



## Edmonton Transit Service Advisory Board: Ridership Improvement Strategies

### RECOMMENDATION

That the December 5, 2023, Edmonton Transit Service Advisory Board report EXT02025, be received for information.

### Executive Summary

Edmonton Transit Service (ETS) provides a wide range of services to its ridership and it has shown that it is committed to improving the user experience – how the rider feels about ETS services, how it interacts with ETS services and its inclination to use ETS services. To determine the satisfaction of its ridership, ETS has solicited feedback by using an annual satisfaction survey. This report reviews the surveys for the period of 2017 to 2022 along with the satisfaction surveys for Dedicated Accessible Transit Service (DATS) for the years of 2020-2022. Based on our review of the ETS surveys, we have identified three major areas for which the ridership has indicated that it has serious concerns: safety and security, cleanliness and service reliability. For DATS, we identified consistency of service, ride time and the contractor relationship as the main areas for improvement. This report looks at these major areas of concern and analyzes the related factors, underlying causes and the impacts that they have on the ridership. Based on our findings, we propose a number of feasible and practical solutions that may improve ridership. Our recommendations include the following:

### Safety and Security

- ETS can improve ridership by addressing two distinct areas as outlined in the Edmonton Transit System Safety Plan: integration and perception of safety.
- Integration will only be achieved at the highest level by leveraging large, diverse networks and constructive dialogue through the use of a council or advisory board. The collaboration of a diverse group of stakeholders will allow for consensus decision-making and the creation of policies and bylaws.
- Improving the perception of safety can be achieved by gaining a better understanding of the ridership's sentiment. This will be achieved through better feedback tools, better communication, and ensuring a consistent physical presence in ETS spaces.

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### Cleaning

- Hiring dedicated ETS cleaning staff with specific cleaning duties and job titles
- Ensuring that internal cleaning staff are fairly and adequately compensated
- Adopt and instill a formal standard of cleanliness throughout the organization
- Review cleaning contracts and enforce the cleanliness standard via the work contract
- Create scenarios where the ridership is accountable for cleanliness including levying penalties for misuse of services
- Continue with the current project of changing ETS seats from upholstery to stain-resistant and dirt-repelling materials. Incorporate cleanliness features with ergonomic design for better comfort in future seats
- Improve vehicle design by including refuse bins/personal waste bags on buses and train cars to allow for easy discarding of garbage and other unsanitary debris
- Provide signage, markers, and other guides to alert the ridership to locations of refuse bins
- Improve lighting and ventilation in LRT stations and bus terminals for better ambience and to reduce odours and stuffiness

### Service Reliability

- Continue the use of On-Demand transit service and push for more funding of this service in future budget cycles
- ETS can improve pickups and drop-offs through better planning; operations personnel need to improve forecasting and search for efficiencies
- Use ride-time data and other analytics to track and monitor routes and drill down on route issues and other risks

### Improvements for DATS

- The uptick in ridership in the last few years has put more pressure on service delivery and DATS may need to increase capacity to meet demands and expectations.
- Improve the consistency metric through training and communicating the need for alignment with service standards amongst all DATS operators
- Consider more salaried workers versus a heavy reliance on contractors to reduce the risk that comes with non-salaried employees
- Make efforts to show salaried staff that they are valued – this can help thwart the disruption that comes with a strike
- Expedite rollout of the online booking system to improve the efficiency of bookings, leading to significantly less call centre wait times

### Other Recommendations

Ultimately, to improve ridership, ETS needs accurate data and more feedback. This report recommends a reworking of the satisfaction survey questions to extract more detail and allow the ridership to express its sentiment. The report contains a list of new and exciting user-focused questions that are meant to garner valuable insights.

