

UNIVERSITY SECTOR PLAN

April 2021



How to Use this Plan

The University Sector Plan is intended for use by everyone interested in the undeveloped portion of the University of Saskatchewan lands within Saskatoon. The Plan is a comprehensive document that facilitates and guides the sustainable development process in this iconic area of the city.

Neighbourhood residents use this plan to understand the vision for the University Sector and to gain an understanding of how the sector will change over the coming years.

City Council use this plan to guide decision-making for the University Sector.

Developers use this plan to understand the allowable uses, building forms and densities, including location, type and scale of development that may occur within the University Sector. The Plan also outlines future requirements for concept plans within respective areas within the University Sector, and the overarching guidelines regarding the infrastructure installation.

City staff use this plan through the lens of departmental responsibility:

Planning & Development use this plan to guide form and density through zoning and public space integration, as well as for guidelines and requirements for subsequent concept plans.

Transportation & Construction and Utilities & Environment use this plan to guide utility servicing, major infrastructure, roadway dedication, related street infrastructure upgrades, and environmental sustainability.

Community Services use this plan to guide park, trail and amenity space creation, municipal reserve dedication amounts, required upgrades to the public realm and to ensure safety at all levels of development for this area.

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INTRODUCTION & BACKGROUND



1.1 PURPOSE & SCOPE

The City of Saskatoon is a commercial, cultural, and educational centre located on Treaty Six Territory and the Traditional Homeland of the Métis in the province of Saskatchewan. European settlement began in the 1880s, but Indigenous people have been living in the Saskatoon area for thousands of years.

The City of Saskatoon's (City) urban boundary encompasses approximately 23,300 hectares (57,600 acres) of land. Centrally located adjacent to the South Saskatchewan River, the University of Saskatchewan's (USask) lands constitute about one-twentieth of the total urbanized area of Saskatoon. A portion of these lands remain undeveloped.

Since the university's founding in 1907, the city has grown around USask lands. The strategic and economic value of these lands has grown along with the city. The undeveloped USask lands have been identified as an important component of Saskatoon's long-term sustainable growth.

In 2018, the City and USask signed a Memorandum of Understanding to strategically increase collaboration between the two organizations. One area of collaboration is land development including work related to the City's Growth Plan to Half A Million (Plan for Growth), which identifies USask endowment lands as strategic infill sites.

As a mutually beneficial strategic endeavour, the City and USask partnered to define the structure of potential development lands. The University Sector Plan (the

Sector Plan) provides enough direction on high-level land use, transportation, servicing, and development phasing such that the lands are development ready, subject to the development of more detailed concept plans led by the landowner(s).



Figure 1: University Sector Plan Location

1.2 PLANNING FRAMEWORK & POLICY FRAMEWORK

Planning & Development Act, 2007

Sector plans are established in accordance with the *Planning and Development Act, 2007*, Clause 44(1) which states: “If a municipality has an approved official community plan, a council may, as an amendment to its official community plan, adopt a concept plan by bylaw in accordance with section 39 for the purpose of providing a framework for subsequent subdivision and development of an area of land.”

Additionally, clause 44(4) states: “Notwithstanding subsection (1), a council that has been declared an approving authority pursuant to subsection 13(1) may adopt or amend a concept plan by resolution, subject to the requirements of subsection 23 (3).”

Official Community Plan Bylaw No. 9700

The City’s Official Community Plan Bylaw No. 9700 (Official Community Plan) provides the policy framework to define, direct and evaluate development in Saskatoon to a population of 500,000. The Official Community Plan ensures that development takes place in an orderly and rational manner, balancing environmental, social, and economic needs of the community. It provides both inspiration and direction, ensuring that the community’s vision for Saskatoon is integrated into all aspects of planning and development.

Sector plans are required by the Official Community Plan. Section F Policy (2) (a) (v) states: “Long range



Figure 2 – Plan Hierarchy

planning for neighbourhoods and related community facilities shall be organized within the context of a Sector. A Sector typically contains six to ten neighbourhoods and the housing and community facilities necessary to accommodate 50,000 to 80,000 people as well as significant employment. This includes a transportation network that connects the Sector to the city-wide transportation network.”

When adopted, the University Sector Plan will be considered an extension of the City’s Official Community Plan. As such, the Sector Plan must be consistent with the overall policy framework, demonstrating how it conforms to the Official Community Plan and supporting the urban structure and overall growth objectives. The Sector Plan may provide greater detail than the Official Community Plan; however, in instances where the Sector Plan does not contain guidance or direction, the Official Community Plan applies.

Concept Plans

Concept plans prescribe the development vision and servicing framework for a defined area, in alignment with the Official Community Plan and applicable sector plan. Concept plans are required for large scale development, such as residential neighbourhoods or industrial employment areas, and smaller scale development, such as urban centres or significant infill development.

1.3 LOCATION

The University Sector is located within the city of Saskatoon. It is bounded by the South Saskatchewan River to the west, future development land within the University Heights Sector to the north, College Drive

and 14th Street East to the south, and the existing neighbourhoods of College Park, Sutherland, and Silverspring to the east. The Sector Plan area contains approximately 960.97 hectares (2,374.60 acres) of land.

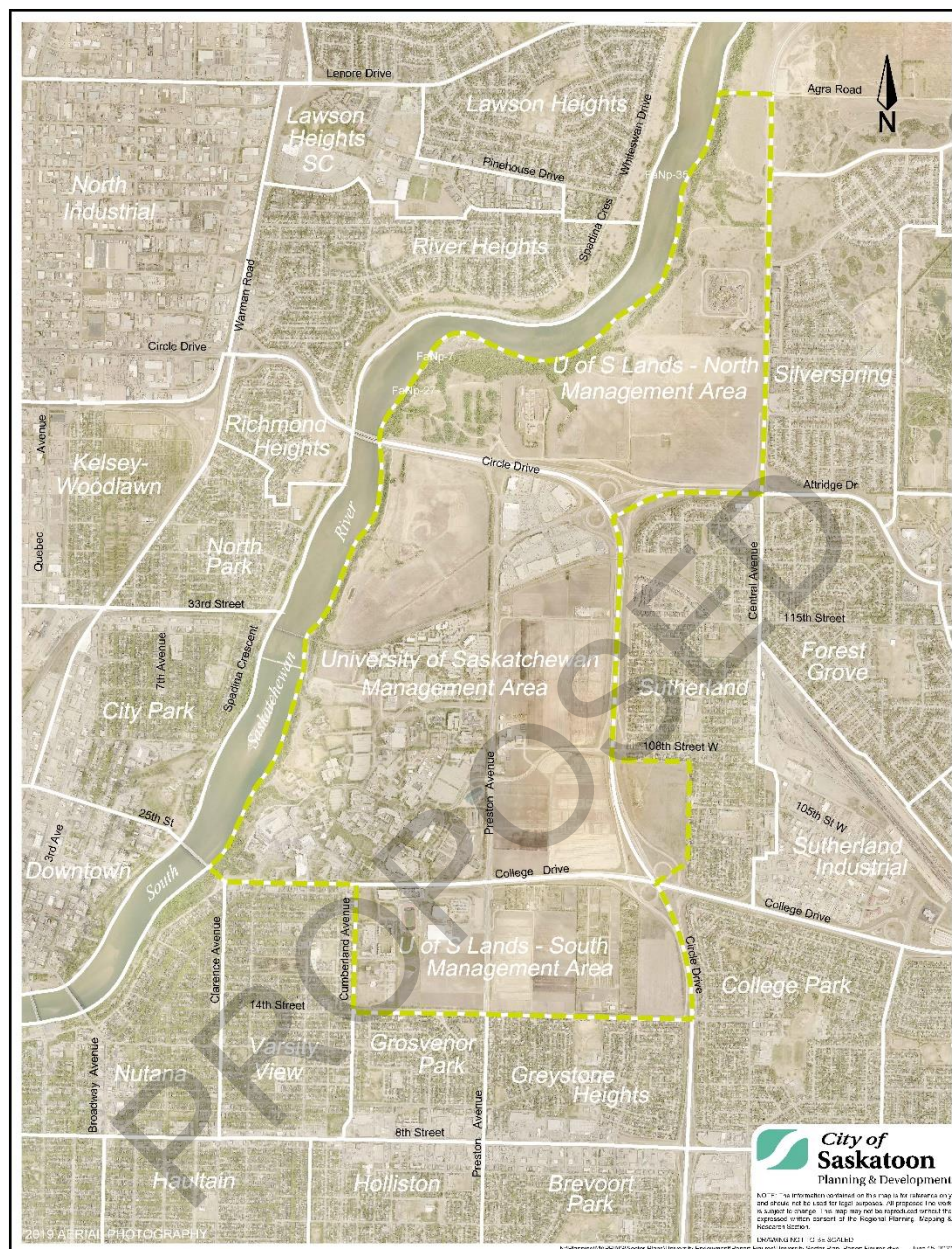


Figure 3 – University Sector Plan Study boundary

1.4 INTERPRETATION

The boundaries and locations of any symbols or areas shown in this Sector Plan (including, but not limited to, parks, street alignments, and walkways) are approximate and should be interpreted as conceptual. They will be verified at the concept planning stage, unless otherwise specified within the Sector Plan.

Text, policies, and figures within the Sector Plan may be amended by City Council in response to planning and

development challenges or new conditions affecting development within the sector. Amendments to the Sector Plan must be completed in accordance with *The Planning and Development Act, 2007 (Planning and Development Act)*, the Official Community Plan, and all other applicable City bylaws, policies, and procedures.

1.5 USASK LAND USE PLANNING

USask has studied the role of its significant land holdings, beginning, with the Land Use and Urban Design Study in 1999 and, followed by the Core Area Master Plan (2003), and, the Land Use Task Force Study (2008). In 2009, USask completed a study

entitled *Vision 2057: University Land Use Planning* (Vision 2057). That same year, the College Quarter Master Plan was approved by the USask Board of Governors.



Figure 4 – USask Historical Land Use Planning Studies

The Land Use & Urban Design Study, 1999

The Land Use & Urban Design Study, 1999 was commissioned by the USask Board of Governors to review current use of USask's urban land holdings, evaluate their potential to generate revenue and develop a framework to guide their future use. A key result of the study was the rezoning of the Preston Crossing lands for commercial development and the subsequent leasing of these lands to development partners. Today, Preston Crossing provides revenue to USask which it uses to support significant undergraduate scholarships.

The Core Area Master Plan, 2003

The Core Area Master Plan, 2003 was prepared to support the strategic goals of USask. The Core Area Master Plan established a physical framework for the growth of new areas and enhancement of existing areas within USask's Core Campus area, primarily north of College Drive and west of Preston Avenue, with the Canadian Pacific (CP) rail line and South Saskatchewan River boundaries on the north and west respectively. It also included the athletic precinct and residences south of College Drive. The Core Area Master Plan identified the potential for long-term growth that could be accommodated within the developed Core Campus area. Future USask growth contained within the Core Campus area, as opposed to beyond these areas, was identified as desirable as a means of maintaining reasonable walking distances between campus facilities.

Vision 2057: University Land Use Planning, 2009

The Vision 2057: University Land Use Planning (Vision 2057) process built upon the extensive research undertaken as part of USask's Land Use Task Force. The Task Force identified a strategy that balances the need to maintain a significant land resource for long-term USask purposes – including on-campus agriculture research – while benefiting from potential revenues realized through leasehold development. Vision 2057 provides a vision for how this strategy could be achieved. It established a land-use planning framework and direction for the eventual role various USask owned urban lands will play. This framework provides a long-term plan for the use and possible development of USask owned land.

A designation system that identifies lands as either Core Lands or Endowment Lands was approved by the USask Board of Governors in 2009.

- **Core Lands** – USask has 755 hectares (1,865 acres) of land within the City of Saskatoon, 354 hectares (874 acres) of which are designated as Core Lands. These Core Lands will continue to serve as a direct resource in USask's mission to provide excellence in teaching and research and to ensure lands are available for the long-term growth of USask.
- **Core Agricultural Lands** – Some of the Core Lands have the additional designation of Core Agricultural Land, denoting their use by the College of Agriculture and Bioresources. Core Agricultural Lands include the USask farmstead for animal research and Rayner Dairy Research

and Teaching Facility, as well as important plant and crop research plots east of Preston Avenue and, north of College Drive.

- **Endowment Lands** – The remaining 401 hectares (991 acres) of urban lands are designated Endowment Land. USask will maintain ownership of these lands which have the potential to support USask's core mission by

providing new revenue streams.

College Quarter Master Plan, 2009

The College Quarter Master Plan was approved by the USask Board of Governors in December 2009. It includes approximately 57 hectares (140 acres) south of College Drive and north of 14th Street East with Cumberland Avenue on the west and Preston Avenue on the east. It provides a vision for a vibrant USask neighbourhood with a mix of residences, services, and amenities. The College Quarter Master Plan puts forward a set of guiding principles that includes enhancing a network of streets and paths to connect College Quarter, USask's Core Campus area, and surrounding communities, preserving existing trees and planting new trees along the streets and paths, and allowing room for open spaces. Saskatoon City Council approved the College Quarter Master Plan, as well as the Direct Control Zoning District (DCD7) that applies specifically to College Quarter.

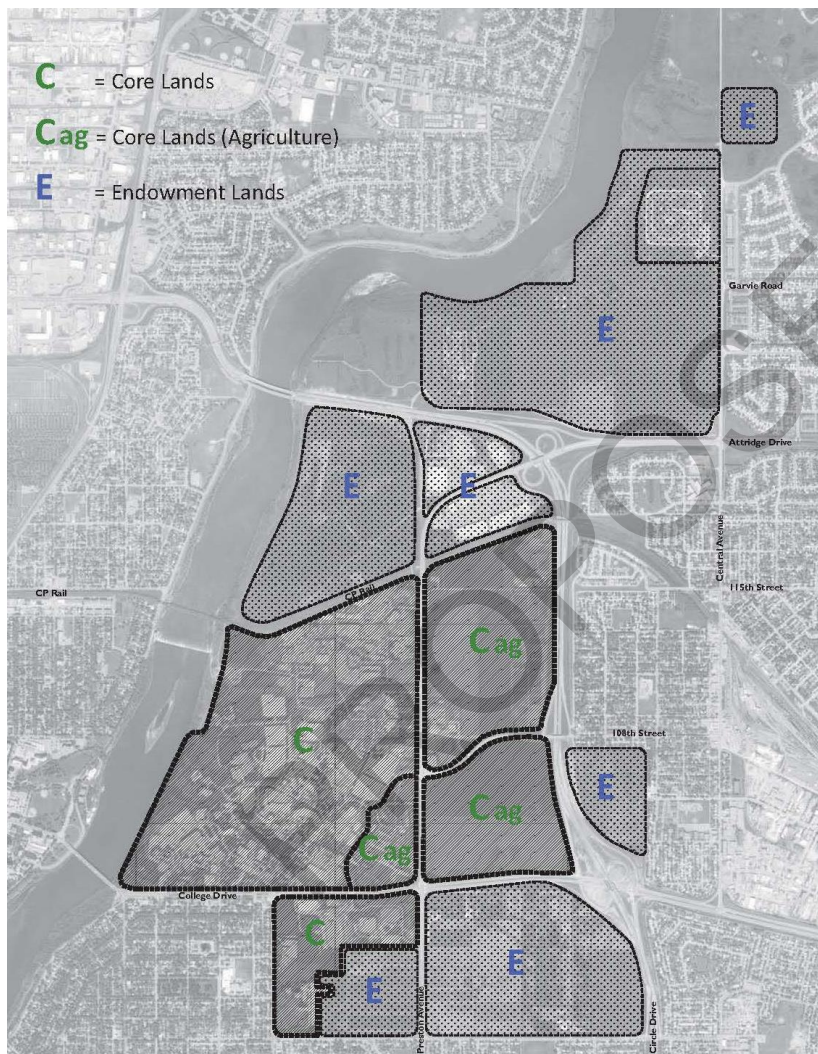


Figure 5 – USask Vision 2057 Land Use Designations

1.6 SASKATOON'S PLAN FOR GROWTH

Saskatoon City Council approved The Growth Plan to Half a Million (Plan for Growth) in 2016. The Plan for Growth lays out a framework for growth that seeks to balance greenfield development with infill development through new suburban growth, continued neighbourhood level infill, strategic infill, and a new opportunity for growth along major corridors throughout the city.

The Plan for Growth identified USask's land holdings, along with Saskatoon's Downtown and North Downtown as "strategic infill" areas with potential to accommodate significant growth. As major employment and activity hubs, these areas are focal points for Saskatoon. The building and redevelopment of these areas as complete communities is critical to the economic success of the city, region, and province.

The City's strategic infill areas have the potential to accommodate approximately 74,000 new residents, and the ability to accommodate 25% of all population growth as Saskatoon grows to a population of 500,000. In addition to residential growth, significant employment growth is expected in these areas.

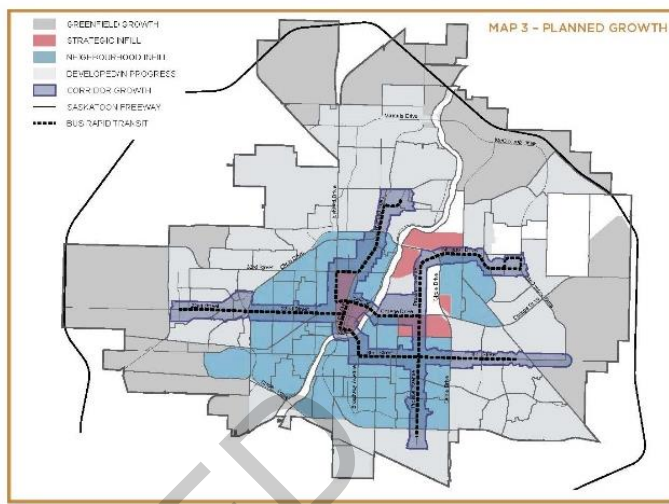


Figure 6 – City of Saskatoon's OCP Planned Growth Map

1.7 UNIVERSITY SECTOR PLAN OBJECTIVES

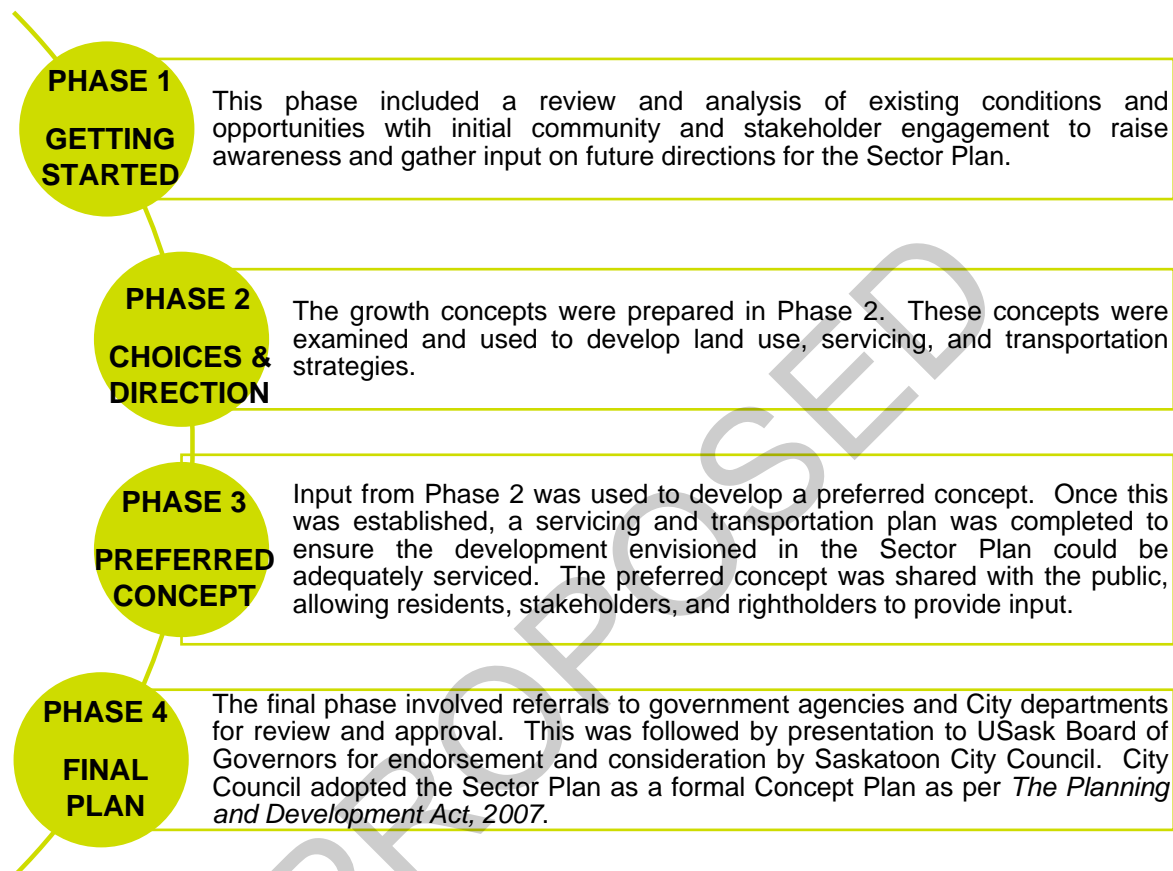
The objectives of the Sector Plan include:

- Establishing a clear and implementable vision and guiding principles.
- Incorporating a strategic and flexible approach to managing and responding to both current and future market conditions.
- Providing high-level direction and analysis for consideration in the development of more detailed servicing infrastructure, transportation networks, and land use strategy plans.
- Forming the basis for future funding plans based on analysis and considerations included within the Sector Plan.
- Developing an implementation and phasing strategy that outlines key considerations and directions for use in determining the development sequence and process required to achieve the vision of the Sector Plan.
- Creating a clear framework for the development of concept plans for each development area.
- Engaging in a collaborative process that generates buy-in, interest, and participation from key stakeholders, the surrounding communities, and the public.
- Providing the necessary information for USask and/or developers to move forward with detailed planning and approval processes that will also satisfy City requirements.
- Ensuring a Triple Bottom Line approach that integrates health and integrity, social equity and cultural well-being, economic prosperity and fiscal responsibility, and good governance into decision making, producing equitable solutions and avoiding undesirable trade-offs.

