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# Old Strathcona Parking Study

Prepared by  
**Mobility Strategies, City of Edmonton**

FINAL REPORT - April 4, 2023

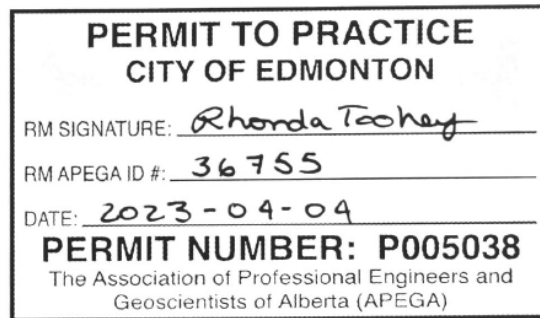
**Edmonton**

# Authentication and Validation

This document titled “**Old Strathcona Parking Study**” was prepared by the Mobility Strategies unit of the City of Edmonton for the benefit of the Mass Transit: Implementing for 1.25 Million People and Old Strathcona Public Realm Strategy projects. The information, data, analyses and interpretation outlined in the document reflects the City of Edmonton’s best professional judgement in light of the knowledge and information available at the time of preparation. By applying the APEGA Licensed Professional’s stamp and APEGA Permit to Practice seal on this cover sheet, Dallas Karhut is validating that they have reviewed the technical content of this document and certify it to be acceptable.



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# Executive Summary

Whyte Avenue is anticipated to accommodate a key mass transit route in the future and is also scheduled to be rehabilitated in the short- to medium-term as part of the roadway maintenance program. This reinvestment is an opportunity to reimagine this important urban street to better align with the vision and direction outlined in The City Plan.

The Old Strathcona area, anchored by Whyte Avenue, is a cultural, commercial and residential activity centre in Edmonton's core. Whyte Avenue currently serves Edmontonians in many ways and repurposing the space on Whyte Avenue—in alignment with The City Plan—will inevitably require trade-offs, including potentially repurposing on-street parking.

As such, the purpose of this study is to understand how on-street parking is provided and used along Whyte Avenue and in Old Strathcona. While this study offers insights as to how parking on Whyte Avenue could be managed differently to enhance the public realm, accommodate transit, and maintain / restore the character of Whyte Avenue as a main street, the study is intended to serve as a consideration in future planning and design decisions for Whyte Avenue and the broader area.

The approach to parking policy and strategy is changing under the direction of The City Plan. Curbside parking is important infrastructure for residents and for businesses, however “increasing the efficiency of this publicly owned [space] will also mean managing and treating parking, curbside space and roadways as strategic public assets,” as outlined in The City Plan. Curbside space performs many functions in vibrant, great cities including reliable transit or active mobility lanes, accessible parking, short-stay parking, patios, and many other uses. The City is currently working on the implementation of the Curbside Management Strategy which will define the future priority uses of this space and the tools to manage them safely and equitably.

## Key Study Takeaways:

- There are more than **3,500 public parking spaces available** within the study area including on-street curbside and publicly available off-street parking.
- There are **1,965 on-street curbside** parking spaces within the study area, including parking adjacent to residences.
- About **80%** of the on-street parking supply **is unpaid, free parking**, and 60% of the on-street parking supply are unrestricted parking spaces.
- On-street curbside **parking utilization is, generally, below 65%**, but never exceeds 72% during all study time periods. This level of utilization broadly translates to about 650 to 880 available on-street parking spaces within the area.
- For most of the intervals surveyed, there are between **250 and 500 available parking spaces within one block of Whyte Avenue**.

- Vehicles that park **between 106 Street and Gateway Boulevard stay for shorter periods of time** compared to vehicles parked in the other zones in the study area. This is evidence that the moderately priced paid parking in this area works to lower parking durations and unlock the curbside parking supply for more people to use, maximizing infrastructure efficiency.
- The proposed solution is to apply parking management tools to the area such as expanding paid and time-restricted parking zones to ensure that parking spaces are managed like the public asset that they are (i.e., experiencing a utilization rate that promotes efficient and active use of the spaces while also ensuring spaces are available). These parking management tools are, and must be, consistent with the developing Curbside Management Strategy.
- Guiding principles to support the development of potential parking strategies that align with The City Plan are advanced:
  1. Better Manage Existing Parking rather than Build New Parking
  2. Apply New Parking Management Tools
  3. Consider the Needs of All Parking Users
  4. Parking Management Benefits People Beyond those who Park
  5. Include the Public
- The next steps, at a high level, in developing parking management tactics and programs for the area; include identifying how many on-street parking spaces along Whyte Avenue may be repurposed, developing a program, engaging with Edmontonians and key stakeholders, implement the program, and collect parking utilization and occupancy data and communicate the results.

## **TABLE OF CONTENTS**

<b>1. Purpose and Objectives</b>	<b>6</b>
<b>2. Area Context</b>	<b>8</b>
<b>3. Study Methodology</b>	<b>13</b>
<b>4. Parking Supply Assessment</b>	<b>18</b>
<b>5. Parking Demand Analysis</b>	<b>29</b>
<b>6. Potential Parking Strategies</b>	<b>52</b>
<b>Appendix A - Parking Supply by Block</b>	
<b>Appendix B - Parking Utilization Maps</b>	

# 1. Purpose and Objectives

## 1.1. Purpose

Whyte Avenue is scheduled to be rehabilitated at some point over the next 10 years (likely during the 2028-2031 capital budget cycle). Whyte Avenue is also anticipated to serve as a mass transit corridor under the 1.25 million population horizon. This reconstruction, whether considered as part of the road maintenance program or mass transit implementation, is an opportunity to reimagine Whyte Avenue to better align with the vision and direction outlined in The City Plan.

The Old Strathcona area, anchored by Whyte Avenue, is a cultural, commercial and residential activity centre in Edmonton's core. Whyte Avenue currently serves Edmontonians in many ways including as a main street, an entertainment district and a transit and commuter corridor. Repurposing the space on Whyte Avenue will, inevitably, require trade-offs given the many different ways in which the corridor is used and the potential impacts to the broader area given that Old Strathcona is one of Edmonton's most dense and vibrant areas.

The purpose of study is to understand how parking is provided and used along Whyte Avenue and in Old Strathcona. While this study will offer some insights as to how parking on Whyte Avenue could be repurposed and / or better managed to enhance the public realm, better accommodate transit, and maintain / restore the character of Whyte Avenue as a main street, its main role is to serve as a consideration for future planning and design decisions for Whyte Avenue and the broader Old Strathcona area.

## 1.2. Supporting Projects

This project is intended to support the development of outcomes associated with the following projects:

Building off of PlanWhyte, the [Old Strathcona Public Realm Strategy \(OSPRS\)](#) will prioritize public space improvements to support a range of land uses, streetscapes and amenities through a series of short, medium and long-term recommendations. The plan will add to the vibrant and diverse opportunities for people to live, work and play within Old Strathcona, surrounding neighbourhoods and through connections to the River Valley. The project includes two study areas: Whyte Avenue from 99 Street to 109 Street; and the area between 102 and 104 Streets (centred on Gateway Boulevard) between 81 Avenue and Saskatchewan Drive. This project is currently underway and is expected to be completed in 2023.

[Mass Transit: Implementing for 1.25 Million People](#) will confirm mass transit route alignments and provide high-level design guidance for key corridors identified as mass transit corridors. Whyte Avenue from 109 Street to 83 Street is identified as a semi-exclusive route,

which means transit vehicles are anticipated to run on a semi-exclusive running way (i.e., a dedicated transit lane) to increase travel speed and improve reliability. This project is currently underway and is also expected to be completed in 2023.

**Whyte Avenue Rehabilitation** | Whyte Avenue between 109 Street and 99 Street is scheduled to undergo significant maintenance at some point in the next 10 years. The maintenance will likely include reconstructing some segments of the corridor (rebuild of sidewalks, curbs and roadway) and rehabilitating other segments (focuses on milling and repaving). Whyte Avenue reconstruction / rehabilitation is likely to be scheduled at some point between 2027 and 2034 (aligning with the Capital Budget). This maintenance project provides a unique opportunity to reimagine how Whyte Avenue is designed and potentially reallocate some road space to other street design elements such as wider public realm spaces and dedicated transit lanes. The Whyte Avenue design is anticipated to be informed by the Old Strathcona Public Realm Strategy and the Mass Transit: Implementing for 1.25 Million People projects.

**Farmer's Market Surface Parking Lease** | The City owns the land parcel at 11 Tommy Banks Way and currently leases it to the Old Strathcona Farmer's Market as an off-street surface parking lot. The lease expires in 2025 and the City is currently considering alternative uses for that land to better support Whyte Avenue and Old Strathcona.

### 1.3. Study Objectives

Effective management of parking is a powerful tool to enable other curbside uses and create opportunities to accommodate other mobility options. The objectives of this parking study include the following:

1. To understand the parking characteristics in Old Strathcona by:
  - a. Surveying and documenting how the on-street curbside space is currently used within the study area and assessing the number of available curbside parking spaces.
  - b. Measuring on-street parking utilization and occupancy within the study area to provide insights about how the design of Whyte Avenue and potential repurposing of the Old Strathcona Farmers Market parking lot could impact parking conditions in the area.
2. Strategizing ways, at a high level, in which the impact of repurposing on-street parking on Whyte Avenue and off-street parking in the Old Strathcona Farmers Market parking lot could be mitigated. This could include, but is not limited to, a range of approaches from using existing parking spaces more efficiently through paid parking, time-restricted parking or wayfinding.

## 2. Area Context

The Old Strathcona area includes some of Edmonton's oldest and most dense neighbourhoods, in terms of population, and is considered an anchor of Edmonton's south side for many reasons. The area features a mix of commercial, residential, and cultural land uses that contribute to a certain vibrancy that makes the area a commercial and cultural hub in Edmonton. The residential areas of Old Strathcona are mostly made up of low- and medium-density housing, including apartment buildings (generally located closer to Whyte Avenue) and single-family homes (generally located further from Whyte Avenue). Cultural land uses in Old Strathcona include theatres, libraries and other community and cultural services.

The commercial area of Old Strathcona is centered around Whyte Avenue, which includes shops and stores of varying sizes, restaurants, cafes, a farmers market and entertainment uses such as bars and an arcade. This range of uses make Whyte Avenue unique, serving several roles including that as a main street, arts and entertainment district, and a key link of Edmonton's mobility network.

### 2.1. A Main Street and Arts and Entertainment District

As a main street, Whyte Avenue is home to many smaller-scale shops, businesses, cafes and restaurants. Throughout all seasons, Whyte Avenue, and parts of the Old Strathcona neighbourhood, offers a unique shopping and dining experience that serves local residents and visitors from other parts of the City and region.

As an entertainment and arts district, the Old Strathcona area includes numerous theatres, studios, restaurants, bars and pubs that help to establish it as a key destination for entertainment. Whyte Avenue, and other parts of Old Strathcona, are also known for hosting some of Edmonton's many festivals throughout the year, including The Fringe Festival and Art Walk.

The Old Strathcona area is also designated a Provincial Historic Area given its pre-World War I commercial and social development of one of Alberta's most significant early communities, as highlighted on [edmonton.ca](http://edmonton.ca). Its architectural richness and the integrity of its historic buildings is unlike most other areas of Edmonton and play a significant role in maintaining a certain "charm" that resonates with Edmontonians and visitors. The heritage and history of the area, along with other characteristics such as murals and parks, provide a perfect backdrop for activity.

### 2.2. A Transportation Corridor

Whyte Avenue, along with 104 Street (Calgary Trail), Gateway Boulevard and 109 Street serve as key links in Edmonton's mobility network. Whyte Avenue between 99 Street and Whyte Avenue is, generally, constructed to a five-lane cross-section which includes two eastbound lanes, centre left-turn lanes or bays / median, and two westbound lanes, with right turn-bays included at some intersections. Most of the corridor also includes vehicle parking



lanes on both sides of the street. The public realm on both sides typically includes a sidewalk along with trees and street furniture.

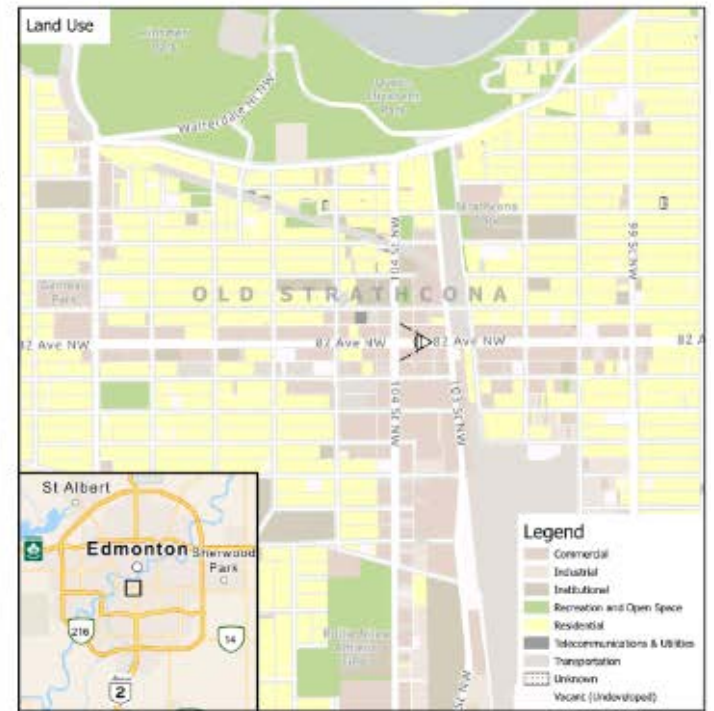
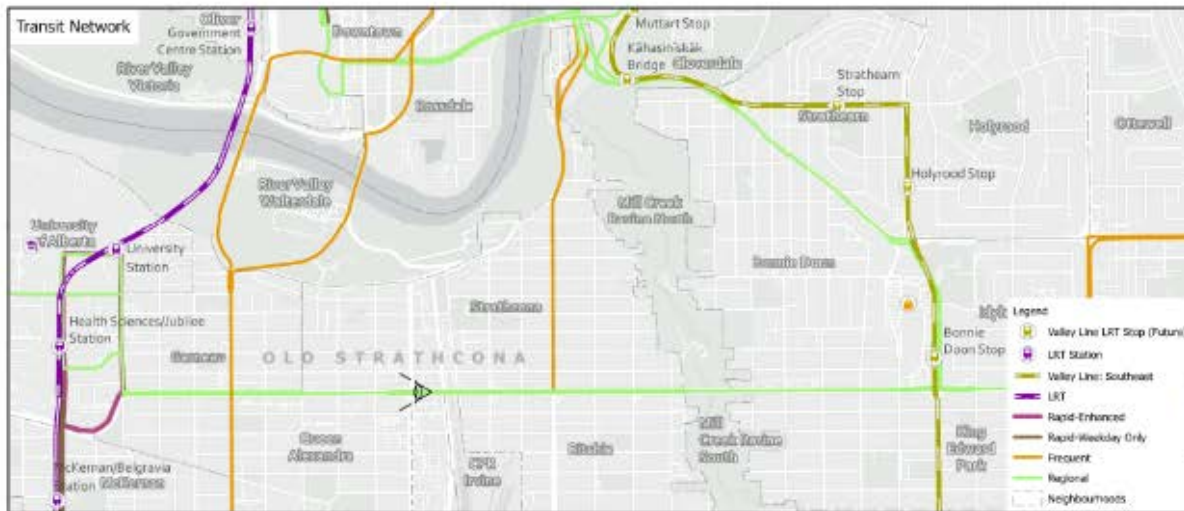
While the Whyte Avenue corridor includes sidewalks on both sides of the street, the widths and quality of the sidewalks can be considered modest, especially when considering the amount of pedestrian activity the corridor generates as a main street and arts and entertainment district. The public realm space and amenities are currently being examined in more detail through the Old Strathcona Public Realm Strategy.

Whyte Avenue also serves as a key transit link connecting Bonnie Doon and East Edmonton to the University area. The corridor accommodates many routes, some of which operate at high frequencies, particularly during the peak travel periods. Anecdotally, transit on Whyte Avenue during the peak travel periods is noted for moving particularly slow due to traffic congestion and the number of people that transit serves (which increases dwell times at stops).

Parking on Whyte Avenue typically includes a combination of paid parking, restricted parking and accessible parking. There are also loading zones and accessible parking spaces provided. On some blocks, parking is not allowed during peak periods to allow for the movement of vehicles and transit. North and south of Whyte Avenue, most streets accommodate on-street parking. Some of the spaces provided are paid parking, but most are managed through parking restrictions. There are also unrestricted parking spaces available, most of which are further from Whyte Avenue. In addition to on-street parking, there are several off-street parking lots in the area. These lots include public parking lots operated by a private vendor or the City, lots intended to accommodate customer or employee parking for retailers or businesses in the area. The parking characteristics of Whyte Avenue and the Old Strathcona area, within the study area, are described in more detail in Section 4.

**Figure 2-1** illustrates the Whyte Avenue and Old Strathcona land use and mobility context.

Figure 2-1: Whyte Avenue and Old Strathcona Area Context



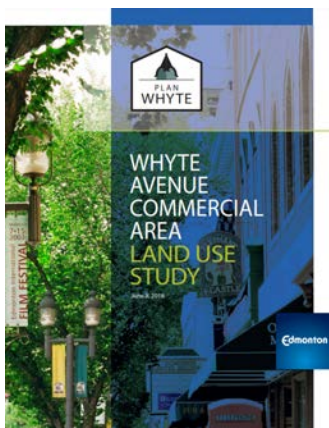
## 2.3. Plans in Effect

There are a number of city-wide and area-specific planning plans in effect including the following:



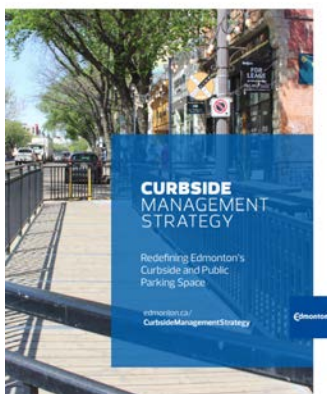
**The City Plan** - *The City Plan* is a combined Municipal Development Plan and Transportation Master Plan which outlines the City's future land use development and transportation directions. A key direction from *The City Plan* is to have 50% of all trips completed by transit and active mobility, such as walking, rolling and biking. The City Plan encourages active transportation modes and transit use by enhancing the public realm, connectivity, and amenity space.

The City Plan identifies Old Strathcona and the surrounding area as a priority growth area with two primary corridors: Whyte Avenue and Calgary Trail. A primary corridor is defined as a prominent urban street with busy sidewalks, mass transit, public spaces, and various commercial, residential and/or mixed land uses. It is designed to be a vibrant space for activities as well as a corridor to connect different areas of the City.



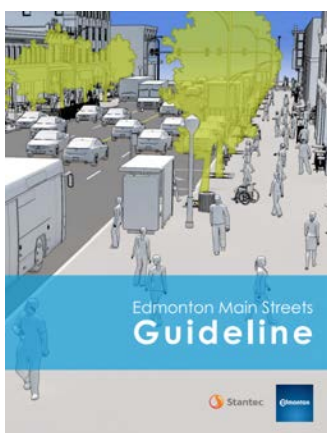
**planWhyte** - *planWhyte* is a land use study which proposes a series of recommendations to strengthen the heritage and character of the area, manage future growth to benefit community and local business, and revitalize the heart of Old Strathcona as one of Edmonton's premier arts, culture and tourism destinations. *planWhyte* encourages active transportation modes and transit through the area and along Whyte Avenue by enhancing the public realm, improving connectivity, and providing more amenity space.

Specific direction provided by *planWhyte* includes improving area parking efficiency through tactics such as wayfinding while also working to reduce parking demand in the area. *planWhyte* also outlines the consideration of more active mobility connections throughout the area, specifically the consideration of converting the existing northbound transit lane on 104 Street to an active mobility connection.



