PARK & RIDE GUIDELINES

The City of Edmonton
August 2018

Executive Summary

Edmonton will soon be a city of a million people - not within 25 years but within the next five years. This growth brings both exciting opportunities and considerable challenges. For our future success, the City of Edmonton must think, plan and build for this growth.

A key component in addressing this growth is building an integrated transportation system, with a variety of transportation options including a comprehensive LRT network, bike lanes and transit hubs. Park & Ride is an important piece of this system. Park & Ride offers a number of benefits for our growing city. It relieves other parking pressures, increases transit ridership, reduces pollution and decreases traffic congestion.

Park & Ride is both a way of getting around our city and the physical facilities, service and system that support it. It may seem simple but there are many pieces of Park & Ride that must work together to meet demand, support city-building goals and remain economical.

This Guidelines is the long-term vision for Park & Ride in Edmonton. It builds on the strengths of the current policy and offers new direction where gaps exist. Future initiatives related to Park & Ride will align with best practices, changes in travel patterns and lessons learned as Park & Ride and our transportation system continues to mature. Recommendations will be tested to guide future policy and actions. This Strategy is organized around four Focus Areas:

1. Provision of Park & Ride
2. Park & Ride Facilities and TOD (Transit Oriented Development)
3. Park & Ride Management
4. Park & Ride Customer Experience

Demand for Park & Ride continues to increase as a result of population, employment and post-secondary growth. Even with a fee structure, there are long waitlists for reserved parking stalls. The Provision of Park & Ride Focus Area is based on the objective to serve future population growth and increased demand, while considering all potential sources of Park & Ride throughout the city.

As the city continues to grow, the location, scale, facility design and management will need to be considered for any future Park & Ride. As the City looks to build more Transit Oriented Development (TOD), a concentration of housing, shopping and employment along a transportation network, the Park & Ride Facilities and TOD Focus Area will help manage the dynamic tension between Park & Ride and TOD and how they interact over time.

People choose Park & Ride based on values associated with time, cost and convenience. Availability of parking, type and length of trip, and accessibility all

determine the demand for Park & Ride. Park & Ride must maximize the number of new transit riders, optimize the use of Park & Ride throughout the day, support a good customer experience and recover costs. The Park & Ride Management Focus Area centres around the goal that the City will proactively manage the demand for Park & Ride to maximize use and minimize impact to communities.

Park & Ride needs to consider the overall customer experience. Users need to be able to identify available stalls, get in and out of the facility quickly and understand the pricing. Comfort, safety and accessibility also need to be considered. In Focus Area Three: Park & Ride Customer Experience, the strategy outlines how to enhance the experience of customers using Park & Ride facilities.

The Park & Ride Strategy introduces a number of changes. To ensure the strategy remains effective, it remains imperative to monitor key indicators through metrics, targets and outcomes. As needed, the Strategy will be updated to ensure best practices are reflected, incorporate emerging technologies and adapt to change.

Contents

1.0 Introduction

Park & Ride has become an important part of the transportation network in Edmonton by providing cars and transit the ability to work together to extend the reach of traditional transit service. Although it may seem like a simple idea, there are many components to Park & Ride that need to work together in order to meet traveler demand, support city-building goals and remain economical.

1.1 WHY DO WE NEED GUIDELINES?

Park & Ride has existed in Edmonton since the 1970s. The City established a Park & Ride policy in 2009 alongside the approval of Edmonton's Transportation Master Plan, *The Way We Move*.

Demand for Park & Ride has increased in recent years due to population, employment and post-secondary growth. Even with fee structures introduced, some Park & Ride locations have long waitlists for reserved stalls causing overflow parking issues in surrounding neighbourhoods.

In addition, increased development at locations like Century Park has highlighted the need to clearly define the role of the City and developers in providing Park & Ride at stations as LRT lines are extended.

Without careful consideration of location, scale, facility design and management, Park & Ride could have unintended consequences like competing with local bus service and active modes of transportation. This could result in duplication of access to transit services and cost inefficiencies. Park & Ride could also restrict Transit Oriented Development, which would be counter to broader city-building objectives.

1.2 POLICY INTERACTIONS & KEY QUESTIONS

Key Policy Questions

The guidelines build on the strengths of the current Park & Ride policy and provide clarity for its application. The guidelines address key policy questions about Park & Ride, and information is organized into four focus areas. A summary of policy questions and corresponding focus areas is provided in Table 1.

TABLE 1 - POLICY QUESTIONS AND FOCUS AREAS

Policy Questions	*Focus Areas*
What is the role of Park & Ride?	Park & Ride Vision and Guiding Principles
Who does Park & Ride serve?	
Who provides Park & Ride?	Provision of Park & Ride
Where is Park & Ride provided? What is the scale?	
What is the relationship between Park & Ride and Transit Oriented Development (TOD)?	Park & Ride Facilities and TOD
How should Park & Ride sites be designed?	
How should we manage demand for Park & Ride?	Park & Ride Management
How can the customer experience be improved?	Park & Ride Customer Experience

1.3 USE OF THE GUIDELINES

The guidelines provide direction for long-term city-wide provision of Park & Ride as a component of Edmonton's transportation system, giving guidance for addressing the demand, as well as the design and operation of these facilities. The guidelines will act as the procedure for the City's Park & Ride policy C554A.

The guidelines will be used by a variety of stakeholders. Planners will be required to evaluate Park & Ride opportunities at the Neighbourhood or Area Structure Plan level, at the rezoning stage of specific properties, and when issuing development permits on private property. Engineers will be required to evaluate the costs and benefits of Park & Ride locations by analysing demand, transit ridership and other city-building indicators. Interdisciplinary teams will be required to design future Park & Ride facilities according to the design parameters discussed in these guidelines. Financial planners will be required to consider the cost recovery models associated with Park & Ride operations (e.g. user fees and subsidies). Ongoing monitoring and evaluation will be required by multiple groups across the City to ensure that Park & Ride objectives are met. Further details regarding the action items can be found in Appendix B.

Future initiatives related to Park & Ride should consider the guidelines in conjunction with current best practices, changes in travel patterns and lessons learned as Park & Ride and

our transportation system continues to mature. Recommendations will be tested and will guide future policy and actions related to the guidelines. The City Plan (Municipal Development Plan and Transportation Plan) renewal will provide policies and guidance for future land use and transportation in the City of Edmonton and may necessitate an update or revisions to the Park & Ride Guidelines.

2.0 Municipal Strategy and Policy Context

The Way Ahead (City of Edmonton, 2014) is the City's corporate strategic plan, and forms the foundation of the City's work, including six municipal goals:

- Transform Edmonton's Urban Form
- Enhance Use of Public Transit & Active Modes of Transportation
- Improve Edmonton's Livability
- Preserve & Sustain Edmonton's Environment
- Ensure Edmonton's Financial Sustainability
- Diversify Edmonton's Economy

Through Vision 2050, corporate goals have been updated and now include:

- Healthy City
- Urban Places
- Regional Prosperity
- Climate Resilience

A number of other strategies and policies are based on *The Way Ahead* and inform the context for the Park & Ride Guidelines.

2.1 MUNICIPAL DEVELOPMENT PLAN (THE WAY WE GROW) AND RELATED PLANS

The Way We Grow (City of Edmonton, 2010), Edmonton's municipal development plan provides policies and guidance for our city's transformation into a more compact, transit-oriented and sustainable city.

2.1.1 TRANSIT

The Way We Grow contains key themes relevant to transit:

- Edmonton's transit system will become the primary framework for urban growth through Transit Oriented Development (TOD) around existing and proposed LRT stations and bus transit centres.
- Medium to high density development will be concentrated around LRT stations and bus transit centres to make transit service more viable.

- Regional partnerships will be leveraged to manage growth using an integrated transit and land use approach.

2.1.2 TRANSIT ORIENTED DEVELOPMENT POLICY AND GUIDELINES

The Way We Grow defines Transit Oriented Development (TOD) as "intensified development around LRT stations and transit centres … with housing, jobs, shopping, community services and recreational opportunities all within convenient walking distance of a node." TOD will help the City achieve its land use, transportation and corporate goals.

The TOD Guidelines and Policy (City of Edmonton, 2012a and 2012b) identify appropriate Transit Oriented Development around LRT stations and bus transit centres for various station types. Park & Ride is an allowable use in the Employment Station Area Guidelines, which encourage TOD for employment uses in suburban settings. The guidelines state that Park & Ride must not compromise either pedestrian access to the station or development opportunities. They also state the facilities should be sited within reasonable walking distance from, but not adjacent to, a station. In addition, the Guidelines state that Park & Ride is appropriate at end-of-line terminus stations to attract transit users that would otherwise be making long distance auto trips.

2.1.3 STATION AREA PLANS

Future LRT station area planning will be shaped by Sustainable Urban Integration[1] design guidelines, which include requirements for elements like streetscapes, LRT infrastructure and bike parking that reflect a vibrant, sustainable and pedestrian-oriented environment.

Other plans such as area redevelopment and neighborhood area structure plans play an important role in LRT area planning. These plans guide development of neighbourhoods, commercial and industrial areas and often identify how land use should integrate with LRT stations.

2.2 TRANSPORTATION MASTER PLAN AND RELATED PLANS

The Way We Move (City of Edmonton, 2009) is Edmonton's transportation master plan. It identifies public transit as a cornerstone of the transportation system and a foundational element of a livable, sustainable city.

It describes (*Ibid.*, Section 5.4) the application of Park & Ride as a way to encourage transit ridership. It also advises to focus Park & Ride facilities in areas outside the Inner Ring Road (consisting of Yellowhead Trail, 170 Street, 75 Street / Wayne Gretzky Drive, Whitemud Drive) and along major commuter routes, to connect commuters with key destinations. This provides the greatest opportunity to capture additional transit riders while balancing the

[1] https://www.edmonton.ca/projects_plans/transit/design.aspx

costs of Park & Ride facilities and not competing with bus service. Locating Park & Ride facilities toward the ends of LRT lines or at key bus transit centres helps to ensure valuable land in other areas is retained for more-intensive Transit Oriented Development (TOD).