1.8 PLANNING PROCESS

The Planning Process was organized into four phases with opportunities for public stakeholder input at key

milestones to ensure broad support for the Sector Plan.



1.9 PARTNERSHIPS

Indigenous Partners

The City and USask recognize the distinct order of government of First Nations and Métis; and are committed to maintaining strong relationships through meaningful dialogue with Indigenous communities and organizations. Strengthening cooperation and mutual support by working in partnership with Indigenous communities towards respective community goals and objectives is vital to fostering more inclusive communities.

The City and USask will continue to support reconciliation and healing efforts, engagement, and partnerships to build strong relationships founded in

respect and recognition of Indigenous rights and title, culture, and heritage.

Public Consultation

On January 31st, 2019, the City and USask held a public engagement event in conjunction with the City's corridor planning and urban design teams regarding the alignment of projects related to the City's Plan for Growth. The purpose of the event was to raise awareness about the process and opportunities for involvement, communicate background information, and gather input from participants to inform the Sector Plan. The event was held at the Holiday Inn Express, located within USask's College Quarter Master Plan area. For those unable to attend the event in person,

the materials as well as a frequently asked questions document were made available through the City's website.

Notices were sent to several stakeholders along with key messages describing the Sector Plan. The engagement session gave the public and stakeholders an opportunity to provide input on key decision points, which helped frame policy and design direction in the development of the Sector Plan.

Specific topics presented to participants included:

- **Land Use Planning Principles** – Land use planning principles were provided to the public for review and comment. The overall response to the principles was positive. Specific suggestions regarding an emphasis on natural spaces, environmental sustainability and building form were incorporated within the land use planning principles.
- **Connections & Mobility** – Participants were asked what connections and modes of transportation should be maintained, established, and improved throughout the University Sector. Many comments related to maintaining access to the Meewasin Trail network and emphasizing all modes of transportation were incorporated as fundamental design parameters for the mobility network within the Sector Plan.
- **Natural Areas, Sensitive Areas and Heritage** – The results of the natural area screening were shared with the public. This information

outlined areas that may be preserved in the future, with special consideration for specific areas of ecological and heritage value. The overall response from participants emphasized maintaining naturalized connections, such as the area north of the Regional Psychiatric Centre which acts as a natural corridor linking the South Saskatchewan River and the North East Swale.

- **Transition Areas** – Participants were asked about the interface between development within the Sector Plan area, and the surrounding existing neighbourhood areas. The intent is to provide an appropriate transition from newly developed areas to existing neighbourhoods, while recognizing and respecting the character of the community. Participants indicated mixed use development, open space, and medium density development as favourable land uses within these transition areas. This information was examined and considered when developing policies for the transition areas identified within the University Sector.
- **Amenities** – Participants were asked to provide input on the type of amenities they would like incorporated in the University Sector. Responses focused on providing open space opportunities, commercial nodes, and recreational spaces for all ages. These responses were incorporated within the University Sector as an important aspect of the design.

Reserve ½ page – 1.5 pages for Engagement Update/Results from Winter 2021

VISION & LAND USE PRINCIPLES

2.1 VISION

The vision and objectives of the University Sector Plan describe the aspirations of the City, USask and their partners and stakeholders involved in the process of developing the Sector Plan. Through the engagement process, a range of stakeholder groups provided input on the social, environmental, and economic aspects of the plan. The information and policies contained within the Sector Plan will guide development to achieve these objectives and realize the vision.

The vision for the University Sector is that these lands will become complete, vibrant, sustainable, and distinct urban communities that support a walkable, transit-oriented lifestyle, connect with USask, while harmonizing and integrating with surrounding communities. They are intended to become neighbourhoods of the future, housing Saskatoon's growing population, while sharing a unique relationship with one of Canada's leading universities.

The vision for the University Sector is to provide new opportunities and a diversity of options to live, work and socialize in the context of the vibrant and beautiful USask campus. It will provide a wide range of housing options including medium and high-density formats within proximity to walkable mixed-use amenities.

The Sector Plan will provide greater access to employment and amenities. The vast majority of the city's employment is located in the downtown, USask, and north industrial areas. The strategic location of the University Sector will benefit from proximity to the USask campus, major employment areas, and city destination points.

The University Sector will be a catalyst for alternative and more sustainable transportation options. Typical suburban development is low density, with single use buildings oriented towards automobile use. The mix of densities planned for the University Sector, as well as, proximity to major employment nodes, and high-quality public realm will increase the likelihood that area residents and employees will use alternative transportation options. The Sector Plan will support the integration of safe cycling and walking.

The Sector Plan will provide supportive land uses along bus rapid transit (BRT) routes. Medium and higher density destinations are required to reinforce the provision of attractive transit service. Higher density mixed-use neighbourhoods focusing on transit-oriented development will be instrumental in the continued long-term success of the planned BRT system.

The University Sector is positioned to make the most efficient use of existing resources as well as to demonstrate innovative infrastructure solutions. This provides opportunities for the City to maximize its investment in public services and infrastructure and minimize its long-term liability associated with the service and infrastructure expansion required for growth. Overall, cities with a smaller footprint have less linear infrastructure per capita, leading to long-term savings in operations, maintenance, and replacement. In addition, innovative infrastructure solutions, particularly in transportation, storm water and building design offer the opportunity to significantly lower infrastructure investment in the University Sector, while increasing the city's overall sustainability.

The University Sector will provide an attractive option for housing, one that will support a shift to a more sustainable growth pattern. Many cities similar to Saskatoon have faced challenges in shifting to these growth patterns. Rather than taking drastic steps to contain growth, the University Sector provides an opportunity to balance growth within Saskatoon.

Without planned choices, medium and higher density land uses, tend to arise randomly throughout a city. The University Sector is a natural and strategic location for

higher density land uses as the proposed neighbourhoods can be fully planned in advance. Higher densities can be carefully integrated with medium and lower density formats. This mixed density neighbourhood format supports the efficient transit services and amenities necessary to provide a high quality of life for residents.

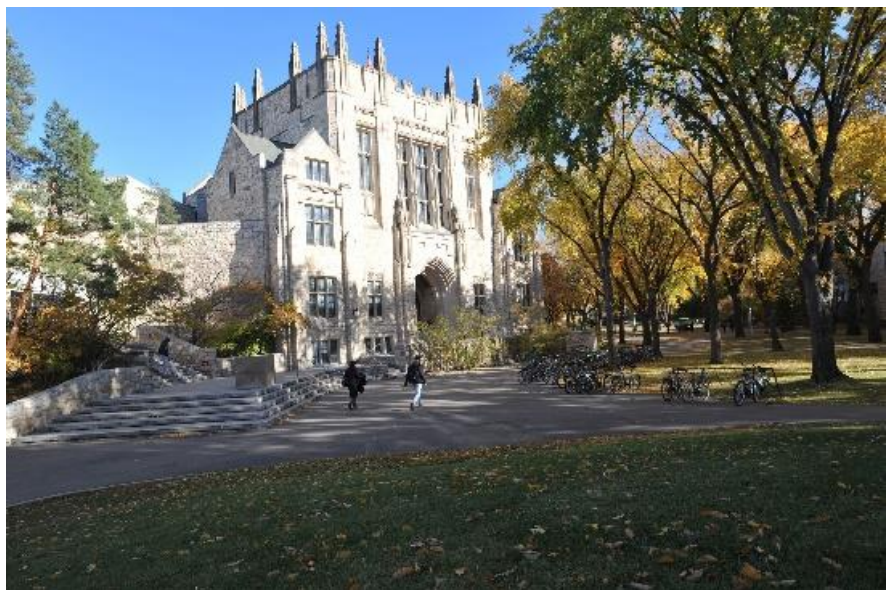
Mixed density neighbourhoods result in a smaller building footprint which in turn allows for the integration of natural areas, connected ecological systems and areas for reforestation - all of which are critical to achieving sustainable neighbourhood design.

The University Sector will preserve the natural landscape of the South Saskatchewan River Valley and enhance the open space network. Through protection of the river valley environmentally and archaeologically, will ensure a healthy and vibrant river valley. Preserving the natural heritage while integrating new urban development will create and enhance spaces and landscapes to meet community needs. The Sector Plan aims to enhance the river valley as a whole and expand the network of natural green corridors and trail connections.

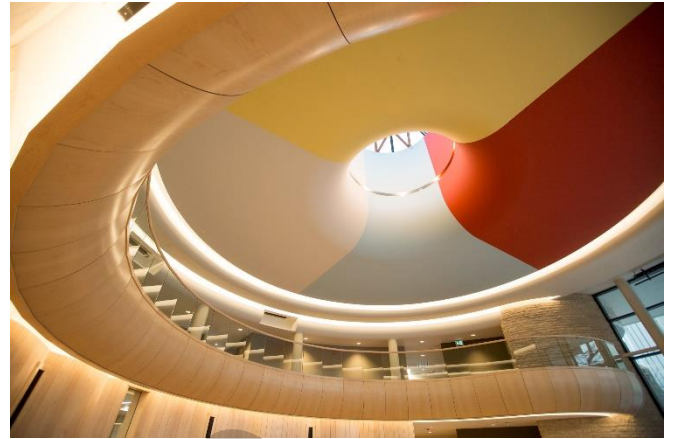
2.2 LAND USE PLANNING PRINCIPLES

The vision for the University Sector will be achieved through the embodiment of the following land use planning principles:

1. **Support the Academic Mission:** Recognizing the lands are a long-term strategic and economic asset to be retained and leveraged to support the university's mission.



2. **Indigenous Engagement:** Enacting inclusive, respectful, and reciprocal processes with Indigenous Peoples, communities, and organizations to ensure that Indigenous perspectives are represented and realized in the pursuit of design excellence.



3. **Pursue Environmental Sustainability and Climate Action:** Embody environmental sustainability in land infrastructure, open space and building development.



4. **Create Communities that Advance Well-being and Sustainability:** Support sustainable community development including mixed use, transit supportive development.



CONTEXT & EXISTING CONDITIONS



3.1 EXISTING CONDITIONS

This section highlights the main attributes that define the University Sector and the constraints that may require special consideration when planning for development. This is not an exhaustive list of attributes and constraints. It is up to developers and landowners to practice due diligence in the development process. This information may be subject to change and should be verified at the concept plan stage.

Local Context

The University Sector is in proximity to several defining features of the city, which are considered in the development of this plan. The Sector Plan is anchored by the USask Campus and Innovation Place. It is bordered by the established neighbourhoods of Silverspring, Sutherland, College Park, Greystone Heights, Grosvenor Park, Varsity View. It is across the South Saskatchewan River from the neighbourhoods of City Park, North Park, Richmond Heights, and River

Heights. Major employment centres in the vicinity include downtown Saskatoon, USask Core Campus Area, Innovation Place, the North Industrial area, and Sutherland Industrial.

Existing Land Uses and Development

Existing land uses within the University Sector include:

USask Core Campus Area – the Core Campus Area (Including agricultural research) is defined by the area north of College Drive East, west of Circle Drive, south of the CP rail line, and east of the South Saskatchewan River. Innovation Place is included within this area. Development opportunities within the USask Core Campus Area will not be defined within this Sector Plan.

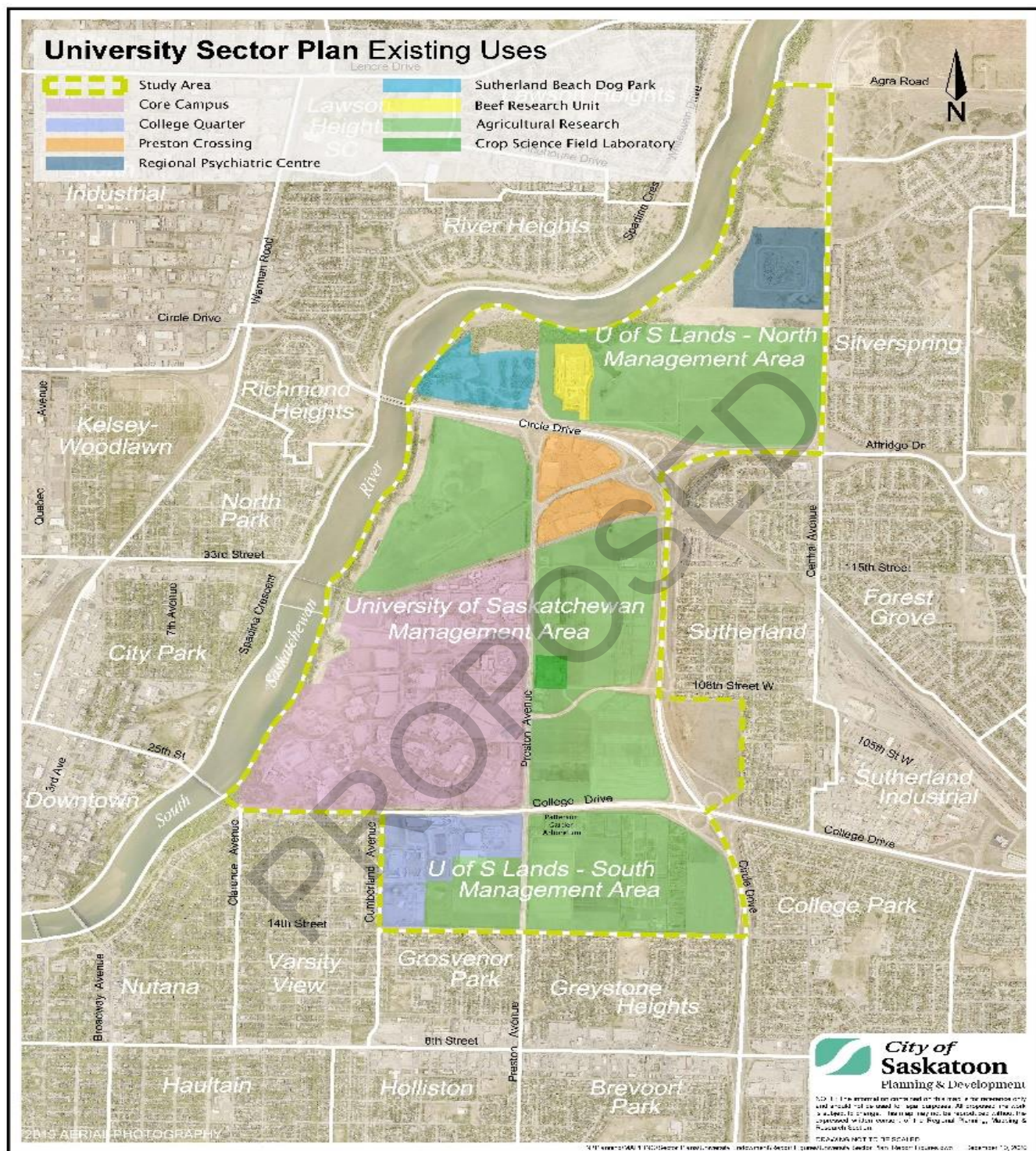


Figure 7 – University Sector Plan Existing Uses

College Quarter– This area is defined by the boundaries of the College Quarter Master Plan. It includes USask related amenities such as a hotel, stadium, arena, and student residences. As the College Quarter Master Plan is a pre-existing planned development with its own approved concept plan and

direct control zoning district, development opportunities will not be defined within this Sector Plan, unless otherwise specified.

Preston Crossing – This is a 28.61 hectare (70.70 acre) regional commercial retail site developed by USask with development partners. Preston Crossing

development is regulated through a direct control zoning district, and USask retains land ownership.

Regional Psychiatric Centre – Located at 2520 Central Avenue North (north of Circle Drive), the Regional Psychiatric Centre is located on approximately 26 hectares (65 acres) of land leased from USask. The Regional Psychiatric Centre opened in 1978 and was designed to be a leading-edge mental health facility, based on the concept of a forensic mental hospital – a mental hospital with the security provisions to also function as a federal correctional institution.

Patterson Garden Arboretum – Established in 1966 at the south east corner of the intersection of Preston Avenue and College Drive, the garden contains a diverse collection of trees, shrubs, and vines. The Patterson Garden Arboretum is listed on the Saskatoon Register of Historic Places.

Sutherland Beach Dog Park – This is a City-owned, naturalized space where dogs are permitted to be off-leash while under the control of their owners.

Agricultural Support Buildings – Existing buildings located near the intersection of Preston Avenue North and 108th Street East provide support services for agricultural research undertaken at USask.

Agriculture Research – The majority of land in the University Sector is used for agricultural research or research support purposes through USask's College of Agriculture and Bioresources.

Beef Research Unit – The Beef Research Unit located north of Circle Drive North, has been relocated to land outside of the city. Existing structures are expected to be removed from the site in the near future.

Surrounding Development

The lands immediately surrounding the University Sector accommodate a range of commercial, residential, industrial, public service, community, educational and cultural land uses. Ten neighbourhoods are in proximity to the University Sector.

The Varsity View neighbourhood is located southwest of the University Sector, south of College Drive and west of the College Quarter Master Plan area. This neighbourhood has a variety of commercial uses along the north side of 8th Street East and a mixture of medium density residential and commercial uses along College Drive. The interior of the neighbourhood is composed

primarily of low-density residential uses, with community and institutional uses interspersed throughout

The Grosvenor Park neighbourhood is located south of the University Sector, adjacent to 14th Street East. This neighbourhood has several commercial uses along 8th Street East. Low density residential uses along with community uses, such as the Grosvenor Park United Church and the Islamic Association of Saskatchewan, make up the interior of the neighbourhood.

The Greystone Heights neighbourhood is located south of the University Sector adjacent to 14th Street East, west of Preston Avenue. This neighbourhood has several large lot commercial uses along 8th Street East. Low and medium density residential uses, along with Greystone Heights School, make up the interior of the neighbourhood.

The College Park neighbourhood is located southeast of the University Sector adjacent to Circle Drive. Several commercial uses exist along 8th Street East. The interior of this neighbourhood contains a small neighbourhood commercial site, medium density residential uses, Evan Hardy Collegiate, Ecole College Park School, and Cardinal Leger School. The remainder of the neighbourhood is comprised of low density residential.

The Sutherland neighbourhood is located east of the University Sector adjacent to USask owned land along Circle Drive. The Sutherland neighbourhood has a variety of commercial uses along Central Avenue, some of which forms the Sutherland Business Improvement District. The CP rail line runs through the northern portion of the neighbourhood. Sutherland has two elementary schools, Bishop Filevich Ukrainian Bilingual School and Sutherland School, and a number of community uses. The balance of the Sutherland neighbourhood is comprised primarily of low and medium density residential uses.

The Silverspring neighbourhood is located east of both the University Sector and Central Avenue. The neighbourhood has medium density residential land uses along Central Avenue, Attridge Drive, and Rever Road. The neighbourhood has two elementary schools, Mother Teresa School and Silverspring School. Saskatoon Natural Grasslands are located in the neighbourhood, and the neighbourhood is adjacent to the Saskatoon Forestry Farm Park and Zoo. The interior of the neighbourhood is composed primarily of low-density residential uses.

The neighbourhoods of City Park, North Park, Richmond Heights, and River Heights are located west of the University Sector across the South Saskatchewan River. These neighbourhoods each have their own unique character and building form. Land use primarily consists of low and medium density residential uses, education and community uses, and commercial uses near the major arterial and collector roadways. These neighbourhoods are adjacent to the South Saskatchewan River Valley

Table 1 – University Sector Plan Land Ownership

| TITLED OWNER | Area (ha/ac) | Percentage of Total (%) |
|---------------------------------------|----------------------------------|-------------------------|
| University of Saskatchewan | 751.789ha 1,850.565ac | 88.85 % |
| City of Saskatoon | 29.950ha 74.012ac | 3.54 % |
| Municipal Reserve (City of Saskatoon) | 27.183ha 68.101ac | 3.21 % |
| Her Majesty the Queen (Crown Land) | 0.378ha 0.933ac | 0.05 % |
| Private Ownership | 36.797ha 90.025ac | 4.35 % |
| Total | 846.097ha 2,084.536ac | 100.00 % |

and benefit from proximity to the Meewasin trail network.

