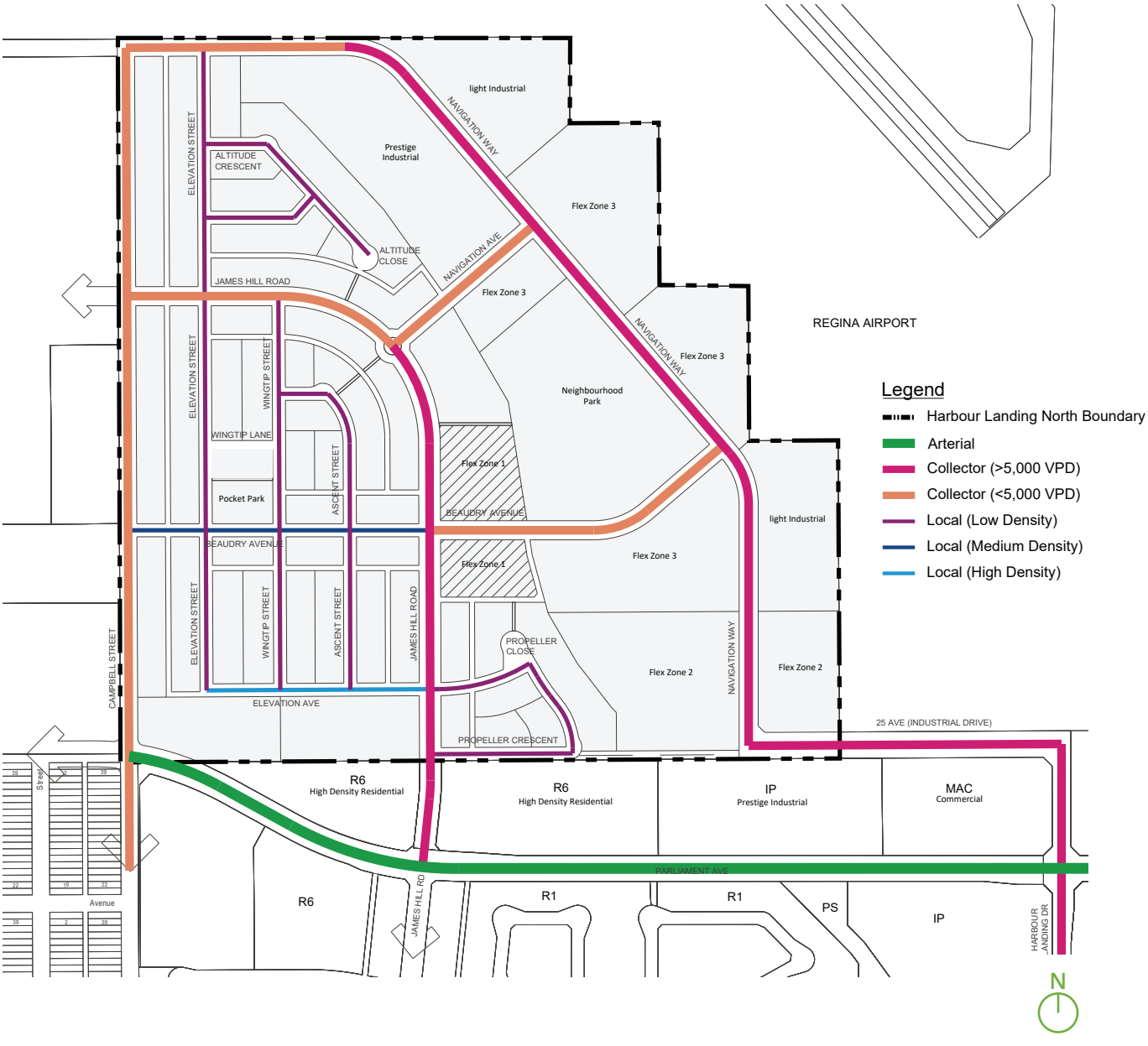
The primary access to the employment area is via 25th Avenue in the southeast, with secondary access from Hill Avenue in the northwest. The primary residential access is through extensions of James Hill Road and Campbell Street, with three connector roads proposed off Campbell street.

A Traffic Impact Assessment (TIA) was completed for the plan area and includes a detailed analysis of existing traffic conditions, traffic generations and forecasts as a result of the proposed development, and recommendations for road classifications and possible road network improvements from a multimodal perspective. The full TIA has been included under separate cover.

## 4.2 ROAD NETWORK HIERARCHY

The internal road network is demonstrated in **Figure 22: Internal Road Network**. It is comprised of local and collector roads that connect to Parliament Ave, an arterial road south of the plan area. Parliament Ave then connects to Lewvan Drive to the east of the plan area. Access to the development is planned by extending James Hill Road and Harbour Landing Drive north of Parliament Avenue and construction of three new access points off Campbell Street. The proposed road classifications are based on the City of Regina's Transportation Master Plan and Design Standard Manual, and provide for the movement of vehicles, pedestrians, and cyclists throughout the plan area.

Figure 22: Internal Road Network

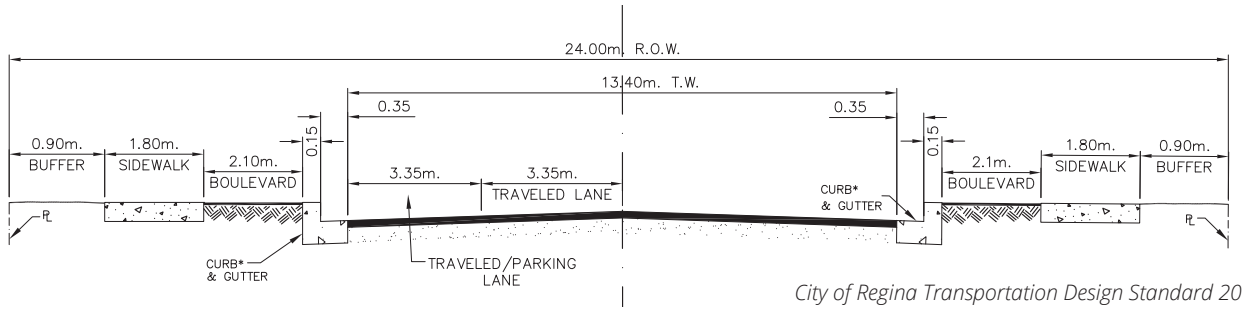


## 4.3 ROAD NETWORK CROSS SECTIONS

Proposed sections for the internal road network are demonstrated in **Figures 23, 24, 25 & 26** and include collector and local roads. The sections demonstrated are from the 2019 City of Regina Transportation Design Standard Manual and may be subject to minor modifications at the detailed design stage. For example, the sections may be modified to provide dedicated cyclist infrastructure within the road right-of-way as detailed in Section 4.5.

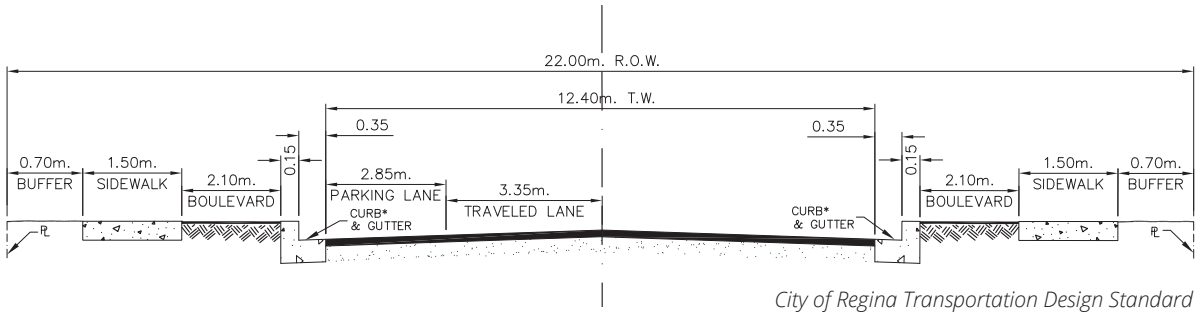
The proposed road network balances the needs of vehicle, cyclist and pedestrian traffic in a safe and efficient manner. The modified grid provides a clear and legible hierarchy to the community that supports multi-model connectivity.