The Way We Move provides specific direction for Park & Ride facilities:

> *Strategic Objective 5.4: The City will develop Park & Ride facilities located towards the extremities of LRT lines or at key transit centres where land cannot be used for more intensive Transit Oriented Development.*
>
> *Strategic Actions:*
>
> *A. Developing a Park & Ride strategy*
> *B. Developing Park & Ride facilities in conjunction with LRT extension to attract regional commuter trips in locations where the land cannot be used for TOD, particularly within the TUC.*
> *C. Considering Park & Ride facilities at key transit centres where direct service to LRT or major destinations is provided.*
> *D. Redeveloping selected Park & Ride Lots into TOD sites over time as LRT lines are extended, as supported by market demand.*
> *E. Considering fees for parking at Park & Ride facilities where demand exceeds supply, ancillary services are provided, and/or parking demand management is implemented.*

2.2.1 PARK & RIDE POLICY

Policy C554 - Park & Ride was originally approved in 2009 and enacted the direction provided in *The Way We Move*. The subsequently amended policy, *C554A - Park & Ride* (City of Edmonton, 2016), states Park & Ride should be provided in order to:

- Improve travel options, with the primary objective of increasing transit ridership through improved access
- Target trips associated with land uses that have high trip generation, such as Edmonton's downtown, university and other post-secondary areas
- Accommodate travel necessary to support major special events

The Park & Ride Policy provides high level direction for the location and design of Park & Ride, opportunities to transition Park & Ride to Transit Oriented Development and parking fees.

The Park & Ride Guidelines will act as the procedure for the existing Park & Ride Policy C554A. It addresses key policy questions to respond to current needs and opportunities. This includes how to optimize Park & Ride to serve multiple user types throughout the day as well as the role of the private sector.

2.2.2 STATION ACCESS STRATEGY

As recommended in Edmonton's Transit Strategy, the City should prepare a Station Access Strategy in the future to address additional aspects of defined transit station types, including how to best prioritize and design for access (e.g., via local bus, walking, cycling, Park & Ride, passenger drop-off, vehicle for hire, etc.) in the context of the broader transportation and land use system.

2.3 TRANSIT STRATEGY

As one of the implementation steps from *The Way We Move*, the City developed Edmonton's Transit Strategy, which provides a comprehensive and integrated perspective on the transit system, including Light Rail Transit (LRT), bus transit, and paratransit. The Transit Strategy is framed around five pillars.

FIGURE 1 - FIVE PILLARS OF TRANSIT STRATEGY

Source: Edmonton's Transit Strategy, 2017, p. 22

One of the most notable directions of the Transit Strategy is Pillar 3, which calls for a new approach to Transit Network Design based on preferences identified by citizens of "inner" and "outer" neighborhoods[2] and calls for a network structured around a Primary Transit Network. The Primary Transit Network will be a collection of transit routes connecting areas throughout the city. It will encompass all of Edmonton's existing and future LRT lines, while supporting a grid of rapid, frequent and crosstown bus routes.

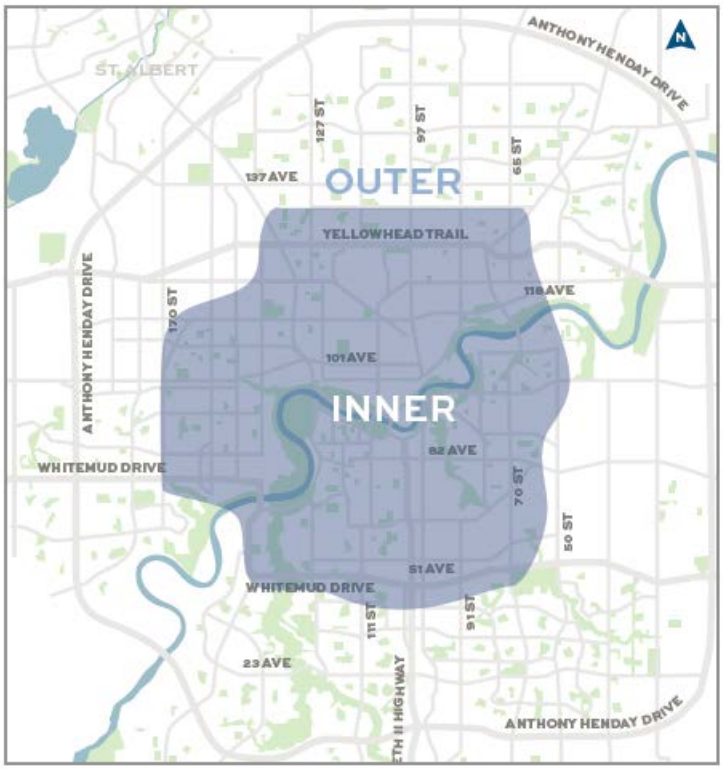
[2] See text box on next page.

Edmonton's Transit Strategy identified two types of land use patterns and transit customer preferences:

- *Inner neighbourhoods are generally those within the inner ring road, characterized by a grid street network and a more diverse mix of residential and non-residential land uses. Existing transit use in these neighbourhoods tends to be stronger. Residents participating in public engagement for the Transit Strategy showed a strong preference for feeder bus services rather than Park & Ride facilities to access the Primary Transit Network.*
- *Outer neighbourhoods are generally those beyond the inner ring road, characterized by more circuitous street patterns with less mixed land uses, and with a greater reliance on cars. From public engagement, there was a more even split among these residents regarding preference for feeder transit routes or Park & Ride facilities to access the Primary Transit Network. The road network and existing lower density in some of these neighbourhoods also means that it may be prohibitively expensive, going forward, to provide high-quality feeder transit routes.*

The difference in attributes of these neighbourhoods is a key determinant of the approach to transit service and must be considered as part of the Park & Ride Guidelines.

FIGURE 2 – EDMONTON'S INNER AND OUTER AREAS



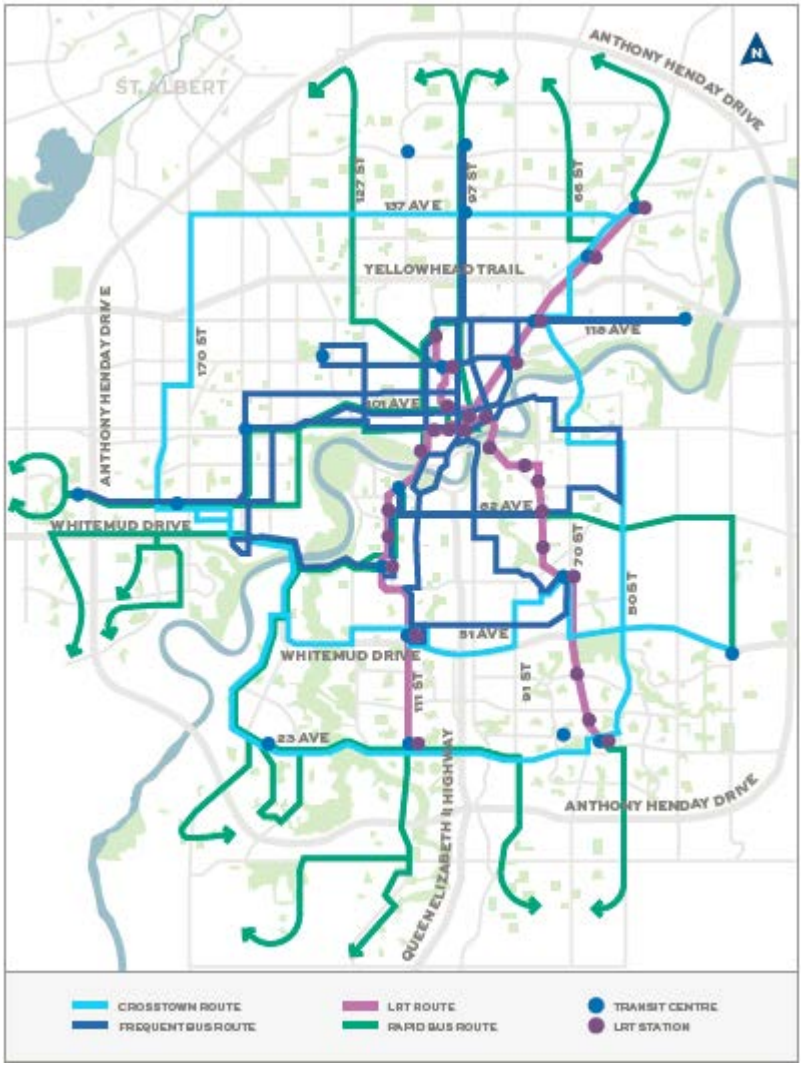
(from Edmonton's Transit Strategy, p. 31)

2.3.1 PRIMARY TRANSIT NETWORK

The Primary Transit Network will be a collection of transit routes connecting areas throughout the city and includes LRT, precursor Bus Rapid Transit, a frequent transit network, rapid bus, and crosstown routes.

This is an example of a future Primary Transit Network at a conceptual level:

FIGURE 3 - CONCEPTUAL PRIMARY TRANSIT NETWORK



Source: City of Edmonton, 2017, p. 76

To be most effective, the corridors selected for the Primary Transit Network must serve key destinations where development is focused to become more walkable, mixed use and with higher residential and employment density. This means Park & Ride facilities are best located on the Primary Transit Network, allowing access to the most direct and frequent services.

2.3.2 TRANSIT STRATEGY AND THE ROLE OF PARK & RIDE

The Transit Strategy Guiding Principle 3.12 identifies Park & Ride as a part of Transit Network Design for outer areas, calling for integration with local bus access and Transit Oriented Development initiatives at LRT stations and major transfer points.

Pillar 3 of the Transit Strategy calls for a **market responsive approach** to the transit network. In bridging to *The Way Ahead*, the Transit Strategy states that transit "…will provide **choice and reasonable access** for people across various demographic, geographic, socioeconomic, and mobility spectrums." Given the popularity of Park & Ride at LRT stations and bus transit centres, it is an expected element of the transit system.

Pillar 1 calls for **integration of transit with community planning and design**. By integrating transit early and proactively in the planning process, we are able to design great neighbourhoods and engaging places. Transit Oriented Development (TOD) can be one component of neighbourhood design. Integration of TOD with LRT stations and bus transit centres is key. From a city-building perspective, creating dense, walkable neighbourhoods close to transit hubs will capitalize on the LRT and Primary Transit Network.

Park & Ride needs to be integrated with the development of long-term transit-oriented land use. This represents a significant challenge since there is demand for Park & Ride with premium transit service, but consumer demand and developer interest in TOD typically takes significantly longer to materialize. As well Park & Ride and TOD get maximum benefit being close to an LRT or bus station, so they inherently compete for the same space. The Park & Ride Guidelines will provide further direction on managing this dynamic tension.