Ownership

The majority of land within the Sector Plan is owned by USask. The City owns a parcel of land occupied by the Sutherland Beach Dog Park. Private ownership exists on smaller parcels of land within the Sector Plan. Current ownership is presented within in Table 1: Land Ownership.

3.2 PHYSICAL CONDITIONS

In accordance with the ~~Official~~ Community Plan, a Sector Plan requires a natural area screening of significant natural areas and archaeological sites. A natural area screening is used to develop a better understanding of the natural, cultural, and historical assets present within an area of land scheduled for development. A natural area screening for the Sector Plan was completed in September 2018.

Topography

The topography of the University Sector generally slopes from east to west, with the lowest surface elevations leading to the South Saskatchewan River. The highest elevation points are in proximity to the intersection of Circle Drive and College Drive, and the parcel located within the Sutherland neighbourhood. Lands within the Sector area have surface elevations ranging around 508 metres above sea level (asl) and decreasing to approximately 480 metres asl adjacent to

the banks of the South Saskatchewan River. The overall variation in surface elevation is approximately 30 metres asl.

Soils

The soils within the University Sector are classified as part of the Bradwell Association, a group of Chernozemic Dark Brown soils that form under grassland vegetation. The texture of these soils is primarily loam, fine, and very fine sandy loam.

Most land parcels within the University Sector are undeveloped and have low potential for environmental concerns. Parcels with minor development (including storage buildings) are primarily used for agricultural purposes and have low to moderate potential for environmental concerns. The parcel containing the Regional Psychiatric Centre has moderate potential for environmental concerns. The five parcels with moderate development (including electrical sub-

stations, livestock facilities, and active farm-related operation) have moderate to high potential for environmental concerns. The parcels that contain the USask's Core Campus and Preston Crossing have high potential for environmental concerns due to the amount and diversity of the development on the properties. The results of the desktop assessment are further detailed in Table 5-1 within Appendix 2.

Existing Vegetation, Water Features and Wildlife

The University Sector is located in the Moist Mixed Grassland Ecoregion of Saskatchewan within the Saskatoon Plain landscape area. The Moist Mixed Grassland is characterized by mid-grasses and short grasses in the drier uplands, with shrubs, trees, prairie rose and trembling aspen in the wetter lowlands.

Many potential species of management concern (SOMC) habitat occur along the banks of the South Saskatchewan River and in the northern portion of the University Sector east of Central Avenue. Although outside the University Sector study area boundary previous field studies of the Northeast and Small Swales found areas of native vegetation, although these patches displayed increasing levels of invasive species.

Approximately 56 wetlands were desktop mapped in the University Sector, the majority in agricultural lands. Wetlands in the agricultural lands in the south study area have low potential for vegetation SOMC as they are heavily disturbed and provide lower quality habitat due to a lack of native vegetation buffer. Approximately 11 wetlands Class III or higher occur in native vegetation cover primarily in the north study area.

The habitat within the Sector Plan that provides the highest potential habitat for wildlife and plant SOMC include shrub land, broadleaf, native grassland, pasture and forage, water/wetland, and exposed barren land. Much of this habitat is along the South Saskatchewan River. These areas provide an important link for wildlife to native grassland and wetland habitat found in the Northeast and Small Swale. This is consistent with the City's Green Infrastructure and the Green Network, in which approaching green infrastructure as an interconnected system ensures that multiple interactions of people, nature and assets are considered together.

Meewasin Jurisdiction

Meewasin was formed in 1979 to act as an agent of the City, USask, and the Province of Saskatchewan to ensure a healthy and vibrant river valley, with a balance

between human use and conservation. *The Meewasin Valley Authority Act* establishes the mandate of Meewasin, its powers, jurisdiction, and Conservation Zone.

The Conservation Zone is based, in part, on lands that were owned by the Province (and USask), the City, and private land that was located within Saskatoon's 1979 corporate limits. It consists of the riverbank and adjacent uplands, as well as other significant natural and cultural heritage sites. In the Conservation Zone, all improvements (i.e. new construction) must be approved by Meewasin, through its development review process, unless specifically exempted by the *Meewasin Valley Authority Act* or by a Meewasin Bylaw. The University Sector falls entirely within the Meewasin Conservation Zone, excluding Rights of Way.

The Northeast Quadrant of the Meewasin Valley is located north of Circle Drive, east of the South Saskatchewan River. The quadrant is somewhat unique in the Meewasin Valley in that it extends several kilometres back from the river and contains several significant natural and cultural heritage features. In June 2015, Meewasin updated the Northeast Policy to provide direction and guidelines for the continued balance of development and conservation in the Northeast Quadrant. It clarifies Meewasin's objectives and policies for the quadrant as a whole and for the identified sub-areas.

In addition to the sub-areas within the Northeast Policy, Stantec identified sensitive areas, as part of the Sector Plan's natural area screening. In sensitive areas future field studies will be required as part of the concept plan process to identify potential plant and wildlife SOMC and determine wetland quality.

Sensitive Area 1

Sensitive Area 1 is approximately 13 hectares (32 acres) and contains high quality habitat for vegetation and wildlife SOMC due to its native vegetation cover and connectivity with additional habitat. The area contains upland and river valley habitat and is directly adjacent to the Northeast Swale. Sensitive Area 1 provides an important wildlife corridor between the Northeast Swale and the South Saskatchewan River.

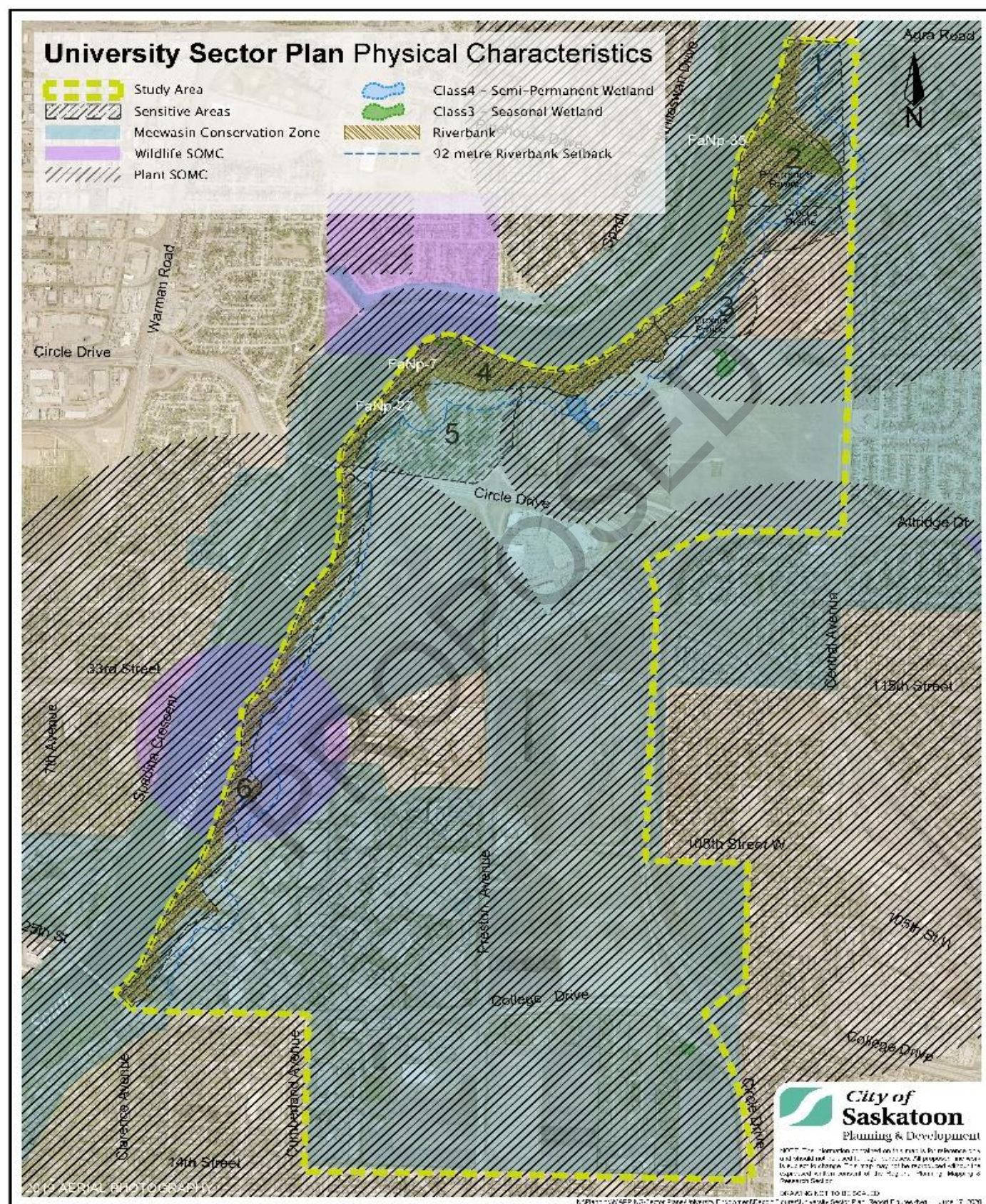


Figure 8 – University Sector Plan Physical Characteristics

Sensitive Area 2

Sensitive Area 2 is approximately 18 hectares (44 acres) and includes Peturrson's Ravine as defined by Meewasin's Northeast Policy. This area contains high quality habitat for vegetation and wildlife SOMC due to its native vegetation cover and connectivity with additional native habitat. Peturrson's Ravine acts as a corridor connecting the South Saskatchewan River to upland native grasslands and wetlands in the Northeast Swale. As per the Northeast Policy, only improvements that conserve the natural and cultural heritage resources or enhance the passive recreational and educational use of the Meewasin Valley will be allowed within Peturrson's Ravine and the adjacent riverbank.

Sensitive Area 3

Sensitive Area 3 is approximately 23 hectares (57 acres) and contains high quality habitat for vegetation and wildlife SOMC due to its native vegetation cover and connectivity with additional native habitat. The upland directly north of the Regional Psychiatric Centre is known as the Crocus Prairie and has been identified by Meewasin as an ecologically sensitive site worth preserving. Public access should be permitted along the river valley.

3.3 EXISTING STREETS AND UTILITIES

Existing Street Network

The existing street network is comprised of a hierarchy of streets defined by the City's design and development standards manual. Most existing streets are designed around or through the University Sector with limited access to the USask endowment parcels of land. The Core Campus includes a street network tailored to USask's needs. These streets are owned and maintained by USask.

The University Sector is linked to the surrounding neighbourhoods through a variety of existing connections and pathways, used for both active transportation and pedestrian connectivity.

Servicing & Utilities

The University Sector contains several utilities sites that service USask Core Campus and surrounding city development. Existing utility locations will be considered in the Sector Plan design parameters. In some cases, utilities can be relocated, however, where

Sensitive Area 4

Sensitive Area 4 is approximately 22 hectares (54 acres) and contains high quality habitat for vegetation and wildlife SOMC due to its native vegetation cover and connectivity with additional native habitat. The area follows the South Saskatchewan River valley, including Sutherland Beach. Public access should be permitted along the river valley.

Sensitive Area 5

Sensitive Area 5 is approximately 29 hectares (72 acres) and contains high quality habitat for vegetation and wildlife SOMC due to its native vegetation cover and connectivity with additional native habitat. Development within this area must consider the existing landscape and permit public access along the river valley.

Sensitive Area 6

Sensitive Area 6 is approximately 31 hectares (77 acres) and contains moderate quality habitat for vegetation and wildlife SOMC due to its native vegetation cover and limited connectivity with additional native habitat. Any improvements or enhancements in this area must not irrevocably damage the natural and cultural heritage resources of the area as a whole.

this is not possible, some utilities will be incorporated within the design of the Sector Plan.

Electrical Facilities:

- W.A. Friebe Substation located at the corner of Preston Avenue North and 108th Street West.
- SaskPower Sutherland Substation located on the east side of Preston Avenue south of the CP rail line and north of the old 115th Street roadway alignment.
- 138 kilovolt (kv) electrical line, running east and west parallel to Attridge Drive and Circle Drive East and running north and south parallel to Preston Avenue North. A segment runs east and west through USask owned parcel north of Innovation Place and crosses the South Saskatchewan River.
- Most areas north of USask Core Campus are serviced by Saskatoon Light & Power (SL&P). The USask Core Campus area and surrounding parcels to the east and south are serviced by SaskPower.

- A SaskTel cell phone tower is located on the right of way land near the corner of Preston Avenue North and southbound Circle Drive on ramp.

These lines primarily serve existing development within USask Core Campus area and Preston Crossing.

Water Service:

- Water mains within the University Sector run north and south along Central Avenue; east and west south of the Regional Psychiatric Centre and across the South Saskatchewan River; north and south along the western boundary of the Sutherland neighbourhood; and east and west along College Drive.
- Private water mains run parallel to the CP rail line. One line is owned by Nutrien, and another by USask, to service the Beef Research Unit.
- Sanitary trunks within the University Sector run east and west along 14th Street East; north and south along Preston Avenue North, crossing south behind Preston Crossing and extending north along the quarter section line through USask owned parcel north of Circle Drive and extending to the South Saskatchewan River; and east and west directly south of the Regional Psychiatric Centre.
- Storm water trunks within the Sector run north and south along Preston Avenue North; east and west along 115th Street West within the Sutherland neighbourhood, crossing Preston Avenue North and through a USask owned parcel to the South Saskatchewan River; and northwest and southeast through the USask owned parcel north of Circle Drive.

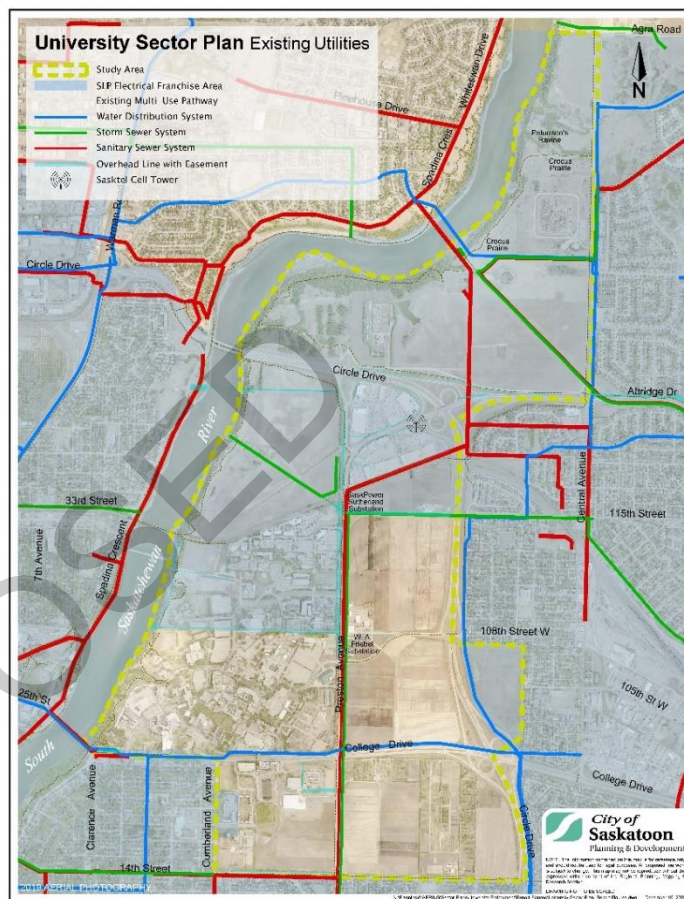


Figure 9 – University Sector Plan Existing Utilities

Gas Lines/Cable:

- Several gas and telecommunication lines are located throughout the University Sector.

3.4 HISTORICAL RESOURCES

Saskatoon has a rich history dating back thousands of years – from Indigenous peoples, primarily of Cree, Dakota, and Saulteaux descent to the establishment of the Métis Nation, and arrival of the Temperance Colonization Society and other newcomers.

The natural area screening identified 11 of 22 quarter sections within the University Sector as heritage sensitive. Heritage sensitivity is determined based on the presence of previously recorded heritage resources,

the potential for heritage resources to exist (including proximity of waterbodies or watercourses and landscape), previous land disturbance and scope of the proposed development. Heritage sensitive quarter sections throughout the University Sector are concentrated along the South Saskatchewan River.

Previously Recorded Heritage Sites

Previously recorded heritage resources are present within the University Sector, as follows:

FaNp-7: Rocky Island Site

This site in NE 4-37-5-W3M, was first recorded by Dr. Ernest Walker of the USask Department of Anthropology and Archaeology in August of 1983.

During a 1995 excavation, archaeologists discovered nine hearths, two complete projectile points, three projectile point tips, and an assortment of other artefacts. The site was revisited in August 2008 by Butch Amundson of Stantec, who observed four bone fragments, two fire broken rocks and a quartzite retouched flake. The site is currently located within the Sutherland Beach Dog Park.

FaNp-27: Unnamed Historic Site

A historic site within NE 3-37-5-W3M. When the site was first recorded in January 1994, archaeologists observed historic period artefacts such as fragments of depression and manganese glass, broken ceramic dishes, a square bolt and a clear glass bottle.

FbNp-35: Unnamed Precontact Artefact Find

A precontact find in the southwest corner of Peturrson's Ravine (NE 11-37-5-W3M). Two quartzite flakes were recovered along an existing trail when the site was recorded in February 1994.

Moose Woods, Batoche, River Heritage Trail (Batoche Trail)

In the 1800s travel across what is now Saskatchewan often occurred along trails that in some places can still be seen today as worn cart paths. The Moose Woods-Batoche Trail, also known as the Nutana-Batoche Trail, is a historical trail that was often traveled by Indigenous peoples and later settlers. The Memorial Gates, meant

to mark the main entrance to the USask Core Campus, were built where the trail crossed onto what is now the main campus. The original 1909 campus plan was eventually abandoned and redesigned, moving the main campus entrance elsewhere, but the Memorial Gates still stand as a commemoration of students and faculty members who lost their lives during the First World War.

Homestead Records

A search of the Saskatchewan Homestead Index revealed that six quarter sections, in part or whole, were registered as homesteads within the University Sector between 1872 and 1930 under the terms of the *Dominion Lands Act*. The existence of a homestead record does not impact future development unless physical artifacts of the homestead are recorded during a Heritage Resource Impact Assessment (HRIA). An HRIA would only be conducted on quarter sections with homestead records that are also heritage sensitive.

Register of Historic Places

The Saskatoon Register of Historic Places is a City-maintained database of heritage resources that are deemed to have significant heritage value or interest. USask maintains its own Heritage Register, a database of assets with character-defining elements that may contribute to or indicate heritage and architectural value.

Not all heritage resources included in the Saskatoon Register of Historic Places or the USask Heritage Register are designated heritage properties or historic sites. While heritage resources designated as municipal or provincial heritage properties are legally protected under the *Heritage Property Act*, those that are not designated have no legal protection.

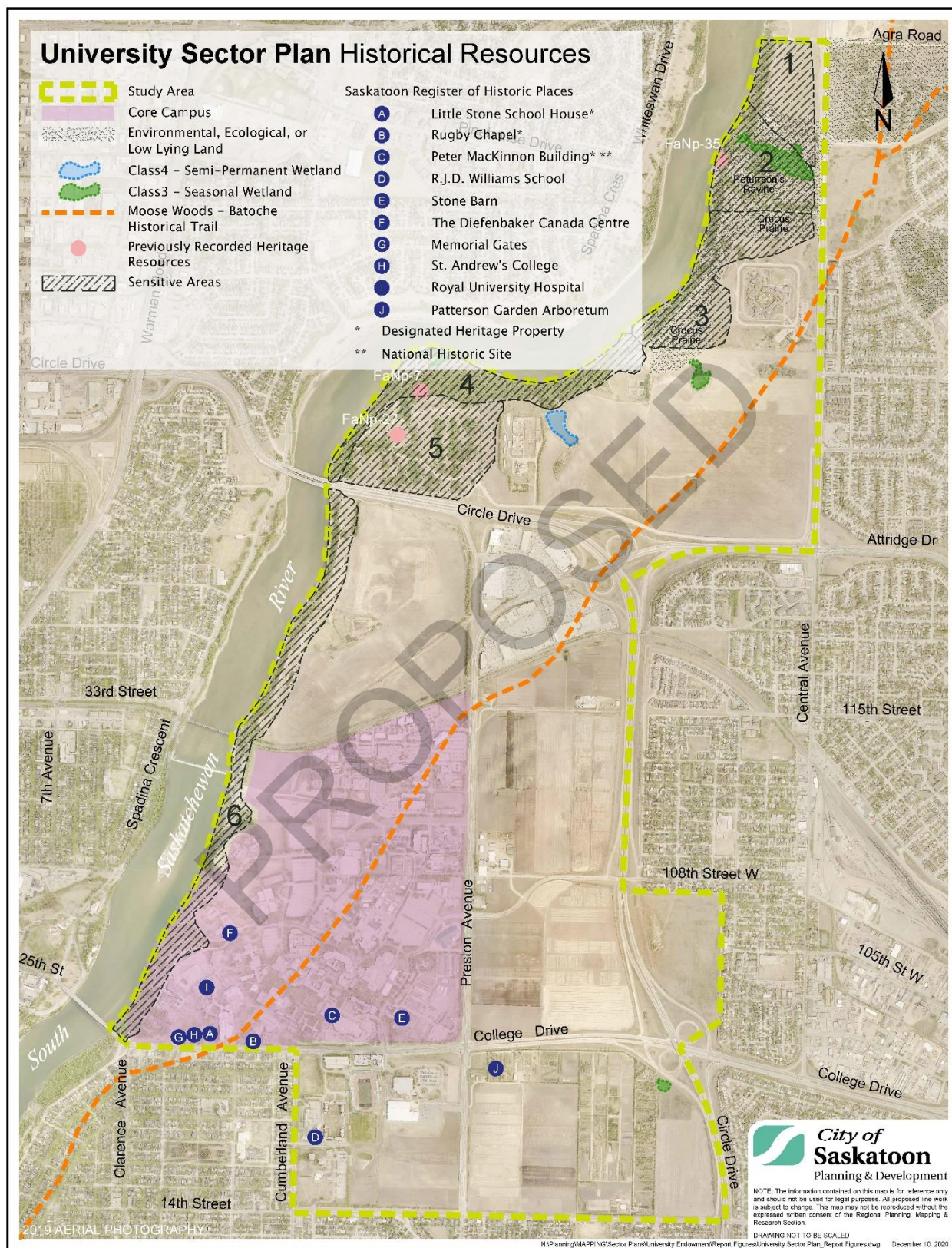


Figure 10 – University Sector Plan Historical Resources

LAND USE & COMMUNITY FRAMEWORK



4.1 LAND USE PLAN

This section provides an overview of the desired future function and characteristics of the University Sector development. The Sector Plan vision and proposed land use designations reflect a built form framework that supports diverse, mixed density, mixed-use pedestrian-oriented communities, providing an opportunity for all demographics to live, work, and play. The Sector Plan supports patterns, development and infrastructure that will further the City's sustainability and climate action goals while creating the opportunity for unique, welcoming neighbourhoods that integrate appropriately into adjacent neighbourhoods.