## Figure 23: Collector ( > 5000 vpd) Road Section



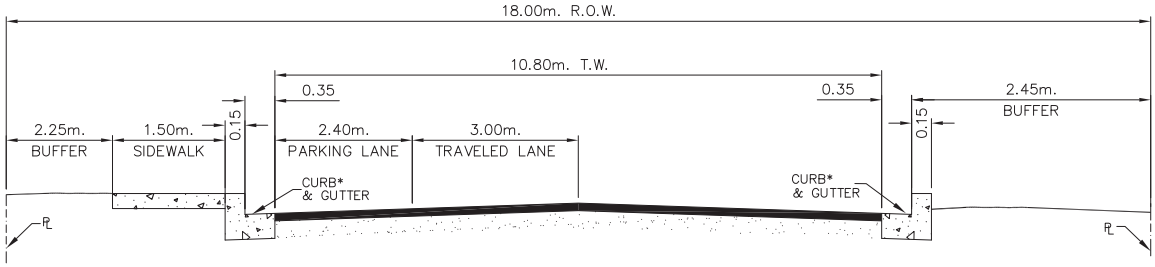

*City of Regina Transportation Design Standard 2019*

## Figure 24: Collector ( < 5000 vpd) Road Section



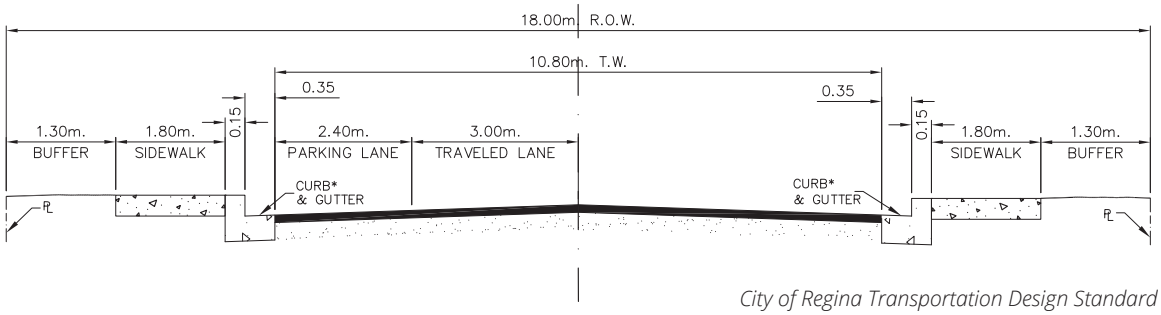

*City of Regina Transportation Design Standard 2019*

## Figure 25: Local Low Density Road Section




*City of Regina Transportation Design Standard 2019*

## Figure 26: Local High Density Road Section

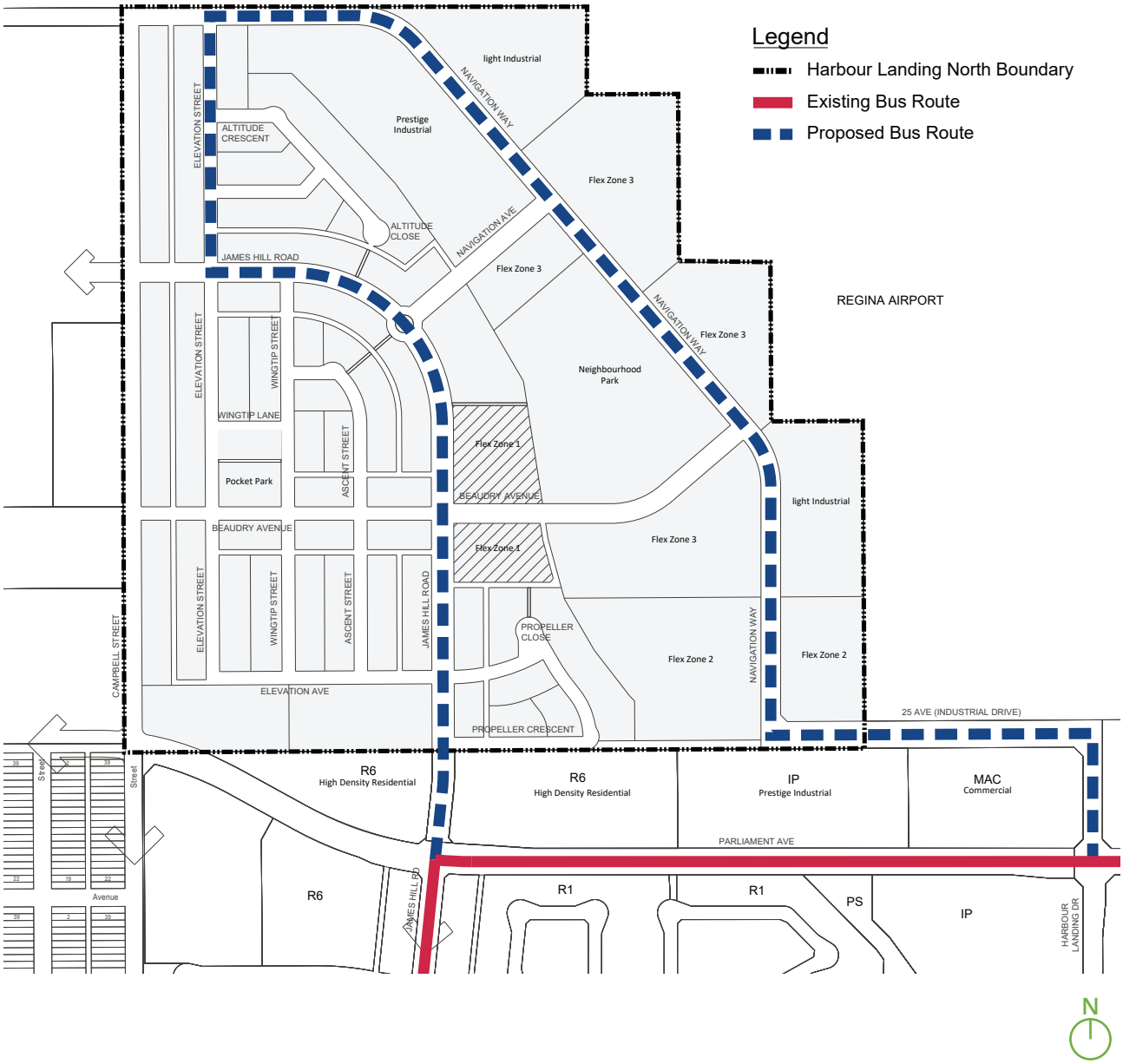



*City of Regina Transportation Design Standard 2019*

## 4.4 PUBLIC TRANSPORTATION

The proposed Harbour Landing North development is adjacent to Regina Transit Route 18, which includes stops along Parliament Avenue in the westbound and eastbound directions, and travels between the Harbour Landing Neighbourhood and the University of Regina. The Regina Transportation Master plan specifies that 400 m is the maximum desirable walking distance to a transit stop for residents and workplaces. Four potential route options that expand upon the existing Route 18 were analyzed within the TIA based on a weighted system of metrics outlined in the Regina Transportation Master Plan. Based on this analysis, a preferred transit route is illustrated in **Figure 27: Proposed Transit Route.**

**Figure 27: Proposed Transit Route**



## 4.5 ACTIVE TRANSPORTATION

The City of Regina's Transportation Master Plan promotes active transportation including pedestrian and cyclist movements within the city. The Harbour Landing North Concept Plan and associated TIA have detailed specifications to encourage multiple forms of active transportation throughout the plan area and surrounding networks.