3.0 About Park & Ride

3.1 PARK & RIDE: A TRAVEL OPTION

Park & Ride is a travel option where citizens can drive to a bus transit centre or LRT station and then use transit for the rest of their trip. Park & Ride can serve citizens who might otherwise drive all the way to their destination or who choose not to access transit by bus, bicycling or walking. Park & Ride is popular because mobility needs and land use patterns are diverse. For some users, it offers a value-added service by providing transit access for those who want to travel by transit but value the convenience of a car.

Park & Ride is considered as part of the overall transit and transportation system and can influence the decision for some citizens to take transit. Similar to fares, schedules, marketing or route design, it's one aspect of a system that works with others to influence travel behaviour. Park & Ride can increase both transit ridership and access to transit.

3.2 PARK & RIDE BENEFIT AND COST CONSIDERATIONS

Park & Ride facilities extend the reach of transit to lower-density areas where frequent bus service cannot be financially supported. Providing access to more riders for premium transit services like LRT and premium bus increases transit ridership. Studies in other cities found that 40 to 60 per cent of Park & Ride users previously drove alone for their full trip (TCRP, 2004, p. 3-48).

Overall, Park & Ride has a number of benefits. It:[3]

- Relieves pressure on downtown parking facilities
- Contributes to the urban form, walkability and economy in the central area
- Increases transit ridership
- Improves regional access to the Primary Transit Network by providing an option for residents outside of the city centre to access public transit where it may be more expensive or less feasible to operate
- Reduce greenhouse gas emissions, pollution and traffic congestion by decreasing the number of vehicles on the road
- Reduces parking pressures around major events

To understand the impact of Park & Ride on Edmonton's transportation system, analysis was completed using the Regional Travel Model for the 2050 horizon. Results indicated that Park & Ride increases the transit mode share by 0.5% or 34,724 daily transit trips within the City. It also showed that each Park & Ride stall can result in as much as 1.1 new transit users. If current population, employment, land use and travel patterns continue, in the long term,

[3] Translink. (2016). Benefits of Park & Ride. Available online at: http://www.translink.co.uk/Services/Other-Translink-Services/Park--Ride/Benifits-of-Park--Ride/

Park & Ride can reduce as much as 155,000 vehicle kilometres travelled and 2,700 kgCo2 Greenhouse Gas emissions daily.

While Park & Ride offers a number of advantages to a city's transportation network, it can also present critical challenges:

- Providing Park & Ride facilities in lieu of feeder bus service may affect low-income citizens who depend on bus transit to access high frequency transit service (TCRP, 2004, p. 3-67 - 3-68).
- Park & Ride can compete with local transit service by shifting bus users to Park & Ride users (TCRP, 2004, p. 3-49).
- Park & Ride can limit the development potential of the land surrounding LRT stations or bus transit centres.
- Park & Ride can be expensive to build and operate depending on the type of facility and whether or not it is paid parking.

While Park & Ride benefits transit ridership, it is not the only factor in supporting public transit mode share. Table 2 below provides a comparison between Park & Ride provision and transit mode share. High transit ridership does not necessarily correlate with higher amounts of Park & Ride spaces per million riders. Transit ridership may instead be a factor of density and integration of compact land use and transportation networks.

TABLE 2 - PARK & RIDE AND TRANSIT MODE SHARE

Municipality	*Total Park & Ride Spaces*	*Annual Riders (Millions)*	*Park & Ride Spaces per Million Riders*	*Transit Mode Share to Work (2016 Federal Census)*
Calgary	17,494	110	160	15.80%
Ottawa	8,253	97.1	85	20.62%
Edmonton	5,471	86.8	63	14.58%
Vancouver	8,042	231.2	35	29.71%
Toronto	11,202	534.8	21	37.01%
Winnipeg	529	49.9	11	14.92%

The cost to building and supporting Park & Ride facilities needs to be balanced against the costs of establishing feeder transit services or the benefits of Transit Oriented Development (TOD). TOD can generate significant amounts of walk-up transit ridership and tax base. Walk-up ridership is based on use, for residential within 400 m of a station, 0.80 transit trips per person per day can be expected and within 400 to 800 m 0.40 transit trips per person per day. Employment uses can generate as much as 0.09 transit trips per employee per day. Costs associated with Park & Ride include capital costs for land and construction, as well as

operating costs for administration and maintenance. Over a 20 year life of a parking facility, structured parking may cost up to three times more than a surface parking facility. As a result, surface Park & Ride is characteristic for suburban locations were land is of a lower cost and higher density development is not suitable.

Revenue includes user fees for Park & Ride, along with transit fares collected from Park & Ride users. User fees for Park & Ride align with the principles described in *The Way We Finance* User Fees White Paper. Similar to feeder bus transit services, Park & Ride provides benefits to individuals using the service and society at large by reducing traffic congestion, vehicular air pollutants and greenhouse gas emissions. A basic cost and revenue comparison provided below demonstrates the implications of surface and structured parking.

TABLE 3 - SURFACE AND STRUCTURED PARKING

Parameters	*Surface*	*Structured*
Number of Stalls	1	1
Life of Facility	20	20
Capital Costs	$8,800.00	$38,500.00
Operating Costs	$5,000.00	$10,000.00
Transit Fare Revenue	$16,200.00	$16,200.00
Net	$2,400.00	-$32,300.00
Revenue from parking fees	$12,000.00	$12,000.00
Admin cost for parking fees	$1,200.00	$1,200.00
Net	$13,200.00	-$21,500.00

There are opportunities for third parties to capitalize on the operation of Park & Ride where there are compatible land uses that allow for shared use of parking facilities. It allows the third party the ability to generate revenue throughout the day on typically underutilized facilities.

Pillar 2 of the Transit Strategy focuses on a balanced approach to operating funding and fare policy. For the ongoing sustainability of transit, it's important to pursue a prudent and sustainable approach to costs and funding.

User fees and subsidies are key considerations in the future of Park & Ride. They will allow the City to evenly distribute service costs, offer choice, efficiently allocate government dollars, regulate demand and use pricing to achieve the City's corporate goals and objectives. Park & Ride currently operates in a cost-recovery model, where operating costs are recovered entirely through user fees, but with no cost recovery for capital costs. As Park

& Ride continues to expand and costs to construct, operate and maintain lots increase, the cost recovery model will need to be reviewed.

3.3 OTHER ASPECTS OF PARK & RIDE

Park & Ride in Edmonton Today

Park & Ride has been part of Edmonton's transportation system since the 1970s. Edmonton's current Park & Ride facilities primarily serve commuting, school and special events trips.

The distribution of Park & Ride users from the 2017 Park & Ride Origins Report indicates high levels of use from neighbourhoods adjacent to and outside Anthony Henday Drive. The key finding from the study was that neighbourhoods with relatively easy access to the Park & Ride and within reasonable proximity tended to reflect the majority of Park & Ride users. Comparison of the origins of city Park & Ride users (2016) with areas within a 10 minute bus ride to Park & Ride facilities was completed and is included in Appendix C. Results indicate that the highest percentage of Park & Ride users are those outside of 10 minute or less bus feeder service. This indicates the important relationship between bus service and Park & Ride demand. If bus service is enhanced to provide efficient access to more users, then the demand for Park & Ride could decrease.

According to the 2015 Edmonton and Region Household Travel Survey results, Park & Ride makes up 0.6% of City resident's trips, and 0.9% of trips in the surrounding Edmonton Metropolitan Region. The daily percentage of City resident users accessing transit through Park & Ride (formal Park & Ride, private Park & Ride, informal on-street Park & Ride) is 7%, 4% of transit riders access transit through kiss and ride and 89% through all other modes of access (bike, walk and transit). Roughly 50% of Park & Ride users were parking on-street to access LRT Stations, bus only transit centres and direct bus routes to downtown. On-street Park & Ride is currently considered informal Park & Ride and typically occurs within 800 to 1200 m of LRT stations and 400 m of bus transit centres where no on-street parking management programs exist.

Further information on the current state of Park & Ride in Edmonton and other comparable locations is documented separately in Park & Ride - Best Practice Review (Steer Davies Gleave, 2017). Table A-1 in Appendix A shows all existing and proposed future Park & Rides in Edmonton.

Park & Ride in Practice

Traditionally, Park & Ride options in municipalities have included surface or parkade structures that are owned and operated by the municipality or transit agencies. In recent years, Park & Ride options have expanded to include potential use of municipal on-street parking next to LRT stations, as well as parking facilities with non-municipal owners who operate Park & Ride either in partnership, agreement or as separate third-party initiatives.

The following factors must be considered for the effective provision and operation of Park & Ride:

- Parking cost and other travel cost-saving opportunities
- Competitive travel times
- Frequent transit service
- Direct priority transit service to the city centre
- Congested roadway travel conditions
- Lack of convenient or affordable parking at destination
- Long travel distances
- Avoidance of driving stress and related benefits

Park & Ride Users

Park & Ride users typically originate from low-density suburban areas for access to work, school or special events. Park & Ride users often have choices in how they make their trip – they may have a car, and may need to use it for chained-trips such as dropping off kids at school or daycare, but don't necessarily need it all the way to their final destination. They may prefer the convenience, comfort and amenities of their car over feeder bus service, but prefer to take transit like the LRT to their destination. In addition, Park & Ride can provide access to transit for special events whenever feeder bus service is limited.

Other key findings related to trip purpose, income and household size from the 2015 Household Travel Survey are shown below:

- On average, Park & Ride users travel 10 km to get to their Park & Ride location. Suburban Park & Rides tend to have longer trip lengths than Park & Ride closer to downtown.
- Park & Ride users are primarily students and commuters; 59% workers, 29% post-secondary students and 12% other.
- 87% of Park & Ride users have work locations downtown or at post-secondary institutions. The remainder have work locations in other areas of the city and in the region.
- 76% of Park & Ride users have household incomes between $60,000 and $200,000
- Household sizes vary by household income and indicate that Park & Ride users tend to come from middle to high income households:
    - Household incomes of below $60,000 range from 1 to 3 person households;
    - Household incomes of between $60,000 to $200,000 range from 2 to 4 person households;

Results from an online survey completed in March 2017 indicated user characteristics with respect to frequency of use and trip purpose. The frequency of use of Park & Ride was split 50/50 between regular weekday users and those that access Park & Ride occasionally.