The land use designations laid out in the Land Use Plan support development of the planned Bus Rapid Transit

System (BRT), defined primarily by higher density mixed-use land uses around identified BRT stations. The built form focuses on intensification around the BRT stations, and corridor land use areas, transitioning down in height and density toward existing neighbourhoods. The mixed-use designation creates a continuous animated frontage and human scale for the corridors. The residential land use designations allow for a high degree of pedestrian and bicycle circulation, connectivity, and accessibility. These designations also allow for a wide range of residential densities and housing forms on the housing spectrum in terms of affordability, as well as other uses such as community facilities and natural areas.

4.2 NEIGHBOURHOOD STRUCTURE

Neighbourhoods are the basic unit of residential development and the building blocks from which the overall residential community is created. They are defined in the Official Community Plan as a comprehensively planned unit containing a variety of housing and community services necessary to meet the needs of a neighbourhood population.

The University Sector includes the following parcels:

- PARCEL A
- PARCEL B/C
- PARCEL F
- PARCEL K
- PARCEL M
- PRESTON CROSSING

These parcels are displayed in Figure 11. The development of these parcels may result in new neighbourhoods, as well as, additions to existing neighbourhood areas.

A concept plan is a detailed land use plan that guides the development of a specific area in Saskatoon. It is primarily used to outline future development.

This section sets out requirements for the development of more sustainable neighbourhoods that maximize residents' quality of life, ensuring they have convenient access to amenities such as local services, open spaces and choice of transportation modes.

Neighbourhood boundaries will be confirmed as development progresses. Typical neighbourhood boundaries are determined by logical divisions created by natural features, walking distances to BRT stations, major employment areas and convenient access to other amenities.

All University Sector parcels will require a concept plan before development can begin.

Policies:

- 4.2.1 All parcels require an approved concept plan for development within the identified areas to proceed.
- 4.2.2 Parcel A may be incorporated within the College Quarter Master Plan through a concept plan amendment.

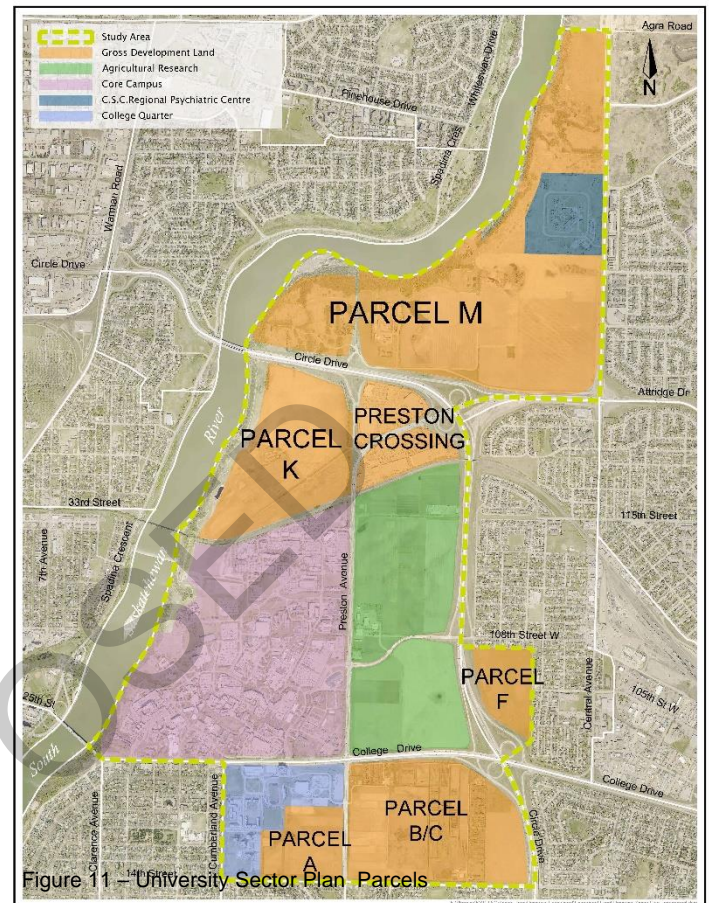


Figure 11 – University Sector Plan Parcels

- 4.2.3 Any concept plan brought forward for Parcel B/C and/or Parcel A must consider development on both sides of Preston Avenue in alignment with corridor planning policies in the Official Community Plan.
- 4.2.4 Any concept plan brought forward that includes roadways that will be part of the City's BRT network must consider development on both sides of the roadway in alignment with corridor planning policies in the Official Community Plan.
- 4.2.5 Parcel F requires an approved concept plan for development to occur within the identified area. Once developed, Parcel F shall remain within the Sutherland neighbourhood boundary.
- 4.2.6 A combination of the following Parcels, or portions thereof may be included in a single large concept plan or a range of smaller concept

plans to convey the overall vision for the area: Parcel K, Parcel M, Preston Crossing. Cost effective strategies for servicing, transportation, and land use considerations will be required.

4.2.7 An intensification of land uses, and/or the addition of residential land uses within Preston Crossing will require a concept plan for development within the identified area.

4.2.8 Concept plans incorporating other sizes or combinations of development areas may be considered based on servicing, transportation, or land use considerations.

4.2.9 All concept plans require a Crime Prevention Through Environmental Design (CPTED) review before final approval in compliance with civic requirements.

4.3 NEIGHBOURHOOD STATISTICS

Sustained population growth combined with the Sector Plan land use plan means that a large proportion of Saskatoon's future population growth will occur within the University Sector. The expected population of the University Sector at full build-out, estimated at over 50,000 residents, is equivalent to the current population of the Nutana Sector, which is comprised of 15 neighbourhoods. However, the University Sector will accommodate that population level at approximately a third of the size of the Nutana Sector. This will result in people living in closer proximity, with a mix of densities resulting in an average higher density level in the University Sector.

An average higher density does not have to mean overcrowding and congestion. Intensification can happen in subtle, incremental ways through a mix of building types and heights that fit into the city context. Innovative design mix and appropriate zoning designations can apply to density that is not intrusive. Attributes of complete communities can work with increased density, - to create vibrant, inclusive, desirable places for people to live and work.

The strategic location of the University Sector and the influence of USask provides an opportunity for a mixed-density development that can reach a different segment of the market than that served by typical neighbourhoods. This results in the land use vision and projected population, housing choice, and employment numbers being significantly different than other development areas in Saskatoon.

Table 2 on the following page displays the population, density, and employment projections for the University Sector at build-out. The table is divided into distinct land use designations. Based on the type of land use, the total estimated number of dwelling units, population, and employment for each land use were calculated. An updated summary regarding land use and density level

will be included within individual concept plan submissions.

At full build-out, the total estimated number of dwelling units in the University Sector will be 33,980, the total estimated population will be 57,147 people, and the total estimated employment will be 5,965.

Recent suburban sector plans and neighbourhoods have ranged from 15 to 22 units per gross hectare (six to nine units per gross acre) for residential neighbourhoods, which equates to a population density

Table 2 – University Sector Plan Land Use Statistics

| | Hectares ¹ (gross) | Acres ¹ (gross) | Residents/ jobs ² per ha | People per unit ³ | | | Units ⁴ | Units per ha (appro x.) | Units per ac (appro x.) | Population (estimate) | Employment ⁵ (estimate) |
|--|----------------------------------|-------------------------------|---|------------------------------|-----------------------|---------------|--------------------|----------------------------------|----------------------------------|--------------------------|---------------------------------------|
| | | | | Low Density | Mediu m Density | Mixed -Use | | | | | |
| College Quarter Master Plan | 36.78 | 90.89 | 50.0 | - | 1.8 | 1.0 | 2,758 | 75.0 | 30.3 | 2,856 | 184 |
| Parcel A | 23.63 | 58.39 | 50.0 | 2.4 | 1.8 | 1.3 | 1,901 | 80.4 | 32.6 | 3,319 | 118 |
| Parcel B/C | 86.66 | 214.15 | 50.0 | 2.4 | 1.8 | 1.3 | 7,469 | 86.2 | 34.9 | 13,362 | 433 |
| Parcel F | 18.12 | 44.78 | 50.0 | 2.4 | 1.8 | 1.3 | 1,249 | 68.9 | 27.9 | 2,411 | 91 |
| Parcel K | 81.89 | 202.36 | 50.0 | 2.4 | 1.8 | 1.3 | 6,787 | 82.9 | 33.5 | 11,867 | 409 |
| Parcel M | 172.52 | 426.30 | 50.0 | 2.4 | 1.8 | 1.3 | 12,578 | 72.9 | 29.5 | 21,283 | 863 |
| Preston Crossing | 28.61 | 70.69 | 65.0 | 2.4 | 1.8 | 1.3 | 1,238 | 43.3 | 17.5 | 2,049 | 465 |
| Development Aspiration Total | 448.21 | 1107.56 | - | 2.4 | 1.8 | 1.3 | 33,980 | 75.81 | 30.68 | 57,147 | 2,563 |
| Agricultural Research Lands | 121.27 | 299.67 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0 | 0 |
| Usask Core Campus Area | 200.54 | 495.53 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0 | 3,152 |
| Regional Psychiatric Centre Leased Land | 25.94 | 64.09 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0 | 250 |
| Environmental Sensitive Parcels | 33.97 | 83.95 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0 | 0 |
| Non-developable Total | 381.72 | 943.24 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0 | 3,402 |
| UNIVERSITY SECTOR TOTAL | 829.93 | 2,050.80 | - | - | | | 33,980 | 75.81 | 30.68 | 57,147 | 5,965 |

¹ “Gross” area (hectares and acres) refers to all the area within each parcel including all roadways and excluding proposed non-developable area.

² Residents/jobs per hectare is a target value, based on data from similar neighbourhoods/commercial and mix use areas in Saskatoon and the vision for this Sector.

³ People per unit values are based on average household sizes from Saskatoon neighbourhoods

⁴ Unit counts are determined based on assumptions about what proportion of the estimates people plus jobs count will be residents (i.e. people).

⁵ Employment was estimated based on residents/jobs per hectare data.

⁶ College Quarter information supplied by the College Quarter Master Plan

of approximately 50 residents per hectare (20 residents per acre). Given the vision of the Plan for Growth and the positioning of the University Sector Plan as a strategic infill opportunity, the density targets for this Sector Plan were set using residents plus jobs per hectare as a measure. An estimated 50 residents plus jobs per hectare was used primarily for residential neighbourhoods, and an estimate of 65 residents plus jobs per hectare was used for Mixed-Use areas. A higher density for the Corridor Growth Area will provide the population needed to support an efficient BRT system.

Dwelling unit densities were based on Saskatoon

household size data for existing neighbourhoods and land use densities. On this basis, the University Sector is projected to have neighbourhoods with an average net density of 75.81 units per gross hectare (30.68 units per gross acre).

Policies:

- 4.3.1 Concept plans and amendments to this Sector Plan will be monitored to ensure the parcels meet an overall density of 75 units per gross developable hectare (30 units per acre); however, the density of specific developments can vary.

- 4.3.2 Given the long timeframe for development, the overall population projections may require adjustment in the future. A major shift in population projections requires an amendment

to this Sector Plan or the appropriate concept plan.

4.4 LAND USE DESIGNATIONS

The land use designations demarcated in the University Sector Land Use Map (Figure 12) align with the land use designations in the Official Community Plan. Existing streets are also shown.

The University Sector is planned to include a range of housing densities, types and choices. Specific land uses for individual development areas will be determined at the concept plan stage, with zoning designations applied after subdivision occurs.

Opportunities for mixed-use development are provided within the Sector Plan in several locations. Mixed use areas are to be located in prominent locations with easy access to a variety of high quality mobility options. These will typically be located along arterial or collector streets and primarily be within the Corridor Growth Area, which are further defined in Section 4.5.

Concept plans may include more detailed land uses as well as further land uses not defined within this Sector Plan. The following land use designations are displayed within the Sector Plan:

High Density Residential

Land designated as “High Density Residential” has the potential for a range of residential building types, (e.g. low-rise and high-rise multi-unit dwellings) and community uses. These sites are typically served by collector or arterial streets and are in proximity to the City Centre, community focal points and/or Corridor Growth Area.

Medium Density Residential

Land designated as “Medium Density Residential” has the potential for a range of residential building types, (e.g. dwelling groups, stacked townhouses, low-rise and mid-rise multi-unit dwellings) and community uses. These sites are typically served by collector or arterial streets and are in proximity to community focal points and/or Corridor Growth Area.

Corridor Transit Village

Land designated as “Corridor Transit Village” has the potential for a mix of medium to high density residential, commercial, institutional and recreational uses. These uses are located in strategic locations along the BRT network and have the potential to significantly contribute to corridor growth objectives and targets in the Growth Plan to Half a Million. These sites are typically located within Urban Centres and are intended to provide a mix of employment, residential, recreational, and open space uses that support and benefit their location along the BRT network. These sites are typically developed in a phased fashion.

Station Mixed Use

Land designated as “Station Mixed Use” has the potential for medium density, three to six storey mixed use developments that incorporate transit-oriented development principles, and a broad range of residential, commercial, institutional, cultural, and community uses.

Corridor Mixed Use

Land designated as “Corridor Mixed Use” has the potential for medium density, two to four storey mixed use developments that are pedestrian-oriented and incorporate transit-oriented development principles. These lands are located on the BRT network corridors between station locations, or on other major transportation corridors in proximity to the BRT network.

Corridor Residential

Land designated as “Corridor Residential” has the potential for ground-oriented, low to medium density residential development. These areas are located near the BRT network corridors and are intended to provide a transition of densities from Station Mixed Use, Corridor Mixed Use and/or Corridor Main Street lands into surrounding neighbourhoods.

Corridor Main Street

Land designated as “Corridor Main Street” has the potential for medium density mixed use developments that are pedestrian-oriented and incorporate transit-oriented development principles. These areas are typically existing commercial streets located on the BRT and regular transit network. Corridor main street areas are intended to enhance the existing character, function, and built form in historic or significant commercial districts within the Corridor Growth Area.

Institutional

Land designated as “Institutional” has the potential for institutional, health, educational, recreational, cultural, and community uses. Residential development may be a secondary use within an institutional area.

Low Density Residential 2

Land designated as “Low Density Residential 2” has the potential for a range of residential building types (e.g. one and two-unit dwellings, street townhouses, low-rise multi-unit dwellings) and community uses. These sites are typically served by local or collector streets and may be in proximity to Community Focal Points and/or Corridor Growth Area.

Low Density Residential 1

Land designated as “Low Density Residential 1” has the potential for one or two-unit dwellings or community uses that are typically served by local streets.

Conservation Area

Land designated as “Conservation Area” has the potential for the conservation or development of natural areas, naturalized areas, wetlands, and constructed wetlands in accordance with Park Development Guidelines.

Utility Area

Land designated as “Utility Area” has the potential for parcels or corridors of land to be reserved for above or below ground utility installations and infrastructure and may form part of the green network.

Special Use Area

Land designated as “Special Use Area” has the potential for post-secondary education facilities, airports,

cemeteries, railyards, significant open spaces, and major utility installations.

Policies:

- 4.4.1 Land use designations included within the Sector Plan provide a high level vision for development. More specific land use designations will be applied during the development of a concept plan and must align with the high level vision in the Sector Plan.
- 4.4.2 Preston Crossing is categorized as a Corridor Transit Village within this Sector Plan. Formalization of this land use will occur once a concept plan to further densify the area with residential uses is approved.
- 4.4.3 Special Use Areas east of Preston Avenue indicated on the Land Use Map are for agricultural research related to USask.
- 4.4.4 High density land use designations should be considered where appropriate.
- 4.4.5 All residential land use designations should consider providing a range of housing forms to address the housing spectrum, providing for varying levels of affordability.

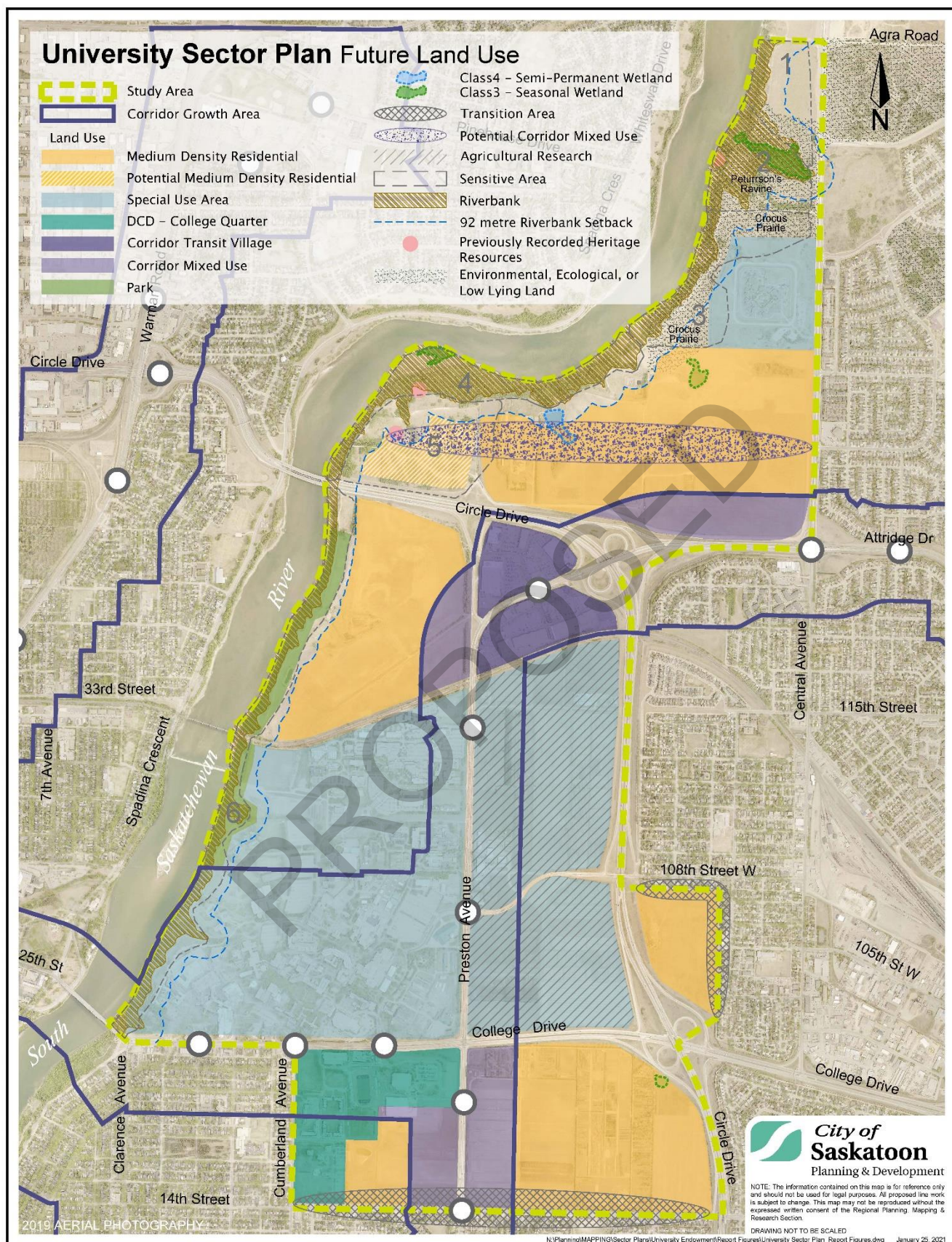


Figure 12 – University Sector Plan Future Land Use

4.5 CORRIDOR GROWTH AREA

The corridor growth initiative introduced in the City's Growth Plan to Half a Million explores ways to encourage growth and redevelopment along Saskatoon's major transportation corridors to reduce outward growth pressures, support more housing options close to employment areas and enhance transportation choices throughout the city. The Corridor Growth Area is a focal point for mixed use and transit-oriented development. The Official Community Plan and Corridor Transformation Plan includes a policy framework for corridor specific land uses.

