

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

Recommendation

That the December 5, 2023, City Operations report CO01552, be received for information.

Requested Action	Information only		
ConnectEdmonton's Guiding Principle	ConnectEdmonton Strategic Goals		
CONNECTED This unifies our work to achieve our strategic goals.	Urban Places		
City Plan Values	ACCESS.		
City Plan Big City Move(s)	A community of communities	Relationship to Council's Strategic Priorities	Mobility Network
Corporate Business Plan	Serving Edmontonians		
Council Policy, Program or Project Relationships	<ul style="list-style-type: none"> • Policy C539A - Transit Service Policy • Transit Service Standards Procedures • DATS Program Service Enhancements 		
Related Council Discussions	<ul style="list-style-type: none"> • October 16, 2020, CR_7353 DATS Program Service Enhancements - Update and Next Steps, Executive Committee • February 15, 2022, IIS00416 ETS Fleet Storage and Maintenance Facility Project, Urban Planning Committee • March 23, 2022, CO00803 Bus Network Expansion Opportunities - Transit Funding Model Options, Executive Committee • October 11, 2022, CO01320 On Demand Transit - Service Delivery Model, Community and Public Services Committee • November 22, 2022, CO01450 Transit Network Equity Analysis, Urban Planning Committee • August 29, 2023, CO1337 Edmonton Transit Services in Newer Developing/Developed Communities, Urban Planning Committee 		

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

Previous Council/Committee Action

At the October 11, 2022, Community and Public Services Committee meeting, the following motion was passed:

That Administration provide a report exploring options to commingle paratransit and on demand services.

Executive Summary

- Since 2019, Administration has implemented several enhancements to Dedicated Accessible Transit Service (DATS) as part of the DATS Program Service Enhancements strategy to improve the rider experience, including process and technological upgrades.
- Commingling enables transit agencies to share vehicles and operator shifts between paratransit and on demand services and can provide shared ride opportunities.
- This approach was used by some smaller transit agencies during the COVID-19 pandemic to respond to reduced ridership demand and to better utilize vehicle paratransit and on demand capacity. There are a limited number of cases of this model being implemented in areas with high ridership demand, similar demographics and similar service design and standards to Edmonton.
- There are both benefits and tradeoffs to be considered when reviewing commingling transit service.
- Administration will continue to further enhance the rider experience for paratransit and On Demand Transit service. As an example, for DATS riders, ETS will launch a new online booking platform, offer distance-based ride time scheduling and create more flexibility in trip booking.

REPORT

An evolved mass transit network is a crucial component for enabling citywide mobility, which contributes to a vibrant, equitable, prosperous and sustainable future for current and future generations of Edmontonians. In alignment with The City Plan, a robust transit network advances equity and inclusion by increasing service access.

Paratransit service, delivered in Edmonton through Dedicated Accessible Transit Service (DATS), plays an important role by providing greater access to transportation and mobility independence for Edmontonians with physical or cognitive disabilities. DATS trip volumes have increased from an average of 10,100 trips per week in September 2021 to 17,600 in September 2023 and have almost returned to pre-pandemic levels.

On Demand Transit service was introduced in April 2021, providing a first/last-kilometre solution for neighbourhoods not served by conventional bus service. Due in part to Edmonton's land use, population growth and the redesigned bus network, On Demand Transit currently serves 59 neighbourhoods and 19 senior residences. Trip volumes have also dramatically increased from an average of 4,600 trips per week in September 2021 to 12,600 trips per week in September 2023. Demand for both services is high.

In 2019, Administration established a multi-year plan to improve paratransit service in Edmonton, as outlined in the October 16, 2020 City Operations report CR_7353 DATS Program Service

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

Enhancements - Update and Next Steps. As part of the plan, nine actions to improve the DATS program were developed, including exploring a more flexible and cost-effective service model and making technological enhancements to trip scheduling and real-time rider information. These action items have been implemented and include upgrades to technology, adjustments to the scheduling process, enhancements for staff training, outreach with DATS riders and partnerships with taxi companies. Additional continuous improvement actions have also been identified and are in progress, as outlined in Attachment 1.