Pedestrian movement can be encouraged through multiple factors including the overall layout of the community, the proximity to amenities and the provision of pedestrian infrastructure. The modified grid road design, moderate block size and inclusion of park spaces and neighbourhood scale commercial opportunities are all intended to promote a livable community in which the daily needs of residents can be met within walking distance. In addition, the proximity of the employment area may allow some residents to be within walking distance of their place of employment.

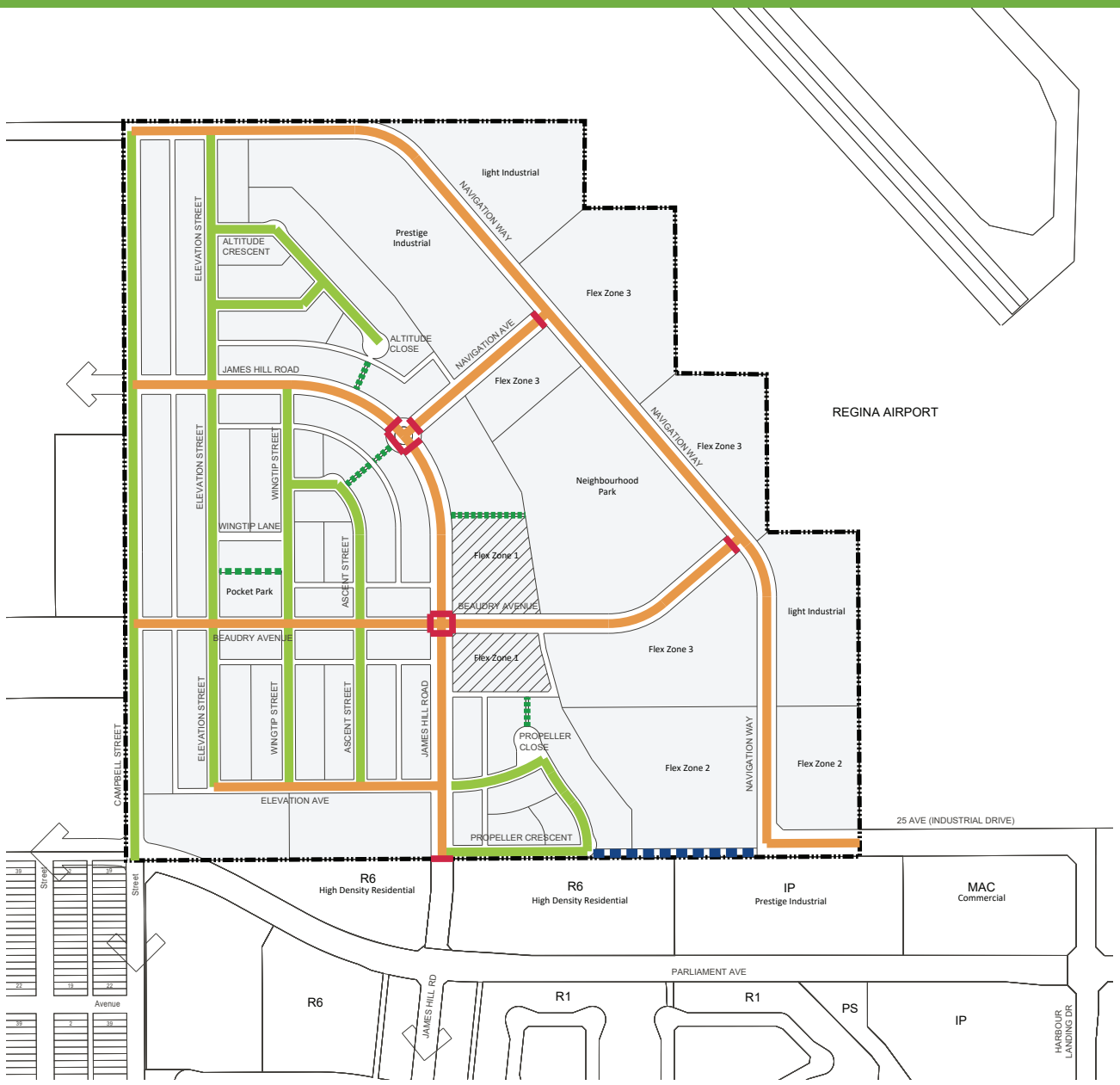
With respect to pedestrian infrastructure, as demonstrated in **Figure 28: Active Transportation - Pedestrian Accommodation** (and the sections in **Figures 23, 24, 25 & 26**), the low-density local roads are proposed to include sidewalks on one side, whereas medium-high density local roads would include sidewalks on both sides of the street. All collector roads would contain sidewalks on both sides of the street. Although Campbell Street is proposed as a collector it is currently contemplated to only include a sidewalk on the west side until development extends west of the plan area. In addition to sidewalks, municipal walkways and a multi-use pathway have been included within the plan area to provide better pedestrian connections between longer blocks, and along the 25th Avenue road closure.

Many of the factors promoting walkability within Harbour Landing North also extend to cycling. The overall plan design, land uses, and provision of pathways and walkways all benefit cyclists. However, cycling can be further supported through the provision of on street cycling infrastructure that connects into the existing network along Parliament Avenue. On street bike infrastructure may be provided along James Hill Road, Navigation Avenue, Beaudry Avenue and Navigation Way through a combination of bike boulevards, protected bi-directional bike lanes and/or grade separated cycle track as demonstrated in **Figure 29: Active Transportation – Cyclist Accommodation.**

The provision of this infrastructure would impact the road sections demonstrated in Section 4.3, for example, a grade separated cycle track on James Hill Road could be accommodated within the existing ROW by repurposing the green buffer between the sidewalk and roadway.

Overall, the Harbour Landing North Concept Plan and associated infrastructure have been designed to support and encourage multi-modal connectivity throughout the plan area for both residents and employees.