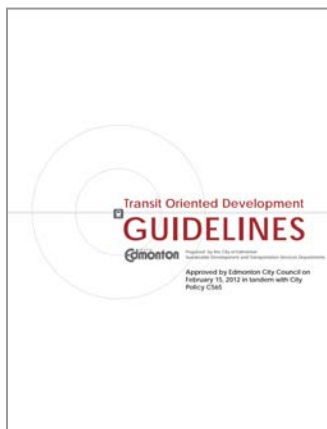
**Curbside Management Strategy** - The *Curbside Management Strategy* provides a series of necessary actions to reimagine and reform public parking and street curbsides as strategic public assets in order to get more out of this infrastructure for residents, businesses, and their customers.

The strategic direction in the Curbside Management Strategy and that of subsequent actions, will guide the development of options to approach parking in the area advanced in this study.



**Main Streets Guideline** - The *Main Streets Guideline* provides design principles and guidance on the planning, design, and operation of Main Street in order to enhance the streetscape and pedestrian experience on designated corridors.

Whyte Avenue is a Main Street in Edmonton. The Main Streets Principles in the guideline will guide the planning and decision-making process in this study.



**Transit Oriented Development Guidelines** - The Transit Oriented Development Guidelines help to guide and integrate development in neighbourhoods around LRT stations and transit centres.

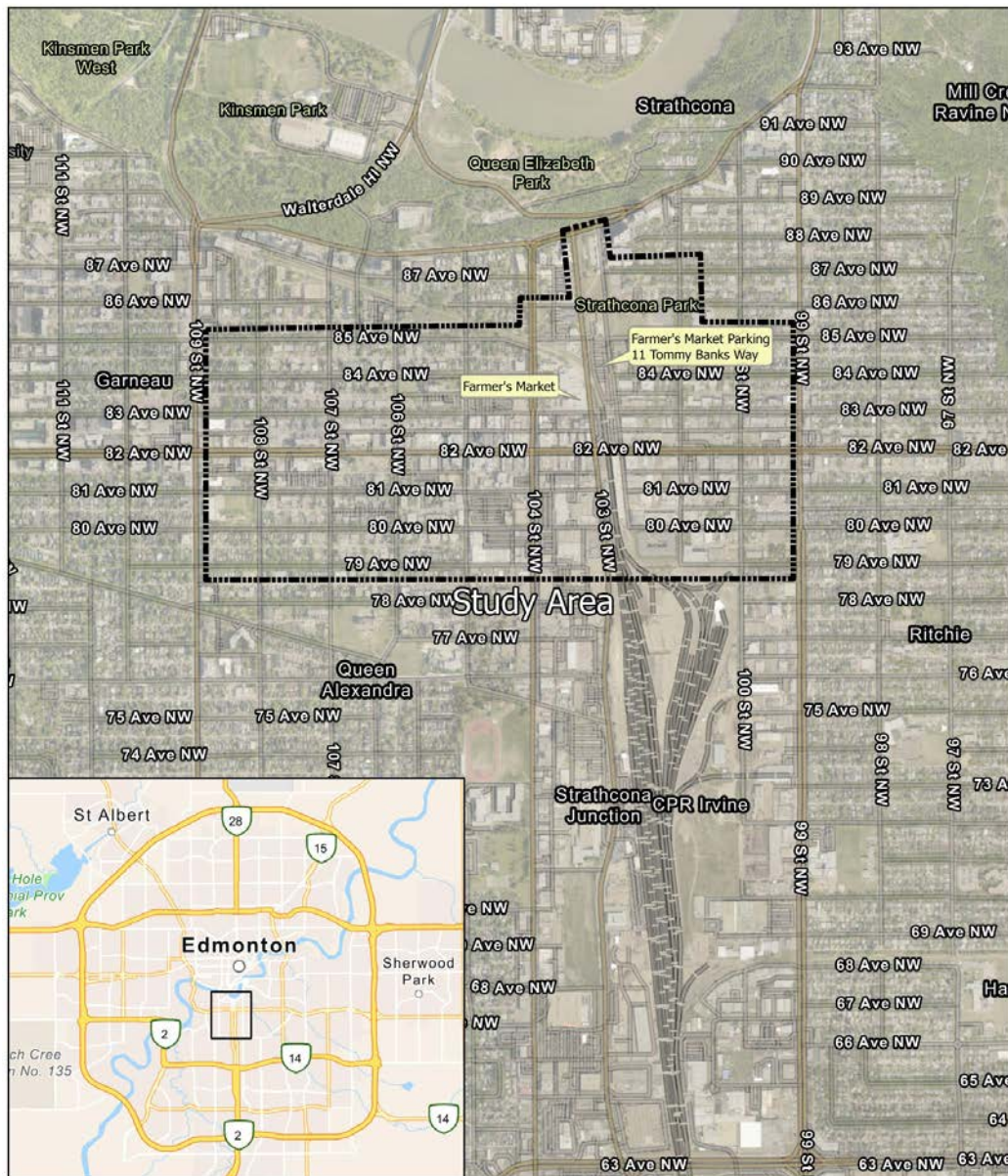
The Transit Oriented Development Guidelines will provide guidance on how the street space is used on Whyte Avenue, which will be an important corridor for bus-based mass transit system.

### 3. Study Methodology

#### 3.1. Study Area

The study area is generally bounded by 109 Street to the west, 85 Avenue to the north, 79 Avenue to the south and 99 Street to the east. The study area is shown in **Figure 3-1**.

**Figure 3.1: Study Area**

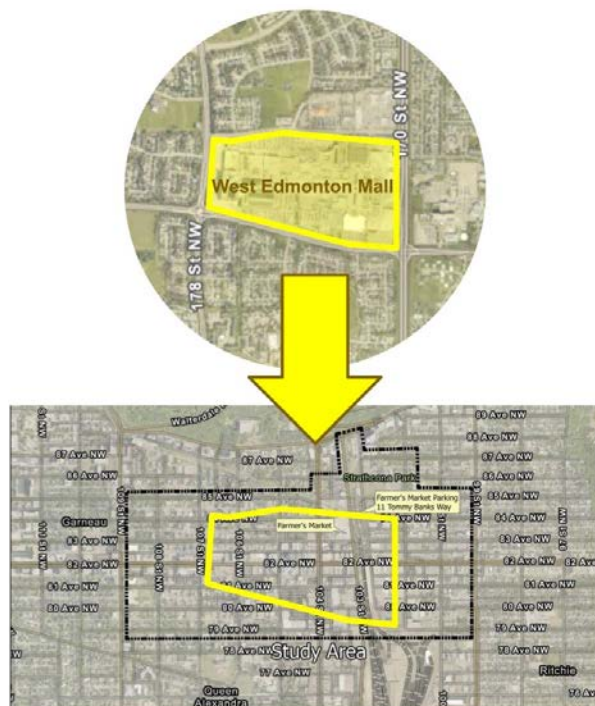


While Whyte Avenue is the focus of the mass transit network, the study area includes three parallel blocks north and south of Whyte Avenue. The purpose of including the parallel blocks is two-fold:

1. To capture the parking conditions within a five- to seven-minute walk, generally, to / from Whyte Avenue between 109 Street and 99 Street. In addition, an area with a radius of about 400 metres was selected with the Old Strathcona Farmers Market parking lot as the centre. The purpose of this is to align with Study Area #1 of the Old Strathcona Public Realm Strategy.
2. To better understand the parking conditions associated with the residential blocks to better anticipate the potential impacts of repurposing parking spaces on Whyte Avenue.

**Figure 3-2** helps to put the study area in context walking distance by comparing the size of the study area to that of West Edmonton Mall.

**Figure 3-2: The Study Area Size Relative to West Edmonton Mall**



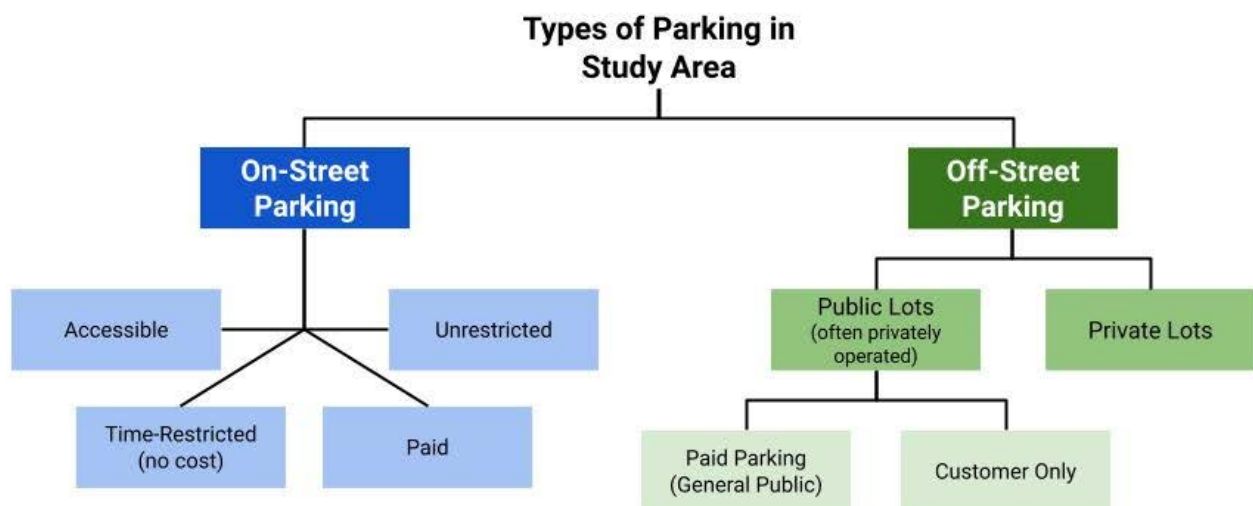
### 3.2. Parking Categories and Types Within Study Area

Two types of parking were considered in this parking study:

1. On-street parking describes all of the parking spaces along the curbside of streets.
2. Off-street parking describes parking spaces located in lots that are either publicly or privately operated. Off-street parking can be further categorized as off-street parking available to the public and off-street parking not available to the public (or private

parking). Further, lots available to the public may include parking spaces that are either available to all users or are for the sole purpose of customers conducting their business on-site only (i.e., customer-only parking). In this study, paid public parking lots in the area and customer-only parking lots were considered in the parking supply assessment, but only a few of the off-street paid public parking lots were surveyed for utilization. None of the customer-only parking lots were surveyed for utilization.

The different types of parking and the types of parking typically found in urban areas is illustrated below. This study considers on-street parking and the publicly available off-street parking lots (discussed further in Section 4). Private parking lots – those that accommodate residential parking or employee only parking – are not considered.



### 3.3. Survey Approach

Understanding the parking conditions in the area was completed in four steps:

#### **Step 1. Confirming Curbside Space Uses**

The first step was to survey and document how the curbside spaces in the study area are currently used for parking. This was initially completed through a desktop review referencing Google Maps and Google Streetview, then confirmed through a site visit. The determination of curbside uses was primarily based on parking signage, though other considerations such as distance from the curb and proximity to fire hydrants was also considered.

Curbside spaces that accommodate parking were then categorized based on whether the parking spaces are paid, restricted or unrestricted, along with any other considerations such as accessible parking. The number of spaces was estimated based on the following assumptions:

- Parallel spaces are assumed to have a length of 7 metres. This estimate is anticipated to be conservative as it can sufficiently accommodate many types of passenger vehicles such as SUVs or pick-up trucks.
- Perpendicular spaces are assumed to be 2.6 meters wide for standard and 4.8 meters wide for accessible parking spaces. These dimensions are the minimum stall width requirements in the City's Bylaw.
- Angle spaces are assumed to be oriented at an angle of 45 degrees and include a width of 2.6 metres. A linear dimension (along the curb) of 3.7 meters for standard spaces and 6.8 meters for accessible spaces was assumed.

The curbside use information was spatially mapped and serves as the foundation for the parking utilization analysis.

### **Step 2. Confirming Publicly Available Off-Street Parking Spaces**

The second step was to identify all off-street parking lots available for public use and to confirm how many parking spaces are in each. Private parking lots (e.g., those associated with multi-family residential buildings) were not included in identifying an off-street parking supply.

The number of off-street parking spaces was estimated through one, or a combination of, the following approaches:

- manually counting the number of spaces from an aerial photograph available in Google Maps;
- manually counting the number of spaces during a site visit; and/or
- obtaining the lot information from the parking lot operator (where possible).

### **Step 3. Measure Parking Utilization and Duration for On-Street Parking**

The existing parking demand was captured through the use of parking enforcement vehicles equipped with cameras that photographed the licence plates of each vehicle parked on each block in the study area. Once collected, the data was analyzed by text-reading software to identify the license plates of parking vehicles. In addition to license plate information, the approximate location of the vehicle and time that the picture was taken was recorded.

Thursday, Friday and Saturday in July were selected as the data collection period. These days are estimated to represent days of relatively higher levels of activity for Whyte Avenue and the Old Strathcona area given the area's role as a main street and arts and entertainment district, combined with typical parking profiles associated with residential land uses.



Below are the dates and times when the parking demand was collected:

- Thursday, July 14, 2022 - 2:00 pm to 9:30 pm
- Friday, July 15, 2022 - 2:00 pm to 9:30 pm
- Saturday, July 16, 2022 - 9:00 am to 5:30 pm

The survey periods were further divided into increments of 1.5 hours, which was determined based on several factors including the level of detail needed to develop reasonable parking profiles for a typical day and the time needed for the enforcement vehicles to complete their survey routes.

Once the data was collected and shared, it was spatially mapped in GIS. Given the level of accuracy with the enforcement vans in determining the parked vehicle locations, parked vehicles were grouped by blocks (rather than by space). The utilization of each block was calculated by summing the number of parked vehicles on a given block and dividing by the number of parking spaces provided. For the purposes of this study, accessible parking spaces are not included in the on-street parking supply.

#### **Step 4. Measure Parking Utilization for Off-Street Parking Lots**

Most of the off-street parking lots are privately operated. Private parking lots not available to the public are NOT considered in the study. Private lots available to the public may offer a benefit in accommodating parking demand for the area. However, these lots cannot be relied upon to accommodate displaced parked vehicles in the future given uncertainties around factors that would impact the availability and / or utilization of those parking spaces. Factors include changes to parking pricing, changes to parking operations (whether they serve the general public or people associated with a nearby business) and/or redevelopment potential. Therefore, the purpose of surveying these lots differs from the purpose of surveying the on-street parking in a couple of ways:

1. it provides a point of comparison in terms of utilization with on-street parking; and
2. it may provide some insights as to how much parking demand may be displaced from the Old Strathcona Farmer's Market should that lot be repurposed.

For the purpose of better understanding the parking characteristics associated with the off-street parking lots, three off-street parking lots were selected for survey including:

- Old Strathcona Farmer's Market parking lot
- St. Anthony District Meeting Centre Parking Lot
- South Scona Parking Lot

These lots and their characteristics are described further in Sections 4 and 5.

## 4. Parking Supply Assessment

Assessing the area parking supply is to quantify how many parking spaces are available for public use. The area parking supply consists of on-street parking and off-street parking.

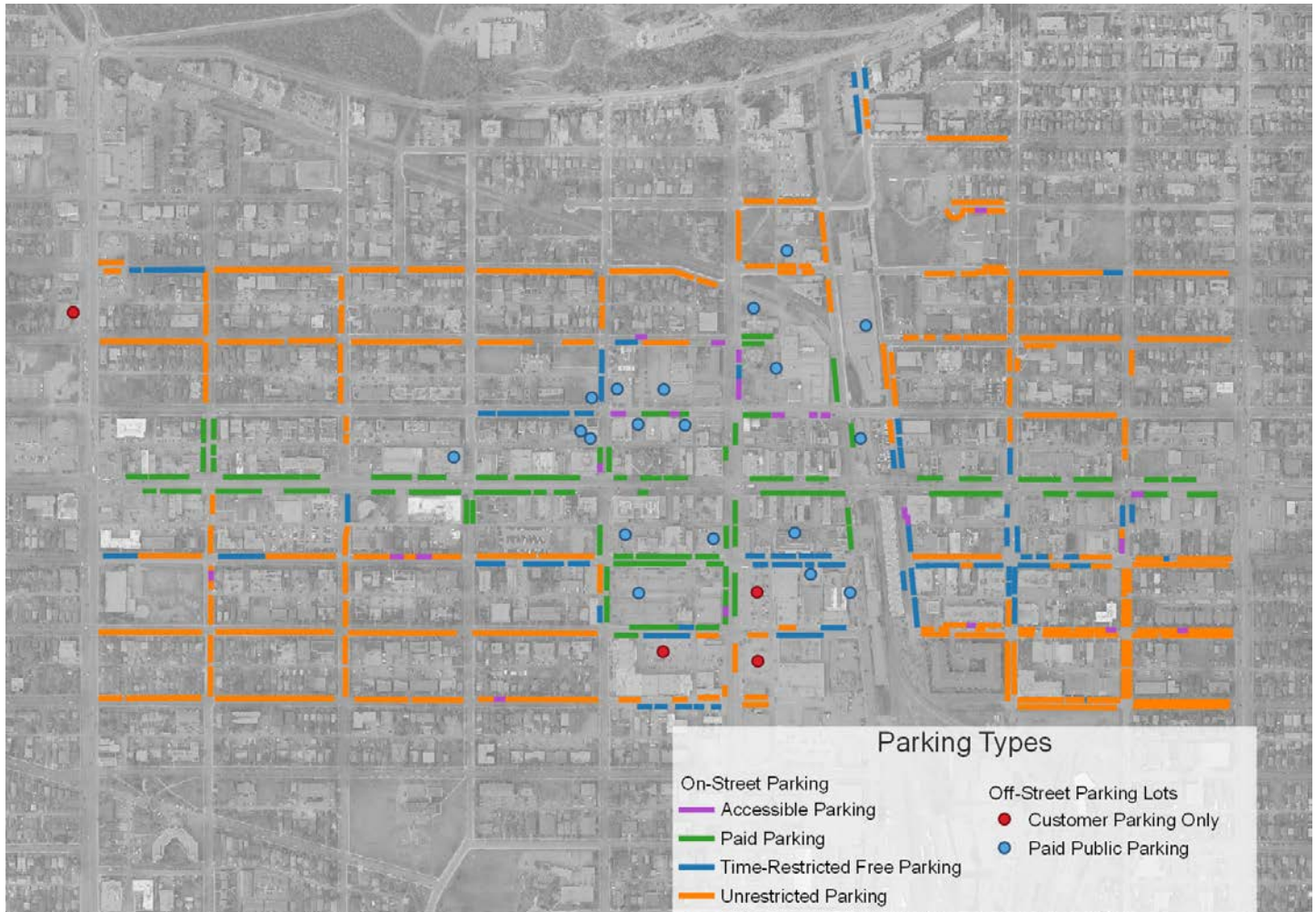
### 4.1. On-Street Parking

Within the study area, there are many different types of on-street parking spaces. The four key types of on-street parking include:

- **Unrestricted Parking** | These are curbside areas without any signs that either prohibit or restrict parking or call for payment to use a parking space. Other factors, such as proximity to intersections, accesses, driveways or fire hydrants are also taken into account when confirming unrestricted parking spaces.
- **Time-Restricted Free Parking** | These parking areas are delimited by signs permitting parking without payment. These signs typically state either the specific daytime period or maximum parking duration (more commonly a combination of both) during which parking is permitted.
- **Paid Parking** | These parking areas are delimited by EPark regulatory signs. Payment is required in exchange for the space during specific daytime periods, e.g. 09:00 to 18:00 from Monday to Saturday, with a maximum duration of stay (typically 1 or 2 hours).
- **Accessible Parking** | These are curbside areas with signs indicating that parking is reserved for people with disabilities, either for a maximum duration of stay, or for the full day.

**Figure 4.1** identifies the locations of unrestricted, time-restricted, paid and accessible parking spaces plus publicly available off-street parking lots in the area (discussed further in Section 4.2).