These changes have improved the overall DATS rider experience and provided greater access to transportation for DATS riders, enabling DATS to accommodate more rides and enhancing the trip booking experience. The annual DATS satisfaction survey showed that overall satisfaction with DATS has been consistently high, with a marginal increase from 90 per cent in 2020 to 92 per cent in 2022.

Commingled Transit Service

Smaller transit agencies who experienced lower ridership, such as during the COVID-19 pandemic, reduced operating costs by merging paratransit and On Demand Transit services. This process is referred to as “commingling”.

There are three options for commingled paratransit and on demand transit¹:

- Commingled fleets - paratransit and on demand services share the same fleet of vehicles. In this case, a paratransit operator may be assigned to an on demand transit vehicle to complete paratransit trips, or vice versa. Paratransit and on demand riders do not ride in the same vehicle at the same time. This assumes it is a single workforce.
- Commingled operator shifts - paratransit and on demand services use the same fleet of vehicles and the same operator shifts. For example, an operator may complete both paratransit and on demand transit trips within the same shift; however, paratransit and on demand riders do not ride in the same vehicle at the same time. This assumes it is a single workforce.
- Commingled trips - paratransit and on demand riders ride in the same vehicle at the same time. A trip may involve picking up a paratransit rider, followed by an on demand rider. The paratransit rider would be dropped off to their final destination while the on demand rider may be dropped off at the nearest transit hub to transfer to conventional transit.

Administration conducted jurisdictional scans of public transit agencies that have implemented a commingled paratransit and On Demand Transit service in the past five years, as well as leading technology providers of commingled service models. This research has provided insights about a commingled transit service, service model options, budgets, technology system requirements and the impact of commingling on riders, agency staff and performance. More information is outlined in Attachment 2.

Commingling during the COVID-19 pandemic allowed agencies to reduce costs and find efficiencies in response to low ridership demand. In Edmonton, the decline in DATS ridership during the pandemic resulted in a reduction in the number of contractor-provided paratransit

¹ Via Transit. *Commingling 101: The definitive guide to integrating microtransit with paratransit*, 2021

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

trips, reducing operating costs. On Demand Transit service was not in place during the first year of the pandemic.

In Edmonton, paratransit uses a multi-party contract to provide flexible support for changing ridership demand. As ridership demand increases or decreases, the amount of contracted service delivered varies. In-house DATS Operators provide a base layer of service using the in-house paratransit fleet which accommodates a higher number of mobility aids used by DATS riders. Contracted DATS service offers other vehicle types and are used for riders who do not require the mobility aids supported by in-house DATS vehicles.

On Demand Transit service also operates in a manner that maximizes efficiencies by using a zone-based model for service deployment. On Demand Transit is a more efficient and cost-effective solution for meeting the first kilometre/last kilometre challenge in areas that do not meet conventional transit service standards. There are a few key considerations prior to contemplating a commingling of these two service layers, including service standards, technology, fleet constraints, workforce and transit faring.

Service Standards

DATS service offers door-to-door service and is mandated to provide public transportation service for Edmontonians who are unable to use the conventional transit network. On Demand Transit service operates on a bus stop-to-transit hub model, where riders board at a dedicated On Demand Transit bus stop and are transported to a transit centre/LRT station to connect to the conventional transit network.

Paratransit operates across the entire city whereas On Demand Transit operates in select zones, integrating with conventional transit. Paratransit also has different hours of operation and a broader span of service than On Demand Transit service.

Trip booking processes are also different between the two services; paratransit offers a subscription option and a longer period of time for pre-booked trips, whereas On Demand Transit provides trip booking within a 60-minute window.