Responses indicated that commute trips (work and school) and special events made up the majority of trip purposes when accessing Park & Ride. A smaller percentage of trip purposes for leisure and errands were also currently completed by accessing Park & Ride.

Regional Context

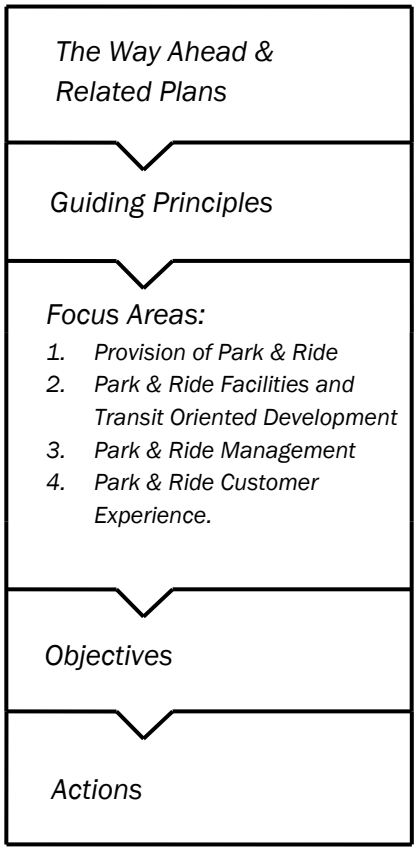
The Edmonton Transit Service primarily serves people within the boundaries of Edmonton, but it also connects with many other transit services and municipalities in the surrounding Edmonton Region, many of which also provide Park & Ride facilities within their municipal boundaries. A 2017 City of Edmonton Park & Ride Origin Report indicated that 14.5% of City Park & Rides are utilized by Edmonton Metro Region users. The focus of these guidelines is on Park & Ride within Edmonton, some of which may also serve commuters from the larger region.

4.0 Park & Ride Guidelines Foundation

PARK & RIDE ROLE

The overall role for Park & Ride in Edmonton is:

> PARK & RIDE IS AN IMPORTANT COMPONENT OF EDMONTON'S MULTI-MODAL TRANSPORTATION SYSTEM, PROVIDING GREATER ACCESS TO THE PRIMARY TRANSIT NETWORK AND SUPPORTING INCREASED TRANSIT RIDERSHIP.



This statement is intended to support overall City objectives as articulated in *The Way Ahead*, the City's Strategic Plan.

GUIDING PRINCIPLES

Guiding Principles accompany the Vision and provide the overall philosophy of Park & Ride. These Principles are reflected throughout the guidelines, and are considered the overarching objectives to each Focus Area.

❖ **PARK & RIDE IS A COMPONENT OF CITY-WIDE TRANSPORTATION AND LAND USE SYSTEMS**

- City-wide provision of Park & Ride is viewed within the broader context of land use, urban form, environment, financial sustainability and transit demand.
- Park & Ride is one of several potential ways to access transit. Investment should be balanced with improving other modes of access and land development opportunities.

- **PARK & RIDE SHOULD BE CONTEXT SENSITIVE**
  - Park & Ride siting and facility design should consider proximity to the station or transit centre, should be sensitive to the local context, and should not impede potential Transit Oriented Development.
  - Park & Ride siting and facility design should not impede access to transit from surrounding neighbourhoods through high quality walking paths, cycling connections, and end of trip facilities.
  - On-street parking should be managed in communities surrounding LRT Stations, transit centres and Park & Ride facilities to minimize negative impacts on neighbourhoods.
- **PARK & RIDE SHOULD BE FLEXIBLE AND ADAPTABLE**
  - Park & Ride is provided directly by the City, in agreement or partnership with others or by third-party operators to meet a range of objectives and capitalize on opportunities.
  - Park & Ride provision, design and management are adaptable to future market conditions, including future development and emerging mobility and technology options.
- **PARK & RIDE SHOULD BE CUSTOMER ORIENTED**
  - Park & Ride facilities are strategically located and managed to accommodate demand and encourage citizens to use transit for part of their trip.
  - Park & Ride facilities are designed to be safe, accessible, attractive and be well-maintained for users of all ages and abilities.
- **PARK & RIDE SHOULD BE COST EFFECTIVE TO THE CITY**
  - Municipal Park & Ride balances long-term benefits to the city with the ongoing costs to build, own, operate or partner on facilities.
  - Siting and facility design of facilities reflect the highest benefit to City building objectives for the lowest costs, and consider both the short and long-term uses of the site.
  - Park & Ride facilities are well-utilized throughout the day and for a variety of trip types.
  - Municipal Park & Ride is managed proactively, including pricing to help recover costs and align demand with supply.

FOCUS AREAS

The Park & Ride Guidelines recommendations are organized into four Focus Areas:

1. Provision of Park & Ride
2. Park & Ride Facilities and TOD (Transit Oriented Development)
3. Park & Ride Management
4. Park & Ride Customer Experience

Each Focus Area has a goal that defines what the guidelines aims to achieve and objectives to achieve these goals.

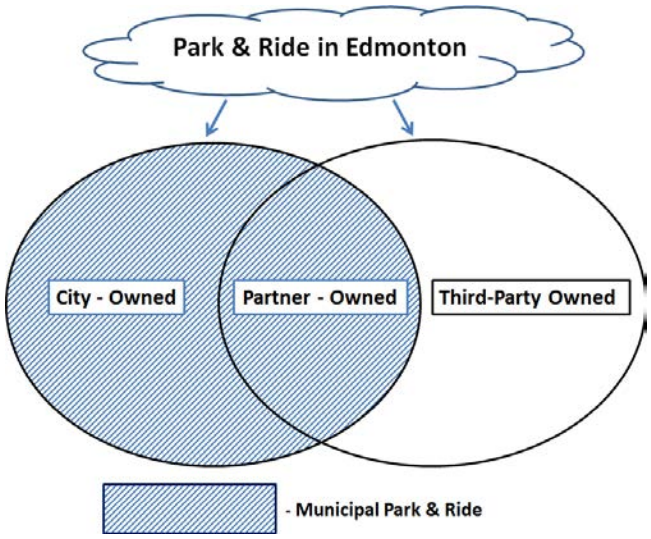
5.0 Goals and Objectives

FOCUS AREA: PROVISION OF PARK & RIDE

PARK & RIDE IN EDMONTON WILL SERVE EXISTING AND FUTURE POPULATION AND EMPLOYMENT DEMAND WHILE CONSIDERING ALL POTENTIAL SOURCES OF PARK & RIDE SUPPLY THROUGHOUT THE CITY.

Edmonton's Park & Ride system will encompass:

- **Municipal Park & Ride Facilities** — off-street facilities either provided directly by the City or in agreement with a private party.
    - Municipal Park & Ride facilities are intended to be primarily accountable for accomplishing Edmonton's transportation and city-building objectives.
- **Third-Party Park & Ride Facilities** — off-street facilities initiated by third-parties, regulated by the City.
    - Third-party Park & Ride facilities are intended as an enhancement to the primary provision of Municipal Park & Ride facilities.
- **On-Street Park & Ride** — these areas make use of existing on-street parking close to the Primary Transit Network. They serve one or more parking purposes while minimizing negative impacts on neighbourhoods.
    - On-Street Park & Ride is intended as an enhancement to the primary provision of Municipal Park & Ride facilities.



These Park & Ride types are intended to serve general transit demand for a variety of trip purposes while addressing the main demand of commuters. The City of Edmonton supports **Park & Ride for Special Events**, which these Park & Ride facilities can address, particularly

special events located along an LRT line or frequent bus transit service. For venues not close to the Primary Transit Network, Park & Ride for Special Events may also provide access via special event services that are provided in addition to conventional fixed-route service. See Table A.1 for details of the Municipal Park & Ride Facilities System.

MUNICIPAL PARK & RIDE FACILITIES

Key objectives of Municipal Park & Ride facilities are to balance support for Edmonton's Transit Strategy and TOD Policy, while maintaining fiscal responsibility.

Objective 1.1: The City of Edmonton will provide a system of permanent, high-quality, City-owned, Municipal Park & Ride facilities to achieve city-building objectives, mainly in outer areas of the city.

Permanent Municipal Park & Ride facilities should be located at:

- End-of-the-line LRT stations within Edmonton boundaries
- LRT stations close to the Transportation Utility Corridor (TUC)
- Bus transit centres in the outer areas of the city.

Figure 4 illustrates the proposed municipal system of permanent and transitory Park & Ride facilities established with this strategy. Appendix A documents the key characteristics of these facilities (Table A.1), as well as a basic description of each facility. The Municipal Park & Ride Facilities System is intended to evolve over time and can be updated by revising the contents of Appendix A.

Implementation of this system includes establishing and maintaining budgets, regulations, agreements, partnerships and administrative processes needed to build the system.

THIRD PARTY PARK & RIDE FACILITIES

Objective 1.2: The City of Edmonton will seek to establish agreements with non-municipal third parties for additional Park & Ride facilities, mainly in outer areas, as a transitory part of the municipal system.

Transitory Park & Ride facilities generally will be located at interim end-of-line LRT stations. Interim end-of-line LRT stations are designated through LRT prioritization and construction staging plans. Interim end-of-line LRT stations may require review as LRT planning continues to evolve. They are considered transitory (non-permanent) because, in the longer term, the areas around these stations will transform to Transit Oriented Development (TOD). The transitory nature of these lots will be communicated to the public to explain their role within the long-term context of Park & Ride in Edmonton.

The provision of Park & Ride as an interim land use benefits the municipal system by providing a travel option and benefits the non-municipal partner with revenue generation opportunities while the market demand for planned Transit Oriented Development materializes. In addition to transitory locations, third-party Park & Ride may be considered in outer areas with compatible uses through shared parking.

Park & Ride agreements will be tested at the Mill Woods Town Centre LRT Station (in order to understand costs, benefits, and implications) before this process is fully implemented city-wide.

Third-party Park & Ride is typically initiated by a non-municipal entity with complimentary land uses to permit the operation of Park & Ride. It's considered third party since it does not include lease or partnership agreements with the City. The City has limited control over how long the facility exists, and over how it is operated unless it is identified within zoning development regulations or development permit (e.g., location or size of the facility).