**Figure 4.1: On-Street and Off-Street Parking Types in Study Area**

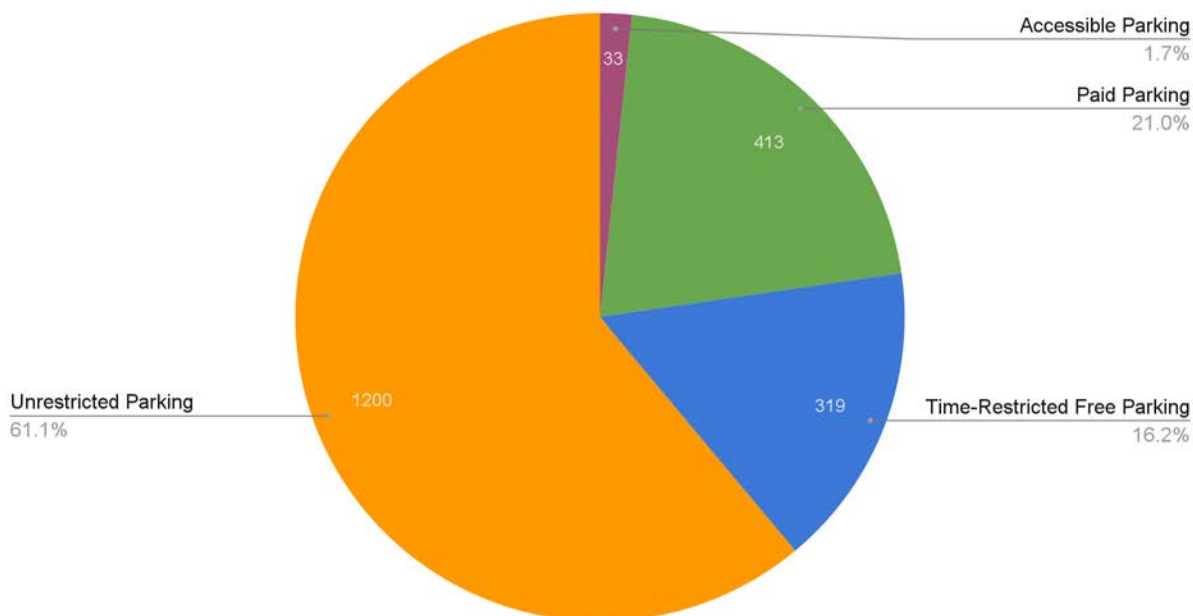


Based on the space dimension assumptions stated in Section 3, it is estimated that there are 1,965 on-street parking spaces within the study area. **Appendix A** includes a map with the number of on-street parking spaces on each block.

While the on-street parking supply is significant, it is important to note that the on-street parking supply is spread (somewhat) evenly across the area and, therefore, serves a wide range of land uses. For example, much of the on-street parking supply along Whyte Avenue and within one block in both directions likely predominantly supports those commercial and cultural land uses centred on Whyte Avenue. Much of the on-street parking further from Whyte Avenue generally supports lower density residential uses, such as single-family houses and smaller scale multi-family buildings.

**Figure 4.2** highlights the number of on-street parking spaces that are unrestricted, time-restricted, paid and accessible.

**Figure 4.2: Proportion of On-Street Parking Types**



## 4.2. Off-Street Parking

In addition to on-street parking, publicly available off-street parking lots were also considered. Off-street parking can be categorized as:

- Paid Public Parking** | These include both privately-operated and city-operated surface parking lots (though there is only one City-operated parking lot in the study area located in the northeast quadrant of the Whyte Avenue and Gateway Boulevard intersection). In addition, two covered parkades were included in the off-street parking supply assessment. Parking as a land use on these lots is often considered to be non-accessory, meaning that the parking generally accommodates people who are visiting land uses on sites other than the site that they parked on.
- Customer Only Parking** | These include site-specific surface parking lots only available to customers conducting business at the respective sites (where walk-offs are prohibited). These parking spaces are typically provided for free, provided the customer visits the store on the site, with a maximum duration of stay.

As previously mentioned, private parking lots – those that accommodate residential parking or employee only parking – are not considered in this study. The locations of the off-street parking lots, along with the on-street parking space types, are highlighted in Figure 4-1.

**Table 4.1** outlines the estimated number of parking spaces provided by each of the off-street parking lots in the study area.

**Table 4.1: Publicly Available Off-Street Parking Supply**

Lot Name and / or Operator	Location / Address	Type	Estimated Number of Spaces Provided
Parking Indigo - Lot 518 (South Scona Parking Lot)	10410-10416 81 Ave NW, Edmonton, AB T6E 4E5	Paid Public	257
Impark - Lot #415	10315 85 Ave NW, Edmonton, AB T6E 5R3	Paid Public	23
Old Strathcona Theatre District/Farmers' Market Parking Lot (Diamond Parking)	8404-8424 102 St NW, Edmonton, AB T6E 5T1	Paid Public	275
Impark - Lot #510	8010 Gateway Blvd NW, Edmonton, AB T6E 1X3	Paid Public	15
Impark - Lot #309	10444 81 Ave NW, Edmonton, AB T6E 1X5	Paid Public	26
Impark - Lot #248	10309 81 Ave NW, T6E 1X3	Paid Public	38
Impark - Varscona Parkade - Lot #327	8208 106 St, Edmonton, AB T6E 2A7	Paid Public	77
Impark - Lot #139	8228 105 St NW, Edmonton, AB T6E 4X8	Paid Public	8
Impark - Lot #293	8230 105 St NW, Edmonton, AB T6E 5H9	Paid Public	6
Impark - Lot #211	8309 105 St NW, Edmonton, AB T6E 4H4	Paid Public	39
Impark - Lot #337-1	10504 83 St NW, Edmonton, AB T6A 3P4	Paid Public	26
Impark - Lot #337-2	10504 83 Ave NW, Edmonton, AB T6E 2C9	Paid Public	29
Impark - Lot #136	10410-10416 81 Ave NW, Edmonton, AB T6E 4E5	Paid Public	50
Knox Evangelical Free Church Parking Lot (Precise Parklink)	8403 104 St NW, Edmonton, AB T6E 4G1	Paid Public	30
Precise Parklink	10335 84 Ave NW, Edmonton, AB T6E 2H1	Paid Public	10
St. Anthony District Meeting Centre Parking Lot (Edmonton Catholic Schools Parking Lot?)	10442 83 Ave NW, Edmonton, AB T6E 2H3	Paid Public	128

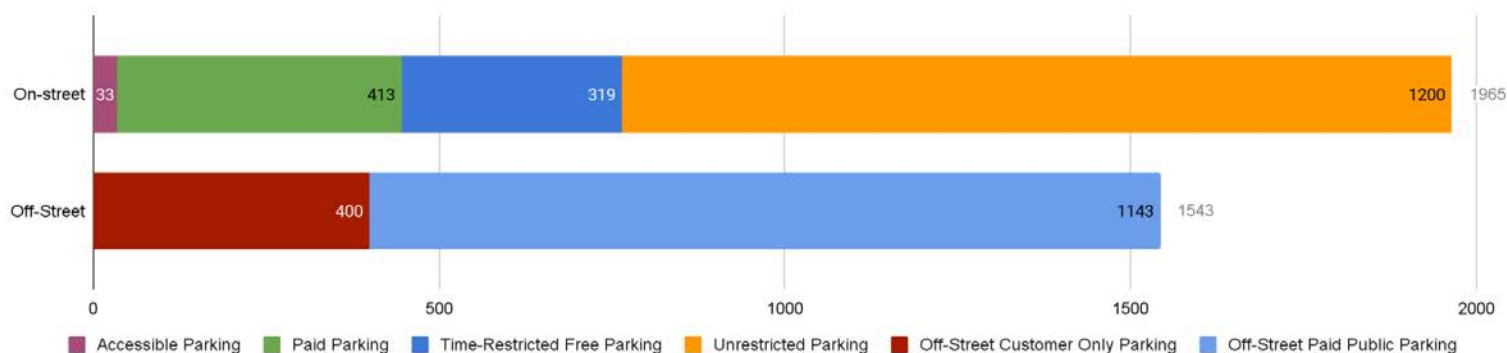
Lot Name and / or Operator	Location / Address	Type	Estimated Number of Spaces Provided
Diamond Parking - Parkade	10328 81 Ave NW, Edmonton, AB T6E 1X2	Paid Public	52
Precise Parklink (previously Impark - Lot #236)	10423 - 83 Avenue NW, T6E 2C7	Paid Public	30
City of Edmonton Surface Lot - EPark Zone 5013	8235 Gateway Blvd NW, Edmonton, AB T6E 4B2	Paid Public	24
Diamond Parking	Shoppers Drug Mart	Customer Only	120
Diamond Parking Service Lot - C182	Strathcona T.C.	Customer Only	130
Diamond Parking - Lot C282	Strathcona Centre	Customer Only	150
<b>TOTAL</b>			<b>1,543</b>

It is estimated that there are about 1,543 publicly available off-street parking spaces within the study area. Of these spaces, it is estimated that about 400 parking spaces are associated with customer only parking.

### 4.3. Total Public Parking Supply

Considering both on-street and publicly available off-street parking, it is estimated that there are more than 3,500 parking spaces available within the study area, as highlighted in **Figure 4.3**.

**Figure 4.3: Publicly Available Parking Supply in the Study Area**



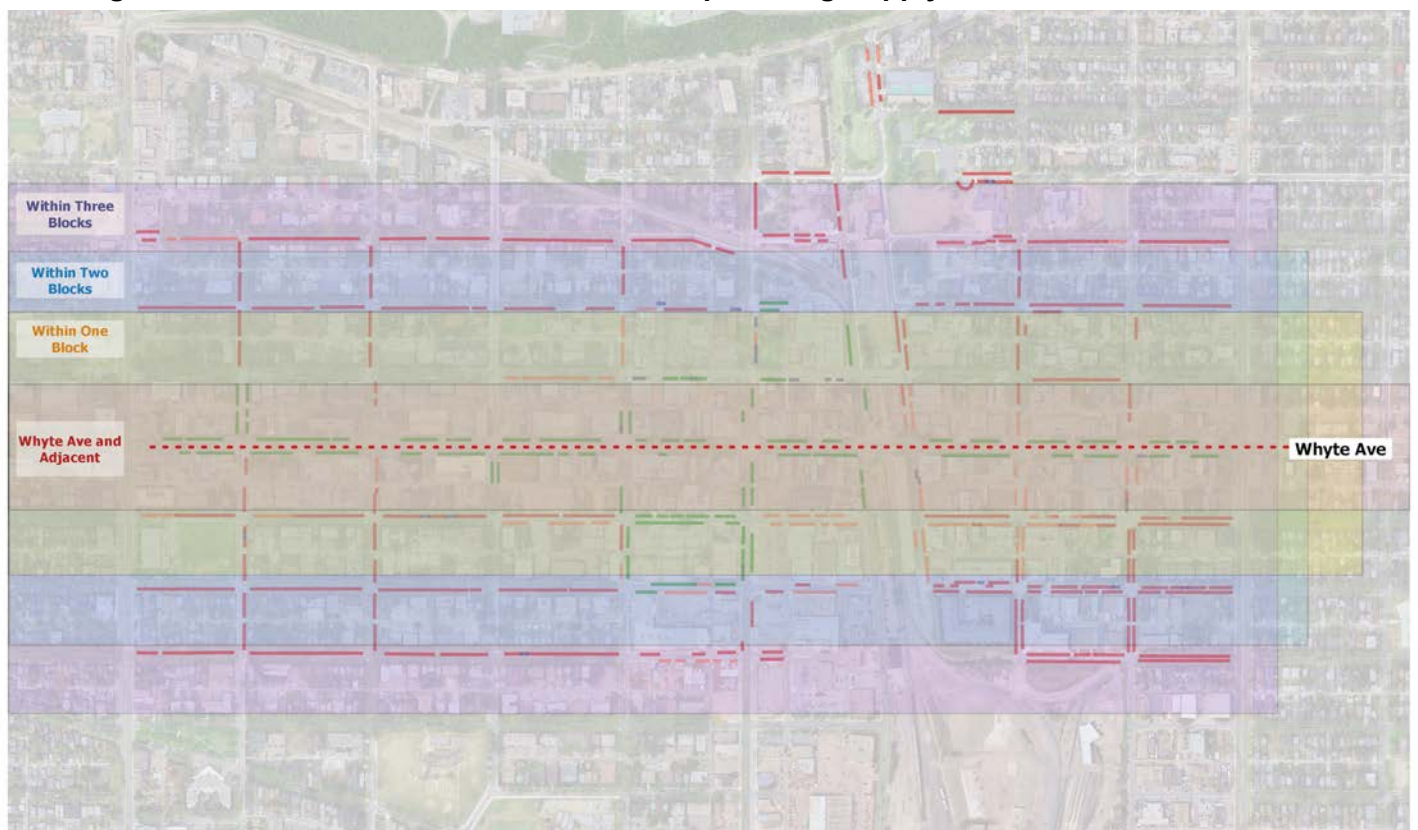
### 4.4. Parking Supply by Zone

To better understand how the parking supply (and, eventually, parking utilization) is distributed throughout the study area, the study area was divided into horizontal (east-west) and vertical (north-south) zones.

### 4.4.1. East-West Zones

Using Whyte Avenue as the reference east-west zone, parallel zones to the north and south were identified to sort parking spaces based on proximity to Whyte Avenue. The zones include “within one block”, “within two blocks” and “within three blocks”. The east-west zones are illustrated in **Figure 4.4**.

**Figure 4.4: East-West Zones Used to Group Parking Supply**

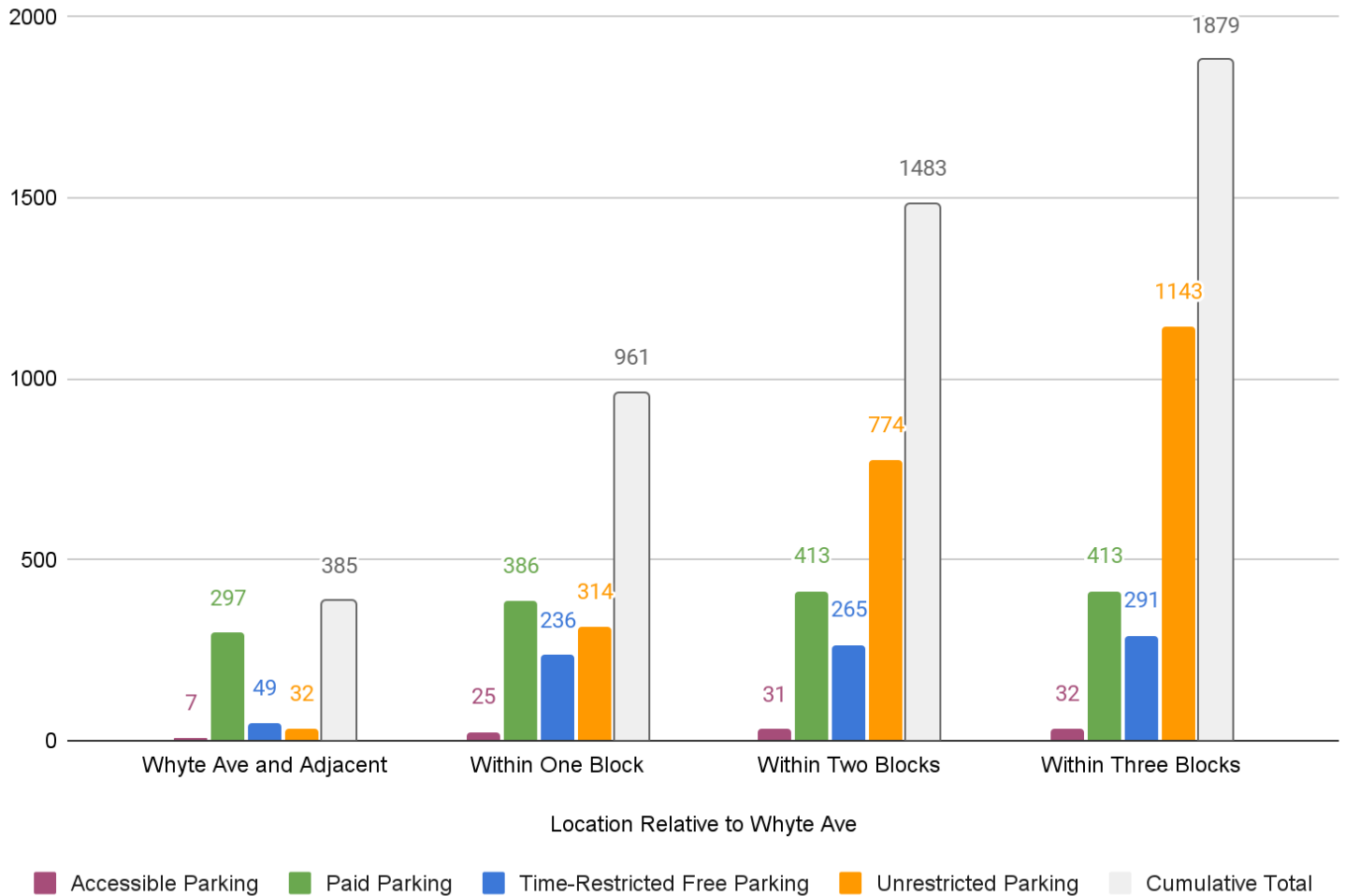


Note that the side streets to Whyte Avenue – the north-south streets – were grouped into zones based on the block closest to Whyte Avenue. For example, spaces categorized as “Whyte Avenue and Adjacent” are those on-street parking spaces located along Whyte Avenue and along the side streets immediately north and south for one block (e.g., side streets between Whyte Avenue and 81 Avenue or Whyte Avenue and 83 Avenue). Spaces categorized as “Within One Block” are those on-street parking spaces located along 81 Avenue and 83 Avenue, plus any along the side streets between 81 Avenue and 80 Avenue and 83 Avenue and 84 Avenue. Similar for spaces categorized “Within Two Blocks” and “Within Three Blocks”.

The on-street parking supply along Whyte Avenue and within one block of Whyte Avenue predominantly supports the commercial land uses centred on Whyte Avenue and medium-density residential land uses located just off of Whyte Avenue. The on-street parking supply located further from Whyte Avenue generally tends to serve lower-density residential land uses.