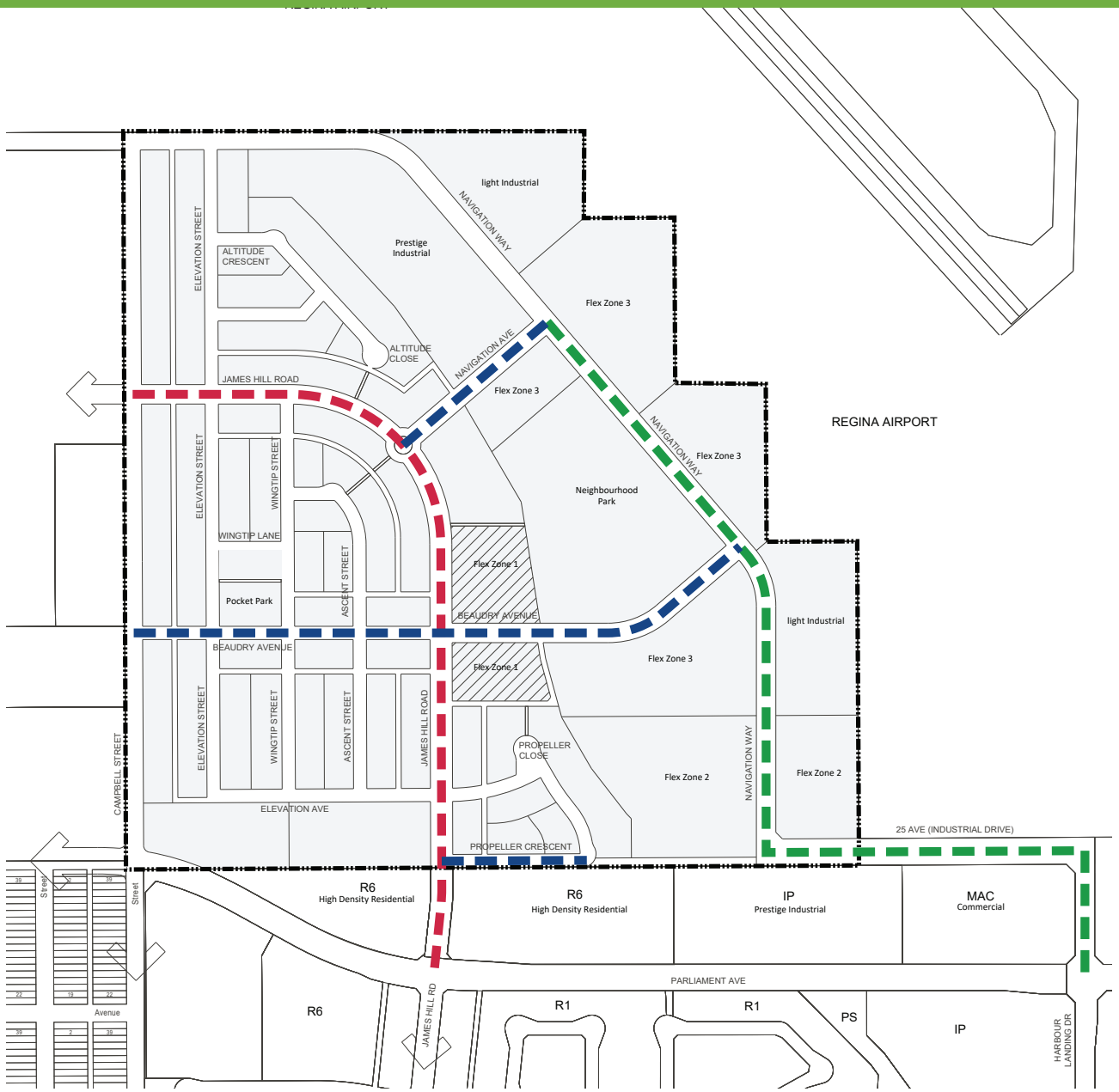
## Figure 28: Active Transportation - Pedestrian Accommodation




### Legend

- Harbour Landing North Boundary
- Proposed Crosswalk
- 10m Multi-use Pathway
- 3.0m Municipal Walkway
- Sidewalk - One Side
- Sidewalk - Both Side

## Figure 29: Active Transportation – Cyclist Accommodation



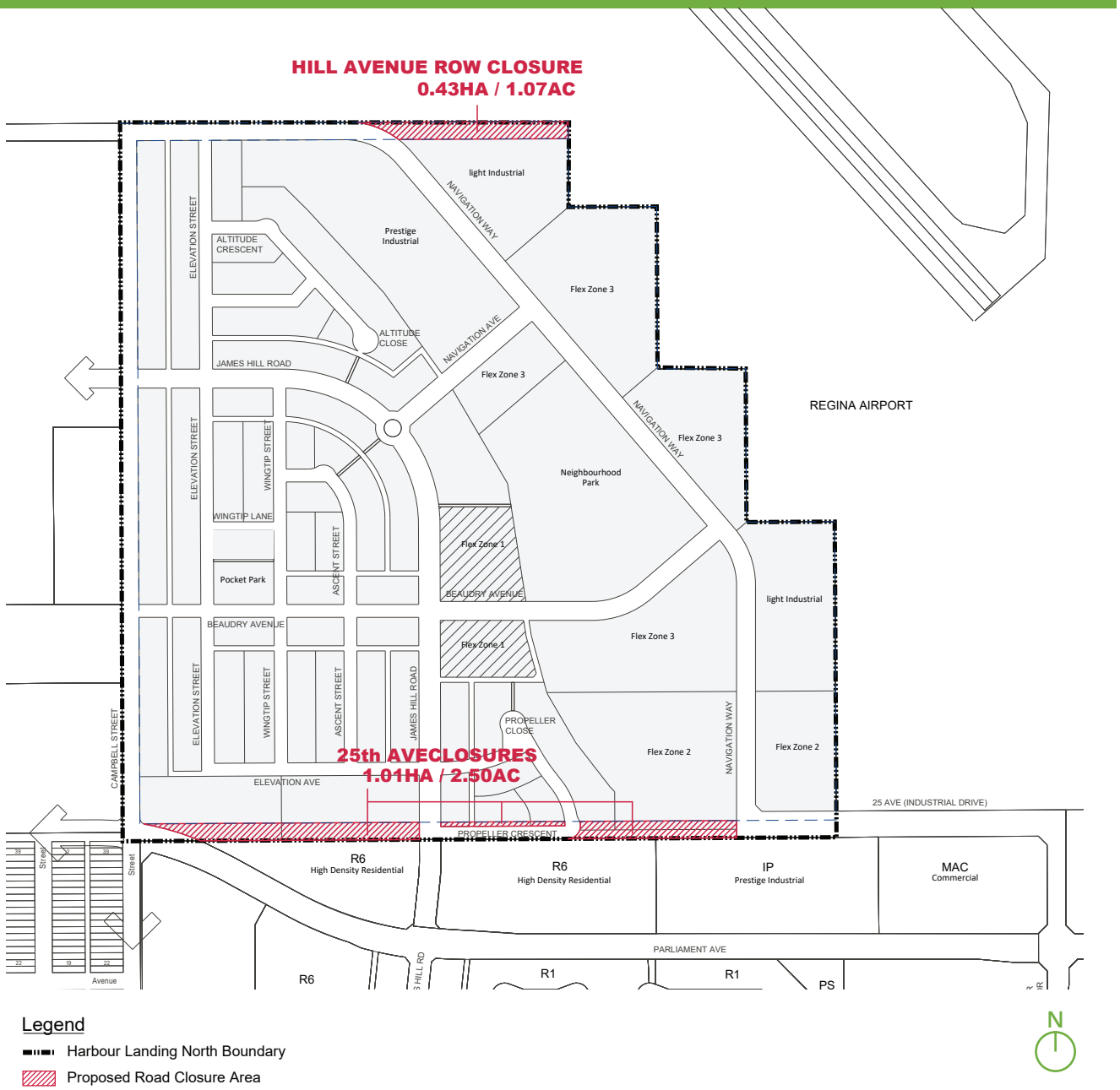

### Legend

- Harbour Landing North Boundary
- Bike Boulevard (Speeds <30km/h)
- Protected Bi-directional Bike Lane
- Grade Separated Cycle Track

## 4.6 ROAD CLOSURES

As development of the subject lands occur, two road closures and consolidations are proposed, including portions of the existing 25th Avenue road along the southern boundary of the plan area and the undeveloped Hill Avenue road right of way along the northern boundary of the plan area. These road closure areas are demonstrated in **Figure 30: Proposed Road Closures.**

Figure 30: Proposed Road Closures



## 4.7 TRANSPORTATION IMPACT ASSESSMENT

A Traffic Impact Assessment (TIA) was completed for the plan area and is included under separate cover. Key findings from the TIA for the HLNCP are as follows:

- **Existing Traffic Operations:** The majority of existing intersections adjacent to the HLNCP operate within acceptable levels of service during the AM and PM peak hours aside from the intersections of Parliament Avenue & Lewvan Drive and Parliament Avenue & Harbour Landing Drive.