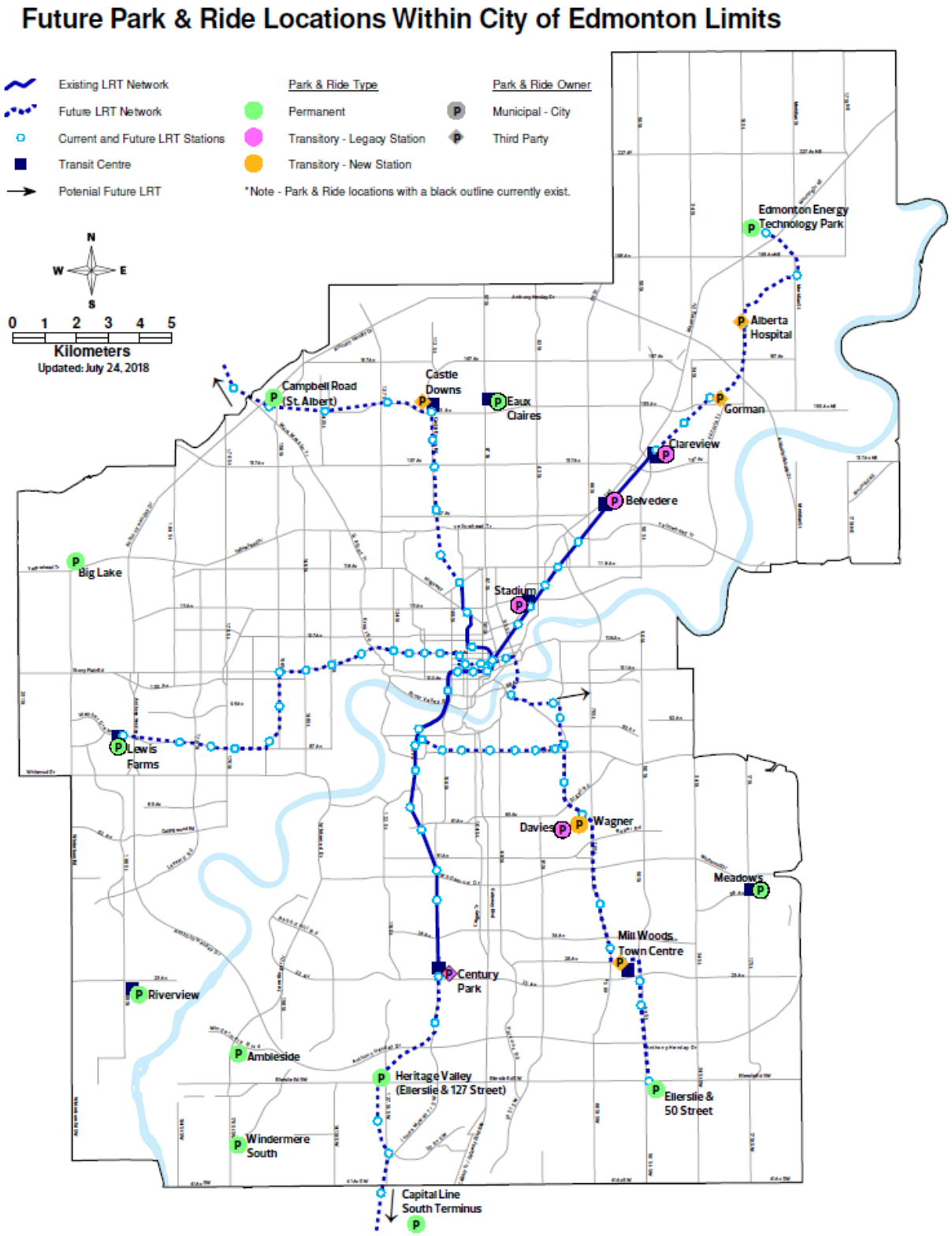
Typically the motivation for Third-party Park & Ride owner/operators is revenue generation because it offers a better return-on-investment for the Third-party than other alternative uses while complying with City regulations. City regulations are implemented at these locations through the zoning and permit processes. Regulations may include sunset clauses or limited duration permits for Park & Ride to support the transition from parking facilities to development.

Objective 1.3: The City of Edmonton will work with other municipalities to integrate Regional Park & Ride.

Edmonton's Municipal Park & Ride system is intended to work together with other municipal Park & Rides in the Edmonton region, individually or collectively, as part of the regional transportation system.

Regional Park & Ride facilities will continue to be incorporated in the Regional Travel Model and considered along with Edmonton's Park & Ride to support the Edmonton Metropolitan Region Growth Plan. The City will work with regional municipalities to conduct planning studies and confirm optimal locations as well as highest and best use of land for these facilities.

FIGURE 4 – PROPOSED FUTURE MUNICIPAL PARK & RIDE FACILITIES SYSTEM



Permanent: Facilities where demand and provision is expected to operate in perpetuity. Park & Ride may transition from surface to structured parking but number of stalls shall not decrease unless supported by analysis.

Transitory – Legacy: Existing facilities located at interim end-of-line stations that may not comply with the Park & Ride policy. Each facility is unique and requires consideration and analysis towards transition in to TOD.

Transitory – New: Interim end-of-line stations that are created by the staging of LRT construction over time. Park & Ride is a temporary use at these stations and are expected to transition to TOD in the long term.

Municipal – City: City owned and operated facilities.

Third – Party: Third-Party owned and operated facilities that operate through permits and/or agreements with the City

ON-STREET PARK & RIDE

Objective 1.4: The City of Edmonton will determine the feasibility of providing, through regulation and with community engagement, on-street Park & Ride in suitable locations near the Primary Transit Network, as an enhancement to the municipal system.

Informal on-street parking is currently used by Park & Ride commuters in areas around the Primary Transit Network. On-street parking for Park & Ride makes use of existing facilities that may otherwise be unused. They are most suitable for collector roadways where there are compatible land uses that do not generate high levels of on-street parking. For example, this may include roadways along a utility corridor where there are no residential units fronting the road, within a reasonable walking distance to the LRT Station or bus transit centre.

On-Street Park & Ride would not be exclusively for Park & Ride purposes, but would be part of managing on-street parking areas within walking distance of LRT Stations and bus transit centres. This includes addressing spillover issues from paid parking at Park & Ride lots. Identification of locations and management strategies will be done in consultation with local resident neighbours and businesses.

SPECIAL EVENTS PARK & RIDE

Objective 1.5: The City of Edmonton will continue to facilitate and provide Park & Ride facilities (and transit service) for Special Events.

Park & Ride for Special Events is coordinated through event organizers, either as a one-off event plan or on an ongoing basis. This type of Park & Ride is highly valued by special events patrons and must continue in the future. In addition to its popularity, the City of Edmonton

supports Special Events Park & Ride to support major events that contribute to the quality of life of Edmontonians and manage highly concentrated parking and transportation demands.

All Municipal and Third-Party Park & Ride facilities, as well as On-Street Park & Ride, may be feasible for Park & Ride for Special Events, particularly for events at Rogers Place or Commonwealth Stadium which are located along an LRT line. For special events not located along an LRT line, Park & Ride will be utilised in conjunction with a custom designed shuttle service like the service for the Edmonton Folk Fest or Heritage Days.

The full development of the LRT network and changes to the bus route network through the implementation of the Transit Strategy will provide more opportunities for users to access transit in the future. All existing Park & Ride lots for football games will continue to operate as long as they provide the highest benefits for the lowest costs. These Park & Ride facilities may be relocated if these locations provide a higher redevelopment potential in the future.

As Park & Ride bus service for special events are operationally cost intensive, future operations need to consider how to provide the service more cost effectively. More partnerships with third parties will be pursued to find efficiencies. Partnerships will be evaluated on location, integration with transit, demand, benefits and costs.

SIZE OF PARK & RIDE FACILITIES

Objective 1.6: The size of Park & Ride facilities will reflect local land use and transportation context, long-term demand and potential to increase transit ridership.

In considering the size of Park & Ride facilities, the current and future demand for Park & Ride must be considered in relation to the costs and benefits of providing Park & Ride. Edmonton's land use and transportation system is constantly evolving and changing, and the way people move today may not be the same in the future. For example, future demand for Park & Ride may change if passenger drop-off increases as a result of automated vehicles or shared mobility. Changes to bus routes, construction of new bus transit centres or extension of LRT lines may also impact the level of demand for Park & Ride. As a result of these changes these guidelines must consider how Park & Ride may transition over time to other uses.

Municipal Park & Ride facilities will generally be more than 200 stalls in size, which is consistent with locations in outer areas, where large land parcels are more likely to be available and the needs of the Municipal Park & Ride system, for which both demand and efficiencies of scale are greater.

For the purposes of securing space for Municipal Park & Ride, the size of a facility will reflect the maximum number of stalls anticipated at that location over the life cycle of the facility (horizon expected for full reconstruction; 20 years for surface or 50 for structured). The maximum life-cycle size is based on travel demand, taking into consideration factors such as pricing or new technologies like automated vehicles. The maximum life-cycle size should also account for demand from the Edmonton region which will also be a factor at any interim end-of-line LRT station. The maximum life-cycle size will be balanced with financial feasibility and existing land use constraints like natural areas or pre-existing development in the vicinity.

FOCUS AREA: PARK & RIDE FACILITIES AND TRANSIT ORIENTED DEVELOPMENT

THE CITY WILL MANAGE THE DYNAMIC TENSION BETWEEN PARK & RIDE AND TRANSIT ORIENTED DEVELOPMENT IN CONSIDERATION OF HOW THEY INTERACT IN SPACE AND OVER TIME.

STAGING OF PARK & RIDE FACILITIES

Objective 2.1: The City of Edmonton will act at long- and short-term land planning stages to establish permanent Park & Ride facilities.