**Figure 4.5** summarizes the number of on-street parking spaces, by type, in each of the east-west zones.

**Figure 4.5: Number of On-Street Parking Spaces (by Type) Relative to Whyte Ave**

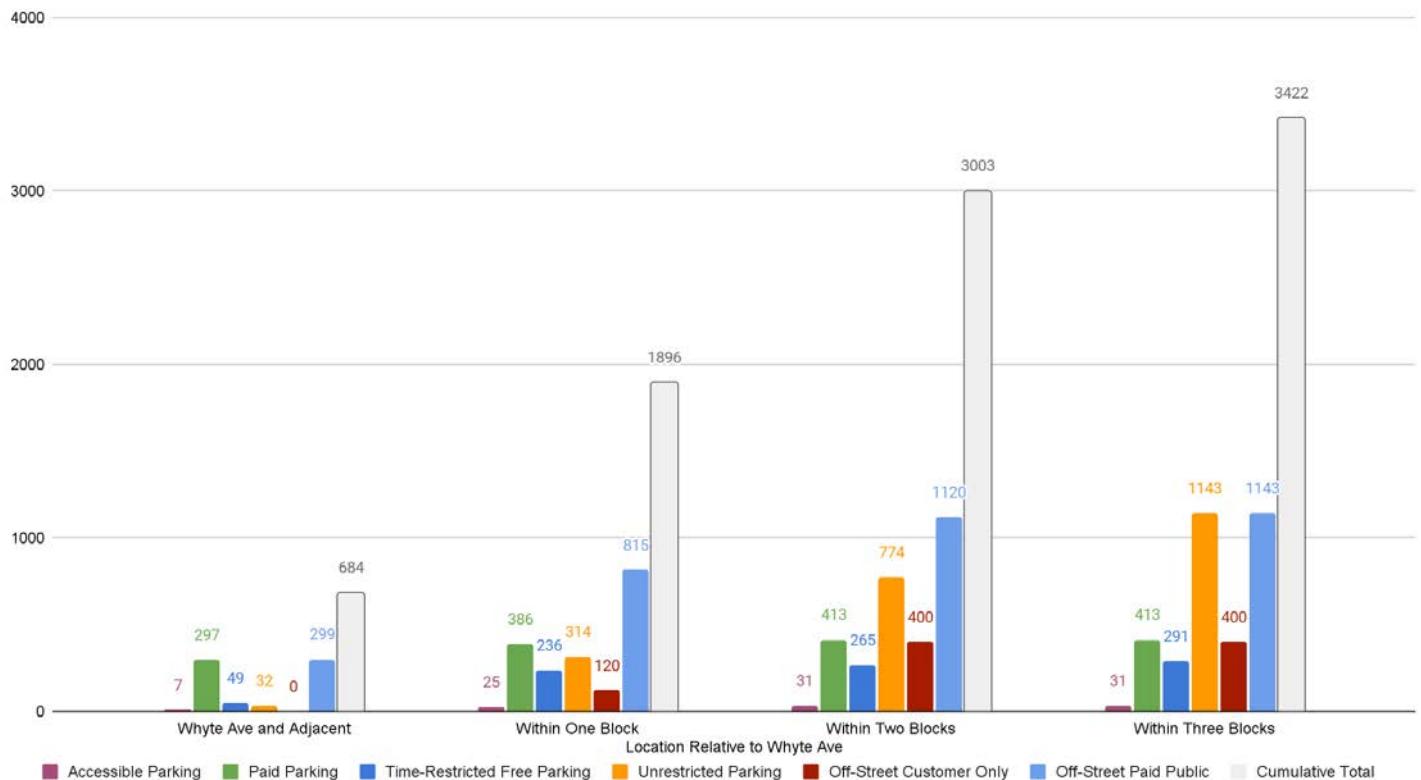


Note that the cumulative total on-street parking supply within three blocks of Whyte Avenue is 1,879 parking spaces rather than 1,965 parking spaces identified as the on-street parking supply of the study area. The discrepancy is because some of the blocks considered in the study area are more than three blocks from Whyte Avenue. These blocks were included in consideration of the Old Strathcona Farmers Market parking lot.

**Figure 4.6** illustrates the publicly available parking supply – on-street plus off-street – available in each east-west zone.



**Figure 4.6: On-Street and Off-Street Parking Supply by Relative to Whyte Avenue**



### 4.4.2. North-South Zones

The entire Whyte Avenue corridor, within and beyond the study area, is quite unique in that its characteristics change from segment to segment. For example, Whyte Avenue west of 109 Street features land uses that are predominantly residential with some commercial. East of the study area between 99 Street and Mill Creek Ravine, Whyte Avenue’s land uses are primarily residential. Further east of Mill Creek Ravine, the land uses transition back to commercial with some supporting multi-family residential; however, this segment of Whyte Avenue has far less of a “main street feel” to it as compared to Whyte Avenue within the study area.

Even within the study area, Whyte Avenue can be sorted into three segments that, while somewhat similar, are notably different:

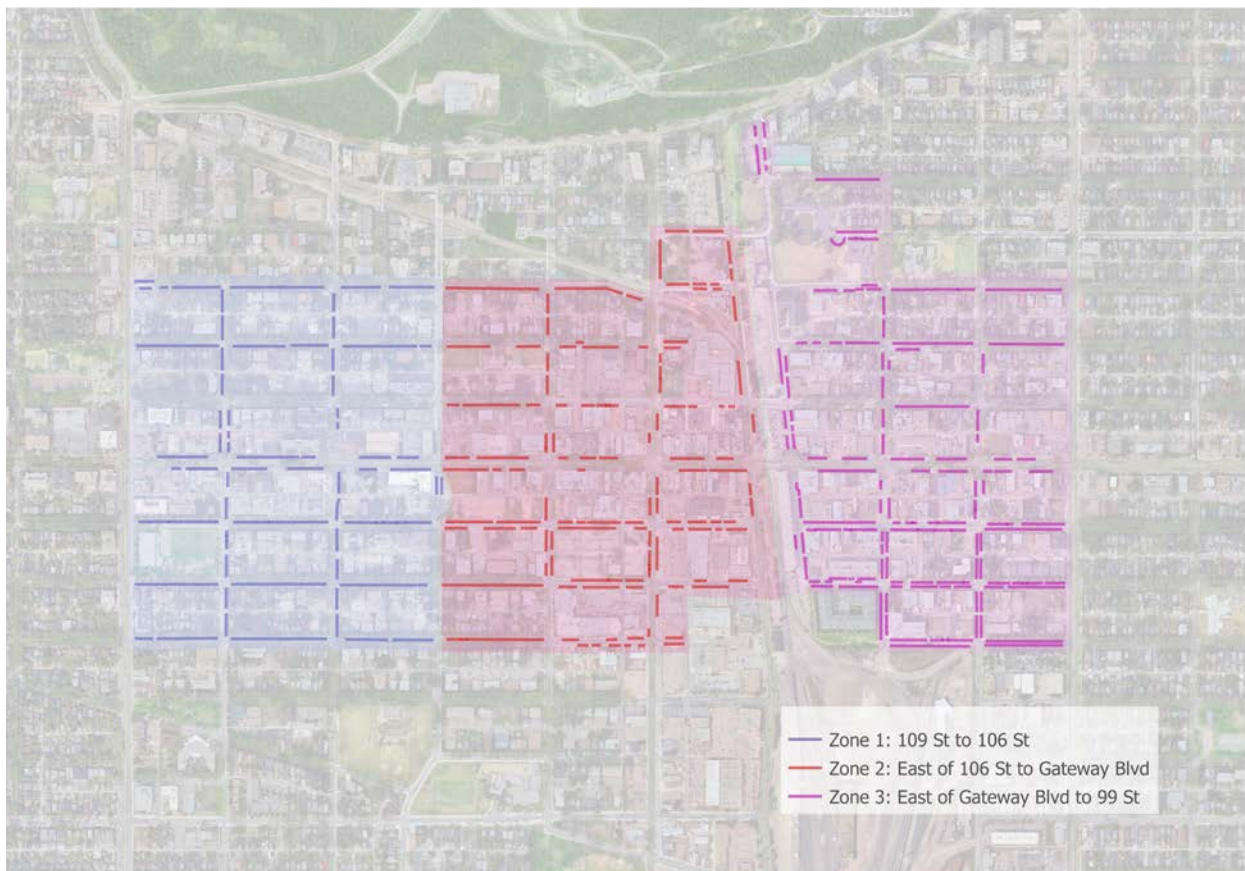
- **109 Street to 106 Street** | Primarily accommodates smaller scale commercial uses and restaurants that front onto Whyte Avenue, but does not include much in the way of supporting residential developments along the corridor and has limited entertainment land uses.
- **106 Street to Gateway Boulevard** | Includes many podium-style developments that accommodate commercial and entertainment uses on the street level and residential units on higher levels. This area of Whyte Avenue is the centre of the nighttime economy

in the area and, generally, is more vibrant with people on the street as compared to other segments of Whyte Avenue.

- **Gateway Boulevard to 99 Street** | This segment of Whyte Avenue includes many small- and medium-scale commercial uses, including some that are more car-oriented such as drive-thru oil change stations, used car dealerships and gas stations. This segment of Whyte Avenue is less vibrant, in terms of people walking along the sidewalks and activation, as compared to the other two segments described.

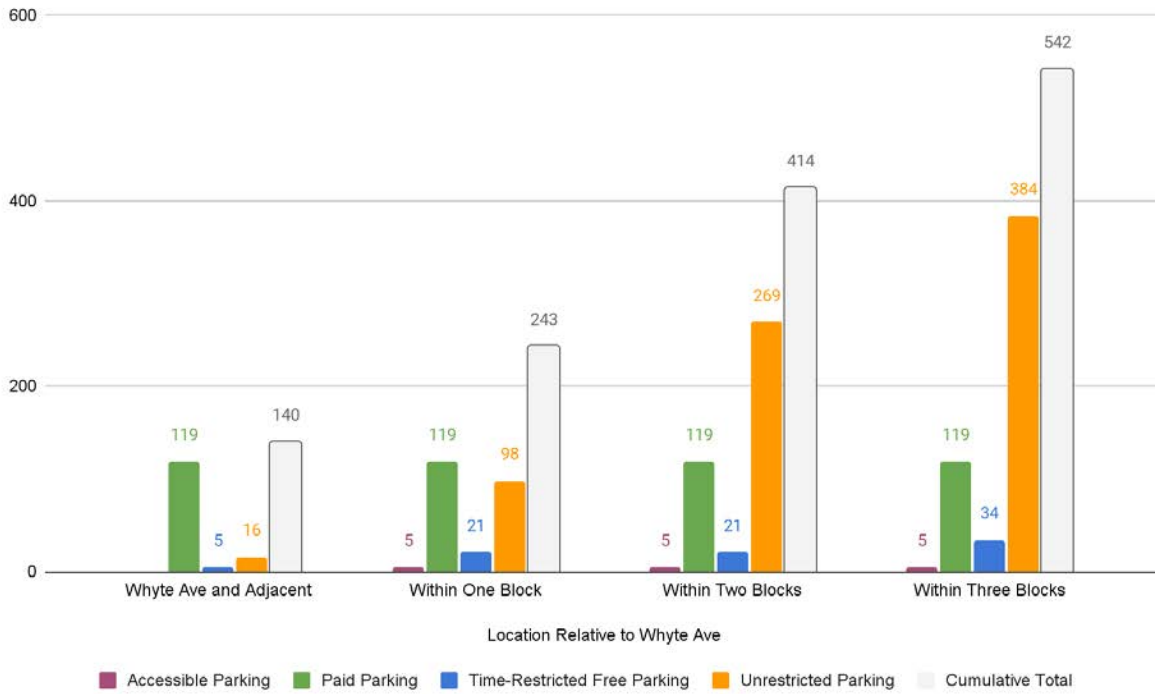
The north-south zones are illustrated in **Figure 4.8**. These zones also serve as a basis for the parking demand analysis presented in Section 5.

**Figure 4.7: North-South Zones used to Group Parking Supply**

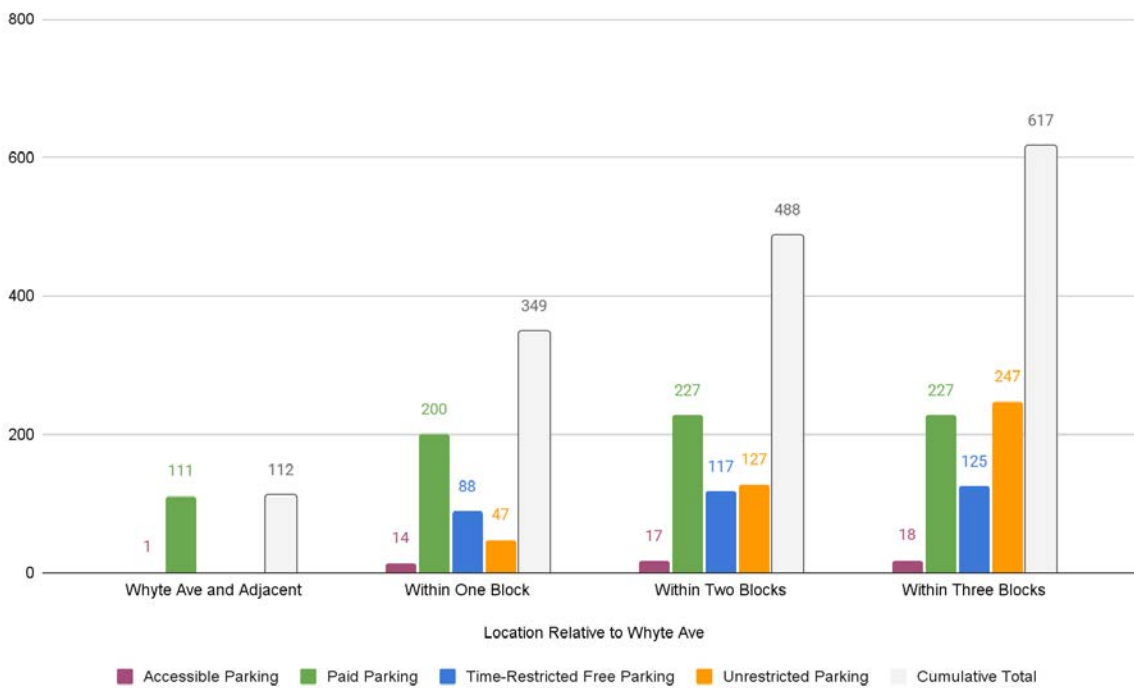


The distribution of parking spaces by north-south zone, cross-tabbed with the proximity to Whyte Avenue (i.e., east-west zones) are highlighted in **Figure 4.8**, **Figure 4.9** and **Figure 4.10**.

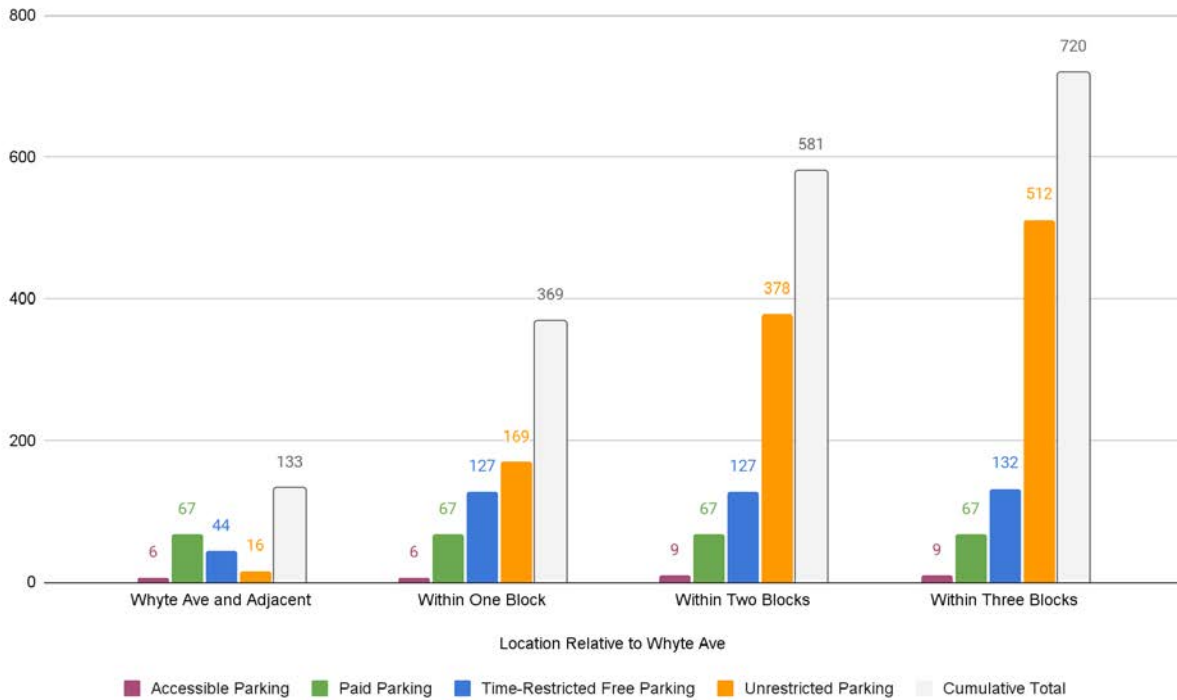
**Figure 4.8: Parking Supply in Study Area between 109 Street and 106 Street**



**Figure 4.9: Parking Supply in Study Area between 106 Street and Gateway Boulevard**



**Figure 4.10: Parking Supply in Study Area between Gateway Boulevard and 99 Street**



## 5. Parking Demand Analysis

For the purposes of this study, the analysis focuses on two aspects of parking demand:

**Parking Utilization** describes how many vehicles are parked on a given block or area at a given point in time. Parking utilization is typically given as a percentage of the number of vehicles parking on a block or in an area divided by the number of parking spaces available. For example, if a block has 12 parking spaces available and there are 8 vehicles parked there at 5:30 pm, the parking utilization would be 67%.

**Parking Duration** describes the time that a vehicle is parked in a specific space. Parking duration is typically measured in time, either minutes or hours. For example, if a vehicle is parked in the same parking space for 2 hours, its parking duration would be 2 hours. Parking duration can also be averaged out to provide a sense of how often parking spaces on a block or in an area turnover. For example, if there are three vehicles parked on the same block – the first vehicle is parked for 2 hours, the second vehicle is parked for 30 minutes and the third vehicle is parked for 3 hours, the average parking duration for the block would be described as 1.8 hours (or 1 hour 50 minutes). Note that to measure average parking duration of a given space, block or area, the vehicles can start and end their parking at different times. To build off of the previous example, the first vehicle may have started their parking at 9:30 AM, the second vehicle may have started their parking at 10:15 AM, and the third vehicle may have started their parking at 2:30 PM.

### 5.1. Assumptions

While each individual parking space was counted, it is not possible to attribute each parked vehicle with a specific space given the following:

1. In Edmonton, on-street parking spaces are not delineated with paint which results in inconsistent placement of vehicles along the curbside, particularly along blocks that provide longer segments of on-street parking spaces along the curb (i.e., more than two spaces). A couple of contributing factors include a broad range of vehicle types and sizes; and people's willingness to park in smaller spaces as parking becomes challenging to find.
2. The location of parked vehicles was recorded based on the location of the enforcement van as it took the picture. The enforcement van typically takes pictures of vehicles a few metres behind the vehicle and a few metres into the travel lane. Therefore, there is some margin of error in determining the exact location of the parked vehicles. This margin of error is anticipated to be in the order of 3 to 4 metres.

Given these circumstances, the parking utilization was measured by block rather than by space.

## 5.2. On-Street Parking Utilization

The on-street parking utilization was surveyed and analyzed during the following periods:

Thursday, July 14, 2022	2:00 PM to 3:30 PM
	3:30 PM to 5:00 PM
	5:00 PM to 6:30 PM
	6:30 PM to 8:00 PM
	8:00 PM to 9:30 PM
Friday, July 15, 2022	2:00 PM to 3:30 PM
	3:30 PM to 5:00 PM
	5:00 PM to 6:30 PM
	6:30 PM to 8:00 PM
	8:00 PM to 9:30 PM
Saturday, July 16, 2022	10:00 AM to 11:30 AM
	11:30 AM to 1:00 PM
	1:00 PM to 2:30 PM
	2:30 PM to 4:00 PM
	4:00 PM to 5:30 PM

**Figure 5.1**, **Figure 5.2** and **Figure 5.3** illustrate the on-street parking utilization in the study area on Thursday (July 14) during the 6:30 - 8:00 PM interval, Friday (July 15) during the 8:00 - 9:30 PM interval, and Saturday (July 16) during the 11:30 AM to 1:00 PM interval, respectively. These time frames were selected to highlight the on-street parking conditions during times when Whyte Avenue is perceived to be quite busy (the Thursday interval aligns with the dinner / drinks out rush, the Friday interval aligns with the night time entertainment uses kicking off, and the Saturday interval aligns with the Old Strathcona Farmer's Market midday rush).

For the purposes of this study, parking utilization by block is categorized into three categories:

- utilization less than 60% (green) describes conditions in which there are many available spaces and parking is, generally, easy to find on the block.
- utilization between 60-85% (blue) describes conditions in which there are some parking spaces available on the block.
- utilization greater than 85% (orange) describes conditions in which all, or most, parking spaces are occupied on the block.