- **Background Traffic Operations:** The majority of existing intersections adjacent to the HLNCP are forecast to continue operating within acceptable levels of service during the AM and PM peak hours during the 2045 horizon year aside from Parliament Avenue & Lewvan Drive- which is currently at full build-out. Traffic signals at the intersection of Parliament Avenue & Harbour Landing Drive are warranted by 2045 regardless of the proposed HLN development.

- **Estimated Site Trip Generation**: The Harbour Landing North development is estimated to generate approximately 1117 AM peak trips and 1442 PM peak trips based on the various land uses.

- **Forecast Traffic Operations:** All new intersections within the development operate within acceptable levels of service at full build-out. Three intersections on Parliament Avenue are not expected to meet acceptable service levels during the AM and PM peak at full build-out of the HLN development. Intersection improvements and alternative traffic control are expected to address these concerns.

A number of system improvements are warranted for intersections along Parliament Avenue due to background growth, not related to the proposed development. These details are provided in the full TIA report. The following systems improvements are recommended based on the proposed HLN development:

- **Parliament Ave/Harbour Landing Drive-** construct a right turn lane for westbound right traffic and a left turn lane for southbound left traffic.

- **Parliament Ave/James Hill Road-** install traffic signals at or before full build-out, construct a right turn lane for westbound right traffic, construct a left turn lane for southbound left traffic with approximately 70 metres of storage.

- Install stop signs for intersections proposed along Campbell Street

- New intersections within the HLN development will operate well as stop-controlled intersections, and a roundabout is recommended at James Hill Road and North Collector (Navigation Ave) intersection.

- Construct sidewalks throughout the development and install pedestrian crosswalks at key crossing locations.

- Provide bikeways including a bike boulevard, bi-directional bikeway, and cycle track to connect to existing or future cycling infrastructure to the east and south of the development.

# 5.0 SERVICING

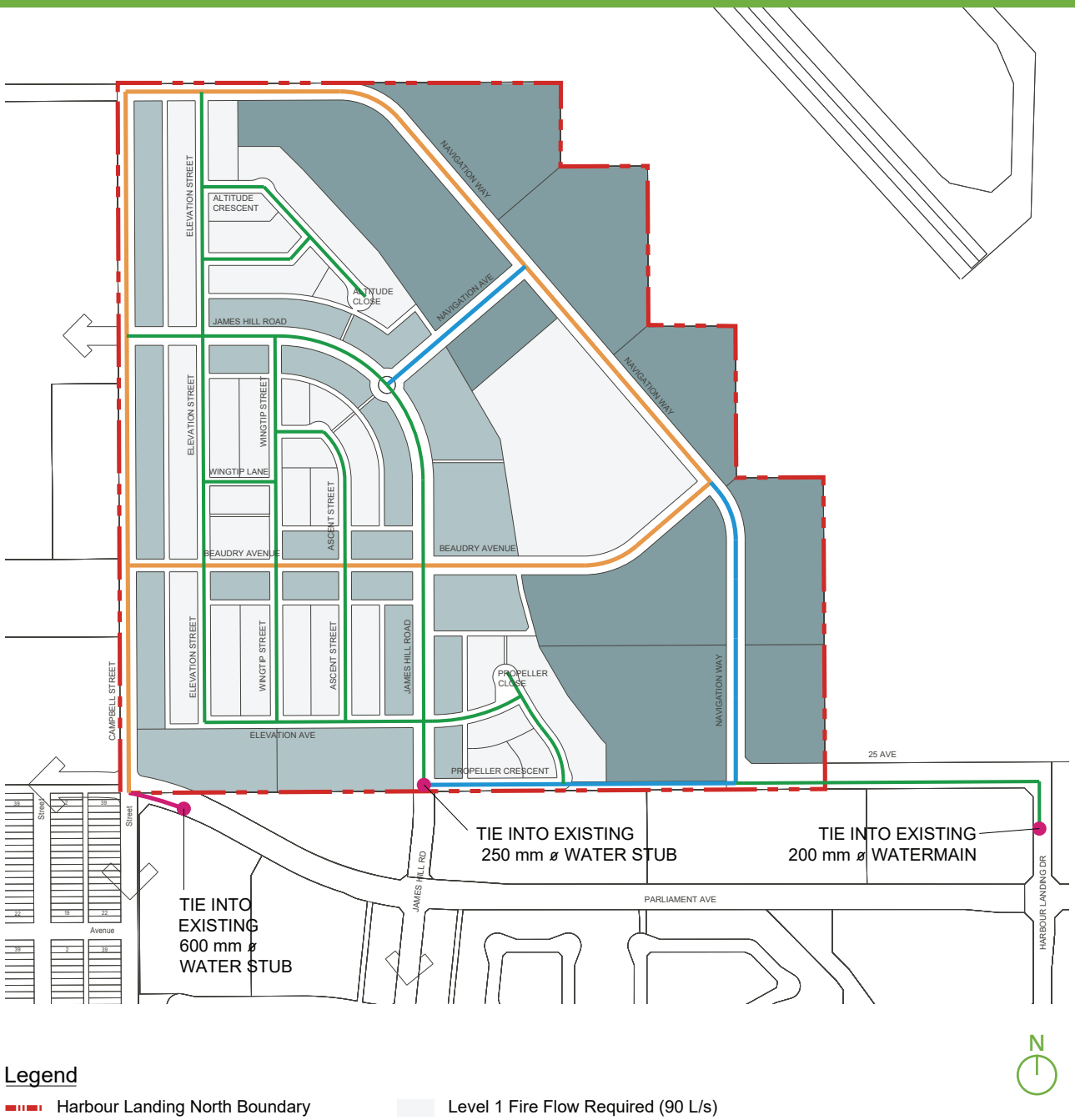
## 5.1 SERVICING OVERVIEW

Servicing includes the provision of water, sanitary and stormwater management to Harbour Landing North, and the provision of services to the plan area is critical to the development and long-term sustainability of the community. The servicing strategies were based on a detailed assessment of existing conditions of the subject lands as well as in consultation with the City of Regina. The following sections provide a brief overview of the servicing strategy for the plan area, while detailed Servicing Reports have been submitted under separate cover.

## 5.2 WATER SERVICING

Water service will be provided to Harbour Landing North through extension of the existing water distribution system in Harbour Landing. Connections to this system are available south of the plan area through three primary connection points at Parliament Avenue (600mm stub), James Hill Road (250mm stub) and Harbour Landing Drive (200mm watermain). The network is proposed to include a 300mm loop along Campbell Street, Navigation Way and Beaudry Avenue with 200mm pipes through the local streets within the residential area and 250mm connections along Navigation Avenue and the southern section of Navigation Way (see **Figure 31: Water Servicing**). The design and capacity of the water distribution system is in alignment with the City's design standards and requirements, and is further detailed in Associated Engineering's Water Servicing Report, submitted under separate cover.

## Figure 31: Water Servicing




### Legend

- Harbour Landing North Boundary
- 200 mm ø PVC Water
- 250 mm ø PVC Water
- 300 mm ø PVC Water
- 600 mm ø PVC Water
- Connection Point
- Level 1 Fire Flow Required (90 L/s)
- Level 2 Fire Flow Required (150 L/s)
- Level 3 Fire Flow Required (250 L/s)

## 5.3 SANITARY SERVICING

Sanitary service will be provided to Harbour Landing North through an on-site gravity pipe network connecting to the regional gravity network leading to the existing Harbour Landing Pump Station (HLPS). The system is also proposed to include some additional storage to mitigate any potential downstream impacts. An overview of the system has been outlined below with additional details and explanatory modelling detailed in Associated Engineering's Utility Servicing Report, submitted under separate cover.