At permanent Municipal Park & Ride locations, the intent is to secure a permanent site, or portion of a structure, for the Park & Ride facility, typically set-back from the LRT station or bus transit centre, while finding a site to operate an interim Park & Ride (closer to the LRT station or bus transit centre) as the market for Transit Oriented Development materializes. Appropriate long-term land planning steps include:

- Requiring a permanent Park & Ride site in area- or neighborhood-structure plans (or equivalent)
- Locating the permanent Park & Ride site 250+ m away from the LRT station or bus transit centre in the neighborhood area with direct, walkable connections (with the exception of a limited number of accessible parking protected next to the station)
- Identifying the location of one or more interim Park & Ride sites within 250 m of the LRT station or bus transit centre
- Collaborating with the development industry to understand development horizons
- Communicating a suitable planning advisory of the Park & Ride process for the subdivision/rezoning stage
- Considering purchasing land for the Permanent Park & Ride facility prior to subdivision/rezoning if a suitable opportunity arises

The City will need to purchase land for permanent Park & Ride site at subdivision/rezoning, with funds likely allocated from the Capital Budget.

The City will look for a partner to operate an interim Park & Ride on privately-owned land within 250 m of the station. This benefits the City by having Park & Ride closer to the LRT station or bus transit centre and benefits the partner by generating parking revenue until the market demand for Transit Oriented Development materializes. The City will consider agreements with third party developers to incorporate Park & Ride within a development based on an assessment of costs and benefits. This may include opportunities such as third-party development in a Transit Oriented Development area that incorporates underground parking. The City could potentially enter in to an agreement through negotiation to fund a portion of the construction for additional levels of parkade which may be used for Park & Ride. These integrated, permanent facilities could potentially be located closer to the station than 250 m. There is no existing policy or procedure to advise administration through negotiation processes for cost sharing of Park & Ride facilities.

Objective 2.2: The City of Edmonton will act at long- and short-term land planning stages to seek transitory Park & Ride facilities.

Transitory Municipal Park & Ride locations are meant to operate interim Park & Ride on privately-owned land until the market for Transit Oriented Development (TOD) materializes at that location. The initial Park & Ride site is optimally close to the LRT station or bus transit centre but can be relocated as TOD development proceeds. The City will not look to develop permanent Park & Ride facilities at these locations.

Appropriate long-term land planning steps include:

- Identifying an interim Park & Ride site, initially within 250 m of the LRT station or bus transit centre in the area
- Identifying relocation site(s) further from the LRT or transit station with a declining number of stalls as Park & Ride is displaced by TOD development
- Identifying the interim Park & Ride sites in the area- or neighborhood-structure plan
- Issue limited time duration development permits for non-accessory parking so that the appropriateness of the use can be evaluated at regular intervals (i.e. every 5 years)
- Collaborating with the development industry to understand development horizons and facilitate smooth transitions
- Communicating a suitable planning advisory of the Park & Ride process for the subdivision/rezoning stage

At the subdivision/rezoning stage, the City will find a partner to operate an interim Park & Ride on private-owned land. This benefits the City by having Park & Ride provided while an LRT station is an interim end-of-line (potentially for an extended period of time). This approach potentially benefits the third party by generating parking revenue (and/or municipal payments) until the market demand for TOD development materializes. Clauses are to be added to ensure the temporary operation of these Park & Ride facilities.

If a suitable partner arrangement is not achieved, the City should consider leasing an interim Park & Ride site with funds likely allocated from the operating budget. If that option is unavailable, the City should then consider offering shuttle service to the LRT station from a further location.

Objective 2.3: The City of Edmonton will integrate transit planning and operational strategies with permanent and transitory Park & Ride facilities.

The City will proactively consider the integration of bus service and Park & Ride as LRT lines are extended. In some cases, where Park & Ride is removed or interim Park & Ride is not achieved, the City will consider operational strategies to enhance feeder bus service subject to funding constraints.

Transit Shuttle Service from Park & Ride at Other Stations

Where interim Park & Ride at an interim end-of-line location is being replaced by Transit Oriented Development, some or all of the Park & Ride stalls at the permanent end-of-line can be implemented and used in conjunction with transit shuttle buses used to move people from that location to the interim end-of-line location. The decision to pursue this option should consider the full cost and benefits of implementation.

PARK & RIDE FACILITY SITING AND DESIGN

Objective 2.4: The siting and design of Park & Ride facilities should provide a safe, accessible and attractive environment, while minimizing impacts on adjacent land uses and transition to Transit Oriented Development.

Park & Ride should be designed to integrate existing or planned Transit Oriented Development. It's important to consider how Park & Ride can be designed to support the effective transition to Transit Oriented Development (TOD).

Municipal Park & Ride facilities must be based on enhanced parking lot configuration and operation standards that permit the eventual conversion from parking to TOD. These facilities also provide the opportunity to create a community focal point within a suburban development that, in time, could encourage the densification and eventual development of TOD. Careful consideration must be given to the overall design and layout of the facility including any buildings, green spaces, entries/exits, parking aisles and other spaces.

In transitory Park & Ride facilities, there will be times when parking needs to change with TOD land uses. For surface parking, clear parameters must be established through land use

regulation that detail acceptable location of surface lots, number of stall, landscaping and screening. Agreements and development permits between the City and private owners should also establish an acceptable operation period limiting when or how long the surface Park & Ride use will be permitted. This could mean a specific date, site development trigger or a combination thereof. If above-ground parking structures are considered, they should have wrap-around retail/mixed use at street level with parking provided on upper levels. Where an above-ground temporary parking structure is considered, the design must include appropriate design elements to enable conversion to commercial uses (floor to ceiling ratios, level floor plates, etc.).

Park & Ride facilities should be located close to the LRT station or bus transit centre to minimize walk time but not at the expense of other users such as pedestrians, cyclists and transit passengers. The optimal distance between Park & Ride and LRT station or bus transit centre is within 250 m (with the exception of a limited number of accessible parking protected next to the station). It remains important to consider:

- Site layout
- Circulation and access for all modes
- Priority parking areas
- Integration with adjacent land use
- Safety and security of users
- Universal design to support accessibility
- Landscaping and the opportunity to incorporate green infrastructure
- All seasons use
- Impact of emerging transportation technology broadly including AV, shared vehicles (vehicle-for-hire, car share) and electric vehicles.

Park & Ride facilities should be designed to be accessible, safe and secure for users of all ages and abilities. The design of all Park & Ride facilities, including permanent and interim lots, should consider elements like those in Table 4. The life of an interim facility should be considered when apply parameters such as they type of landscaping (1 – 2 years versus 10 - 15 years). Elements such as bike parking requirements have been omitted here as they are included in LRT and Edmonton Transit Services transit centre and station guidelines.

TABLE 4 - PARK & RIDE FACILITY DESIGN PARAMETERS

Category	*Element*	*Description*
Site Design	Layout	Park & Ride facilities should be designed with block sizes, aisle widths, and paths (both walking and cycling) that could be altered to be a TOD in future.
	Land Use	Building design should allow the Park & Ride facilities to

		transition over time to TOD. Structured lots should have wrap-around retail/mixed use at street level with parking provided on the other levels. Structured and surface lots should be screened and designed for the future conversion to other commercial and residential uses.
	Network Connectivity	Internal site networks should be structured to maximize connectivity to existing and future networks in surrounding areas - streets, sidewalks, trails, cycling facilities.
	Natural Features	The facility should be designed to take advantage of the site's characteristics including its proportion, topography, aspect and geographic location.
Transportation	Multi-Modal Integration	Multi-modal connections should be made easy and convenient by locating facilities close to one another and include appropriate wayfinding and lighting.
	Access	Separate entries/exists should be provided where possible for buses and private vehicles to reduce potential delays for transit users and provide safer operation. Careful consideration is required for the efficient circulation of high-turnover vehicles (i.e. kiss and ride, taxi, etc.) and integration with other vehicles such as DATS.
	Priority Parking	Accessible parking stalls, carpool, car share and electric vehicle parking should be located closest to the LRT station or bus transit centre.
Accessibility	Universal Design	Park & Ride facilities and surrounding areas are designed to be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, or ability.
Wayfinding	Environmental Design	Passive wayfinding techniques should be used to help orient Park & Ride customers, such as linear walking corridors or specialized surface treatments.
	Signage	Consistent and coordinated wayfinding signs should be provided in all Park & Ride facilities that provide specific information related to parking restrictions / costs and

		emphasize connections between travel modes.
Green Infrastructure	Landscape + Trees	Plentiful and high-quality landscaping and street trees should be integrated within the Park & Ride facility and surrounding streetscape. Adaptive approaches can be taken for interim parking lots, for example meeting landscaping requirements through movable planters.
	Stormwater Management	Parking surfaces will be permeable where possible to allow stormwater to permeate the surface and replicate natural systems. Excludes the use of gravel.
		Stormwater run-off associated with paved surfaces will be treated on-site to the extent possible to minimize demand on existing stormwater systems.
	Low Impact Development	Consideration is given to Low Impact Development best practices and opportunities to support green energy transition.
	Energy Transition	Consider on-site renewable generation e.g. solar photovolatic, to offset the energy needs of the park & ride facility. Install electric vehicle charging stations, with usage monitoring capabilities, at electric vehicle parking stalls.
Safety and Security	Lighting	Provide quality fixtures which minimize visual and physical clutter and deliver a safe and effective level of illumination for pedestrians and vehicles. In addition, the lights are to be energy efficient and in accordance with the C576 Light Efficient Community Policy.
	Crime Prevention Through Environmental Design (CPTED)	Design to provide natural surveillance (visibility, positive social activities), natural access control (entry and exit points, fences), and natural boundaries (clear ownership, clearly marked private spaces).

FOCUS AREA: PARK & RIDE MANAGEMENT

THE CITY WILL PROACTIVELY MANAGE THE DEMAND FOR PARK & RIDE TO MAXIMIZE USE AND MINIMIZE IMPACT TO COMMUNITIES.

People choose Park & Ride based on values associated with time, cost and convenience. The demand for Park & Ride is determined by travel times, the availability of parking, the trip purpose, and the price of Park & Ride plus the transit pass. A Park & Ride program should maximize the number of new transit riders, optimize the use of Park & Ride throughout the day, support a good customer experience and recover costs without limiting the City from achieving other goals such as Transit Oriented Development.

PARK & RIDE PRICING

Objective 3.1: The City will investigate the use Park & Ride pricing to balance facility use, manage demand and recover costs.

Price plays an important role in a commuter's decision to use Park & Ride. For those that value the certainty of a reserved parking stall, the pay parking approach ensures they have access to a reserved stall and provides revenue to off-set the cost of providing Park & Ride and operating transit. Those unwilling or unable to pay for Park & Ride will have access to a base inventory of free parking stalls at LRT Station and Transit Centre Park & Ride locations, although these stalls will typically fill up during early commute hours. Those unwilling or unable to pay may also have the option of using reserved parking stalls (e.g., carpool parking, carshare parking, electric vehicle parking) or accessing LRT station or bus transit centre via enhanced walking and cycling infrastructure.