USask supported the City's corridor growth initiative, as it aligns with USask's land use principle of supporting sustainable community development. The University Sector Corridor Growth Area follows the transportation corridors identified for high-frequency transit service. These include College Drive, Preston Avenue, and Attridge Drive (shown in Figure 12). The Corridor Growth Area is the priority location for medium density mixed-use, commercial, institutional and residential uses and activities that support high-frequency transit service.

The objectives of the Corridor Growth Area are as follows:

- To provide a moderate scale and intensity of land uses that supports the Downtown as the primary location for corporate office use.
- To create a comfortable, safe, functional and inviting public realm that reflects the unique history and characteristics of adjacent neighbourhoods.
- To focus the greatest development density, mix of uses, and intensity of activity along the Corridor Growth Area at key BRT stations.
- To encourage medium density development opportunities along the corridors.
- To incorporate four-season elements in the design and construction of new buildings and public spaces.
- To ensure a sensitive transition of development densities from the BRT corridor into existing adjacent lower density neighbourhoods.
- To conserve historic commercial elements within the Corridor Growth Area that provide examples of a development scale and building typology supportive of the corridor growth objectives in the Plan for Growth.

- To integrate with the City's Active Transportation Plan and multi-modal transportation options over the long term.

The Corridor Transformation Plan developed land use designations that further refine specific locations, land use mix, proposed density and building forms. The following land uses are intended to be used within the Corridor Growth Area:

- Corridor Transit Villages
- Station Mixed Use
- Corridor Mixed Use
- Corridor Main Street
- Corridor Residential

Due to the unique nature of the University Sector, and the fact that the parcels are currently undeveloped, opportunities exist to accommodate the land use designations of the Corridor Growth Area. However, should need warrant an increased level of density, or a development that will benefit the University Sector particularly, additional land use designations and/or zoning districts may be considered, as long as they contribute to the City's Strategic Infill growth targets.

Policies:

- 4.5.1 Development as part of the Corridor Growth Area will be designed in accordance with transit-oriented development, public realm, land use and open space principles identified in the Corridor Transformation Plan.
- 4.5.2 Further development of the Preston Crossing area will be designed in accordance with Transit Village principles identified in the Corridor Transformation Plan.
- 4.5.3 A higher level of density should be encouraged where appropriate to contribute to the City's Strategic Infill growth target. This will help concentrate residential and commercial density in designated areas, which is critical to ensuring the viability of an urban environment.
- 4.5.4 New zoning districts may be explored after the concept plan stage if they contribute to fulfilling the City's Strategic Infill targets.

4.6 TRANSITION AREA

To support anticipated residential growth within the University Sector over the coming decades, medium and high-density residential land use is proposed for most parcels. This includes compact residential building forms, such as apartments, row houses, group townhouses and stacked townhouses. It will be important to provide a wide selection of affordable multi-family housing choices.

To complement the building form of existing communities, specific areas have been designated as a 'Transition Area', on the Future Land Use Map (Figure 12).

These areas are intended to provide opportunities for residential development at densities that enable a transition from the mixed densities within the parcel areas to the low density developments generally compatible with surrounding neighbourhood characteristics and building forms. Transition Areas could include the following land use designations, where appropriate:

- Corridor Residential

- Low Density Residential 2
- Low Density Residential 1

Policies:

4.6.1 Development identified within a Transition Area should include a sensitive transition to the surrounding lower density neighbourhood areas. Details on how to achieve this should be included in the relevant concept plans.

4.6.2 Development within a Transition Area should provide a range of residential housing types. Building forms should include smaller multi-unit or single-unit dwellings that align with corridor residential, low density residential 2, or low density residential 1 land use designations in the Official Community Plan.

4.6.3 Development within a Transition Area should include a broad range of compatible residential uses and a limited range of other neighbourhood-oriented uses.

4.7 COMMUNITY FACILITIES

Schools

This section details the components necessary to create complete communities that provide University Sector residents with access to such amenities as schools, emergency services, and recreational facilities.

Land for future schools must be accommodated for each neighbourhood within the University Sector. Each school site should accommodate a minimum of two schools, one public and one separate elementary school. The land may provide for a joint use site, that is, the development of public and separate schools together with sports fields and recreational areas on sites dedicated as municipal reserve land. School site sizes and potential locations will be determined at the concept plan stage based on the requirements provided by Greater Saskatoon Catholic Schools (GSCS) and Saskatoon Public Schools (SPS). At a later date, the exact location and configuration of the school sites will be determined by GSCS, SPS and the City, in consultation with the landowner(s).

There are existing schools in the area surrounding the University Sector. Their capacity and potential to accommodate the schooling needs of University Sector residents will be assessed at a later date in consultation with GSCS, SPS, the City, in consultation with the landowner(s).

Due to the projected population at full build-out high schools may be warranted for the University Sector. The need and potential location should be addressed in consultation between the City, developers, GSCS and SPS. This consultation can occur as the University Sector is developed. Should this consultation identify that a high school(s) is needed, the site should be identified in a concept plan.

Institutional and Service Use Facilities

Whether provided by the City, USask or other agencies and organizations, institutional and service use facilities add to a complete community. By identifying and anticipating future community needs, land may be set aside for emergency services, health providers, cultural institutions and other needs.

Institutional lands can play an important role in helping define the character of a neighbourhood. This is especially true with this Sector Plan. USask is a major institution in the city, and its growth and development could change the character of the surrounding neighbourhoods, and city.

Policies:

- 4.7.1 Each neighbourhood area will include land to accommodate up to two joint-use elementary schools. Requirements for school sites shall be determined at the concept plan stage.
- 4.7.2 School site(s) size and configuration shall be in accordance with requirements as per the *Planning and Development Act* and the City's

requirements as outlined in a concept plan.

- 4.7.3 Future school sites should be located in a central location in a neighbourhood area, allowing for easy access by a majority of residents, as well as proximity to major community facilities and planned BRT stations.
- 4.7.4 Compatible USask education, research and support facilities may be located within a neighbourhood area where they can contribute to a mix of residential and employment uses and support a sustainable transportation system.

4.8 SPECIAL USE AREAS

The Sector Plan designates Special Use Areas tailored to USask's operations. USask's Core Campus, including Innovation Place Research Park, is primarily used to support USask's core mission of providing teaching and research. Vision 2057 identifies these highly influential areas as core lands. USask intends to maintain these lands to ensure the university's long-term growth.

It is recommended that the 138 hectares (340 acre) special use area remain as agricultural land as it is the most contiguous with the Core Campus, permitting easy access for teaching and research.

This core agricultural land is highly visible and plays a traditional role as a central open space and a foreground to USask. These lands can continue to provide a strong symbolic link to USask and its contributions to Saskatoon.

Policies:

- 4.8.1 Areas designated as special use areas are intended to enable USask's teaching and research mandate.
- 4.8.2 Buildings to support the agricultural special use areas should be organized within the land use node along 108th Street East and Preston Avenue and form part of USask's Campus Master Plan.
- 4.8.3 Development that incorporates transit-oriented development principles may be permitted along Preston Avenue to support the planned BRT system. Development along this corridor should be oriented to include frontage facing Preston Avenue.

OPEN SPACE & ENVIRONMENT



This section presents a framework for guiding development of future parks, public spaces, cultural sites, and other spaces in the University Sector. These spaces comprise a variety of places for outdoor activity, including active and passive uses that, combined with ecological areas and linkages, makes up

the sector's open space system. The quality of the open space system is an important component of the public realm. It shapes the form and function of the University Sector and will result in more walkable, livable, and sustainable communities.

5.1 MUNICIPAL RESERVE

The Dedicated Lands Regulations, 2009 are tools provided under *The Planning and Development Act* as a means through which the City is able to accumulate the land required to meet the need for parks, utility space, the ecological network and recreational facilities, while also ensuring development does not occur on lands subject to flooding, slumping, and instability.

When land is subdivided, *The Planning and Development Act* enables an approving authority to require that a portion be dedicated as municipal reserve for public recreation or similar purposes. The municipal reserve dedication requirement is ten percent of gross land area for residential land and five percent of gross land area for non-residential land. The City may take

cash-in-lieu of land in areas where the dedication is not desirable.

The City's Park Development Guidelines currently outlines the distribution of park space dedicated as follows: Neighbourhood Park (61%), District Park (36%), and Multi-District Park (3%).

The Neighbourhood Park allocation must be dedicated within a neighbourhood. However, District and Multi-District Parks serve the needs of more than one neighbourhood, therefore the space required for these parks tends to be allocated more heavily in some areas than in others. When this occurs, a neighbourhood may have either a surplus or deficit of dedicated municipal reserve. When a neighbourhood has a deficit of dedicated municipal reserve developers are required to pay cash-in-lieu to offset the costs incurred by neighbourhoods which have an over-dedication (surplus). Alternatively, land could be dedicated elsewhere at the same time to cover the deficit. If requirements in the Park Development Guidelines are altered prior to development, park allocation shall be consistent with the Guidelines.

The City's Official Community Plan establishes a desirable standard for public open spaces in the city; a ratio of four hectares of open space to every 1,000 persons. Public open spaces may include municipal reserves and other publicly owned areas dedicated to

public enjoyment and recreation. Developers and the City (as the approving authority), should take this policy into consideration when designing and reviewing future concept plans. Given the level of density proposed for the University Sector, park spaces may need to be smaller in size with a higher level of amenity and landscaping. This may result in a higher service level, any additional impacts of a higher level of service, should be identified at the concept plan stage. The combination of type, design and amount of municipal reserve should support the principles of CPTED.

Table 3 provides a breakdown of the total amount of municipal reserve required in the University Sector as well as the municipal reserve dedication. The locations of future District and Multi-District Parks will be determined through discussions with the City's Community Services division. The municipal reserve dedication is in addition to the existing municipal reserve dedication already been allocated.

Policies:

- 5.1.1 Municipal reserve should be required as outlined in Table 3 and in accordance with the *Planning and Development Act*.

Table 3 – University Sector Plan Municipal Reserve Dedication Estimates

| | Area (gross ¹) (hectares) | MR Dedication ² (%) | Total MR Required (hectares) | N'hood Parks (hectares) | District and Multi-district Park provided within neighbourhood | |
|---------------|---|-----------------------------------|------------------------------------|-------------------------------|---|------------------------------|
| | | | | | District (hectares) | Multi-District (hectares) |
| Parcel A | 23.63 | 10.00% | 2.36 | 1.44 | 0.85 | 0.07 |
| Parcel B/C | 86.66 | 10.00% | 8.67 | 5.29 | 3.12 | 0.26 |
| Parcel F | 18.12 | 10.00% | 1.81 | 1.11 | 0.65 | 0.80 |
| Parcel K | 81.89 | 10.00% | 8.19 | 5.00 | 2.95 | 0.90 |
| Parcel M | 172.52 | 10.00% | 17.25 | 10.52 | 6.21 | 0.70 |
| Total | 382.82 | 10.00% | 38.28 | 23.35 | 13.78 | 2.73 |
| Total (acres) | 945.97 | - | 94.60 | 57.70 | 34.05 | 6.75 |

¹ Gross Area (hectares) refers to the total area within each parcel including all roadways but excluding non-developable lands.

² MR dedication is set according to legislation at 5% for non-residential development and 10% for residential development.

- 5.1.2 Developers are encouraged to provide public open space and municipal reserve at an appropriate level given the planned density for the University Sector.
- 5.1.3 Environmental reserve may be considered for ecological areas along the riverbank and wetlands within the Sector Plan.
- 5.1.4 Environmental reserve and municipal utility parcels should be integrated within designated parks, subject to Park Development Guidelines.
- 5.1.5 The configuration, size and use of open space shall be determined as part of the concept plan stage.
- 5.1.6 District and Multi-District Park must be dedicated within the University Sector to serve the projected population unless a justification can be made to include the dedication in an adjoining Sector.
- 5.1.7 Existing open spaces within the Core Campus Area, or College Quarter should not be included with any new municipal reserve dedication as part of the University Sector Plan, unless it is agreed upon by USask and the City's Community Services division.
- 5.1.8 Municipal reserve dedication for Parcel F should occur within this parcel to ensure there is no further municipal reserve dedication deficit in the Sutherland neighbourhood.

5.2 ENVIRONMENT

The Sector Plan promotes the conservation and restoration of the local ecological network. Using the information derived from the natural area screening, valuable natural assets and networks were mapped. For more detailed information regarding the natural area screening refer to Section 2.2; the complete natural area screening is included in Appendix 2.

Topography

As potential parcels exist within proximity to the South Saskatchewan River, consideration will need to be given to potential slope stability issues. Slope failure is a naturally occurring geological activity. There are three main components that affect slope stability: geology, geometry and groundwater. The manner of slope stability can vary significantly depending on these three components.

Lands within the University Sector should be suitable for development and their status confirmed during the concept plan stage when development is proposed on, or next to a slope. A detailed ground investigation, slope stability analysis, foundation design and groundwater control are frequently used to understand and mitigate the risk of development in proximity to slopes. A professional engineer would be required to review these components and make recommendations to facilitate

development at an acceptable safety level. These recommendations are communicated through a geotechnical report.

A detailed geotechnical investigation is required at the concept plan stage to confirm suitability of the land for long-term development. The geotechnical report may result in, a) proposed lands being removed from the developable areas, b) the developer improving the land to support the development of the land, or c) additional land towards the riverbank being added to as developable areas.

Soils

Lands within the University Sector should be suitable for development and their environmental status confirmed during the concept plan stage. Any lands identified as having potential contamination must undergo remediation according to federal, provincial, and municipal standards. As part of due diligence, it is common practice to complete a Phase I Environmental Site Assessment for each parcel within the Sector Plan boundary. Table 5-1 in Appendix 2 lists sites of potential concern that may require further environmental work after Phase I Environmental Site Assessments are complete. This list is not exhaustive; additional sites of concern may be found during the Environmental Site

Assessment process. Prior to submitting a concept plan, developers will be required to consult with the City's Sustainability department to determine which parcels need environmental work.

Vegetation, Wildlife, and Water Features

The natural area screening notes that urban development could have a detrimental effect on plant and wildlife habitat; however, it also concludes that the University Sector has already been significantly shaped by human activities through agriculture research and other land uses. Acknowledging that urban development will occur allows for the delineation of areas that should be protected.

Although urban development will inevitably displace some species, the establishment of a habitat corridor rather than isolated habitat patches will ensure that greater biodiversity is retained. During the concept plan process, consideration should be given to the establishment of habitat corridors linking significant wetlands to other significant areas, such as the South Saskatchewan River Valley and the Northeast Swale.

Wetlands are large depressions where the water table is at, near, or just above the surface, and where the depressions are saturated with water long enough to promote wet-tered soils and water tolerant vegetation. Any wetland classified as a Class III or higher will need to have a functional assessment completed at the concept plan stage.

As identified within the natural area screening, all wetlands within the area of interest should be identified, mapped, and classified by permanency and functionality in accordance with the City's Wetland Policy. Additional functional assessments using the Saskatchewan Prairie Conservation Action Plan's Riparian Health Assessment Field Workbooks and subsequent tools are encouraged. The completion of a plant species inventory for each habitat type is recommended.

Meewasin Jurisdiction and Sensitive Areas

As referenced in Section 2.2, Meewasin developed and updated the Northeast Policy to provide direction and guidelines on balancing development and conservation within this area. Additionally, sensitive areas have been developed to align with the Northeast Policy. These sensitive areas are described in detail in the natural area screening (Appendix 2).

Conceptually, this Sector Plan has identified specific lands in addition to the Sensitive Areas as having direct interest to Meewasin. This includes the area within 92 metres of the top bank of the South Saskatchewan

River, which represents the current 92 metre Riverbank Area outlined in the Official Community Plan.

Naturalized parks, which could be dedicated as a utility parcel or environmental reserve or within the municipal reserve dedication should be considered where it could be the most appropriate, most notably along the South Saskatchewan riverbank.

A naturalized park aims to conserve and enhance biodiversity, while accommodating opportunities for appreciation and interpretation of nature.

Climate Action & Low Emissions

When preparing future concept plans, developers should use the City's Climate Action Plan and Low Emissions Strategy as a guiding document.

Future concept plans should display how the area will contribute to the City's Green House Gas Reduction Targets. Concept plans should include policies and strategies that address the actions outlined in the Low Emissions Community Plan.

Policies:

- 5.2.1 Consultants and developers conducting further environmental studies within the University Sector should communicate with the City's Sustainability department and Meewasin prior to commencing to ensure guidelines and approval requirements are met.
- 5.2.2 The desktop natural area screening must be supplemented by one or more field natural area screening(s) that must be completed within two years prior to the submission of a concept plan.
- 5.2.3 All data and findings from environmental studies must be shared with the City's Sustainability department and Meewasin.
- 5.2.4 A geotechnical report from a professional engineer will be required for each concept plan submission as part of the University Sector Plan.
- 5.2.5 A plan to complete Phase I Environmental Site Assessments for each parcel should be included as part of a concept plan submission. The actual assessments should be completed as close as possible to the date of development; within one year or less.

- 5.2.6 If avoidance of a high value wetland during development is not possible, a Wetland Mitigation Plan is required. This plan must be submitted and approved prior to any impacts occurring to the wetland.
- 5.2.7 Wetland design must be in accordance with the City's Wetland Design Guidelines, which can be found on the City's website.
- 5.2.8 Any field natural area screening must include wildlife surveys following the most current versions of the Saskatchewan Ministry of Environment's Species Detection Survey Protocols in appropriate habitat.
- 5.2.9 If species under federal and provincial protection are identified, the appropriate activity restriction setbacks must be used from the date of identification onward. An updated list of protected species in Saskatchewan can be found on the Saskatchewan Conservation Data Centre website.
- 5.2.10 The University Sector Plan shall comply with the regulations outlined in Meewasin's Northeast Policy (Appendix 3).
- 5.2.11 No urban development should occur within Sensitive Area 1 as it provides an important wildlife corridor between the Northeast Swale and the South Saskatchewan River.
- 5.2.12 Only improvements that conserve the natural and cultural heritage resources or enhance the passive recreational and educational uses of the Meewasin Valley will be allowed within Sensitive Area 2.
- 5.2.13 Improvements within Sensitive Area 3 must consider the existing landscape and permit public access along the river valley.
- 5.2.14 Improvements within Sensitive Area 4 must consider the existing landscape and permit public access along the river valley.
- 5.2.15 Landowners will work in consultation with Meewasin to delineate the portions of Sensitive Area 5 that are key to Meewasin's mandate on the basis of habitat quality, biodiversity protection, presence of at-risk species, cultural heritage resources, and accessibility to and along the river valley.
- 5.2.16 Improvements within Sensitive Area 6 must not irrevocably damage the natural and cultural heritage resources of the area as a whole.
- 5.2.17 Meewasin and/or the City, in consultation, with the landowner(s), may proceed with further studies of Sensitive Areas ahead of a concept plan submission, and recommend or pursue protection of identified areas.
- 5.2.18 Naturalized park spaces are encouraged along the South Saskatchewan River.

5.3 HISTORICAL RESOURCES

The University Sector contains several historical resources, as described in Section 2.4. Identification and protection of historical resources is important for preserving Saskatoon's culture and understanding the history of the land and the people who called it home.

Development within the Sector shall have regard for the preservation of historical, archaeological and paleontological resources. As part of a concept plan submission, a referral will need to be prepared and forwarded for review to the Heritage Conservation Branch of Saskatchewan Ministry of Parks, Culture and Sport. The Heritage Conservation Branch will then issue either clearance for the development to proceed

as planned or provide detailed requirements for a Heritage Resource Impact Assessment (HRIA).

To conserve, revitalize, and honour Indigenous culture and heritage, further concept plans should identify, with the guidance of a community Elder or Knowledge Keeper, opportunities for Indigenous place-keeping and place-making – including traditional ways of knowing, oral histories, beliefs and languages.

The landscape has always been an important part of Saskatoon's history. The prairie grasslands and the South Saskatchewan River have attracted ancestors and successful cultures to settle in the area. It is not

surprising that landscapes within Saskatoon are now being recognized for their heritage value.

Cultural landscapes are landscapes that are considered historically significant. They connect residents to their past and help tell the story of how Saskatoon developed and how ancestors lived, they reflect our social, cultural, environmental and economic history. Cultural landscapes should be considered when future detailed planning occurs within the University Sector. Consultation with the City, Meewasin, rights holders, and stakeholders to identify important cultural landscapes should occur as a concept plan is developed.