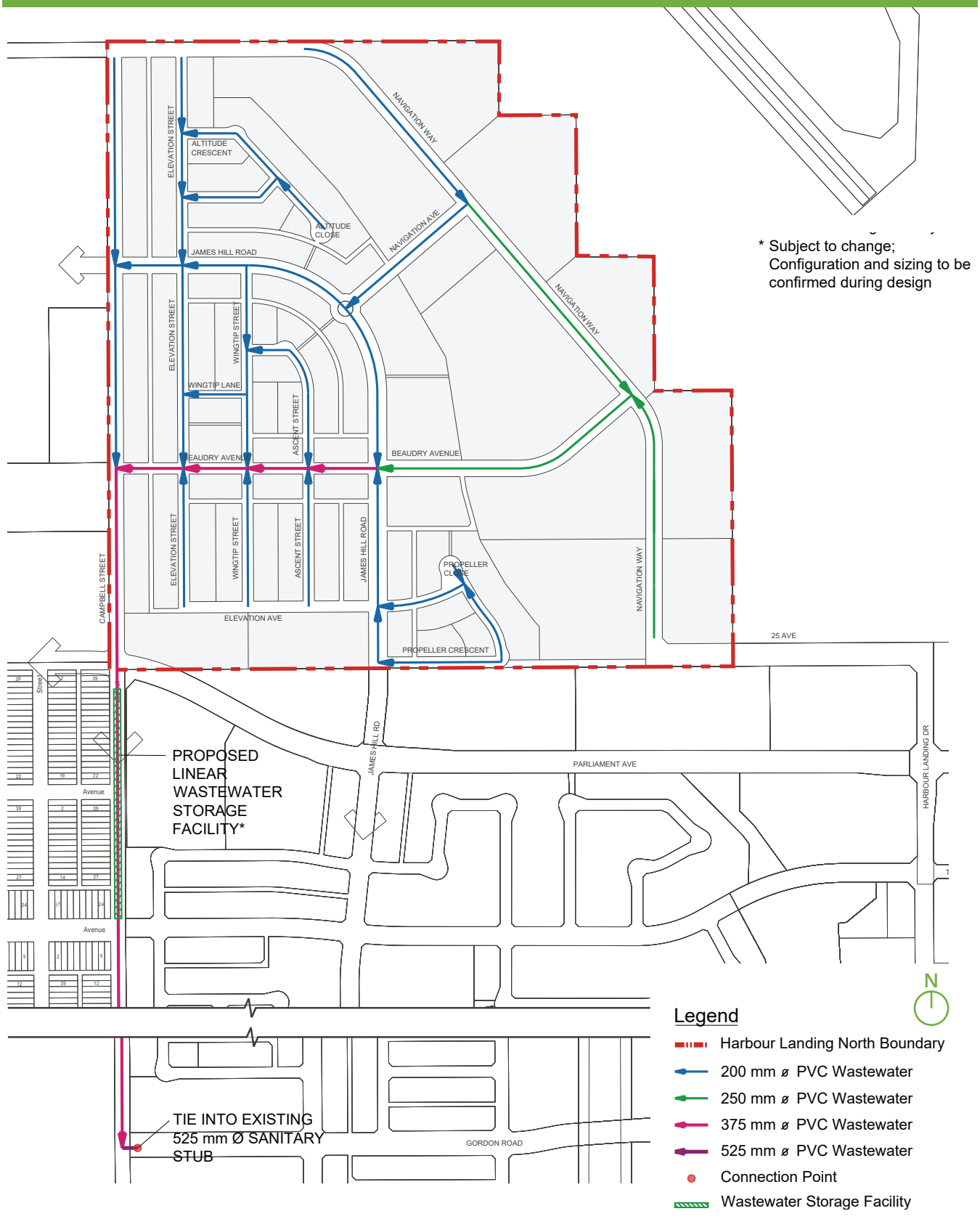
On site, gravity mains ranging from 200 mm to 375 mm are proposed within all streets and will flow towards the southwest corner of the plan area, as demonstrated in **Figure 31: Sanitary Servicing**. The precise main sizes are conceptual at this time and may be subject to change. From the plan area, servicing will be provided through extension of the gravity main along Campbell Street, connecting to the 525mm diameter trunk on Gordon Road. The 525 mm diameter trunk runs west to east along Gordon Road to Harbour Landing Drive. The trunk continues southeast along Harbour Landing Drive, increasing up to 750 mm diameter, to the Harbour Landing Pump Station (HLPS). Wastewater flows exit the HLPS via a 500 mm diameter HDPE force main that runs north along the east side of Lewvan Drive and discharges to the 600 mm diameter Pasqua Street Trunk at Parliament Avenue.

Through development of the Concept Plan, six different sanitary servicing options were analyzed for their feasibility and requirements from the City of Regina, with the above specified option being identified as the most viable.

In addition to this gravity network, it is anticipated that Harbour Landing North will require a distinct wastewater storage facility to mitigate the impacts to the existing system during peak events. A linear storage facility is proposed along the 375 mm diameter gravity sewer main running south on Campbell Street. This volume is appropriate based on the modelling completed at the time of Concept Plan submission, but due to ongoing changes to the network, such as system upgrades or the progression of other developments, the identified specifications are subject to change. At the time of development, the wastewater storage volume will need to be re-evaluated and refined with modelling to determine the required design storage for the facility.

Additional details regarding the proposed HLN sanitary system within the regional network and the impacts on overall capacities are detailed within Associated Engineering's Utility Servicing Report.

## Figure 32: Sanitary Servicing



## 5.4 STORM WATER MANAGEMENT

The stormwater management strategy for Harbour Landing North was based on the natural topography and catchment areas of the subject lands. The overall plan area is contained within the Wascana Creek catchment area which has runoff directed to the Lewvan Drive ditch. As demonstrated in **Figure 9: Natural Features**, there is a ridge running approximately east-west through the middle of the site. Runoff on the north side of the ridge sheds east into the Regina International Airport Lands and continues east directly to the Lewvan Drive ditch. Runoff on the south side of this ridge has traditionally travelled southwest to the Lewvan Drive Ditch, which then directs runoff north into Wascana Creek.

The stormwater management strategy detailed by Associated Engineering (included under separate cover) includes a combination of site storage, major and minor drainage systems and a safe overflow route.

With respect to storage, the City of Regina Standard for Drainage for Building Site and Parking Lot Developments, April 2003 require site developments, other than single family or semi-detached dwelling units, to provide on-site storage. Therefore, the stormwater management strategy anticipates site storage on the high density residential, flex zone, and industrial parcels.