The line thickness varies on each block based on the number of on-street parking spaces provided. For example, thicker lines describe blocks that provide more on-street parking spaces while thinner lines describe blocks that provide fewer on-street parking spaces. Note that some blocks in the study area may include a line for some survey intervals but not others. Blocks that do not have a line had no parked vehicles recorded during the given survey interval.

Maps highlighting the on-street parking demand in the study area for all days and intervals are included in **Appendix B**.

**Figure 5.1: On-Street Parking Utilization on Thursday from 6:30 to 8:00 PM**



Note: width of lines illustrates the number of parking spaces, e.g., wider lines mean more spaces, narrower lines mean fewer spaces

**Figure 5.2: On-Street Parking Utilization on Friday from 8:00 to 9:30 PM**



Note: width of lines illustrates the number of parking spaces, e.g., wider lines mean more spaces, narrower lines mean fewer spaces



**Figure 5.3: On-Street Parking Utilization on Saturday from 11:30 AM to 1:00 PM**



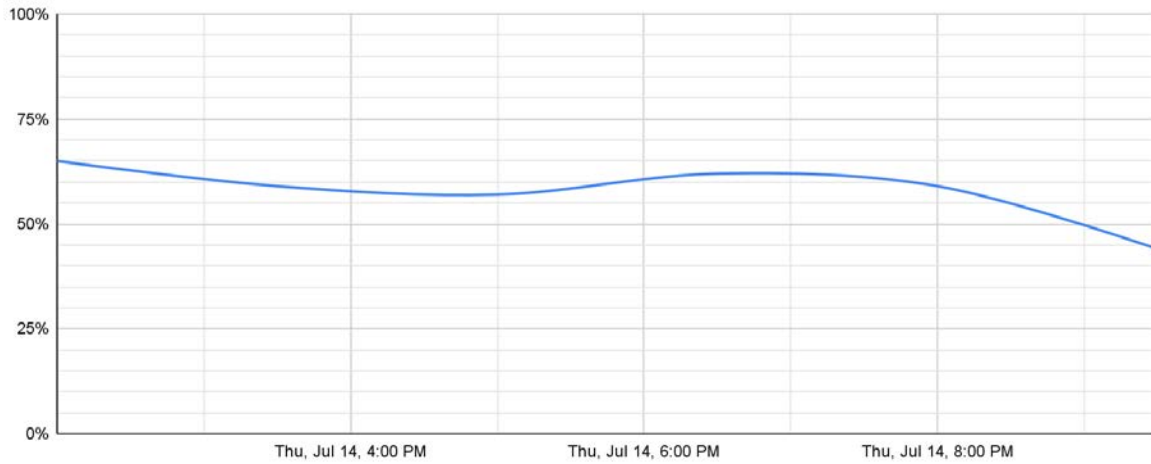
Note: width of lines illustrates the number of parking spaces, e.g., wider lines mean more spaces, narrower lines mean fewer spaces

While parking utilization by block is helpful in providing some insights about the parking conditions on a specific block or range of blocks, a higher-level of granularity is also valuable to highlight what it means in terms of occupied and available parking spaces.

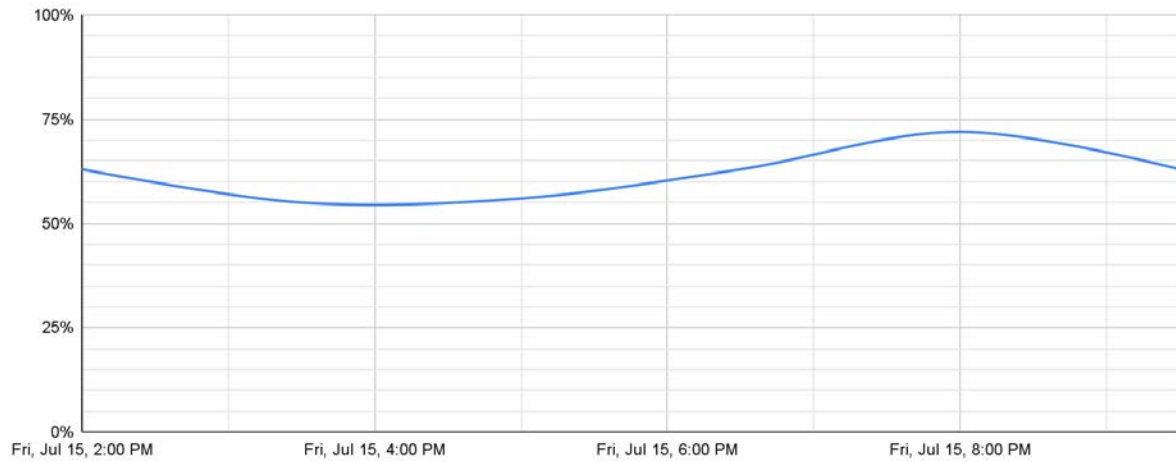
**Figure 5-4** highlights the on-street parking utilization for each survey day and interval for the study area.

**Figure 5-4: On-Street Parking Utilization for the Study Area**

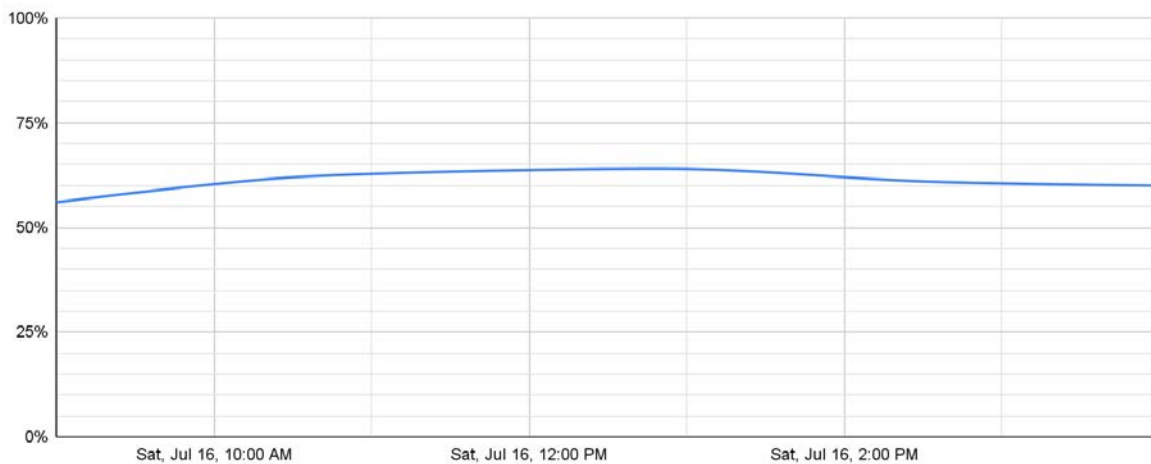
**Thursday, July 14, 2022**



**Friday, July 15, 2022**



**Saturday, July 16, 2022**

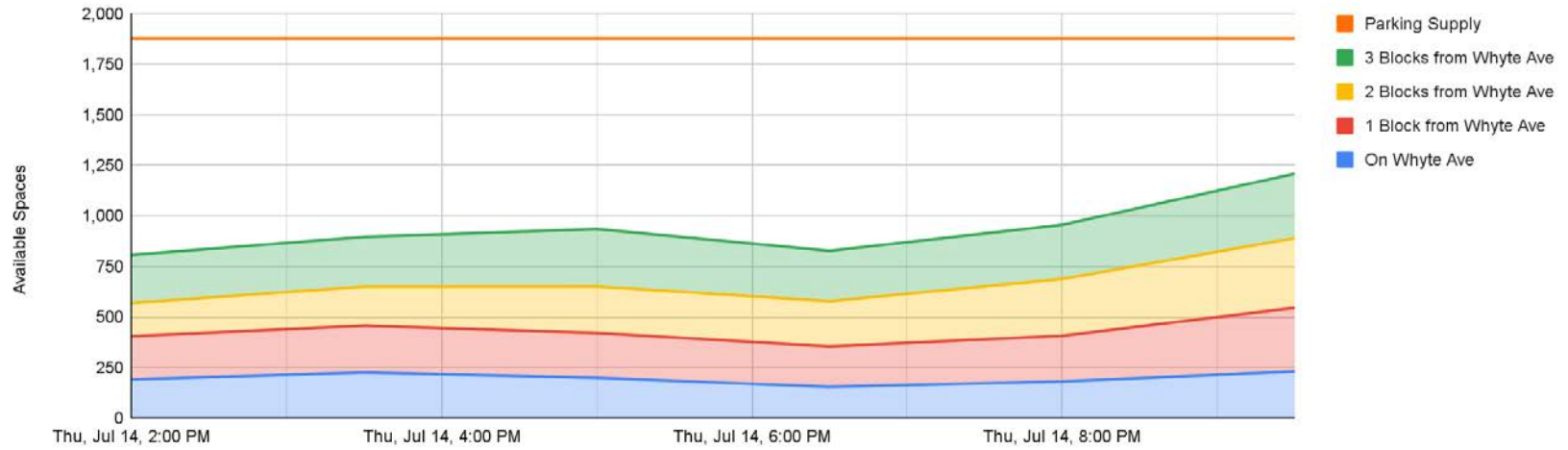


As illustrated in Figure 5.4, on-street parking utilization in the study area is fairly consistent across all days and time periods surveyed, ranging from 44% to 72% utilization, with the majority of the intervals experiencing an on-street parking utilization in the range of 55% to 65%.

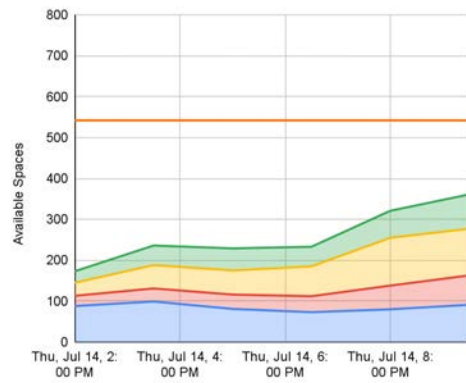
**Figure 5.5, Figure 5.6 and Figure 5.7** illustrate the number of on-street parking spaces that are AVAILABLE for each of the days and time periods surveyed. The number of available on-street parking spaces is categorized by their proximity to Whyte Avenue (e.g., on Whyte Avenue, within one block, within two blocks, within three blocks) as described in Section 4.4.1. Supporting charts are also provided to highlight the number of available parking spaces in each of the north-south zones (e.g., 109 Street to 106 Street, 106 Street to Gateway Boulevard, Gateway Boulevard to 99 Street) as described in Section 4.4.2.

**Figure 5.5: Available On-Street Parking Spaces - Thursday, July 14, 2022**

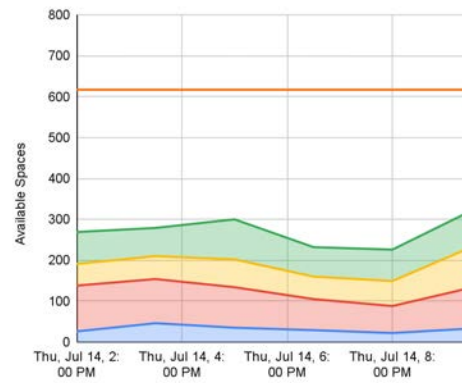
**Overall Study Area**



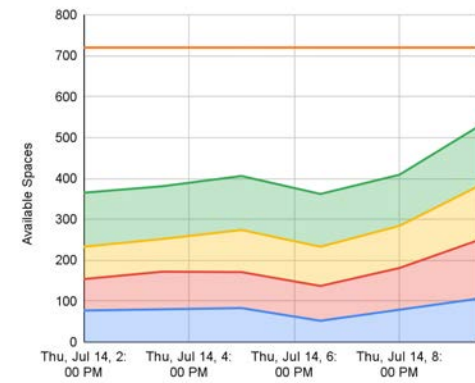
**Between 109 Street and 106 Street**



**Between 106 Street and Gateway Boulevard**

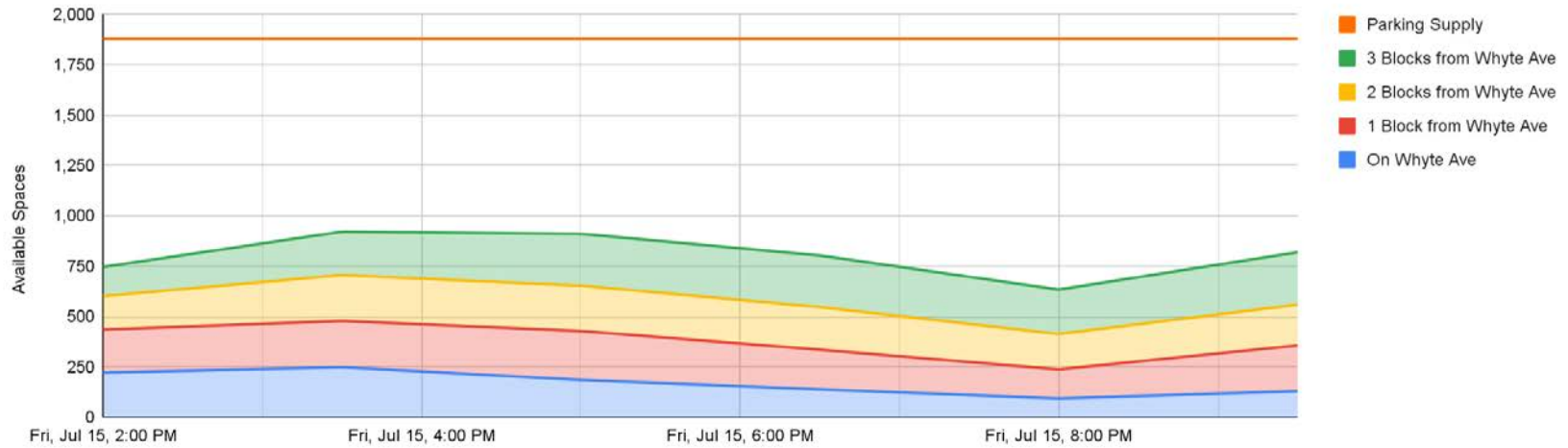


**Between Gateway Boulevard and 99 Street**

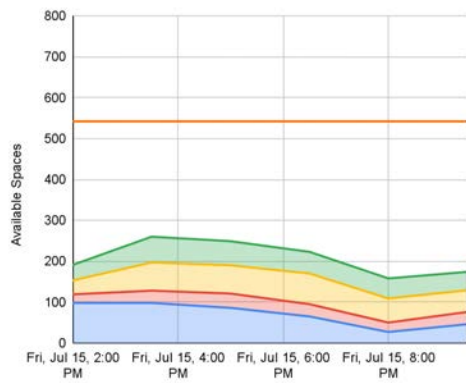


**Figure 5.6: Available On-Street Parking Spaces - Friday, July 15, 2022**

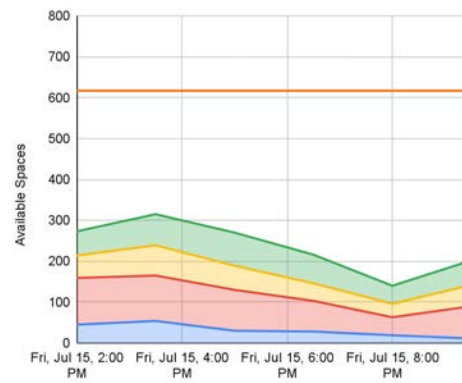
**Overall Study Area**



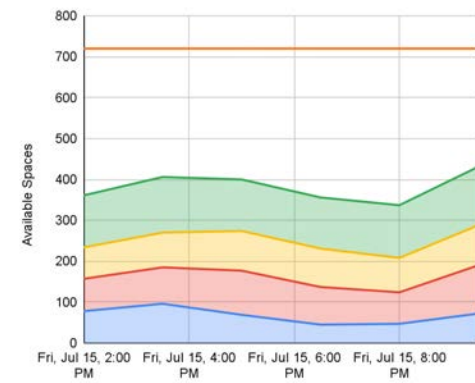
**Between 109 Street and 106 Street**



**Between 106 Street and Gateway Boulevard**

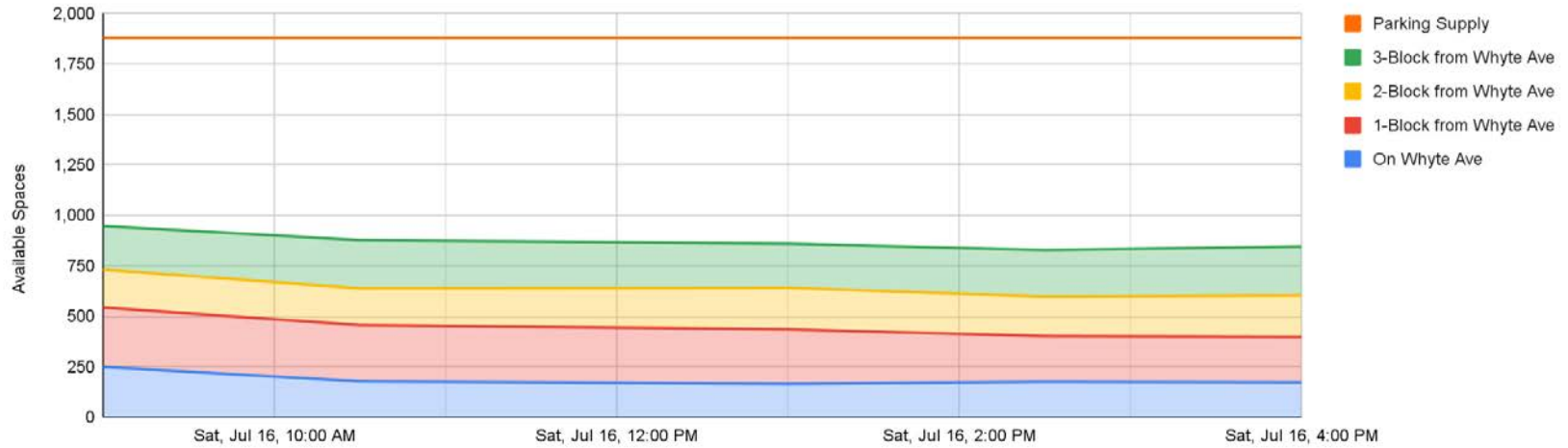


**Between Gateway Boulevard and 99 Street**

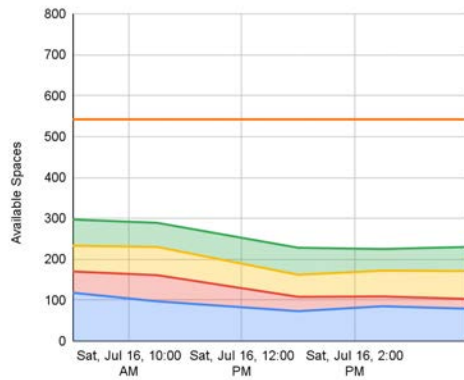


**Figure 5.7: Available On-Street Parking Spaces - Saturday, July 16, 2022**

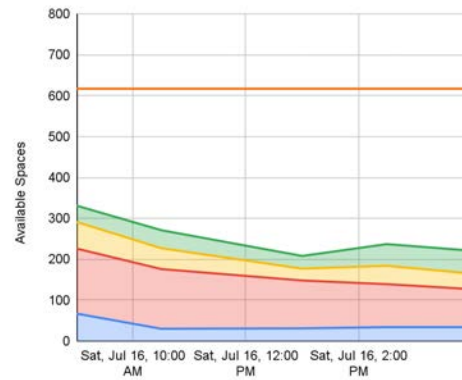
**Overall Study Area**



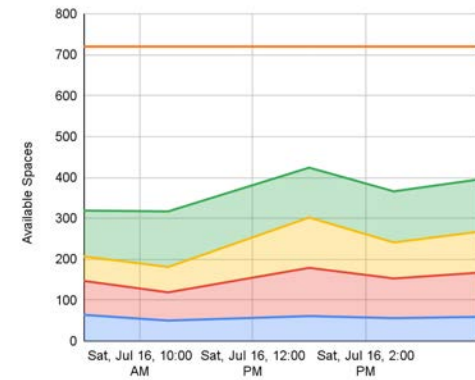
**Between 109 Street and 106 Street**



**Between 106 Street and Gateway Boulevard**



**Between Gateway Boulevard and 99 Street**



From a study area perspective, the distribution of available spaces in terms of proximity to Whyte Avenue is, generally, about even for each day. When considering the north-south zones, the following is noted:

- The area between 109 Street and 106 Street tends to have the most spaces available on Whyte Avenue and along the immediately adjacent streets relative to the other north-south zones.
- Between 106 Street and Gateway boulevard, there are fewer spaces available on Whyte Avenue and the immediately adjacent side streets as compared to streets that are one, two or three blocks away from Whyte Avenue.
- Between Gateway Boulevard and 99 Street, the distribution of available spaces in terms of proximity to Whyte Avenue is, generally, about even.