Policies:

- 5.3.1 As part of a concept plan submission, a referral to the provincial Heritage Conservation Branch identifying heritage sensitive quarter sections shall be required and any further requirements regarding an HRIA shall be fulfilled before development proceeds.
- 5.3.2 Previously recorded heritage sites, identified in the natural area screening (Appendix 2), should be preserved with the appropriate buffer areas, as outlined by the Heritage Conservation Branch.

5.4 OPEN SPACE

In addition to municipal reserve and ecological areas, a variety of components will form the open space system in the University Sector.

Storm ponds

Storm ponds are a significant part of the open space system. While they function as a necessary stormwater facility, they can also provide a gateway opportunity to establish character of a neighbourhood. Incorporating design elements that encourage pedestrian linkages and open space as part of the required grading of storm water ponds is an opportunity to visually express the innovative and sustainable principles of the University Sector while improving the public realm. Naturalized storm ponds with native vegetation are typically lower maintenance and better for wildlife.

Opportunities may exist to use a storm water pond as a raw water source for park irrigation. Raw water irrigation could lead to significant savings compared to the standard potable water irrigation systems typically installed in new parks and open spaces.

- 5.3.3 The Moose Woods, Batoche, River Heritage Trail should be incorporated within the development of the University Sector where feasible. If not feasible, the incorporation of symbolic or commemorative heritage elements will be encouraged in the development area.
- 5.3.4 Designated municipal heritage properties are protected by City bylaw. Designated properties must be maintained, and the key heritage features cannot be altered without approval from the City.
- 5.3.5 If development will impact sites listed on the City's Register of Historic Places, the City should be consulted.
- 5.3.6 A traditional land knowledge assessment, or Indigenous knowledge should be incorporated in any future natural area screening.
- 5.3.7 Cultural Landscapes should be considered and identified as part of historical resources ahead of a concept plan submission.

The University Sector should integrate natural waterbodies and drainage courses into development using green infrastructure. Storm pond function and design should focus on the action items outlined within the City's Green Infrastructure Strategy:

- Incorporate wetlands and natural drainage paths into the storm water network.
- Identify how green infrastructure can increase the storm system's capacity to respond to intense rain events.
- Evaluate opportunities to increase naturalization of existing storm ponds to improve water quality and habitat, while balancing community recreation and other uses.
- Consult with affected organizations when designing storm water infrastructure to mitigate impacts to natural areas and cultural elements within the watershed.

Public Open Space Easements

Linkages connecting the Sector to designated municipal reserve and the South Saskatchewan River Valley may be achieved through designated easements on development properties. These easements can act as important components of the open space system by providing pedestrian access and completing linkages between different development areas. Easements should be designed to incorporate public realm elements and connections throughout the University Sector. Developers are encouraged to correspond with the appropriate utility agencies to ensure their proposed public realm elements are compatible with the development of easement areas. (see Part 7: Utility Infrastructure Framework for more information). Easement locations should also be considered as potential mobility corridors that could be preserved for future right-of-way allowing for a street network accommodating transit, active transportation, and vehicle traffic.

Streetscapes

The presence of the Corridor Growth Area within the University Sector lends itself to considerable public space throughout the corridors. The landscape and pedestrian public realm play a role in establishing the character of future communities and ensuring the Corridor Growth Area is successful.

A variety of high quality, mixed mode streets are envisioned. Attention to boulevard space should be a priority as it creates an enjoyable public realm along public roadways, including separated safe cycling zones and tree-lined pedestrian zones. This should be achieved through implementation of public realm principles outlined in the Corridor Transformation Plan.

Landmarks

Entry, perimeter, and arrival landmarks provide opportunities to establish the image, character and quality of the University Sector. Other streetscape and park elements (e.g. benches, light standards, street trees, bike racks, signage, facilities) would also coordinate with this design character. The design intent of these components is to express the sustainable, collaborative, and innovative principles of the University Sector.

Sustainability

The Sector Plan's vision of embodying environmental sustainability brings with it the responsibility to integrate function, aesthetics, and sustainability into development

design. This involves planning in a manner that incorporates green spaces and connections, including how the street network and infrastructure may impact the existing ecosystem. The design of future development should incorporate the guiding principles of the City's Green Infrastructure Strategy:

- **Climate Change Adaptation & Mitigation** – Our contributions to climate change are mitigated and our ability to adapt to local change is enhanced.
- **Ecological Integrity** – Biodiversity and connectivity of the urban green network is conserved and supported.
- **Education & Awareness** – Educational opportunities incorporate ecological, cultural and traditional knowledge. The community is aware of appropriate uses of green spaces.
- **Equitable & Accountable** – Green infrastructure is distributed throughout the city to provide access to all residents.
- **High Quality** – Green spaces are evaluated and used for their best purposes, taking into consideration the types of infrastructure and amenities they have, the value of the functions they provide and community needs,
- **Integrated & Multifunctional** – Green spaces are integrated into the city fabric to form a network that serves multiple uses and needs.
- **Public Safety** – The green network is safe, accessible and inclusive for all.
- **Recognizable & Unique Places** – A range of green space types and functions reflect heritage; traditional land uses and community identity and needs.
- **Sustainable** – The green network responds to operational requirements, flood resiliency, community capacity and environmental and local needs.
- **Wellness: Physical & Mental** – The green network meets community needs, recognizing that access to green space is strongly related to residents' physical, spiritual and mental wellbeing.

Design and construction of the University's open space system should complement the City's Green Infrastructure Strategy guiding principles, including:

- Provision of safe, walkable streets in connected communities.
- Safe cycling routes physically separated from vehicular traffic.

- Tree-lined and shaded sidewalks and streets.
- Stormwater management within the green space system and in the street, design including permeable paving, rain gardens, and other low impact development best management practices.
- Heat island reduction practices in the green space system.
- Maximized solar orientation in green spaces and street activity.
- Incorporation of onsite renewable energy sources.
- Wind protection in green space design.
- Urban agriculture and community gardens.
- Encouraging green roofs and rooftop greenhouses in development areas.
- Light pollution reduction.
- Potential partnerships with USask and the City on educational strategies that focus on sustainable design approaches and techniques.

Tree Canopy

Trees provide a myriad of benefits. Canopy cover, or more precisely an extensive amount of leaf surface area, is the driving force behind the urban forest's ability to produce benefits for the community.

The tree canopy provides benefits to the community in the following ways:

- Retains rainwater
- Mitigates polluted storm water run-off
- Mitigates poor air quality
- Reduces energy needed for heating and cooling buildings
- Increases property values

- Creates a sense of place
- Promotes psychological, social, and physical health
- Improves image for tourism and business attraction
- Provides wildlife habitat

While new tree species are typically planted with new development, the University Sector also has opportunities to incorporate existing trees and vegetation into development areas. Developers are encouraged to incorporate any existing trees in future neighbourhood design.

The installation of underground utility services is a potential risk to trees. Any proposed utility servicing and planting of new or additional trees should ensure potential conflicts are minimized. This should be outlined in a concept plan.

Policies:

- 5.4.1 Sustainable building and design components should be detailed in concept plans to pursue a natural systems approach including an expanded tree canopy where possible. The City should encourage and embrace new innovative design aspects within the University Sector.
- 5.4.2 Public spaces may be considered part of municipal reserve dedication. Such consideration must be approved by the City's Parks department. Operating impacts to support this type of dedication need to be clearly identified at the concept plan stage.
- 5.4.3 Existing vegetation and tree canopy retention will be encouraged, where possible.

5.5 MEEWASIN TRAIL & RIVER VALLEY

Meewasin Trail

The Meewasin Trail is a destination trail that showcases and animates Saskatoon's iconic river valley. Running over 80 kilometres along both sides of the river. The Meewasin Trail is an important mobility connector that promotes active and passive recreation opportunities throughout the city. It also highlights the cultural, historical, and ecological preservation with the South Saskatchewan River Valley.

In the University Sector, the current Meewasin trail network runs through the USask Core Campus, and west of Innovation Place to the Circle Drive North Bridge. An important planned future connection will extend the trail from Circle Drive Bridge to Chief Mistawasis Bridge.

The current Meewasin Trail adjacent to Parcel K, including the connection to Parcel M (under the Circle Drive Bridge) and the connection to the Core Campus and Innovation Place (under the CP Railway Bridge) will require upgrades that may be integrated into future concept plans, depending on timing. Upgrades are needed to address safety and accessibility concerns. Developers should work with Meewasin during the concept plan stage to address where potential enhancements to the trail will be necessary.

Sutherland Beach

The area known as Sutherland Beach is located south and east of the South Saskatchewan River, north of Circle Drive North and west of the Preston Avenue road allowance. A portion of this area is owned by the City and currently used as an off-leash recreation area

(formerly called Sutherland Beach Off-Leash Recreation Area). This area has been identified within Sensitive Area 5 through the natural area screening, which indicates it may have ecological significance. The areas of Sutherland Beach not considered ecologically valuable also offer a potential development opportunity. Therefore, the off-leash recreation area should be maintained in its current location until a concept plan or further environmental studies determine any changes to the area. Potential development may change future configuration and use. Should this affect the off-leash recreation area, plans should address the loss of space in another location, preferably in proximity. This should be determined during more detailed design processes, such as concept plan submission.

Policies:

- 5.5.1 Developers must consider the Meewasin Trail extension alignment, and not propose any development that may impede its function.
- 5.5.2 Developers should work with Meewasin to identify any needed upgrades to the Meewasin Trail during the development of a concept plan.
- 5.5.3 Public access must be permitted to the Meewasin Trail on all parcels adjacent to the Trail.
- 5.5.4 The location, configuration, size, and function of any off-leash recreation area(s) should be addressed through the concept plan process.

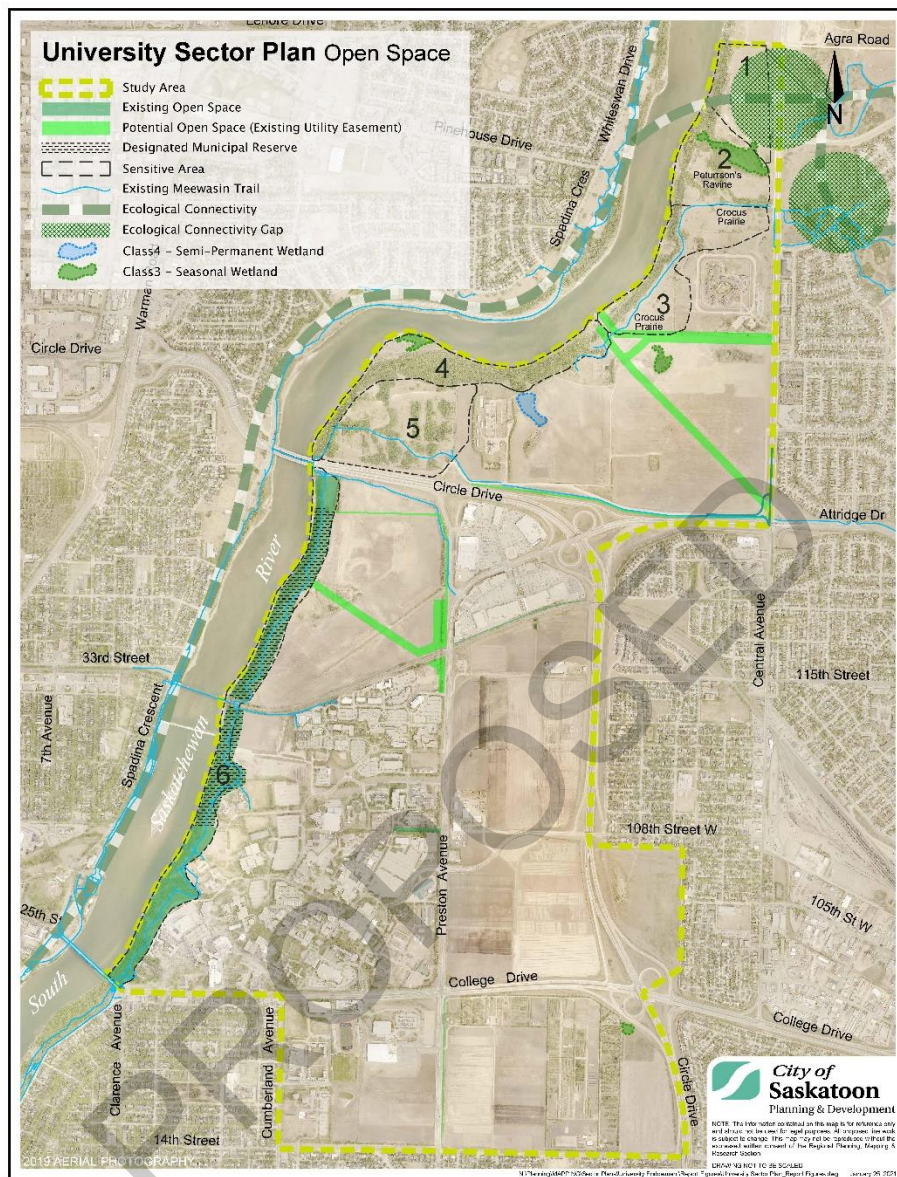


Figure 13 – University Sector Plan Existing and Potential Open Space

MOBILITY & TRANSPORTATION

6.1 MOBILITY NETWORK DESIGN PRINCIPLES & CONTEXT

Design Principles

The vision for the University Sector's transportation and mobility network was derived from design principles based on the City's Strategic Goals and USask's land use principles. Because the development of new neighbourhoods within the University Sector will be on previously non-developed lands there is a unique opportunity to design sustainable mixed-mode streets and sustainable transportation systems as the core mobility framework from the outset.

The success measures and action items outlined in the City's Strategic Plan have a direct correlation to the design of the University Sector. The strategic goal of Moving Around speaks to investments in infrastructure and all modes of transportation giving people every opportunity to rely on options such as public transit, walking, and cycling, in addition to cars.

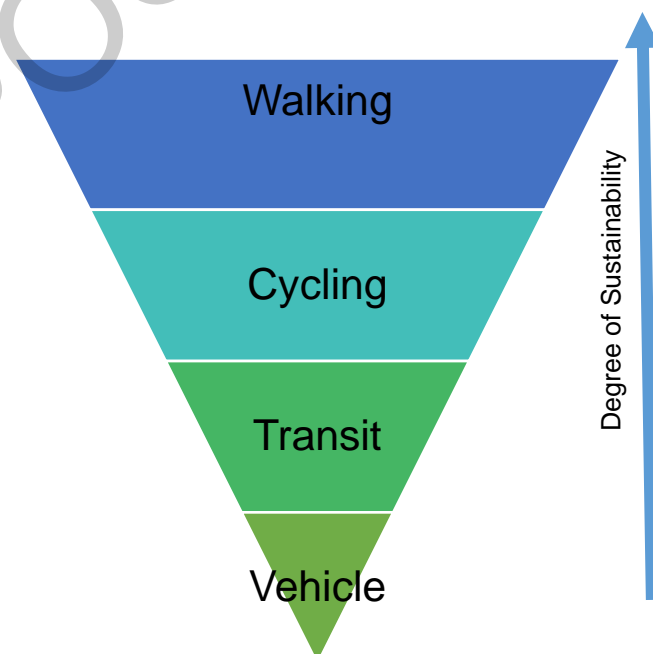


Figure 14 – Transportation Degree of Sustainability

The Sector Plan mobility strategy focuses on providing attractive alternatives to alleviate vehicle congestion and ensure people and goods can move around the University Sector and the city quickly and easily. To achieve this strategy specific design parameters and goals were examined. The following design considerations are listed based on priority:

- Capture the highest potential of pedestrian trips from within the Sector Plan to major amenities or places of employment. The typical measure is a 400 metre walk shed, or an average of a five-minute walk for a non-disabled person.
- Capture the highest potential pedestrian access to transit service, particularly planned BRT stations. The typical measure is a 400 metre walk shed to the nearest planned BRT station, or an average of a five-minute walk (800 metre for a 10-minute walk, 1,200 metre for a 15-minute walk).
- Capture the highest potential cycling trips from within the University Sector to major employment centres, through newly planned infrastructure and connections to existing infrastructure throughout the city. Increased cycling trips will be supported by safe, physically separated cycling lanes integrated into new and existing streetscapes.

- Maintain and improve connectivity to the Meewasin Trail and South Saskatchewan River Valley.
- Accommodate remaining trip generation through a street network that is appropriate for the built context and minimizes any future traffic conflicts in existing communities within the vicinity of the University Sector.

Mode Share Targets

The City's Active Transportation Plan outlines targets to measure progress towards achieving mobility goals. The targets were established based on mode share, or the percentage of trips made by each mode of transportation (Figure 15).

The University Sector is uniquely positioned to help the City achieve overall mode share targets. The Sector Plan uses current mode share data from comparable surrounding neighbourhoods to guide transportation upgrades and ensure infrastructure is planned appropriately for all modes of mobility. The impact of planned upgrades to the City's transit and active transportation networks should also be considered during analysis of future infrastructure needs. A shift to a more transit-based culture will be essential to



Figure 15 – City of Saskatoon Mode Share Targets
Source: City of Saskatoon Low Emissions Community Plan

achieving University Sector population targets while limiting need of vehicle-based road infrastructure upgrades. The University Sector is planning to exceed

the City's mode share targets by emphasizing the BRT system.

6.2 PEDESTRIANS

A comprehensive network of sidewalks and pathways are planned for the University Sector. The goal of the pedestrian network is to provide residents and employees with numerous route options and to create an attractive walking environment that will encourage more people to travel by foot. Land use and density levels for proposed residential development is based on potential five-minute, 10-minute and 15-minute walking distances from residences to employment, schools, major amenities, and planned BRT stations.

The Meewasin Trail network is an important aspect of the pedestrian network. Pedestrians can use the trail to get around the University Sector and connect with the rest of the city, or as a means for leisure recreation.

In general, sidewalk widths proposed through concept plans will be consistent with the City's Complete Streets guidelines. Wider standard sidewalks will be required where higher pedestrian volumes are anticipated. Multi-use pathways are planned in strategic locations to serve the area and to connect to other city facilities adjacent to the development areas.

Another key component of the pedestrian network is the design of crosswalks. Pedestrian safety and comfort

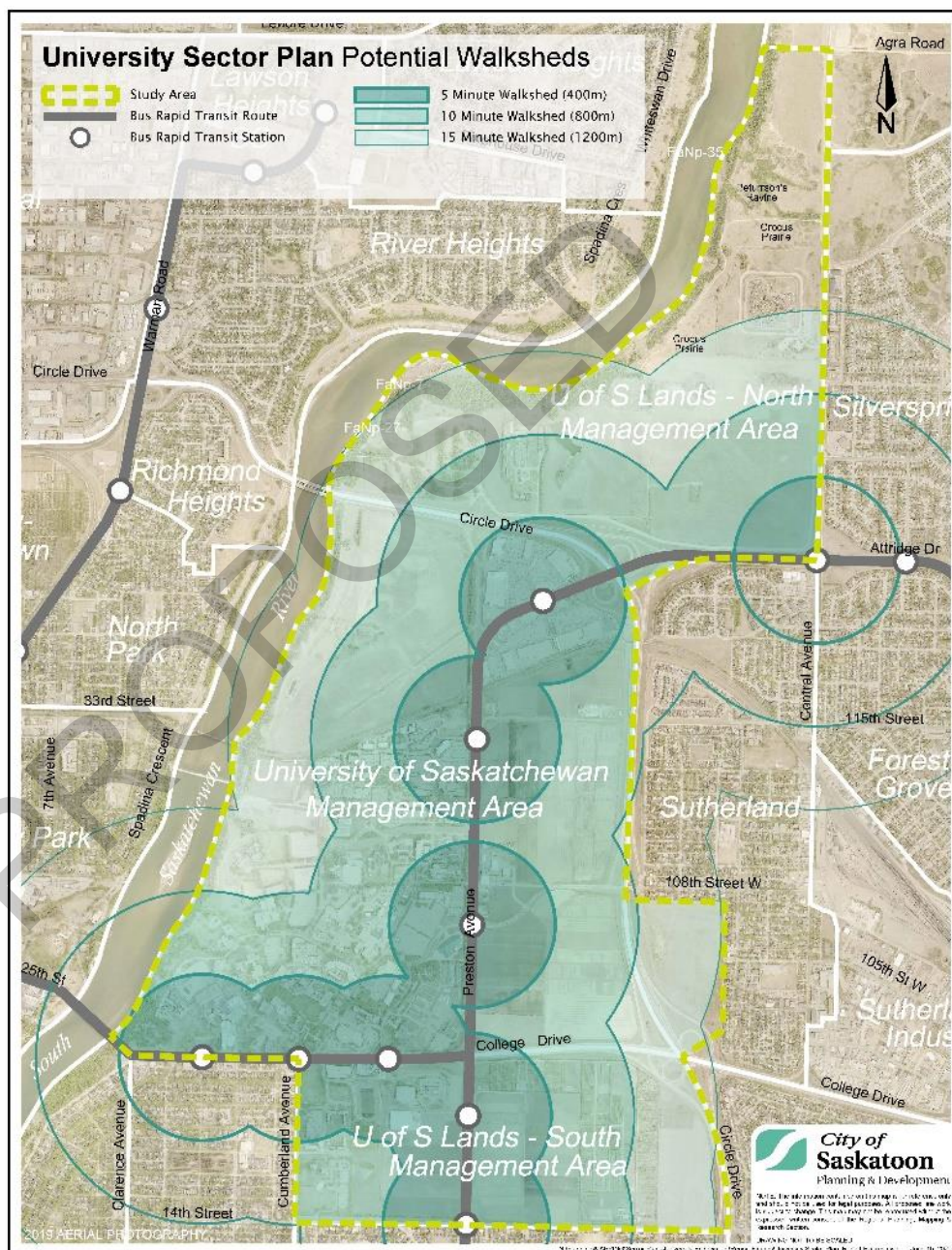


Figure 16 – University Sector Plan Potential Walksheds

are enhanced through curb extensions, raised crosswalks, and median refuge areas to minimize pedestrian exposure to traffic flow. The design of development areas should also consider street trees

and attractive furniture to improve the quality of pedestrian facilities within the University Sector.