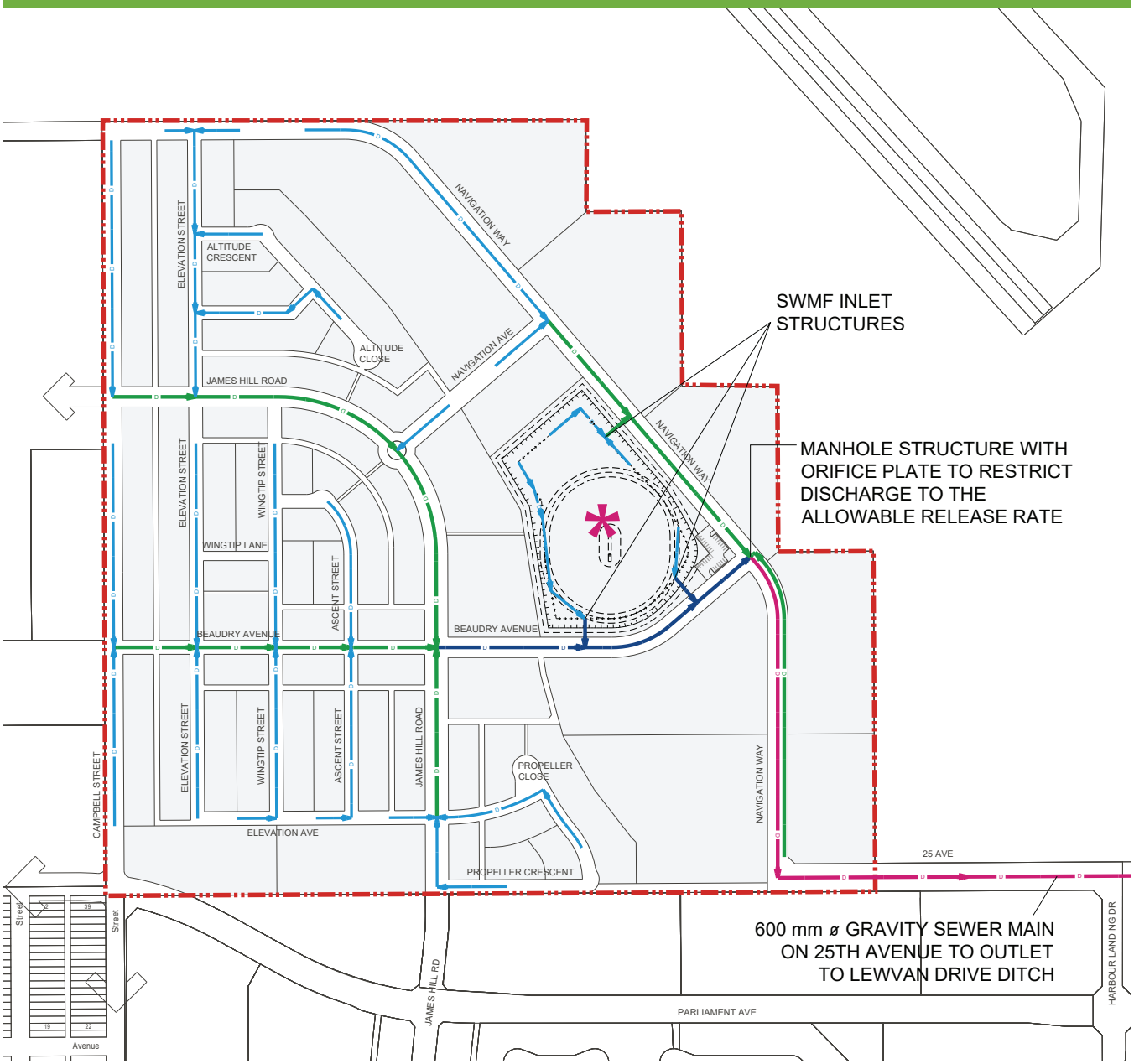
The drainage minor system (detailed in **Figure 33: Stormwater Management**) includes an underground pipe system within the roadways that will convey stormwater to the Stormwater Management Facility (SWMF) located within the central Neighbourhood Park. From there, runoff will be discharged via a gravity main to the existing Lewvan Drive Ditch on the west side of Lewvan Drive. Outlet flow from the SWMF will be restricted to pre-development flow rates. In events where the minor system is at capacity, the major drainage system will direct runoff overland along roadways and spill into the SWMF, which will be designed to accommodate a 1:100-year, 24 hour event. In the event that the capacity of the SWMF is surpassed, a safe overflow route has been defined to convey flows from the SWMF south to James Hill Road, which is consistent with the natural, pre-development overflow route.

The proposed SWMF is intended to function as a Municipal Reserve, including an off-leash dog park and cricket field. Requirements for stormwater management within municipal reserve parcels have been taken into consideration in the conceptual layout and grading design for the SWMF, shown in **Figure 34: Stormwater Management Facility within Municipal Reserve**. The proposed grading and placement of catch basins within the perimeter swale respect the Run-Out and No-Encroachment Zones of the cricket pitch, and the side slopes within the facility do not exceed 20%.

## 5.5 SHALLOW UTILITIES

Shallow utility services will be provided by local utility companies, including power, natural gas, telephone, cable, and internet services. They will be accommodated in road rights of ways, utility rights of ways, or easements as required to provide services to the proposed development.

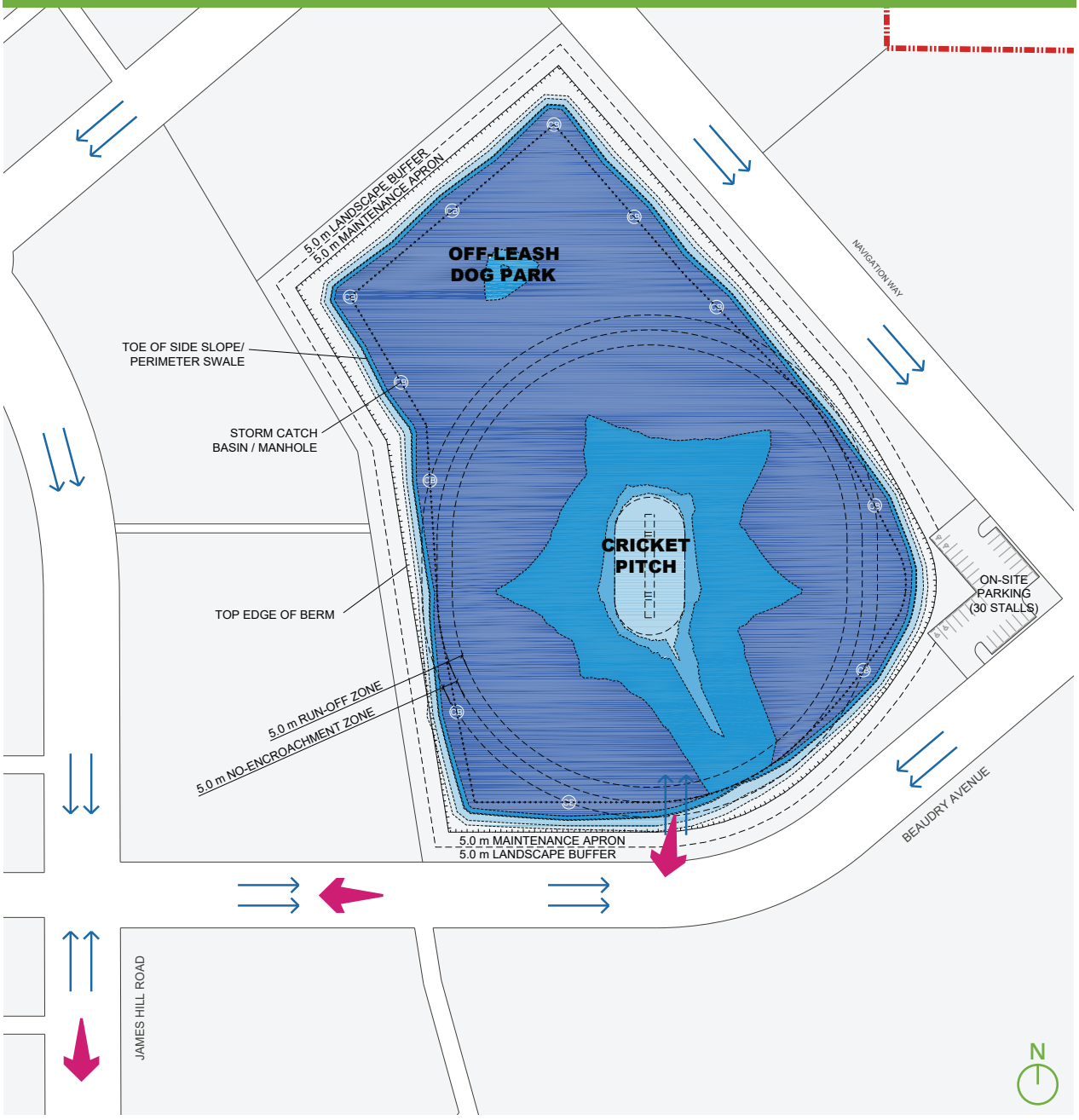
## Figure 33: Stormwater Management




### Legend

- Harbour Landing North Boundary
- Storm Sewer Mains < 450 mm ø
- Storm Sewer Mains between 450 mm ø to 900 mm ø
- Storm Sewer Mains > 900 mm ø
- 600 mm ø Gravity Sewer Main Outlet to the Lewvan Drive Ditch
- Stormwater Management Facility (SWMF)