For all but one of the intervals surveyed, there are typically between 100 and 200 available spaces within one block of Whyte Avenue in each of the north-south zones. This translates to between 250 and 500 available parking spaces within one block of Whyte Avenue between 109 Street and 99 Street. This information is anticipated to provide valuable insights as to how parking could be managed to better support the commercial uses on Whyte Avenue and in the Old Strathcona area (discussed further in Section 6.). This information will also help project potential parking and curbside impacts to blocks with medium and lower-density residential uses, should consideration be given to repurposing parking spaces on Whyte Avenue.

### 5.3. On-Street Parking Duration

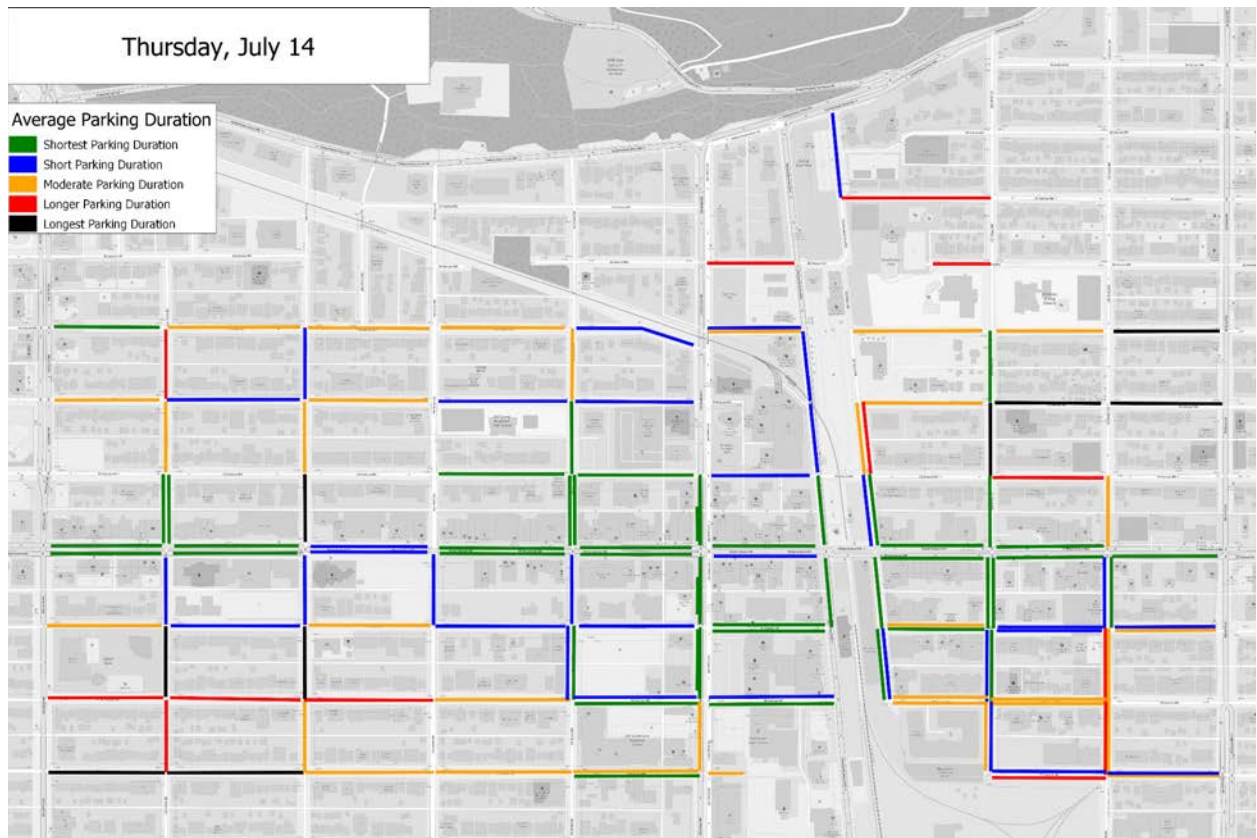
In addition to parking utilization, the data collected can also provide some insights about average parking duration – the length of time that a vehicle is parked in a space. Commentary about parking duration is based on two sources: the on-street parking data collected through the survey completed as part of this study; and EPark data.

#### 5.3.1. Insights from the Survey

Given that the survey intervals are 1.5 hours, the data collected through this study offers a relatively low level of granularity compared to a typical parking duration study. Similar to how parking utilization is presented, parking duration is assessed by block.

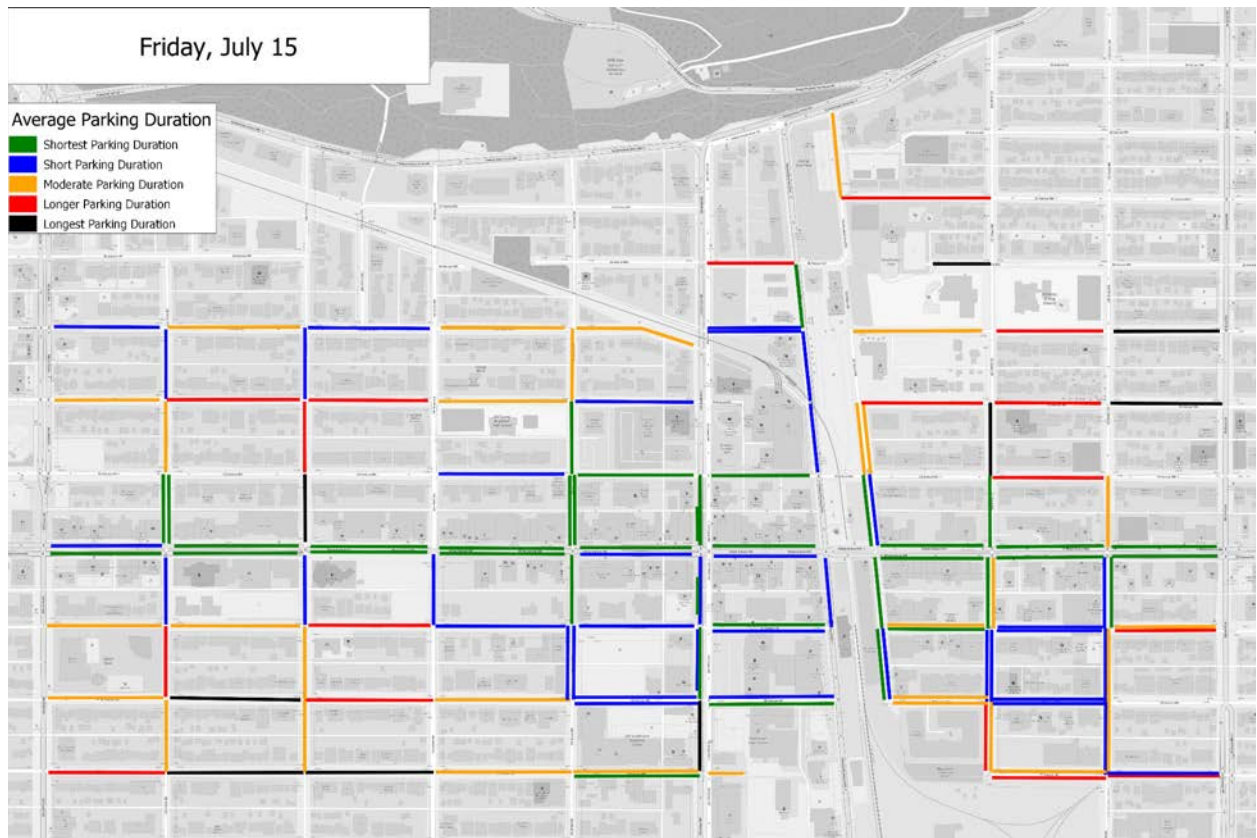
**Figure 5-8, Figure 5-9 and Figure 5-10** illustrate the average parking duration for each block in the study area

**Figure 5-8: Relative Parking Duration by Block on Thursday, July 14**

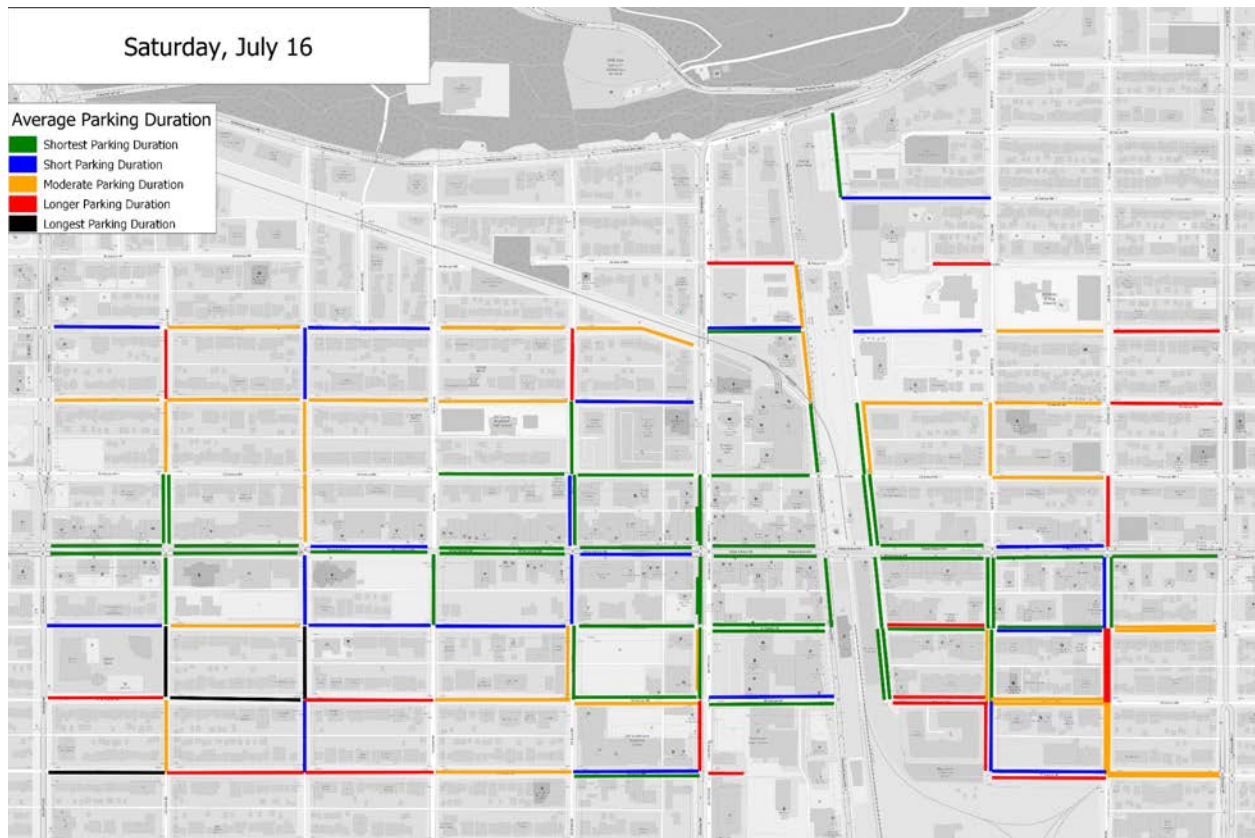




**Figure 5-9: Relative Parking Duration by Block on Friday, July 15**

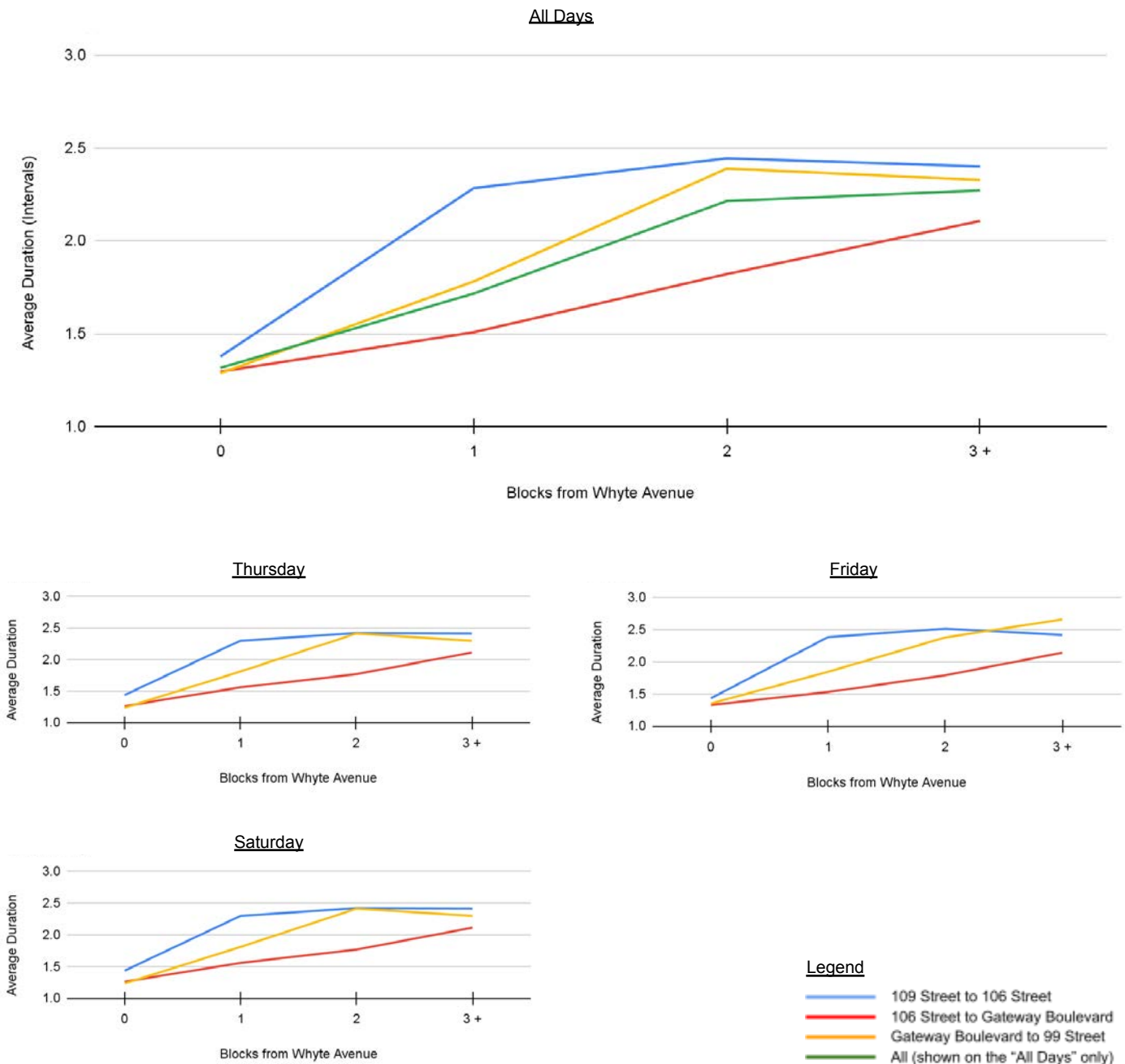


**Figure 5-10: Relative Parking Duration by Block on Saturday, July 16**



Parking duration can also be illustrated more broadly to better characterize how the parking spaces in the study area are being used. Somewhat similar to parking utilization, the parking duration can be illustrated in terms of proximity to Whyte Avenue (east-west zones) cross-tabbed by the north-south zones. **Figure 5-11** illustrates the parking duration – as a measure of the average number of 1.5-hour intervals that each vehicle parked – based on their location in the study area.

**Figure 5-11: Parking Duration by Day and Zone**



As illustrated in Figure 5-11, the parking duration profiles are pretty consistent for each of the survey days:

- Vehicles parked as close as one block within Whyte Avenue between 109 Street and 106 Street (blue line) tend to be parked for longer periods of time.
- Vehicles parked between 106 Street and Gateway Boulevard (red line) tend to be parked for relatively shorter periods compared to vehicles parked in the other north-south zones.

This is somewhat expected given that this zone includes the most paid parking spaces and the fewest unrestricted parking spaces compared to other zones.

- Generally, people tend to park for shorter periods closer to Whyte Avenue and longer periods further from Whyte Avenue. It is anticipated that the change in parking conditions further from Whyte Avenue are reflective of the land use transition to lower-density residential land uses.

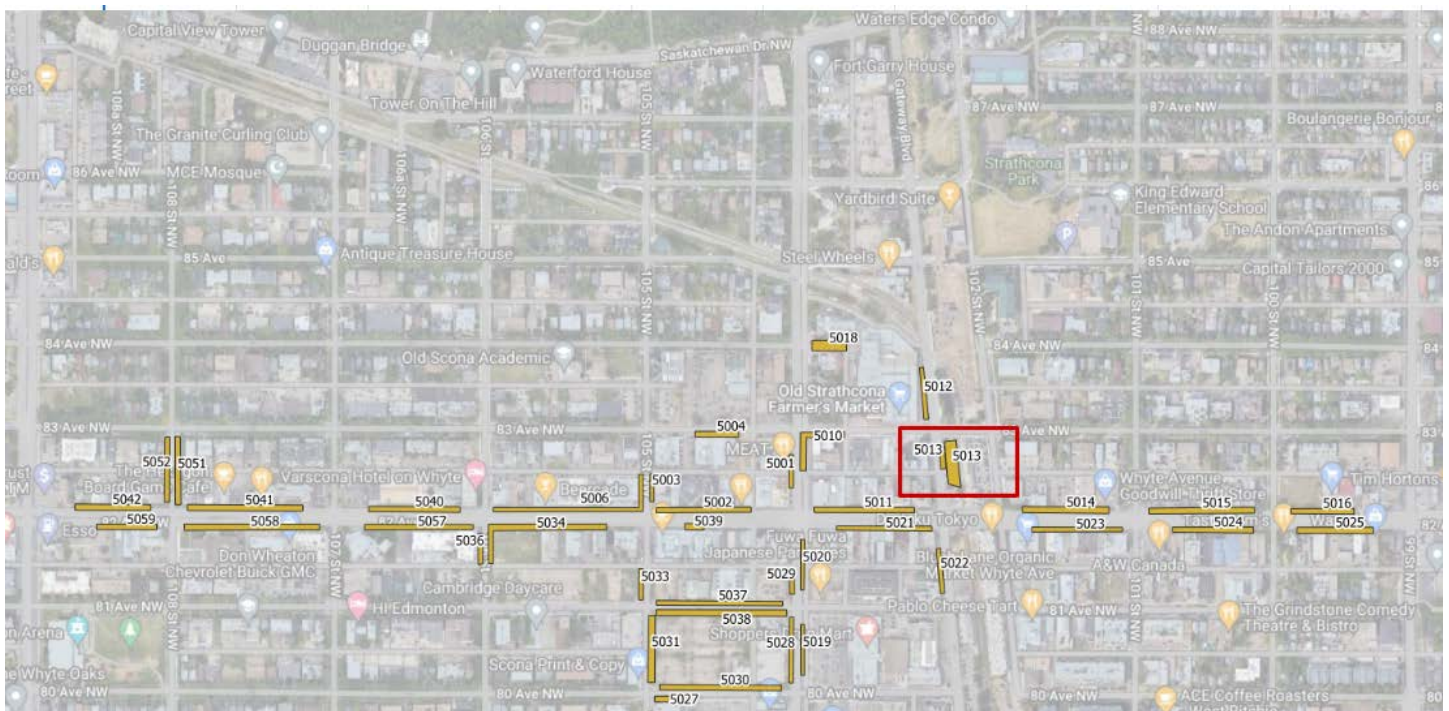
### 5.3.2. Insights from EPark Data

EPark is the City of Edmonton's owned and operated paid parking program that includes managing paid parking at all designated curbside parking zones across the city and at several off-street parkades and parking lots. EPark allows customers to pay for City-managed parking spaces via the EPark App, online, by phone or by using an EPark machine. EPark data is available on the City of Edmonton's Open Data Portal.