The mode share target for each parcel (Table 4) is consistent with the City's mode share targets. Developers should use this as a guideline and strive to achieve the mode share targets during the design of future concept plans. Due to the nature of the University Sector Plan development, it is expected that the mode share targets will be exceeded.

Policies:

- 6.2.1 Sidewalks shall be provided on both sides of streets to facilitate walkability and maximize pedestrian safety.
- 6.2.2 A pedestrian connection linking Parcel M with Parcel K and/or Preston Crossing should be included at the time of a concept plan submission. This connection may be incorporated as part of the street network design.
- 6.2.3 A pedestrian connection linking Parcel K with Innovation Place and USask's campus through the CP rail line should be included at the time of a concept plan submission. This connection

may be incorporated as part of the street network design.

- 6.2.4 Pedestrian access to the riverbank and the Meewasin Trail shall occur at a minimum every 150 metres.
- 6.2.5 At the time of concept plan submissions, developers will be required to demonstrate how their design satisfies the City's mode share target for pedestrians.
- 6.2.6 Public realm strategies should be developed as part of any area within or along an identified Corridor Growth Area. The public realm design should be consistent with the public realm design aspects outlined within the Corridor Transformation Plan.
- 6.2.7 Pedestrian connections from the parcels to planned BRT stations shall be maximized to facilitate greater pedestrian connectivity.

Table 4 – Mode Share Targets

| Mode Share (%) | Pedestrian | Cycling | Transit |
|----------------|------------|---------|---------|
| | Target | Target | Target |
| Parcel A | 16% | 8% | 14% |
| Parcel B/C | 16% | 8% | 14% |
| Parcel F | 16% | 8% | 8% |
| Parcel K | 16% | 8% | 14% |
| Parcel M | 16% | 8% | 14% |

6.3 CYCLING

To help create a culture of cycling within the University Sector, the Sector should be designed to incorporate safe and efficient cycling connections and facilities. This will allow future residents to access local services by cycling. Linkages to other areas of the city and the Meewasin Trail shall be prioritized to allow all ages and abilities to safely ride.

The cycling network within the University Sector should include both on and off-street facilities to accommodate both internal (with at least one origin or destination

within the University Sector) and external (both origin and destination outside the University Sector) cycle trips. On-street cycling routes should incorporate physically separated cycling paths whether on-street or off-street and measures to maximize cycling safety including painted lanes, bike signals at intersections, signage and dividers separating vehicle traffic from the cycling lane.

A major component of the cycling plan should involve maintaining and enhancing safe multi-use pathways

and connections, including multi-use pathways along 14th Street East, Preston Avenue, Meewasin Trail along the riverbank, and existing pathways around Preston Crossing. Maintaining and enhancing these connections while facilitating new on and off-street facilities will contribute to increasing the City's mode share target for cycling.

Cycling within the University Sector should be further encouraged by providing end of trip facilities such as bike lockers, bike racks, and access to public washrooms at key destinations. To further enhance cycling conditions, more bicycle parking should be mandated for multi-unit dwelling buildings.

The City's Active Transportation Plan includes the existing and proposed All Ages and Abilities (AAA) Bicycle Network. There are many connections and proposed cycling networks throughout the University Sector Plan. Through the build-out of the University Sector, developers should work with the City to fulfill the AAA Bicycle Network. In addition, developers are encouraged to incorporate networks into concept plan designs that improve connectivity, safety, security and convenience.

Policies:

- 6.3.1 Proposed cycling infrastructure included within the Active Transportation Plan should be incorporated within concept plan submissions.
- 6.3.2 A cycling connection linking Parcel M with Parcel K and/or Preston Crossing should be included at the time of a concept plan submission. This connection may be incorporated as part of the street network

design.

- 6.3.3 A cycling connection linking Parcel K with Innovation Place and USask's campus through the CP Rail line should be included at the time of a concept plan submission. This connection may be incorporated as part of the street network design.
- 6.3.4 The existing multi-use pathways that exist along Preston Avenue and 14th Street East should be maintained and enhanced for safety and connectivity. Should infrastructure upgrades warrant a change in the configuration of the street network and affect these multi-use pathways, the pathways should be re-established as part of the infrastructure upgrade.
- 6.3.5 Active Transportation connections should be incorporated within a concept plan submission for Parcel F. Emphasis should be placed on connections from Parcel F to the USask campus, and other major city destinations.
- 6.3.6 At the time of concept plan submissions, developers will be required to demonstrate how their design satisfies the City's mode share target for cycling.

6.4 TRANSIT SERVICE

The City's Plan for Growth identifies BRT as a key strategy in shaping the future of Saskatoon. The BRT system will have a strong impact on the Sector Plan. The planned red and green BRT lines will run directly through and adjacent to Sector parcels. The projected future population in these areas will help ensure the BRT system is successful long into the future.

The Sector Plan includes densities, mix of uses and pedestrian friendly urban design that are transit-oriented. The University Sector contains one of the largest trip generators in the city in the USask Core Campus. The addition of two BRT lines throughout the Sector will further support higher demand for transit service.

The use of a grid-based street design for the Sector parcels is ideal for transit service. Grid network elements allow for linear routes and minimize the number of turns.

Grid elements also provide greater pedestrian connectivity, allowing maximum community coverage.

As the Sector builds out, improvements to the BRT system to better serve the growing population should be

considered. This includes examining, closer to the time that development occurs, re-routing of the planned BRT system to capture a larger population base. This should take into account the implications of service changes on current service levels.

Preserving existing utility easements for future access for transit service should be considered. Easements may be incorporated as future rights-of-way with the ability to accommodate future BRT routes, active transportation, and an addition to the street network.

Policies:

- 6.4.1 Transit routes that are feeder routes from the BRT system shall be further refined at the concept plan stage without requiring amendment to this Sector Plan.
- 6.4.2 Detailed design of BRT stations shall be determined by Saskatoon Transit in consultation with USask.
- 6.4.3 Pedestrian connections to BRT stations should be direct.

Saskatoon BRT

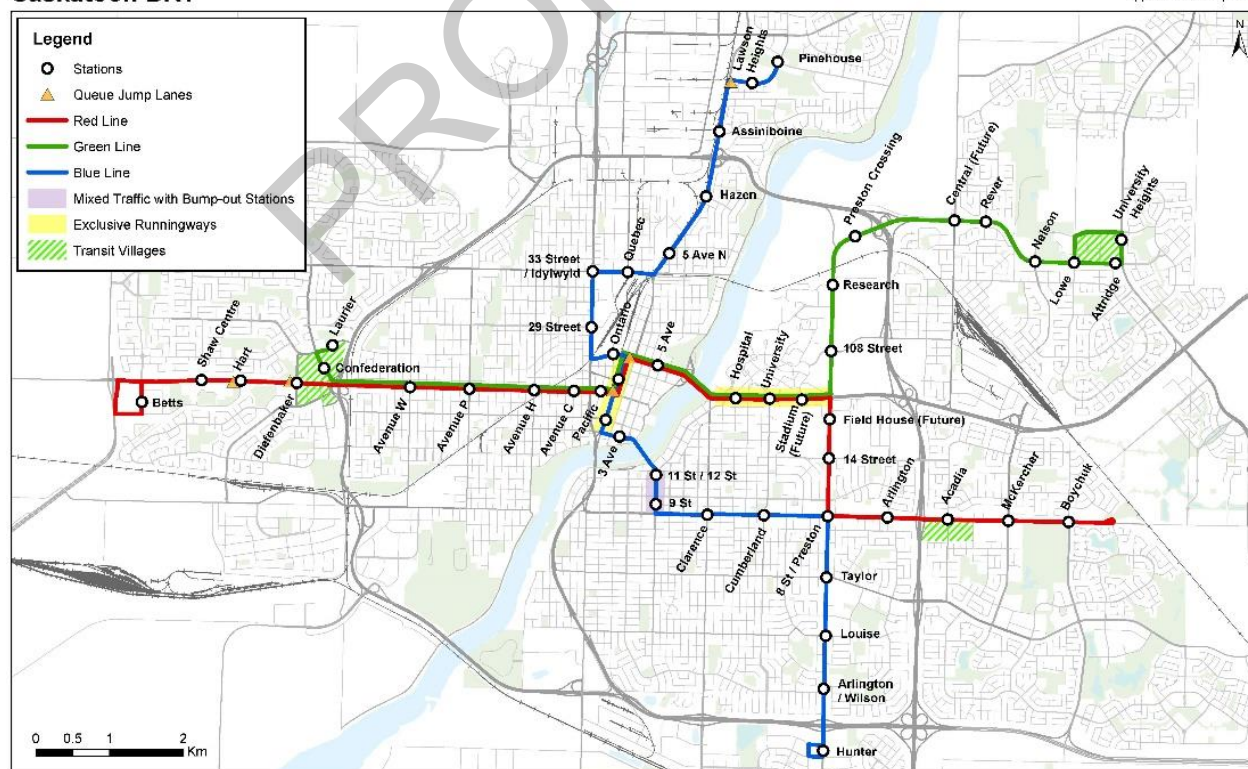


Figure 17 – Planned BRT Routes and Stations

- 6.4.4 Limited consideration may be given to re-routing the planned BRT system to run through Parcel M; this would occur at the time of development.
- 6.4.5 Parcels should contain grid network elements, wherever possible, to minimize the number of turns for transit and maximize community

coverage.

- 6.4.6 At the time of concept plan submissions, developers will be required to demonstrate how the design satisfies the City's mode share target for transit.

6.5 STREET NETWORK

The Sector Plan establishes a foundation for a mode shift where walking, cycling, and transit become preferred transportation choices within the University Sector. Streets within the Sector should be designed as complete streets, where all modes can safely and comfortably move.

The design of these new neighbourhoods provides an opportunity to incorporate new street rights-of-way, generous tree-lined sidewalks, safe and physically separated cycling lanes, on-street parking where appropriate to support main street retail, safe pedestrian crossings, comfortable transit shelters and roadways that support transit and vehicular traffic.

Much of the arterial street network that will serve future parcels in the Sector are already built. Detailed street network design for many new streets within the parcels will be completed at the concept plan stage. Streets laid out in a grid network are encouraged as they promote connectivity, walkability, and pedestrian comfort.

Access

Potential access points to the proposed parcels were identified during the transportation analysis for the Sector Plan. The access points identified mirrored existing access points within the existing street network. Based on the access points identified, the proposed street network could accommodate the proposed full build-out population of each parcel. Additional access points could be useful in reducing capacity needed on main arterial streets and providing for a more resilient, flexible street network. Access points should be developed in detail during the concept plan stage.

The transportation analysis was based on one scenario, but multiple scenarios could be developed to satisfy the requirements needed to serve the Sector sustainably and efficiently. At the time of concept plan submissions, developers will be required to undertake a Traffic Impact Assessment (TIA), to be completed by a professional

transportation engineer. At that time, through the TIA, additional or different access points may be proposed. The TIA will be reviewed and approved by the City's Transportation department.

Arterial Streets

Preston Avenue, 108th Street, and Central Avenue are all classified as Major Arterial streets in the University Sector Plan. College Drive is classified as a Major Arterial in some portions, and an Expressway beginning east of Preston Avenue. These streets are important regional gateways to the University Sector. In addition, Circle Drive is classified as a Freeway, and 14th Street East is classified as a Major Collector. These arterial streets will most likely see changes as the University Sector builds out.

Modifications or enhancements may be required within the University Sector to accommodate increased trip generation, based on the projected population of the parcels. Any modifications or enhancements should ensure that the existing street network will be able to maintain an acceptable service level.

Identifying where enhancements may be needed should be an area of focus for developers and the transportation engineer responsible for producing the TIA as part of the concept plan submission. The identification of enhancements at this stage also allows for the landowner(s) to incorporate these measures within the design of future development, as enhancements may have implications for adjacent property or require changes to existing road configurations, or relocation of existing utility infrastructure. Developers are responsible for any land acquisition that may result from enhancements identified as part of a TIA.

Priority streets have been identified that may require enhancements in the future. These streets and their future function are important arterial streets in the city and should strive to provide an appropriate service level.

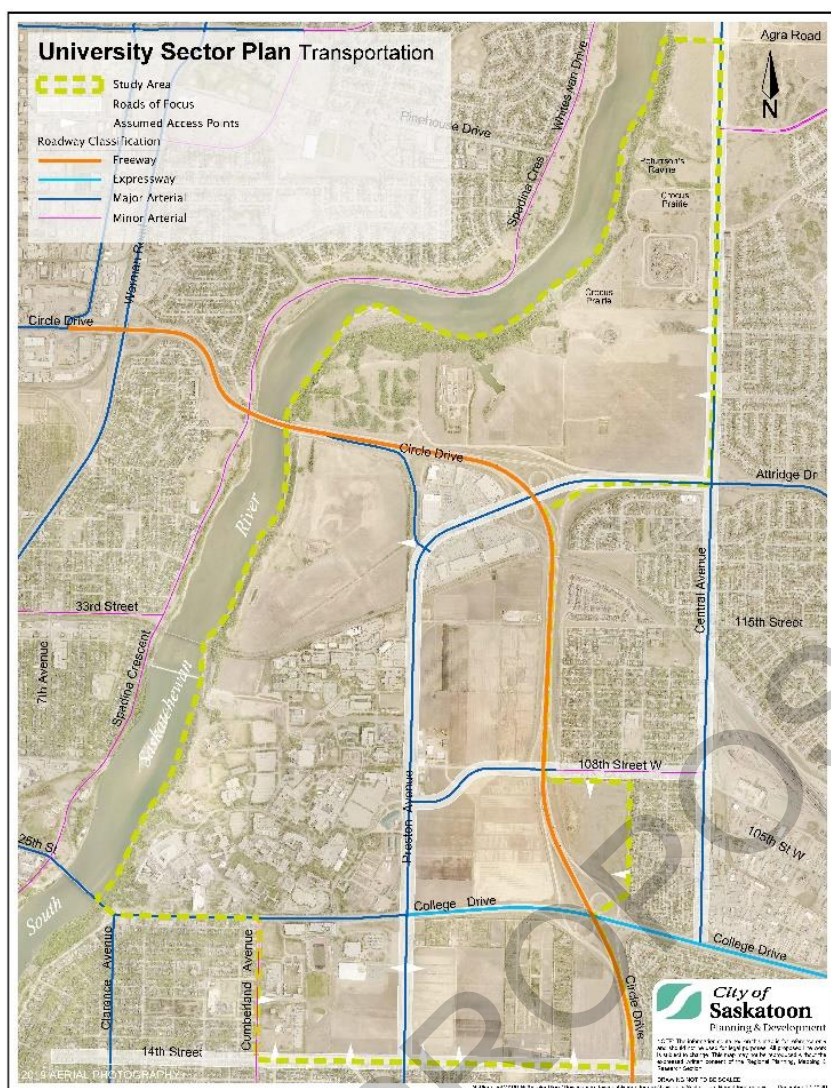


Figure 18 – University Sector Plan Transportation

In each case consideration must be given to the City's long-term mode share targets. Any assessment or proposal should consider impacts on transit and active transportation facilities, as well as projected mode share based on enhancements to these facilities.

The following streets should be given consideration as part of the TIA (shown on Figure 18):

- Preston Avenue North –from 14th Street East to the Circle Drive and Attridge Drive interchange.
- 108th Street East –from the east side Circle Drive on-ramp to Egbert Avenue.
- 108th Street East –Preston Avenue North to a mid-way point adjacent to the agriculture research parcels.

- 14th Street East –from Preston Avenue North to the east Circle Drive on-ramp.

Possible enhancements to the University Sector street network will be incremental as development occurs over time. As the Sector Plan is a long-term plan, new information and data at the time of development may frame different considerations of street network enhancements. Planned investments in the City's transit and active transportation networks, as well as changes in technology and mobility habits could have significant impacts on transportation infrastructure needs. These scenarios and the impacts of any existing or planned upgrades, should be confirmed through a TIA at the concept plan stage.

Coordination of construction activity on street network enhancements should be considered. For example, the City is planning to construct the infrastructure and stations for the BRT system from 2022 thru 2025. The construction of the BRT system and station placement may be impacted by street network enhancements taking place as part of development in the University Sector Plan. Every effort should be made for developers and the City to coordinate construction efforts to mitigate the amount of construction activity.

The hierarchy of travel mode priority (refer to Figure 14) as set out in the City's Strategic Plan should always be front and centre in decisions regarding street network upgrades and enhancements. The objective of encouraging more trips by walking and cycling, including access to future BRT stations should be taken into consideration when examining the street network.

Major infrastructure

To achieve the University Sector Plan density levels and fulfill the City's Strategic Plan, major infrastructure upgrades may be needed. These will be determined through the detailed design at the concept plan stage.

To fulfill the City's Strategic Goals and USask's sustainable land use principles, it's important to ensure infrastructure suits the development. Every consideration should be examined to avoid

infrastructure being overbuilt. Major infrastructure upgrades should meet the needs of the University Sector and benefit the city's overall transportation network.

Transportation studies and infrastructure upgrades will most likely occur throughout the build-out of the University Sector. Circle Drive may be reconfigured or studied in the future. USask should be consulted on any studies or upgrades undertaken by the City that may affect the University Sector and the development aspirations of USask. Consultation will identify whether a partnership can be established, or specific considerations should be included in these upgrades, to help achieve mutual goals.

The City's Plan for Growth identifies the possibility of a future river crossing at 33rd Street East connecting to Parcel K. Prior to confirming the need for this bridge, the Plan for Growth emphasizes maximizing traffic efficiency and capacity on existing river crossings through planned network improvements. Another integral part of the core bridge strategy is to implement the planned BRT system and increase transit ridership alleviating the need for capacity updates of core area bridges.

An initial transportation analysis for the Sector Plan determined that, a river crossing at 33rd Street is not required to serve the development aspirations of the University Sector. Upgrades and improvements to the surrounding street network could be undertaken to accommodate the Sector's projected population without a 33rd Street bridge.

However, should this river crossing be pursued as a potential solution to city wide traffic needs, it would have implications for the transportation analysis and connection points within the University Sector. Developers would need to reflect this in a TIA during concept plan submission. This would most likely result in changes to street network enhancements, or other transportation configurations. Such plans should be communicated as early as possible to allow USask to consider them in their development plans.

Pedestrian river crossings are an important consideration and key components of the Meewasin Trail network. Any new bridge infrastructure planned for the University Sector must consider effective multi-use trail connections in planning and development.

Off-street parking

Due to the nature of the University Sector, and the desired mode share targets for the area, considerations should be given to reducing the minimum number of parking spaces required by the City's Zoning Bylaw. The design of the University Sector capitalizes on the planned BRT system, and prioritizing pedestrian and cycling trips over car trips, therefore, the case can be made for reduced parking requirements.

Parking facilities are required to serve commercial and residential uses within the University Sector. It's important to integrate parking policies in development and to ensure parking is complementary to the public realm. Developers of future multi-unit residential dwellings should not assume that on street parking will accommodate residents. The potential demand for parking (on and off-street), and measures to accommodate such demand, should be considered in the early stages of concept plan development.

New medium and high density residential and office development should incorporate below grade parking structures to meet the parking requirements of the development and minimize reliance on surface parking lots.

Where surface or structured parking is required in the University Sector it should be designed to provide safe, convenient sidewalk and pathway connections for pedestrians and cyclists to access building entrances as well as efficient access for motorists.

Surface and structured parking facilities should be distributed to shorten distances between buildings and public sidewalks and to reduce the overall scale of the paved surface. Surfaces that minimize run-off and allow water to percolate into the ground should be considered for parking areas.

Policies:

- 6.5.1 Where transit routes and on-street bicycle lanes are located on the same street, the street must be designed to accommodate both modes safely.
- 6.5.2 All concept plan submissions will require a TIA from a qualified transportation engineer. TIA requirements and recommendations will be subject to approval by the City's Transportation department.