## Figure 34: Stormwater Management Facility within Municipal Reserve




| RETURN EVENT | 1:5 YEAR | 1:10 YEAR | 1:25 YEAR | 1:50 YEAR | 1:100 YEAR |
|---|---|---|---|---|---|
| ESTIMATED STORAGE VOLUME REQUIRED WITHIN SWMF ($m^2$) | 7,600 | 13,300 | 14,400 | 24,900 | 33,300 |
| HWL AT FULL STORAGE VOLUME (m) | 574.37 | 574.61 | 574.65 | 575.01 | 575.25 |
| RELEASE TIME (HOURS) | 10.2 | 17.9 | 32.7 | 46.8 | 58.1 |
| MAXIMUM PONDING DEPTH AT CATCH BASINS ALONG PERIMETER SWALE (m) | 1.02 | 1.47 | 1.51 | 1.78 | 1.91 |

Legend

- Harbour Landing North Boundary
- Major Drainage System Overland Flow Direction
- Emergency Overland Flow Ro

# 6.0 IMPLEMENTATION

## 6.1 PHASING

The projected development is divided into three phases and includes some residential and employment areas in each phase. It is expected these phasing boundaries will be adjusted over time based on market conditions and servicing infrastructure. Phase boundaries may be amended to facilitate a more rapid uptake of demand with either the residential or commercial/industrial markets.

The phases will generally progress from south to north, as demonstrated in **Figure 35: Proposed Phasing.** Initial development will likely occur from connections at James Hill Road, 25th Avenue, and the Parliament Ave/ Campbell Street intersection. The 'Neighbourhood Park' is included within the first phase of development to include the stormwater management facility in the initial stage of construction.

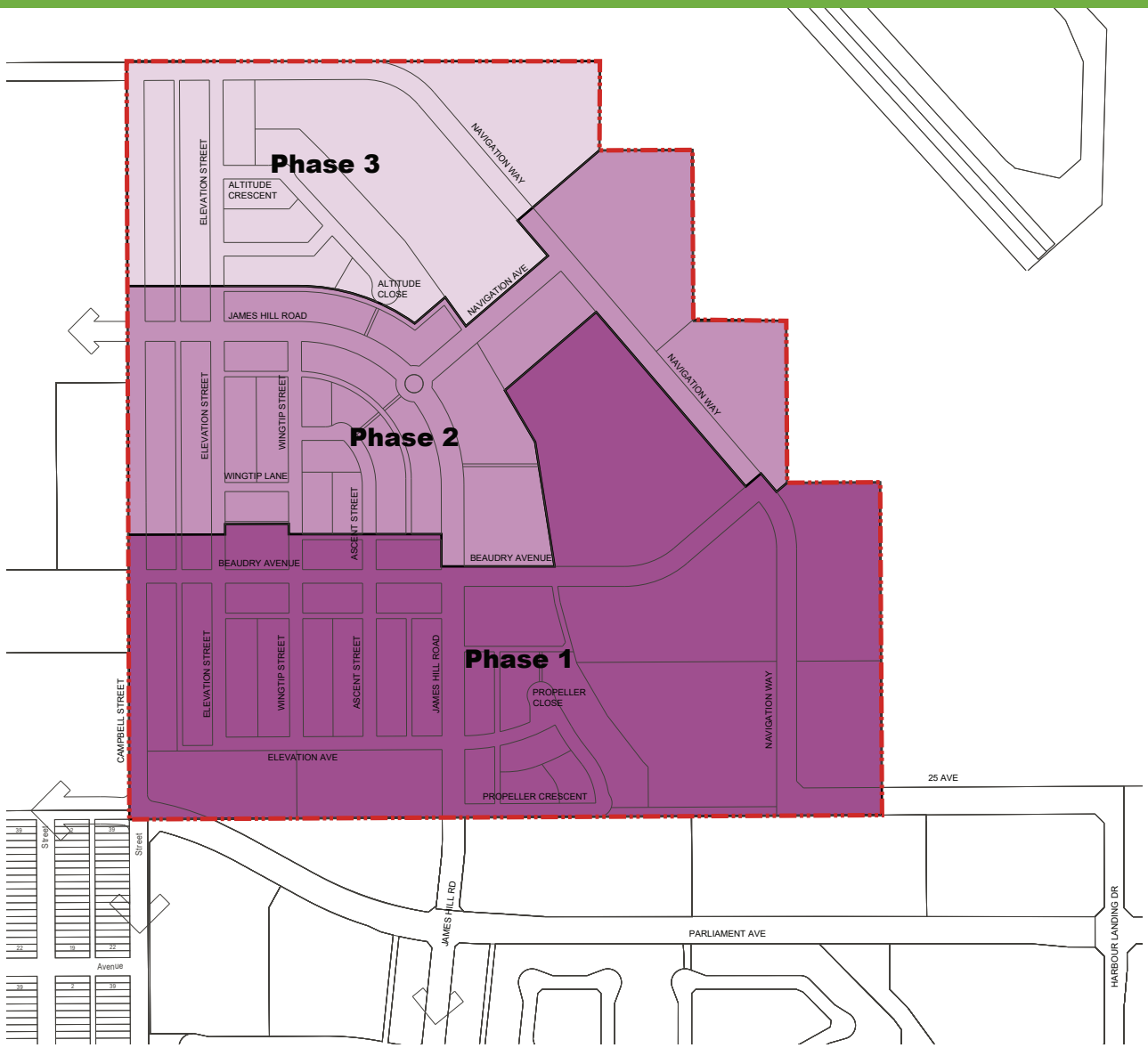
## 6.2 ANTICIPATED ZONING

Prior to subdivision and development, the lands will be subject to a redesignation application. Proposed zones will be reviewed through the zoning application process and in accordance with the City of Regina Land Use Bylaw. Where required, direct control districts may be developed to outline and establish specific use regulations and development standards necessary to support the implementation of the Concept Plan.

## 6.3 SUBDIVISION

Subdivision of Harbour Landing North is expected to proceed in multiple stages, contingent upon market demand and the implementation of required municipal infrastructure necessary to support the development. Future plans of subdivision shall be in accordance with the City of Regina land use bylaw and zoning standards. As a condition of subdivision approval, all required transportation, sanitary, water, stormwater, shallow utility servicing, and required park improvements shall be outlined in a development agreement negotiated between the City and developer. Upon execution of such agreement, all required infrastructure shall be implemented by the developer in accordance with the specified terms.

## Figure 35: Proposed Phasing




Legend

- Harbour Landing North Boundary
- Phase 1 Development
- Phase 2 Development
- Phase 3 Development

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