There are challenges with commingling trips that have different service standards, including different service models, service area coverage, service operating hours and rider trip booking processes. For example, commingling could increase costs as it increases service levels. Rider perceptions of service could also be impacted due to differences in level of service and service availability between On Demand Transit riders and DATS riders.

Technology

DATS and On Demand Transit use different technology systems for dispatching and routing. DATS uses a third-party paratransit industry software solution. On Demand Transit uses a different technology system, which is managed by the contracted third-party service delivery vendor. Commingling DATS and On Demand Transit would require integrating dispatching and routing into one technology platform that would need to accommodate the unique service standards and rider requirements for both services, meaning there would be contractual and budget impacts related to technology if commingling was pursued.

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

Fleet Constraints

DATS uses wheelchair lift equipped vehicles, contracted minivans, wheelchair accessible minivans and taxi sedans to provide paratransit service. On Demand Transit service uses three types of accessible shuttle buses, ranging from 10 to 14 passengers, all of which have space for at least one wheelchair, walker or child stroller. The majority of On Demand Transit shuttles are equipped with a wheelchair lift that can also be used for passengers who have mobility challenges.

While both fleets comprise a variety of vehicle types to meet accessibility needs, there would be challenges associated with scheduling a commingled service to accommodate all mobility needs. While the commingled fleet would have capacity to support riders, an integrated software platform that could ensure vehicle spaces could be optimized for efficiency and accommodation of all mobility needs is required.

Workforce

Paratransit service is delivered by both in-house DATS Operators and through contracted service that uses multiple service providers. On Demand Transit service is delivered through a contracted service with a single provider. There are also differences in operator training for DATS and On Demand Transit. If commingling was pursued, there would be contractual and budget impacts associated resulting from the necessary contract changes.

Transit Faring

DATS riders require cash fare or have a valid transfer, ticket or pass as proof of payment upon boarding the vehicle. On Demand Transit riders do not pay a fare when they board the On Demand Transit vehicle; instead, the fare is paid when they transfer between On Demand Transit and regular service at transit hubs. There would be challenges with commingling DATS and On Demand Transit riders in the same trip due to the differences in fare collection methods, and this may impact rider perceptions, particularly for DATS riders.

Next Steps

Over the past few years, commingling paratransit and on demand transit service through technology has been more common with smaller transit agencies. There is limited recent evidence to demonstrate the business case for commingling paratransit and on demand transit trips in a city of similar geography, service design and ridership demand as Edmonton. Most commingling scenarios identified in the jurisdictional scan occurred during the COVID-19 pandemic during times of low transit ridership.

ETS will continue to implement continuous improvements to benefit riders using paratransit and/or On Demand Transit service. Administration will also continue to operate these services as efficiently as possible within existing service standards and budget. In 2024, ETS will be implementing technology solutions and process improvements to further enhance the trip planning and booking experience for DATS riders. Some of the key actions underway include:

- Upgrading the online DATS trip booking system to offer a more user-friendly experience and enhancing rider information by providing real-time estimated trip arrival times. Enhancing online booking features will also allow DATS riders to add more trip information to improve

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

their experience. DATS aims to promote the upgraded system among DATS riders as they transition to online booking. This will support reduced call centre wait times and further improve access to DATS service. This project is expected to be completed in 2024.

- Working on new scheduling processes, focused on distance-based ride times, to allow for more refined targeted maximum ride times. The new process will ensure shorter trips have shorter scheduled ride times, improving the reliability of ride times.
- Implementing new processes to allow DATS riders to book trips based on desired drop-off times. This would help riders schedule trips for appointments where arrival times are crucial.
- Integrating self-serve trip information in the interactive voice response (IVR) system when riders call the DATS rider service centre to inquire about pick-up times and arrival times.