For the purposes of this study, the EPark data is used only to supplement the discussion pertaining to parking duration. Parking utilization associated with the on-street EPark zones in the area was captured through the study survey.

**Figure 5-12** highlights the EPark zones in the vicinity of the study area.

**Figure 5-12: Edmonton's EPark Zones in the Vicinity of the Study Area**



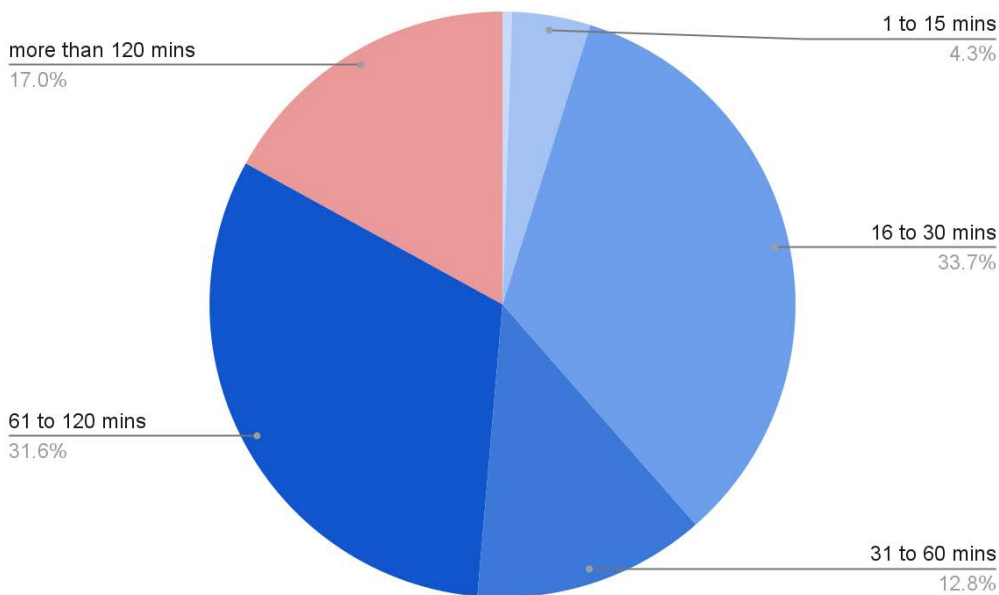
At the time of this study, the EPark zones in the study are active between 9:00 AM to 6:00 PM, and parking is restricted to two hours at a maximum.

For people to pay for their parking space through the EPark app, users must start and end their parking sessions. There is no need to select an amount of time to park the vehicle; rather, a maximum charge is identified and once the parking session is ended by the user, the total cost is generated and deducted from the user’s account balance. For example, a user parks their vehicle at 10:00 AM and starts their parking session. EPark may identify a maximum charge of \$18, for example, which may assume the vehicle is parked until 6:00 PM, when paid parking is no longer required. However, if the user ends their session at 11:15 AM, they would only be charged for the cost of parking their vehicle for 1 hour 15 minutes, which might come out to \$4.

From a parking data perspective, running the parking app in this way provides rich data because the amount of time people are parked is relatively precise compared to selecting time increments. However, some users may forget to end their parking sessions, which would result in incorrect information. It is also important to note that the EPark data is strictly based on activations through the payment system – the actual parking conditions are not measured in any way.

The EPark data for the on-street parking survey days – Thursday, July 14, Friday, July 15 and Saturday, July 16 – was considered for further review. In terms of parking duration, more than 80% of vehicles parked in EPark zones in the study area are parked for 2 hours or less, as illustrated in **Figure 5-13**.

**Figure 5-13: Distribution of Parking Duration for Vehicles Parked in EPark Zones**



It is of note that the significant majority of the 17% of vehicles parked for more than two hours occurred on Saturday. Given the 2-hour time restriction associated with the paid parking zones, these vehicles are non-compliant.

## 5.4. Off-Street Parking Utilization

In addition to surveying the on-street parking characteristics, select publicly available off-street parking lots were selected to be surveyed to measure parking utilization. The intent of the off-street parking lot survey is two-fold:

1. to use these parking facilities as a proxy to understand the utilization of the off-street parking facilities in the area; and
2. to better understand potential impacts associated with displacing parking demand associated with the Old Strathcona Farmer's Market parking lot in the event that the parcel is repurposed.

Below is a description of each of the off-street parking lots that were measured:

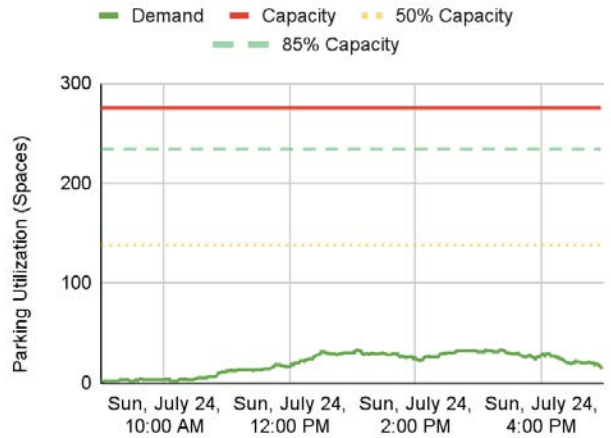
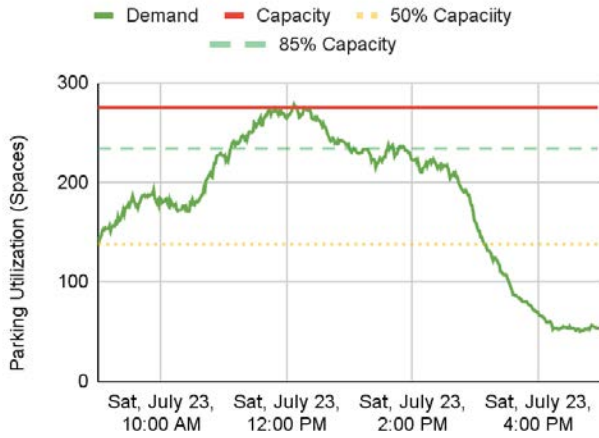
- **Old Strathcona Farmer's Market Parking Lot** | The City of Edmonton leases out the land parcel at 11 Tommy Banks Way (east of Gateway Boulevard, north of 83 Avenue across from the Farmers Market building) to the Old Strathcona Farmer's Market. The Farmers Market uses the parcel primarily to accommodate customer parking but also provides parking opportunities, at a cost, for people that may work at or visit other businesses in the area. The parking lot has a capacity of approximately 275 spaces. It is currently a paid public parking facility with a rate of \$3 per hour or \$7 for 12 hours. During the Farmers Market, two-hour free parking is provided to Farmers Market customers on Saturdays between 8 a.m. and 3 p.m. The lease with the City of Edmonton expires in 2025 and the City is currently considering alternative uses for that land to better support Whyte Avenue and Old Strathcona.
- **South Scona Parking Lot** | This surface parking is located south of 81 Avenue and east of 105 Street and includes a parking capacity of approximately 257 spaces. It is a paid parking facility available for public parking. The parking rate is currently \$2 per hour or a flat rate of \$5 on weekends. The parking lot has been rezoned to accommodate a mixed-use redevelopment with commercial and residential land uses. As part of the development conditions, the developer will provide 150 underground parking spaces with 24/7 access for public use. Compared to the existing parking provision of 257 spaces, the net off-street parking reduction is 107 spaces.
- **Edmonton Catholic Schools Parking Lot** | This surface parking is located north of 83 Avenue, mid-block between 104 Street and 105 Street. It is a paid parking facility with a capacity of approximately 128 spaces. The parking rate is currently at \$2 per hour. As of the time of this study, there is no plan to redevelop this parcel.

Each of the identified parking lots was surveyed on Saturday, July 23 and Sunday, July 24, 2022, from 9:00 AM to 5:00 PM. The data was collected by measuring the number of vehicle entries and exits at each parking lots' access points to estimate the parking utilization during the survey period. (Note that data could not be collected during the same periods as the on-street data due to resource constraints.)

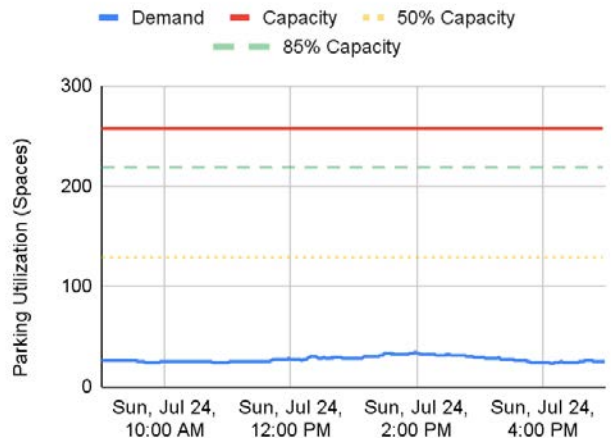
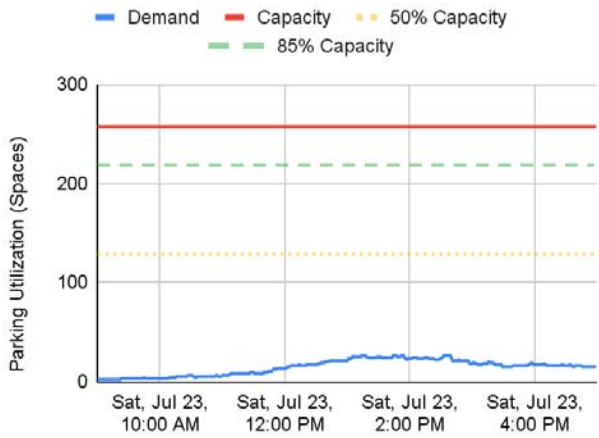
The off-street parking demand profiles for the three surveyed lots are shown in **Figure 5-14**.

**Figure 5-14: Off-Street Parking Utilization**

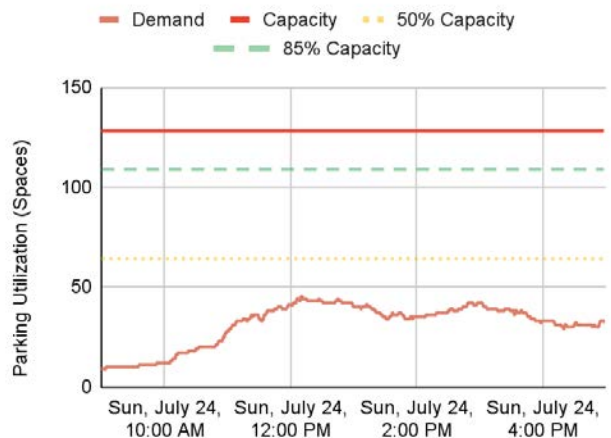
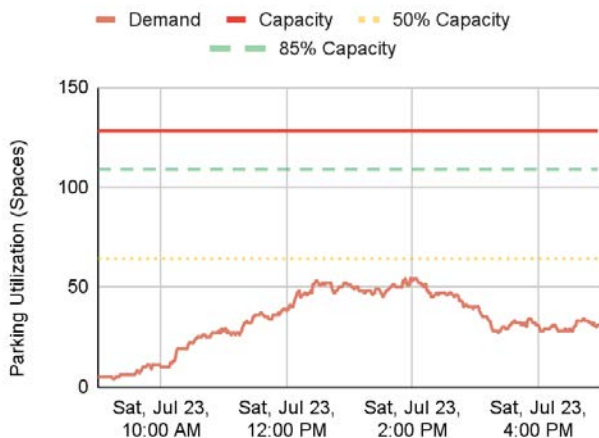
**Old Strathcona Farmer's Market Parking Lot**



**South Scona Parking Lot**



**Edmonton Catholic Schools Parking Lot**



The Old Strathcona Farmer’s Market Parking Lot exhibited very different parking demand patterns on Saturday and Sunday. On Saturday, free parking was provided to customers of the Farmers Market from 8:00 AM to 3:00 PM and, during that period, the parking lot was well used. On Sunday, the parking lot exhibited lower utilization given that the Farmers Market was not open.

The South Scona Parking Lot exhibited low utilization on the survey days with less than 15% of the spaces occupied at its peak on the weekend. A utilization of 15% translates into 40 vehicles, or less, being parked in the lot at any given time during the survey.

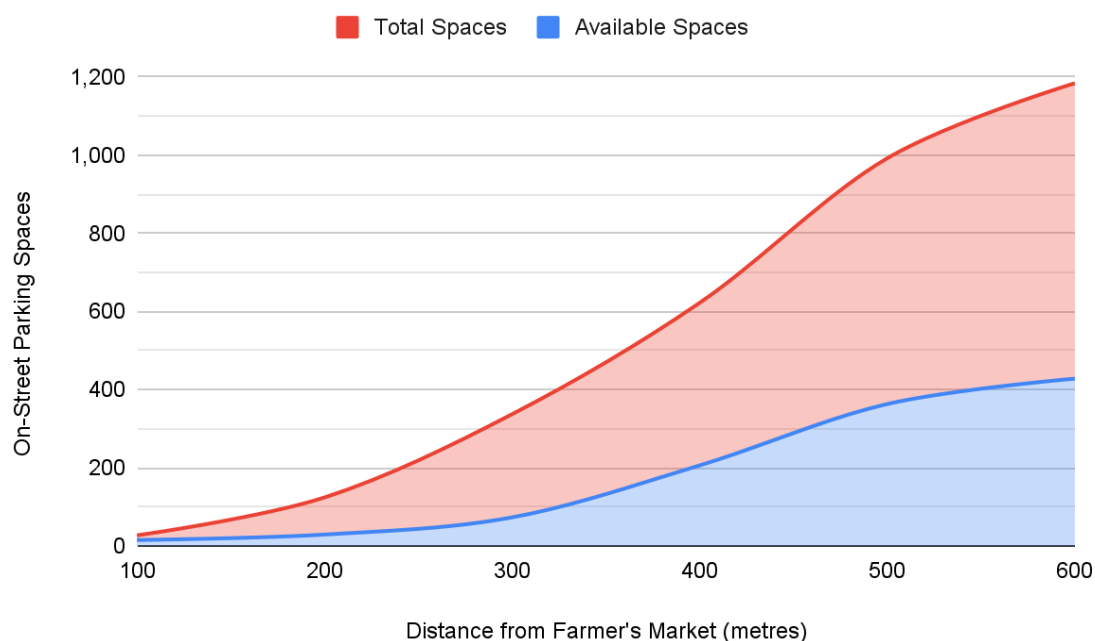
Edmonton Catholic Schools Parking Lot exhibited low utilization on the survey days with approximately 60 vehicles parked in the lot at the peak. With a parking capacity of (approximately) 128 parking spaces, the utilization was still less than 50% at any given time.

### 5.5. Old Strathcona Farmers Market

In addition to gaining a better understanding of the conditions associated with the Old Strathcona Farmers Market parking lot, the on-street parking conditions in the vicinity of the Farmers Market were also reviewed. Given that the Farmers Market parking lot’s utilization peaked near capacity at around noon on Saturday, the 11:30 AM to 1:00 PM interval was considered in the review of on-street parking conditions near the Farmers Market.

**Figure 5-15** illustrates the on-street parking supply in the vicinity of the Farmers Market and the number of available spaces on Saturday, July 16.

**Figure 5-15: On-Street Parking Availability Near the Old Strathcona Farmer’s Market on Saturday, July 16 from 11:30 AM to 1:00 PM**

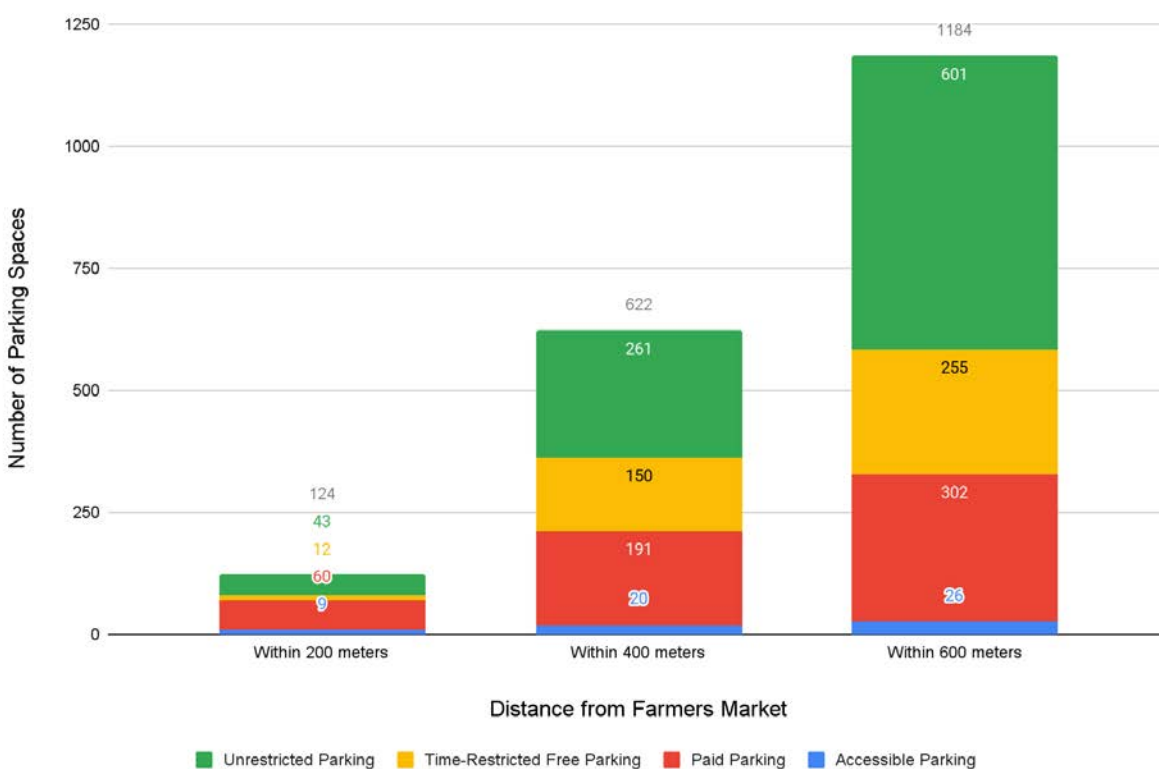




As illustrated in Figure 5-15, it is estimated that there are about 600 parking spaces provided within about 400 metres of the Farmers Market. Of those 600 parking spaces, about 400 spaces were occupied on Saturday between 11:30 AM and 1:00 PM, while about 200 spaces were available. It is important to note that given the survey cannot offer any insights as to how many of the 400 occupied on-street parking spaces are associated with Farmers Market customers and vendors.

**Figure 5-16** illustrates the type of on-street parking spaces available within 200 metres, 400 metres and 600 metres of the Old Strathcona Farmers Market.