- 6.5.3 The City and USask shall communicate on any upcoming construction activities within or adjacent to the University Sector to ensure construction activity is coordinated to minimize the level of disturbance.
- 6.5.4 The City and USask will communicate any major transportation studies undertaken within the University Sector, to examine whether a mutual beneficial partnership can be formed.
- 6.5.5 USask and the City should work together if the City proceeds with a design for a 33rd Street river crossing.
- 6.5.6 The City should identify appropriate parking standards for this type of development.
- 6.5.7 All internal roadways within the parcels should be designed using a grid pattern, wherever possible.
- 6.5.8 All internal roadways within the parcels shall be continuous and connected to one another to ensure all access points can be reached.
- 6.5.9 Sound attenuation walls will be required for any single-family residential lots adjacent to Circle Drive.
- 6.5.10 Street design will include enhancement of the public realm.
- 6.5.11 Connections to arterial and collector streets from the parcels should be maximized.
- 6.5.12 Within neighbourhoods on-street parking may be incorporated into streetscape design particularly on main streets with retail at street-level.
- 6.5.13 Medium and high-density developments should use below grade parking to meet parking requirements and minimize reliance on surface parking.
- 6.5.14 Back lane design should be open and have clear site lines as per CPTED principles. Specific design principles should be considered at the concept plan design.



UTILITY INFRASTRUCTURE FRAMEWORK

7.1 WATER, SANITARY AND STORMWATER UTILITIES

This section outlines the water, sanitary and stormwater systems needed to service growth and development planned within the University Sector. The servicing scheme is based on the land use analysis and population projections. This information was used to inform modelling exercises for the various infrastructure systems. To ensure that the servicing scheme can be implemented and allow for the contemplated land use and density to be achieved, policies have been included at the end of the section.

The overall guiding principle of the University Sector is to apply sustainable development strategies to make use of existing infrastructure within the Sector and to interface, with as little disruption as possible, to current uses and adjacent communities.

Water Distribution

Water servicing requirements for the University Sector have been assessed through high-level modelling of the impacts of increased demand on system capacity. The water distribution system was examined to evaluate areas that may need upgrades and expansions to service projected growth within the Sector. Modelling used assumptions known at the time.

A comprehensive water and sewer analysis is required as part of a concept plan submission; the analysis is

subject to review and approval by the City's Saskatoon Water department. The University Sector can be serviced partially by the City's current water distribution system. Parcel A can be serviced without any additional water mains, as the water distribution services established through the College Quarter Master Plan can fulfill the needs of the parcel. Based on the projected population, Parcel F can also be accommodated without additional major infrastructure for water distribution. Should population growth differ from the projection, Parcel F will require a revised analysis and servicing strategy.

Water system improvements have been modelled and recommended based on a capacity assessment of the City's water distribution system. Each of these improvements are conceptual and based on current modelling information at the time of the report. Alternate solutions to provide the required level of service may be considered at the concept plan stage.

Figure 19 indicates where new water mains may be required to provide an appropriate level of service for the University Sector. A new primary water main may be required along College Drive, to service Parcel B/C, Parcel M, and Parcel K. This new water main would be needed to maintain water pressure and service level for the north east area of Saskatoon.

In addition to the College Drive water main, new water mains along Attridge Drive may be required to service Parcel M, and Parcel K. Much of the University Sector demand will be provided by a new northeast reservoir which is expected to be completed in 2024. Table 5 summarizes all water servicing needs based on modelling information available at the time the Sector Plan was published.

Sanitary Collection

The sanitary assessment completed for the Sector Plan builds on the Saskatoon city-wide sanitary model. Existing system efficiency was measured to ensure capacity was available with existing infrastructure. Recommendations were developed to uphold levels of service to accommodate growth and comply with the City's current design criteria for sizing new sanitary trunks. Similar to water distribution, Parcel A and Parcel F do not require any new sanitary trunks to accommodate projected growth of those parcels.

However, the existing sanitary trunk along Preston Avenue does not have capacity to accommodate the projected growth of Parcel B/C. Additional sanitary capacity to service the projected growth and maintain the appropriate level of service may be required. Figure 19 shows the approximate location of a potential new sanitary trunk. There is some flexibility, in location as the new sanitary trunk could be constructed at some point between Preston Avenue and Circle Drive. An assessment of the preferred location shall be determined at the concept plan submission stage for Parcel B/C.

Any new sanitary trunks should be placed in the location that provides the most efficient use of land, while minimizing construction disruption. Every effort should be made to ensure other infrastructure related items are coordinated appropriately. For example, if construction activity is required along Preston Avenue. There could be an opportunity to install servicing infrastructure at the same time and limit disruption within the area.

The Sector Plan did not include a complete analysis of the detailed sanitary system, this detailed work typically occurs at the concept plan stage. Lift stations and force mains may be needed and will be confirmed at the concept plan stage. Alternate proposals for servicing may be incorporated and examined at this stage as well.

Storm Water Management

An assessment of storm water capacity to accommodate the University Sector's population

projection shall be completed in detail at the concept plan stage. The existing City's stormwater system does not have the capacity for proposed developments in the Sector. Storage facilities to hold 100-year storm events will be required. The details of these storage facilities would be determined at the concept plan stage.

An overall stormwater strategy would also be done by the developers when completing a required water and sewer servicing strategy closer to the time of development. The pursuit of a natural systems approach to stormwater will allow for more innovative solutions and potentially lower costs.

Stormwater assessments should be shaped by the following criteria:

- Maximize onsite source controls to capture/infiltrate/reuse.
- Maximize onsite detention facilities to detain and control flows to match predevelopment levels.
- If on-site volume reduction and detention targets cannot be met, investigate feasibility of infrastructure upgrades to achieve targets.

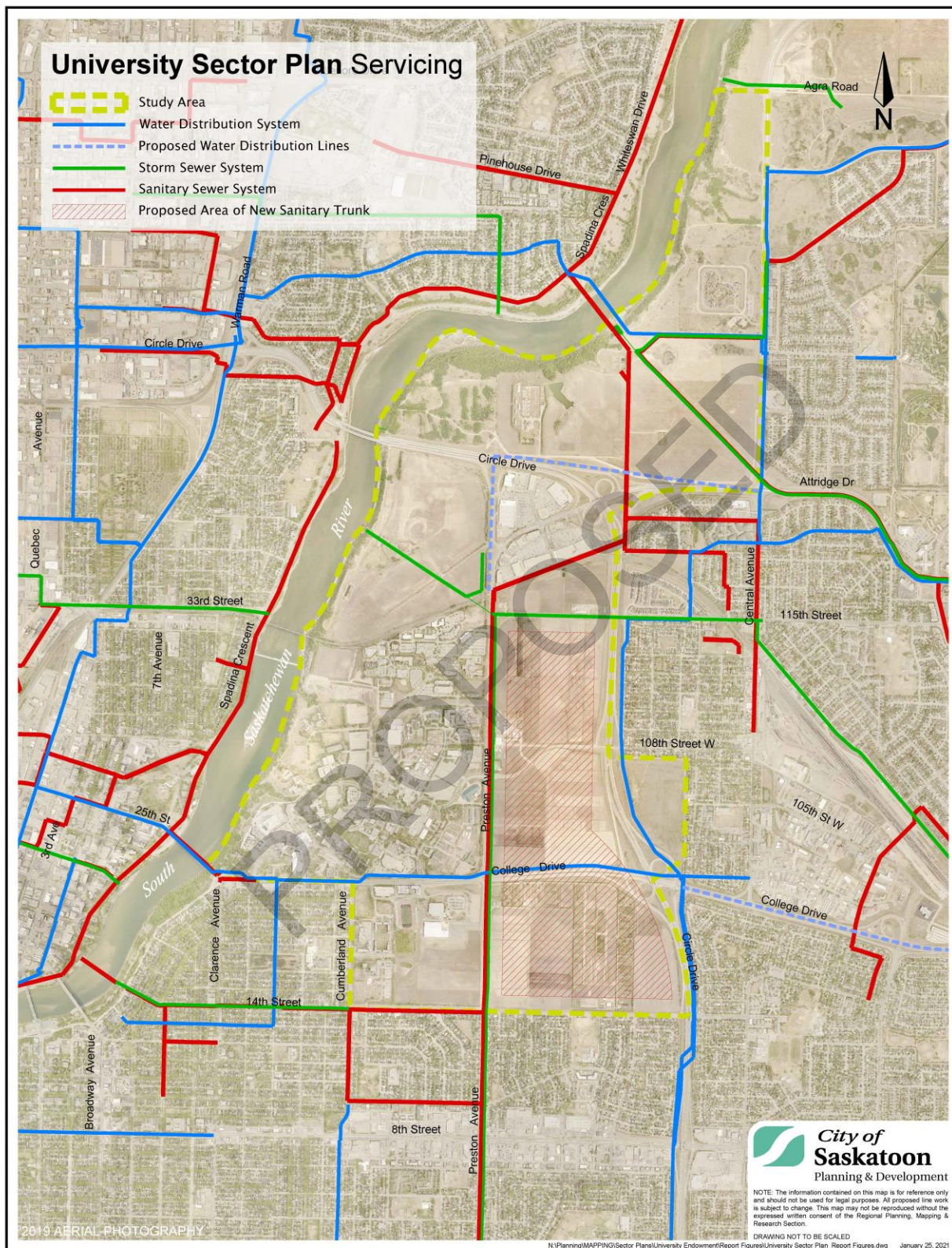


Figure 19 – University Sector Plan Proposed Servicing Needs

Stormwater facilities will be required for parcels within the Sector Plan. Developers should plan adequate space and be prepared to incorporate these facilities into their design.

If on-site storage and infiltration strategies are not implemented, or only partially implemented, a further detailed assessment of the resulting increased flows and storm sewer upgrades would be required, at the full expense of the developers.

In addition to on-site detention and infiltration features, water quality treatment is recommended for both infiltrated water (to protect longevity of infiltration systems and detention pond water quality) and water going into storm sewers (to protect water quality in receiving water bodies).

Policies:

- 7.1.1 Every concept plan submission requires a detailed water and sewer strategy report from a qualified engineer. The requirements for this report and its approval will be overseen by Saskatoon Water.
- 7.1.2 Alternative locations and strategies for new infrastructure must be considered at the concept plan stage.
- 7.1.3 A new primary water main may be required along College Drive to facilitate development within Parcel B/C, Parcel M and Parcel K.
- 7.1.4 A new primary water main may be required along Attridge Drive to facilitate development within Parcel M and Parcel K.

- 7.1.5 A new primary water main south of Circle Drive along Preston Avenue may be required to facilitate development within Parcel K.
- 7.1.6 Additional sanitary servicing capacity may be required from Parcel B/C extending north to Preston Crossing to facilitate development within Parcel B/C. The precise location of this infrastructure should be determined at concept plan submission.
- 7.1.7 If additional water distribution and sanitary capacity should exist beyond Parcel A, and Parcel F, then the servicing capacity should be used for Parcel B/C starting at the west side of the parcel near Preston Avenue. The capacity requirements will be confirmed at the submission of a concept plan.
- 7.1.8 Stormwater drainage resulting from proposed parcels must be managed through on-site stormwater management facilities, subject to approval by Saskatoon Water. Consultation with Meewasin and the City's Sustainability department should also be considered.
- 7.1.9 To the extent possible, storm ponds should be located separate from school and large programmed recreational sites.

Table 5 – University Sector Plan Servicing Needs by Parcel

| Parcels | Water and Sewer Systems Components | | | | | | | | | | | |
|-------------------------------|------------------------------------|-------------------|-------------------------------|-----------------------------|-------------------|-------------------------------|-------------------|-----------------------------|-------------------|-------------------------------|-------------------|-----------------------------|
| | Attridge Dr Primary Water | New Water Main | Preston Ave New Water Main | College Dr Primary Water | New Water Main | Preston Ave Sanitary Trunk | New Water Main | College Dr Primary Water | New Water Main | Preston Ave Sanitary Trunk | New Water Main | College Dr Primary Water |
| Parcel A | - | - | - | - | - | - | - | - | - | - | - | - |
| Parcel B/C | - | - | - | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed |
| Parcel F | - | - | - | - | - | - | - | - | - | - | - | - |
| Parcel K | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed |
| Parcel M | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed | Needed |
| Length (mm), Diameter (mm) | 1650, 600 | 700, 300 | 4410, 600 | 1700, 750 | 1700, 750 | 1700, 750 | 1700, 750 | 1700, 750 | 1700, 750 | 1700, 750 | 1700, 750 | 1700, 750 |

7.2 ELECTRIC, ENERGY AND COMMUNICATION UTILITIES

SaskPower and Saskatoon Light & Power

SaskPower and Saskatoon Light & Power each provide electrical distribution and servicing to their respective franchise areas. Developers will work with SaskPower and Saskatoon Light & Power to determine how the electrical and servicing will be achieved within the relevant concept plans. Details of this servicing may include incorporating existing distribution facilities throughout the parcels, utility agencies requesting suitable easements for the installation and maintenance of distribution facilities, and provision of suitable space in roadway rights-of-way for the installation and maintenance of distribution facilities.

Existing overhead and future overhead electrical lines have been identified within the University Sector. Electrical lines, particularly, 138 kv transmission lines are expensive and disruptive to relocate. The existing and planned electrical lines within the Sector Plan should be incorporated within the design of future development. Should developers require a relocation of any line or portion thereof, they must provide a justification on why the utility line cannot be incorporated within the design. Developers will be fully responsible for the financial costs of line relocation.

Landscaping and design considerations will be critical to ensuring the easement areas within these electrical line rights-of-way are incorporated and function efficiently within any future neighbourhood. Specific design parameters for each electrical line easement should be clarified with the specific utility company before any concept plan is developed. Developers shall ensure the easement boundary for this transmission line is included within the relevant concept plans.

SaskPower and Saskatoon Light and Power have provided the following guidelines for the 138 kv shared transmission line along Attridge Drive:

- Public and construction crew safety must be prioritized. The easement area ensures that the area is large enough to safely fit equipment and maintain worker safety.
- Operational performance and reliability of the transmission line requires adequate clearance around structures to allow for maintenance crews access in the event of an emergency as well as regular maintenance.
- Access must be provided for construction, maintenance, and emergency response.

Developers are not permitted to build within any utility easement without prior written consent, as per the terms set out in the easement agreement.

SaskPower currently provides service to customers within the agricultural land, north of Attridge Drive. Developers are responsible for applying to SaskPower to request the removal of any or all existing distribution infrastructure. Developers are responsible for any costs associated with the removal of SaskPower infrastructure.

Due to the proposed density, the Corridor Growth Area may have limited space for traditional utility easements. The use of concrete duct formations and manholes may be required to route the electrical infrastructure through

the Corridor Growth Area. Developers should consider the additional cost and lead time required to design and install electrical infrastructure in higher density areas. Details on how to achieve this should be included in the relevant concept plans.

SaskEnergy and TransGas

As part of the concept plan process, sufficient right-of-way will be required for existing pipelines or for negotiations between developers and service providers regarding relocation of these pipelines. If the pipelines remain, provisions should be made to incorporate these utilities into road rights-of-way or green space connections.

Any new utility infrastructure installed as part of the Sector Plan may require an environmental mitigation plan. Developers and utility agencies should consider this during the design stage. Where possible, powerlines and poles should be kept away from the South Saskatchewan River to maintain the viewscape, and to mitigate the impact of migratory birds hitting powerlines and poles.

Pipeline rights-of-way (ROW) are a significant area of concern in new development. As the development of future neighbourhoods can be dynamic in the servicing period, issues with lot, block and roadway ROW's can have a major impact on pipeline routing. Installing gas mains in the roadway can be very constricting and costly. The provision of a 2.5-metre-wide green space within boulevards or allowing parallel installation under proposed sidewalks should create sufficient space to install and maintain most gas distribution facilities.

SaskEnergy may require future District Regulator Stations within the University Sector. Suitable sites will be determined as development progresses based on immediate and future needs.

Developers are required to work with SaskEnergy to establish appropriate locations for future regulator stations, pipeline routing, and system isolation zones.

Telecommunications Utilities

Negotiations between developers and service providers will be required prior to the start of development ideally at the concept plan stage. Consideration should be given to incorporating facilities on the rooftop of a proposed building to be more discreet. If this is not possible, facility sites should be landscaped and screened at the developer's expense to visually blend into the surrounding neighbourhood at grade level.

Future cell tower facilities will be required throughout the University Sector. As part of the concept plan process, land holdings should be secured to integrate these facilities with the surrounding land uses.

Policies:

- 7.2.1 Utility alignments may be refined at the concept plan stage without an amendment to this Sector Plan.
- 7.2.2 Prior to approval of a concept plan, the applicant shall submit studies and information deemed necessary to identify the location and alignment requirements of utilities within the development.
- 7.2.3 138 kv transmission lines should not be relocated unless absolutely necessary. The location of existing utilities should be incorporated in the design of future development areas.
- 7.2.4 The concept plan applicant bears the full cost of any relocation of utility lines proposed as part of the concept plan.
- 7.2.5 Easements should be designed and landscaped to encourage an active pedestrian realm or a green linkage to incorporate ecological functions within the built environment.
- 7.2.6 Telecommunication utility facilities should be placed on roof-tops, if possible. If not possible, landscaping and screening features should be incorporated to integrate these facilities with the surrounding land uses.
- 7.2.7 A 2.5-metre-wide green space within boulevards, where needed, should be considered in future concept plans to create sufficient space for gas distribution utilities.

7.3 CANADIAN PACIFIC RAILWAY

The Canadian Pacific Railway line travels through the University Sector. The rail line is a heavily used corridor that connects to the Sutherland train yard and travels through the city.

As growth within the University Sector begins, particularly within Parcel K, potential rail crossings may be needed to connect Innovation Place. Any proposed railway crossings will be determined and confirmed in a concept plan.

According to the Federation of Canadian Municipalities (FCM – RAC) Guidelines for New Development in Proximity to Railway Operations (Guidelines) the standard recommended setbacks for new residential development in proximity to railway operations is 30 metres. Surface and structured parking facilities are permitted within the 30-metre setback.

In addition to building setbacks, safety barriers are also recommended to reduce the risks associated with railway incidents. The FCM – RAC Guidelines offer a variety of safety barriers for railway lines, including berms and crash walls.

Noise from rail operations is a key issue in terms of the livability of residential developments in proximity to railways. Since rail noise is site-specific, the level and impact of noise on a given site should be accurately assessed by a qualified acoustic consultant through the

preparation of a noise impact study. A noise impact study is typically required at submission of a concept plan. A noise impact and vibration study will be required with the submission of a concept plan, specifically for Parcel K.

Policies:

- 7.3.1 Any proposed residential buildings will require a minimum 30 metre setback distance from the Canadian Pacific Railway line. Setback distances must be measured from the mutual property line to the building face. Parking facilities and open spaces can be located within this setback area.
- 7.3.2 Any proposed development within the University Sector Plan should review the FCM – RAC Guidelines and either comply with these recommendations or propose alternative measures that provide the same level of safety.
- 7.3.3 A noise impact and vibration study will be required with the submission of any concept plan that includes Parcel K.
- 7.3.4 A noise impact and vibration study requirement for all other areas will be determined at the concept plan stage.

DEVELOPMENT PHASING



8.1 PHASING

As a plan for an area surrounded by existing urban development, the University Sector Plan provides unique opportunities and challenges regarding how development is phased. Phasing of development must align with available servicing or required improvements to water, sanitary, and stormwater services. Essentially, as long as the required infrastructure is in place, development may proceed.

In the University Sector, each phase of development will be determined by planned infrastructure improvements. Development must proceed in compliance with the individual concept plan(s) for each area and supported by planned infrastructure servicing until each area is substantially complete. This phasing strategy allows some flexibility in terms of which area is developed first, but once infrastructure investments have been

confirmed, future phasing plans will be set based on this investment.

Plans for development phasing should be confirmed as early as possible to allow the City time to balance University Sector phasing with other investments and servicing allocations.

Based on initial assessments of expected infrastructure improvements needed and USask's land development principles, the following are expected to be the first two phases.

Proposed Phase 1

Phase 1 is expected to consist of Parcel A and possibly portions of Parcels B/C (as outlined in Section 4.2). Development of Parcel A may be considered a

continuation of the current and planned development of the College Quarter.

Phase 1 will also initiate a critical component of the Sector Plan, development of the Corridor Growth Area along Preston Avenue between College Drive and 14th Street. The development of the Corridor Growth Area plays an important part in establishing the critical population mass necessary for the long-term viability of the BRT system. In addition, this phase will increase accessibility to retail uses, and encourage the development of the consecutive phases.

Proposed Phase 2

The second proposed phase of development is expected to include development of Parcel K. Development within this phase will complement the successful commercial component at Preston Crossing as well as the existing office developments at Innovation Place. Based on available servicing capacity or proposed infrastructure improvement, concept plans or development within this phase may include portions of adjacent areas. Commitment to this phase is subject to validation by USask, taking into consideration development economics, breadth and scale of development, and infrastructure requirements. A future phase may commence without necessitating the

completion of a preceding phase if appropriate servicing is in place.

Future Phases

Future phases will be determined based on existing or proposed servicing capacity and USask's land development principles.

Policies:

- 8.1.1 Development phasing will be determined based on available or planned servicing.
- 8.1.2 Once infrastructure investments have been confirmed, future phasing must align with these investments.
- 8.1.3 Development of a new phase should not proceed until the preceding phase is substantially complete. This will be determined by City growth policies and the City's Planning and Development department.
- 8.1.4 Individual phases of development can contain multiple concept plan areas, depending on the unique nature of each site and existing or proposed servicing availability.