In the coming years, On Demand Transit will also be enhanced to improve access to the service and rider experiences. Some of the key actions underway include:

- Implementing service growth funded during the 2023-26 budget deliberations, adding 25 per cent more service across the city to address growth in ridership demand.
- Working with service delivery partners to improve rider wait times and maximize the efficient use of fleet across On Demand Transit zones.
- Exploring ways to improve trips related to school service, discussing feasibility of subscription options with service delivery partners.

Community Insight

Administration collects feedback from DATS riders and On Demand Transit riders on a regular basis through 311, community engagement and rider support contacts. On Demand Transit rider feedback was also collected through the trip booking app and ETS' monthly transit rider satisfaction survey. Riders who book a trip through the app can rate their trip out of a score of 5 and provide written comments about their experience. In 2023, the average rider satisfaction rating was 4.7 out of 5. Comments provided through the app have focused on operator conduct (e.g. driving, interactions, compliments), requests for additional stop locations within On Demand Transit zones, wait times and accuracy of the estimated time of arrival feature within the booking app.

Additionally, ETS conducts an annual satisfaction survey with DATS riders which uses a combination of online, telephone and mail-in paper surveys to understand their experiences and satisfaction with using DATS services. In September 2022, over 240 DATS riders and caregivers of DATS riders participated in the survey. Overall satisfaction among DATS riders was 92 per cent in 2022, and 90 per cent in 2020. Trip aspects which saw an improvement in satisfaction included the ability to book the day and time desired, trip booking wait time, on-time arrival, affordability and receipt of pick-up/drop-off notifications. The survey also indicated that there are opportunities to improve DATS rider experiences with ease of use of the online booking system, length of ride times, reliability and pick-up window as these features scored lower on the satisfaction scale. These aspects are being addressed through the 2023 and 2024 action items in the DATS Program Enhancements Plan outlined in Attachment 1.

The jurisdictional scan provides insights on rider perceptions with commingled service from other public transit agencies, outlined in Attachment 2. Administration also engaged the Accessibility

COMMINGLE PARATRANSIT AND ON DEMAND SERVICES

Advisory Committee (AAC) for feedback on this topic. AAC shared concerns on securement and accessibility of On Demand Transit vehicles for DATS riders, integration and perceptions of DATS riders and On Demand Transit riders, and the impact on arrival times to important destinations such as medical appointments for DATS riders. Due to the key considerations and differences between DATS and On Demand Transit, further engagement would be needed to understand the impact of this model on the experiences and perceptions of DATS riders and On Demand Transit riders.

GBA+

All riders are deserving of equitable access to transit service, regardless of income, age, ability, or other protected identity factors. Efforts to advance equity and reduce barriers to transit are a key priority within ETS, and equity-advancing efforts are embedded in every aspect of service delivery, including service policy and design, staff training, rider support and education, as well as fleet, infrastructure and technology planning.

People with mobility challenges and other disabilities are more likely to be impacted by transportation barriers which can limit their use of public transit services. DATS offers an important transportation service for Edmontonians with disabilities who are unable to use regular transit service. While DATS has met its 98 per cent trip accommodation rate target in the past several years, while achieving nearly 100 per cent trip accommodation for advance booking, same-day trip requests are often challenging to accommodate due to capacity constraints. These constraints create more barriers to transportation, resulting in lower mobility independence among DATS riders, who are required to plan ahead and book trips in advance.

On Demand Transit service is a critical transportation method for residents in senior residences and neighbourhoods who access the conventional transit network through On Demand Transit, and application of GBA+ was used to shape how On Demand Transit was designed and delivered.

In October 2022, a survey with approximately 310 On Demand Transit riders demonstrated that On Demand Transit riders include a diverse range of intersecting identities. Compared to conventional transit riders who participated in the ETS monthly transit rider satisfaction survey, On Demand Transit riders are more likely to be youth under the age of 24, identify as Indigenous, identify as visible/racialized minorities, persons with disabilities or have a household income below \$50,000 annually.

Attachments

1. DATS Program Service Enhancements Plan Progress Update
2. Commingled Transit Service Jurisdictional Scan Summary