Pricing of third-party Park & Ride is a private matter at the discretion of the third-party operator. However, pricing would need to reflect market conditions to ensure uptake of paid stalls.

ADJUSTING SIZE AND TRANSITIONING PARK & RIDE FACILITIES

Objective 3.2: The City will expand, reduce or transition Park & Ride facilities to TOD as appropriate over time.

The level of use of a Park & Ride is an indication of the demand that exists at a specific location. Where Park & Ride facilities are consistently full and pricing tactics have been applied to manage demand, the City should investigate how to best respond. Demand may be increasing for a variety of reasons. Before expansion of Park & Ride is considered, the City must understand why. In some cases, enhancements to serve sustainable modes of transportation through improvements to bus feeder services and connections to better serve walkers and cyclists may be sufficient to manage demand. In other cases, expansion or construction of a new Park & Ride in a separate location may be warranted.

Considerations for the expansion or new construction of Park & Ride include:

- Utilization at 85-90 percent or greater during weekdays for five or more years

- Paid parking price has increased to maximum threshold based on customer preference survey results and Council approval
- Improvements to support sustainable modes of access have been optimized
- All feasible agreement or partnership opportunities have been sought
- Third-party interest expressed in purchasing and redeveloping the land where Park & Ride is located

A cost assessment should be completed to inform the decision to expand or construct a new Park & Ride. Cost comparisons might include the cost of acquiring additional land at an existing location to expand surface Park & Ride, the cost to construct structured parking at an existing location or acquiring and constructing a facility at a new location that serves the same group of Park & Ride users.

Alternatively, the demand for Park & Ride may reduce due to the introduction of new technology such as automated vehicles or redistribution of population and employment. A consistent reduction in utilization may be an indication of reduced demand. Again, the City should investigate why before taking action in reducing Park & Ride.

There are several triggers that signify that Park & Ride may transition to TOD incrementally over time. Incremental reductions to Park & Ride will ensure that demand is continuously met and change can be adequately communicated to Park & Ride users. Park & Ride utilization at designated lots and on-street should be monitored during this period to ensure that the pace of transition is adequate.

Examples of such triggers include:
- A LRT line is extended to or towards its ultimate end-of-line
- An additional Municipal Park & Ride facility is constructed along the LRT line or Primary Transit Network
- Utilization of Park & Ride decreases substantially
- Network improvements enhance access to an LRT station or bus transit centre by other modes of access such as walking or bicycling

The City will work with future partners at transitory stations to estimate demand for Park & Ride at successive time horizons, and assist in creating a plan that permits the transition of Park & Ride to TOD over time. Park & Ride facilities may be incorporated into time-restricted development approvals and rezoning applications (e.g. as shared-use parking or non-accessory parking) to ensure the transition happens.)

FOCUS AREA: PARK & RIDE CUSTOMER EXPERIENCE

IMPROVE THE EXPERIENCE OF CUSTOMERS USING PARK & RIDE FACILITIES.

Edmonton's Transit Strategy Pillar #4 (Improve the Customer Experience), describes a number of principles and actions that are relevant to Park & Ride.

In general, the provision of Park & Ride needs to consider each stage of the Park & Ride user journey. Clarity in communication and supportive technology will allow users to identify where available stalls are, reserve available parking space for the time they require, understand the pricing for parking and how to pay for parking. Comfort and accessibility of users will be key considerations in the design of Park & Ride. Circulation of vehicles in Park & Ride facilities will be clear and minimize conflicts between vehicles looking for stalls and pedestrians of all ages and abilities who are crossing Park & Ride lots to get to LRT station or bus transit centre. Safety and security of users and their vehicles are enhanced by quality design and operation.

SAFETY AND SECURITY

Objective 4.1: The City will prioritize safety and security through sustained investment in security infrastructure and operations

Park & Ride site and facility design will ensure Crime Prevention Through Environmental Design Principles (CPTED) are reflected in future Park & Ride facilities. Street lights, emergency phones and CCTV cameras will continue to be used to support safety and security for all users. Design will also consider circulation of vehicles and mitigation of conflicts between vehicles and pedestrians. Reference should also be made to the guidance in objective "Park & Ride Facility Siting and Design" including *Table 4 - Park & Ride Facility Design Parameters*.

COMMUNICATION AND TECHNOLOGY

Objective 4.2: The City will provide comprehensive Park & Ride customer information

Effective communication will enhance the user experience through several stages in the customer journey including:

- Identifying where Park & Ride is available
- Anticipating how long it will take to travel to the Park & Ride
- Locating the available stall
- Identifying the cost and how to pay for the stall

Appropriate technology is needed to provide customers with accurate, accessible, and timely information.

Potential communication strategies to address each stage of the trip are:

- Work with app developers (including City apps like EPark) to incorporate Park & Ride information
- Incorporate Park & Ride payment in ETS fare payment system
- Include wayfinding in Park & Ride facilities in the Transit Wayfinding Strategy
- Improve communication to Park & Ride customers on facility operations like maintenance activities, special events and service disruptions
- Assess the potential to incorporate Park & Ride with mobility management services (i.e., Mobility as a Service: integrated trip planning and fare payment across all urban travel modes in real time). For example, connect Park & Ride users interested in carpooling to save money.

CUSTOMER COMFORT AND ACCESSIBILITY

Objective 4.3: Continue ongoing programs for comfort of transit users and accessibility for persons with disabilities

Improving the comfort and increasing the accessibility for Park & Ride users of all ages and abilities is an important element of the customer experience. High quality site and facility design of Park & Ride facilities and regular maintenance will improve comfort and accessibility. Design elements to improve comfort and accessibility may include covered walkways, distance from Park & Ride to LRT station or bus transit centre, waste receptacles, benches, landscaping/green infrastructure and information signs identifying availability of Park & Ride stalls. Regular maintenance practices such as snow clearing, pothole repair or clearing of waste receptacles will ensure facilities are clean and operable for users of all ages and abilities.

A universal design lens will be applied in the site and facility design of all Park & Ride facilities to ensure accessibility. Universal design includes elements such as accessible parking stalls in close proximity to LRT station or bus transit centre, tactile walking surface indicators at crossing points, curb cuts designed to provide smooth and convenient transitions, and nosing on stairs. Reference should also be made to the guidance in objective "Park & Ride Facility Siting and Design" including *Table 4 - Park & Ride Facility Design Parameters*.

6.0 Implementation

NEXT STEPS: ACTION ITEMS

Appendix B contains an initial set of Action Items supporting the Objectives and to provide the final layer of direction defining what specific activities need to occur to realize the Objectives.

MEASURING PERFORMANCE OF GUIDELINES

To ensure the guidelines remain effective, the system should be monitored to address issues and adapt the system as needed. Monitoring key indicators through metrics, targets and outcomes, the Park & Ride Guidelines can be updated to ensure best practices are reflected, incorporate considerations of emerging technologies and adapt actions if they are proving ineffective. Table 5 describes the metrics targets and outcomes related to the city-wide provision of Park & Ride.

TABLE 5 - METRICS, TARGETS AND OUTCOMES

Metrics	*Targets*	*Outcomes*
Park & Ride Stalls per Million Annual Riders Current: 63 stalls/million riders	110.5 by 2030	Edmontonians in developing areas have access to and use transit
Million Transit Riders/year Current: 86.7	103 by 2020	Park & Ride contributes positively towards transit ridership
Park & Ride Transit Access Mode share Current: 7.1%	7.5% by 2030	Park & Ride is used effectively as a supportive option to access transit
Cost Recovery Ratio (Revenue from Paid Park & Ride ÷ Operations & Maintenance Costs)	TBD	Infrastructure is managed cost effectively
Customer Experience Surveys for Park & Ride users (Municipal, Third-Party Facilities)	TBD	Keep and attract new users of transit through Park & Ride
Number of complaints received through 311 for on-street parking in neighbourhoods adjacent to Park & Ride	TBD	Space is used effectively and efficiently without impeding the livability of communities adjacent to Park & Ride

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8.0 Appendix A – Proposed Municipal Park & Ride Facilities Plan

Table A.1 contains the list of facilities comprising the Municipal Park & Ride system.

The Municipal Park & Ride Facilities System is intended to evolve over time and can be updated by revising the contents of Appendix A. All future park & rides are subject to long term growth planning of transit, demand, benefits and costs assessment and budget allocation for capital and operating costs. Assessments should occur at time of concept planning in advance of establishing budget profiles.

Table A.1 – Proposed Municipal Park & Ride Facilities System

P&R Facility Name	Municipal-City / Municipal-Partner	Transitory/ Permanent	LRT Hub or BUS Hub	Size - Current 2017 (Stalls)	Size - Medium Term 2030 (Stalls)	Size - Long Term 2050 (Stalls)	TOD Station Area Type
Campbell Road (St. Albert)	Municipal – City	Permanent	LRT & BUS	0	800	1650	Employment
Heritage Valley (Ellerslie Road & 127 Street)	Municipal – City	Permanent	LRT & BUS	0	1100	1900	Enhanced Neighborhood
Lewis Farms	Municipal – City	Permanent	LRT & BUS	613	900	900	New Neighborhood
Ellerslie Road & 50 Street	Municipal – City	Permanent	LRT & BUS	0	TBD	TBD	New Neighborhood
Ambleside	Municipal – City	Permanent	BUS	0	600	TBD	New Neighborhood
Capital Line South Terminus	Municipal – City	Permanent	LRT & BUS	0	0	TBD	TBD
Windermere South	Municipal – City	Permanent	BUS	0	0	TBD	New Neighborhood
Edmonton Energy Technology Park	Municipal – City	Permanent	LRT & BUS	0	0	TBD	TBD
Big Lake	Municipal – City	Permanent	BUS	0	0	TBD	New Neighborhood
Eaux Claires	Municipal – City	Permanent	BUS	391	391	391	New Neighborhood
Meadows	Municipal – City	Permanent	BUS	254	254	254	New Neighborhood
Riverview	Municipal – City	Permanent	BUS	0	0	TBD	TBD

Davies	Municipal – City	Transitory - Legacy Station	BUS	456	0	0	N/A
Clareview	Municipal – City	Transitory - Legacy Station	LRT & BUS	1393	1393	TBD	Centre
Belvedere	Municipal – City	Transitory - Legacy Station	LRT & BUS	761	761	TBD	Employment
Stadium	Municipal – City	Transitory - Legacy Station	LRT & BUS	520	TBD	TBD	Enhanced Neighborhood
Century Park	Third – Party	Transitory - Legacy Station	LRT & BUS	1083	Up to 1125	Up to 1125	Neighborhood | Enhanced Neighborhood
Mill Woods Town Centre	Third – Party	Transitory - New Station	LRT & BUS	0	TBD	TBD	Enhanced Neighborhood
Wagner	Municipal – City	Transitory - New Station	LRT & BUS	0	1300	TBD	Employment
Alberta Hospital	Third – Party	Transitory - New Station	LRT & BUS	0	0	TBD	TBD
Gorman	Third – Party	Transitory - New Station	LRT & BUS	0	TBD	TBD	Enhanced Neighborhood
Castledowns	Third – Party	Transitory - New Station	LRT & BUS	0	0	TBD	Neighborhood

Notes:
Note 1 – 0 stalls indicates that the Park & Ride does not exist or is removed
Note 2 – TBD indicates that the Park & Ride should exist but the exact number of stalls requires additional analysis and consideration
Note 3 – 2030 and 2050 horizons describe the number stalls for each facility at that period of time. These years align with analysis completed to forecast demand using the Regional Travel Model. It does not indicate construction year as construction is subject to Capital Budget approval processes.