**Figure 5-16: Types and Supply of On-Street Parking Available in the Vicinity of the Old Strathcona Farmers Market**



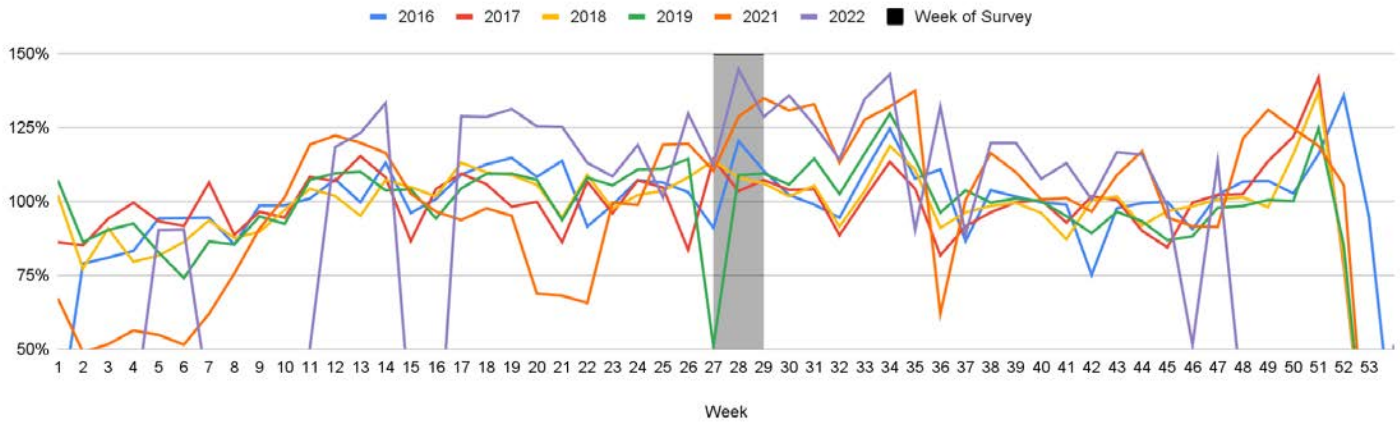
As illustrated in Figure 5-16, there are about 260 unrestricted and about 150 time-restricted on-street parking spaces within 400 metres of the Old Strathcona Farmers Market.

## 5.6. Seasonality Considerations

A limitation of this study is that the parking conditions for only three days in July are considered. Similar to many transportation studies, it simply was not possible, from a resourcing or time perspective, to expand the study to include more days in more months. To offer some insights as to how the parking demand might fluctuate throughout the year, the EPark data for the area was expanded beyond the survey days and reviewed further.

**Figure 5-17** illustrates the relative weekly parking activity recorded through EPark for the EPark zones within and in close proximity to the study area (similar to those highlighted in Figure 5-12). Note that EPark data for 2020 was not included due to changes implemented as a result of the COVID response. Also note that the dips in the EPark data for 2022 activity are a result of data gaps rather than low-levels of activity.

**Figure 5-17: EPark Activity by Year in the Study Area**

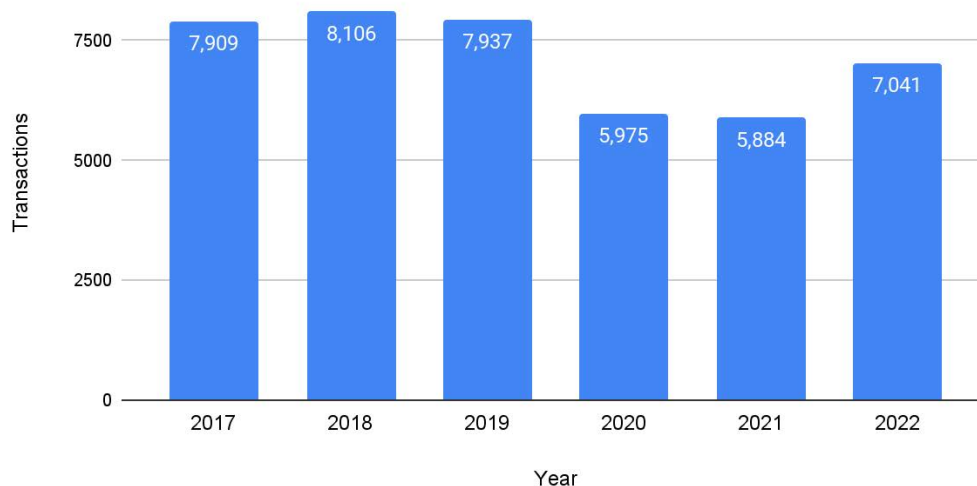


As illustrated in Figure 5-17, EPark activity in the area, generally, fluctuates between  $\pm 20\text{-}30\%$  above the baseline (100%), except in 2022 where EPark activity is nearly 50% greater than the baseline. It is estimated that during the week of the survey period, EPark activity is, generally, in the order of approximately +10% of the baseline, with outlier years in 2017 and 2022 that include a level of activity of about +30% and +45% of the baseline, respectively.

It is acknowledged that using historical data has its challenges given the impact of the pandemic and pandemic response had, and continues to have, on entertainment and shopping activities.

**Figure 5-18** highlights how the pandemic and pandemic response impacted EPark parking activity in the study area.

**Figure 5-18: Average Weekly EPark Activity by Year**



From a seasonality perspective, it is reasonable to assume that the survey days are representative of busier-than-average levels of parking activity in the Old Strathcona Area. In considering the impacts of the pandemic and pandemic response, it is reasonable to assume that the level of parking activity measured in 2022 may be approximately 90% of the pre-pandemic parking activity.

## 6. Potential Parking Strategies

Parking policies related to on- and off-street parking are changing across North America. Many cities, including Edmonton, have experienced the vast and negative implications of historical parking policies – like inefficient use of parking spaces, land use and transportation disintegration, and lost property tax revenue. There is growing consensus to reduce and better manage existing parking supply with tools like time limits, restricted parking zones, and pricing. These parking management tactics can help to balance parking supply with demand while pursuing other urban objectives like better supporting a range of land uses, infill land development and mobility equity.

The idea of reserving a vast swath of urban street area for one type of use, like residential-only all day parking, is increasingly at odds with the urban mobility landscape of today and city-building in general. Finding ways to share this limited public resource and achieve multiple outcomes is imperative to supporting the range of land uses in the Old Strathcona area.

As Whyte Avenue's role as a main street and entertainment district continues to grow and evolve, it is anticipated that the City will, at some point, need to reconsider how parking is accommodated in the area. Consideration could be given to repurposing some curbside parking spaces along Whyte Avenue to better support Whyte Avenue as a main street and better accommodate people moving around by walking, rolling, biking and transit. The challenge in the Old Strathcona area is the range of land use types and implementing a parking management program that can support commercial activity while balancing the impacts to residential land uses.

This section outlines an approach to potential parking management strategies that could be considered going forward, particularly if parking spaces on Whyte Avenue are repurposed.

### 6.1. Principles to Guide Decision-Making

To guide the development of options for how to use curbside spaces and manage the existing on-street parking supply that are consistent with The City Plan, a set of guiding principles are needed. The intent of the guiding principles is not to set rigid parameters of implementation; rather, the intent is to identify a set of conditions that will influence the development of options and solutions. Below are guiding principles that can contribute to outcomes that align with The City Plan:

Guiding Principle #1

## **Better Manage Existing Parking rather than Build New Parking**

Using the existing curbside and off-street parking inventory is better than building new supply at public cost. A new off-street public parking facility is a last resort; it is expensive to build, operate, and maintain. It is generally inconsistent with The City Plan objectives, unless explicitly warranted with no other reasonable solution. New, off-street public parking facilities may be considered when specific land uses and developments warrant them.

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Guiding Principle #2

## **Apply New Parking Management Tools**

Using the existing curbside supply in better and cost-effective ways may mean applying new tools to manage parking, tools like pricing and permitting.

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Guiding Principle #3

## **Consider the Needs of All Parking Users**

The application of new tools to manage parking must consider the needs of all parking users in the area including business customers, employees, commuters, residents, service providers, and visitors. These user groups have specific parking requirements and will need different parking solutions.

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Guiding Principle #4

## **Parking Management Benefits People Beyond Those who Park**

The application of parking tools and associated costs and / or inconveniences are justified in consideration of the benefits achieved through the provision of space-efficient, low total-cost parking for all users.

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Guiding Principle #5

## **Include the Public**

The use of new tools to manage parking will require a public conversation to raise awareness of the need, and to address how residents' needs will be considered and included. The intent of public conversation is not to reach consensus, but it is to build sufficient alignment to carry forward constructive dialogue.

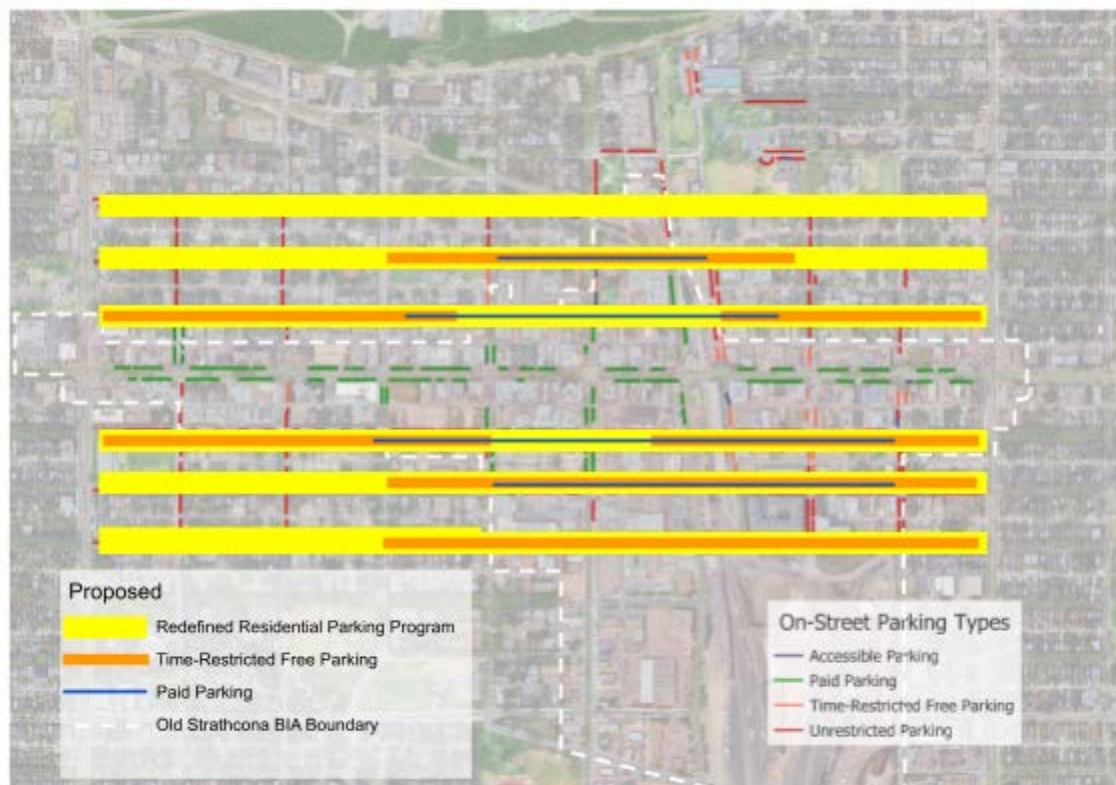
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## **6.2. Potential Approaches to Parking**

The proposed solution is to apply parking management tools to the area; this must consider the needs of different user groups. These tools are, and must be, consistent with the developing Curbside Management Strategy. Note that some of the parking management tactics can be applied in combination. For example, blocks could be time-restricted during the day and then rely on a residential parking program in the evenings to taper parking demand in the area.

**Figure 6-1** illustrates, at a high-level, a way to approach developing parking management tactics for the area.

**Figure 6-1: High-Level Approach to Develop Parking Management Tactics for the Area**



Note that Figure 6-1 is intended to guide the development of specific parking management tactics. Parking is not an exact science as parking demand is driven by many factors. A first phase of implementation with an update is recommended (i.e., monitoring plus communications). The exact tactic to be used and location where it is to be applied is yet to be determined.

The approaches highlighted in Figure 6-1 are discussed further:

### **Time Restricted Free Parking**

Streets closest to Whyte Avenue on the bookends of the study area maintain time restricted spaces and time restrictions are considered for more blocks.

### **Paid Parking**

Streets closest to Whyte Avenue in the centre of the study area, maintain EPark paid parking spaces and apply EPark paid parking to more spaces. Ensure parking prices reflect parking demand to encourage space availability. Consider time of day also. If parking demands are high, restrictions should continue beyond 6:00 PM.

Consider reducing the target parking utilization ratio from 90% to 70% or 80% if parking availability is low (the target parking utilization ratio is the point at which pricing rates are increased). The typical target ratio of 85% or 90% may make it hard to find parking, in turn increasing block-circling, congestion, and local emissions.

### **Redefined Residential Parking Program**

To minimize spillover and impacts on residents in the area, apply a redefined Residential Parking Program to defined streets / blocks with considerations for other parking user groups. This must be consistent with the rework of the Residential Parking Program in the planning and implementation of the Curbside Management Strategy.

Redefining the Residential Parking Program in the area should consider other users through the application of time restricted parking (or EPark paid parking if demand is high) and time-of-day restrictions, e.g., 2-hour public parking everywhere in residential zones, daytime only, or other means.

Redefining the Residential Parking Program in an area would have to be done in connection with the implementation of Action 3 of the Curbside Management Strategy.

### **Additional Considerations**

In addition to the parking management tactics identified, other measures can also be employed to more efficiently use the on-street parking supply in the area. For example, parking guidance or wayfinding systems can help drivers find available parking spaces more efficiently and improve the parking experience.

The key components of parking guidance systems typically include combinations of static or dynamic signs, sensors, cameras, displays, and software algorithms that can identify available parking spaces, reserve parking spaces in advance, and / or navigate drivers to a desired parking spot. For open-air parking spaces (e.g., on-street parking spaces), the effectiveness of some sensor types used to identify occupied parking spaces can be compromised due to weather conditions, specifically snow and rain. In the absence of, or limited use of, sensors, parking apps (for personal phones) can also be used to provide real-time parking utilization, occupancy and vacancy information. The effectiveness of parking apps for parking wayfinding greatly depends on user compliance and how parking sessions are entered (e.g., reservation through pre-payment, defined period, users manually end parking sessions).

Parking guidance systems can ensure parking spaces are used more efficiently, reduce the amount of time it takes drivers to circulate and search for an available parking space, and

minimize the amount of fuel consumed in the parking process. Some of the benefits of parking guidance systems include reduced traffic congestion, improved air quality, and increased safety. These systems can also help cities better manage their parking resources, reduce operating costs, and generate revenue through more efficient use of parking spaces.

As with the implementation or modification of any parking management programs or tactics, the development of the program should include:

- engagement with Edmontonians and key stakeholders to better understand the local context and seek feedback about proposed programs and tactics;
- communications campaign to highlight the proposed program, its objectives and goals, and how it might impact traffic operations in the area; and
- monitoring and collecting parking utilization and occupancy data and communicating the results in terms of the program's objectives and goals.

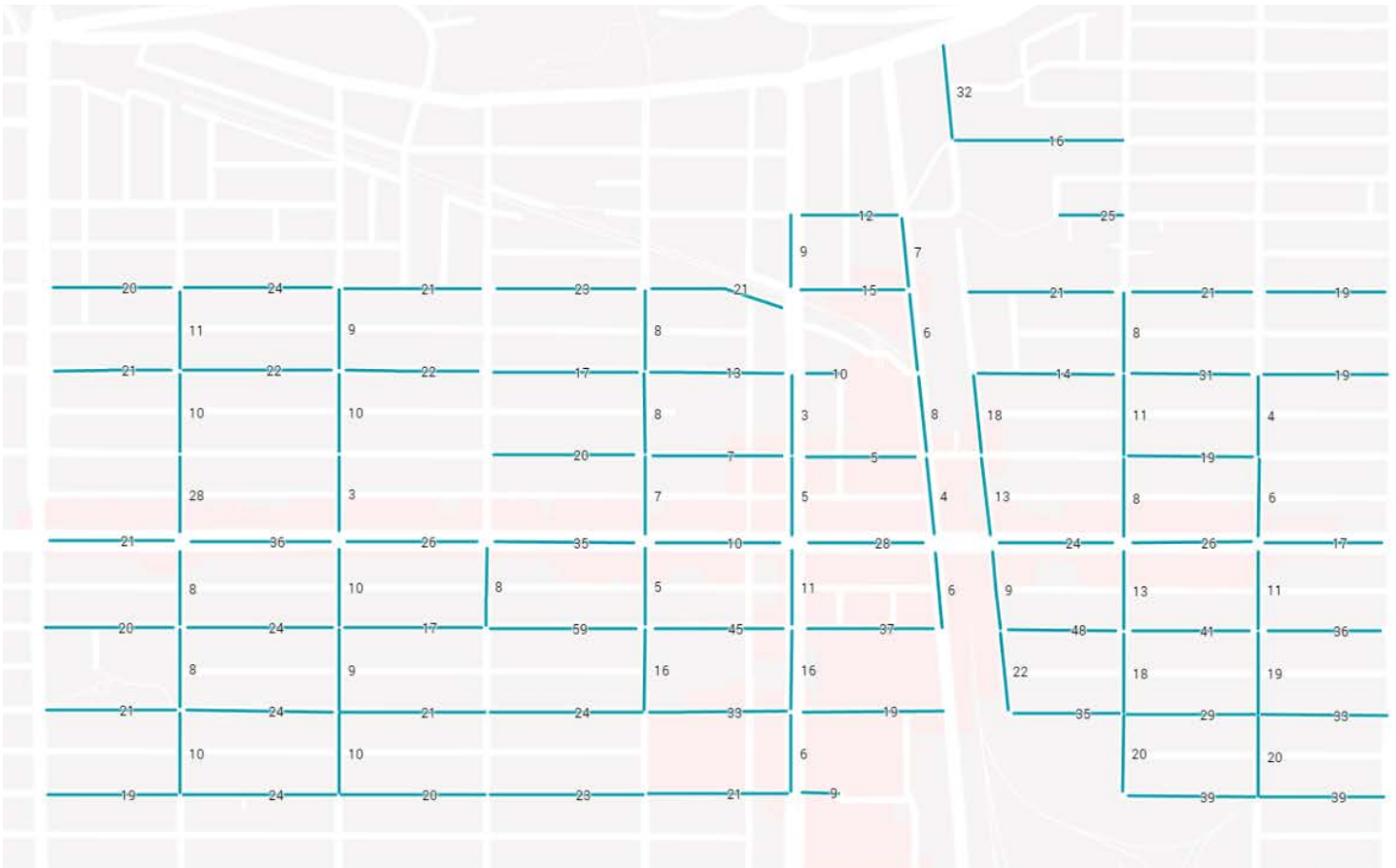
### 6.3. Next Steps

The purpose of this parking study is to better understand the parking supply and utilization conditions in the Old Strathcona area and to strategize potential parking management tactics that could be employed to use the on-street parking supply more efficiently to support the range of land uses in the area. This study is intended to inform the development of potential parking management tactics and programs that could be employed in the area. The next steps, at a high level, in developing those parking management tactics and programs include:

1. Identify how many on-street parking spaces along Whyte Avenue may be repurposed to implement the recommendations from the Old Strathcona Public Realm Strategy and the Mass Transit: Implementing for 1.25 Million People project;
2. Develop potential parking management programs and tactics that could be considered for the Old Strathcona area;
3. Engage with Edmontonians and key stakeholders to better understand the existing land use, mobility and parking conditions in the Old Strathcona area and seek feedback about potential parking management programs and tactics that could be considered;
4. Implement the parking management program;
5. Collect parking utilization and duration data and analyze in the context of the project's goals and objectives; and
6. Communicate the results of the parking management program.



# Appendix A - Parking Supply by Block



\* note that parking totals do not include "Accessible Parking" type

# Appendix B - Parking Utilization Maps



