8.1 PROPOSED PERMANENT PARK & RIDE FACILITIES

Edmonton Energy Technology Park • Amendment required to Edmonton Energy Technology Park ASP • Ultimate terminus of Capital Line LRT within City of Edmonton boundary • Regionally significant
Big Lake • Amendment required in Big Lake ASP • Bus access • Regionally significant • Requires expansion of transit service not currently supported by operating budget
Lewis Farms • Interim bus access until West Valley Line LRT is constructed • Demand analysis indicates that demand for park & ride increases with the opening of the West Valley Line LRT. Interim expansion of surface park & ride is warranted until market conditions support transition from surface Park & ride to structured parking facility with transit oriented development. • Based on current plans, Lewis Farms is the ultimate terminus of West Valley Line LRT within City of Edmonton boundary. • Regionally significant
Campbell Road (St. Albert) • Located adjacent to TUC • Interim bus service until Metro Line North West LRT is extended • Interim ownership and operation by St. Albert but will transfer over to the City in the long term • Two staged construction: o Stage 1: 800 total stalls o Ultimate: 1600 total stalls • Regionally significant
Eaux Claires • Bus Access
Ellerslie Road & 50 Street • Interim bus shuttle service to Mill Woods Town Centre until Southeast Valley Line LRT is extended south • Ultimate terminus of Southeast Valley Line LRT within City of Edmonton boundary • Regionally significant

Meadows

- Bus Access

Heritage Valley (Ellerslie Road & 127 Street)

- Located adjacent to TUC
- Interim bus shuttle service to Century Park until Capital Line LRT is extended south
- Two staged construction:
    - Stage 1: 1100 total stalls
    - Ultimate: 1900 total stalls
- Regionally significant until Capital Line South Terminus is constructed

Capital Line South Terminus

- Location between 41 Avenue SW and Edmonton International Airport to be confirmed through planning studies once annexation south of 41 Avenue has been completed.
- Ultimate terminus of Capital Line LRT within City of Edmonton boundary

Ambleside:

- Identified in Ambleside Neighbourhood Structure Plan
- Bus access

Windermere South

- Amendments required in Windermere ASP and either Glenridding Ravine NSP or Windermere Neighbourhood 5.
- Bus access
- Regionally significant
- Requires expansion of transit service not currently supported by operating budget

Riverview

- Demand, benefits and costs analysis to be completed to verify location and need for Park & Ride
- Amendments required in Riverview ASP
- Bus access
- Requires expansion of transit service not currently supported by operating budget

8.2 PROPOSED TRANSITORY (NEW) PARK & RIDE FACILITIES

Alberta Hospital

- Interim end of line for Capital Line LRT as described in LRT prioritization.
- Park & Ride operation leveraged primarily through agreements between the City and landowners or developers adjacent to future LRT Station

Gorman

- Interim end of line for Capital Line LRT as described in LRT prioritization.
- Park & Ride operation leveraged primarily through agreements between the City and landowners or developers adjacent to future LRT Station.

Castledowns

- Interim end of line for Metro Line Northwest LRT as described in LRT prioritization.
- Park & Ride operation leveraged primarily through agreements between the City and existing landowners adjacent to LRT Station and transit centre
- Park & Ride may be privately operated in areas zoned with non-accessory parking

Wagner

- LRT access
- Construction with SE Valley Line LRT
- Park & Ride may be reduced with extension of Southeast Valley Line LRT to Ellerslie and 50 Street (Permanent Park & Ride) to permit redevelopment into Employment Station Area type.

Mill Woods Town Centre

- Interim end of line for Southeast Valley Line LRT
- Municipal Park & Ride operation to be leveraged through agreements between the City and existing landowners adjacent to LRT Station and transit centre
- Location of Partner Park & Ride sites is further (~600 m) from Mill Woods Town Centre LRT Station and transit centre than recommended in the guidelines (250 m - 400 m).
- Park & Ride is known to be of interest to one or more non-municipal owners in areas zoned with non-accessory parking

8.3 TRANSITORY (LEGACY) PARK & RIDE FACILITIES

Clareview

- Interim end of line for Capital Line LRT
- Legacy Municipal Park & Ride has existed since the 1970s, but would not be implemented as a permanent Park & Ride according to these guidelines. However, demand analysis indicates that demand for park & ride continues in to the future at the same level as present day. Thus, existing Park & Ride may only be reduced and relocated within the station area with Capital Line extension if highest and best use of land and transportation system management can be demonstrated.
- Park & Ride relocation within the station area may be considered with redevelopment of site towards Transit Oriented Development.

Belvedere

- LRT Access
- No current plans to phase out Park & Ride at this location.
- Reduction or removal of Park & Ride would only be considered with large scale redevelopment into Employment Station Area type.

Stadium

- LRT Access
- Legacy Municipal Park & Ride has existed since the 1970s, but would not be implemented as a permanent Park & Ride according to these guidelines. Thus, the intention is that Municipal Park & Ride will be phased out as development progresses according to the Stadium Area Redevelopment Plan.
- Future Park & Ride may be included in future development through the mixed use but is not required.

Century Park

- LRT Access
- Third-Party privately owned and operated Park & Ride through Direct Control Provision for Century Park will offer an opportunity for up to 1125 Park & Ride stalls.
- Additional opportunities for Park & Ride operation may be leveraged through partnerships between the City and existing landowners adjacent to LRT Station and transit centre

Davies

- Bus only access but does not have a Transit Centre
- Predominately used for Special Events
- Lot will be replaced by Wagner

9.0 Appendix B - Action Items

This is an initial set of action items supporting the objectives of the Park & Ride Guidelines, providing a list of specific activities to realize the objectives.

1) Develop and Implement a Third - Party Park & Ride Program to implement Municipal Park & Ride facilities with Third – Party through agreements (i.e. including principles for partner selection, an agreement, appropriate permits and/or monetary considerations)
2) Transfer operation of Municipal Park & Ride from Edmonton Transit Services to Parking Services, City Operations.
3) Prepare amendments to Zoning Bylaw 12800 to provide more opportunities for non-accessory or shared parking in appropriate zones, and present to City Council as part of the Comprehensive Parking Review
4) Propose amendments to existing Area Structure Plans and Neighbourhood Structure Plans to include the provision of permanent Park & Ride lots.
5) Procure land for priority Park & Ride facilities where required, complete Concept and Preliminary plans, zoning and permits.
6) Propose amendments to City Council of existing Area Structure Plans and Neighbourhood Structure Plans to create alignment with the Municipal Park & Ride system.
7) Develop administrative procedure or policy for cost-sharing agreements between City and third-party developers for future Park & Ride
8) Review Park & Ride demand for all types of stalls using Regional Travel Model 2.0, GIS and Household Travel Survey data analysis
9) Review on-street parking demand for the Primary Transit Network with implementation of the Transit Strategy using Regional Travel Model, GIS and HTS Analysis
10) Confirm the inventory of Park & Ride stalls available through partnerships and on-street parking
11) Develop communication campaign to inform public of transitory nature of park & ride and objectives of highest and best use of land next to LRT stations and transit centres.
12) Confirm operational and maintenance cost impacts of on-street parking
13) Pursue Park & Ride partnerships for Special Events users
14) Complete cost and benefits assessment for Park & Ride to Special Events program.
15) Develop options for improving cost effectiveness for Park & Ride to Special Events.
16) Complete a Station Access Strategy that identifies priority modes of access and access improvements for different types of mode at each LRT Station and Transit Centre.
17) Identify access improvements for active transportation modes (e.g. walking or cycling), including missing links, intersection improvements, and end of trip facilities
18) Evaluate outcomes of Century Park Development
19) Complete analysis for Park & Ride demand and catchment area at each transitory lot
20) Develop draft template regulations for transitory TOD developments

21) Incorporate interdisciplinary teams that include urban designers, landscape architects, transit planners, engineers, operators and other technical experts in the siting and design of Park & Ride facilities
22) Develop cost and benefit procedure to evaluate siting and design of Park & Ride facilities
23) Initiate discussion and develop pilot program for provision of EV and car share stalls, including EV charging infrastructure
24) Complete Stated Preference Survey to understand pricing sensitivity for paid Park & Ride
25) Confirm Pay Parking Program objectives, methodology and implementation in association with the Fare Policy and Corporate User Fees and Subsidies Policy
26) Develop and Implement On-Street Parking Management Program
27) Develop Monitoring and Reporting Program
28) Investigate customer focused technology that allows Park & Ride users to view availability and price and reserve stalls remotely
29) Review the Park & Ride cost recovery model, user fees and subsidies as part of the Fare Policy and User Fees and Subsidies Policies review through implementation of these guidelines.
30) Update analysis informing demand, use and provision of Park & Ride with the next iteration of the Regional Travel Model and incorporate outcomes of monitoring results.

10.0 Appendix C – Bus Access and Park & Ride Users Origins Comparison