Additionally, our recommendations include a section of the report devoted to improving ridership based on global transit strategies that have helped to incentivize users to engage with transit services. Transit strategies that were successful in Pierce County, Washington; the state of New

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Hampshire, USA; and Amsterdam, Netherlands could also be tried and implemented by ETS thereby increasing service usage, perceptions of transit, and bringing a unique customer experience to a ridership that is the pulse of the organization. These strategies include the following:

- Free transit service during times of extreme cold
- The use of dedicated temporary transit lanes for improved reliability
- Commuter contests and challenges and
- Public transit gamification

### Acknowledgement and Final Recommendations

Edmonton Transit Service has done a lot of things to elevate the user experience and we would be remiss if we didn't acknowledge the different strategies and initiatives undertaken to ensure a great experience when using transit services. In addition to highlighting some of the successful and current strategies at ETS, in the final section of the report, we also provide a list of general recommendations that can help ETS understand some of the major risks and opportunities that are present on its path to attain better ridership and improve user experience.

The concept of ridership is dynamic and multifaceted. It defines those persons and commuters that ride transit vehicles in varying capacities, encompassing the broader demographic, including those who inhabit or traverse transit spaces. Edmonton Transit Service (ETS) is committed to ensuring the comfort, safety, and wellness of its ridership despite any challenges that might discourage use of transit services or contribute to negative perceptions of the ETS system. This report contextualizes ridership, focusing on ridership as a function of user experience. The report seeks answers for ridership challenges by looking at influencing factors and the rider's propensity to engage ETS services. By recommending ways in which the ridership at ETS can be improved, this report provides hope for an enhanced user experience, enthusiastic and insightful feedback from the ridership, and increased use of a transit system that is poised to be a leader of municipalities in the years and decades to come. The ultimate goal of this report is to address the major factors that impact ridership and propose some ways in which the ridership at ETS can be improved.

Our analysis of the ETS satisfaction survey results from 2017-2019 and 2022 suggest that ridership is being negatively affected by three areas: safety and security, cleanliness, and service reliability. In this report, we examine each area and make suggestions to improve ridership. We also take a look at the Satisfaction Survey results for Dedicated Accessible Transit Service (DATS), a subdivision of ETS, for the years of 2020-2022 to ascertain the satisfaction of its ridership and to propose recommendations where possible. The major challenges facing DATS are consistency of service, ride time, and the contractor relationship. The report also looks at some of the things that ETS is doing well. ETS has worked hard to improve the satisfaction of its ridership and its efforts should be recognized. Despite these best efforts, we provide ways in which ETS can further improve ridership. The annual satisfaction survey is re-engineered to allow for open feedback by asking new user-focused questions that target ridership sentiment, preferences, accuracy of information, and ETS' areas for improvement amongst many other ridership factors. These new questions employ galvanizing customer inquiry that will yield strong insights and customer feedback that is useful for decision-making.

Other recommendations provided in this report include incentivizing the use of transit services

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based on research conducted globally in other municipalities. The report explores ridership strategies that proved successful in Pierce County, Washington; the state of New Hampshire, USA; and Amsterdam, Netherlands. Four different ridership improvement strategies could be implemented by ETS to increase comfort, use, trust and reliability on the ETS system: free transit service during times of extreme cold; the use of dedicated temporary transit lanes for improved reliability; commuter contests and challenges; and public transit gamification.

Finally, the report concludes with a list of general recommendations that are intended to improve ridership. Here we propose different actions to take and highlight areas of opportunity.

## REPORT

### Use of Satisfaction Surveys and Survey Results

Our analysis was informed by the past five years of Satisfaction Surveys as conducted by ETS. Our research considered satisfaction surveys for the years of 2017 (summary report), 2018 (summary report), 2019 (full report) and finally, the satisfaction survey for the year of 2022; the survey for the year 2022 covers the years 2020, 2021, and 2022 and its important to note that there is no ridership data for the year 2020 due to disruption attributable to the COVID-19 global pandemic.

The research methodology for the 2022 report is markedly different from the 2017-2019 reports so direct comparison was not possible. However, as it pertains to ridership, the results can be summarized as follows: in every year of the survey, satisfaction has been consistent with overall satisfaction eclipsing a score of 75% based on 2017-2019 survey methodology; this performance indicator is quantified as 82% in 2022, up just slightly by 1% compared to the year 2021. A sizeable portion of the ridership rated its satisfaction as extremely satisfied in some years. See Attachment 1 for a brief summary of survey results. Attachment 3 is a further analysis and interpretation of the current survey results. In Attachment 3, we consider the major findings of the ETS Satisfaction Surveys and rework the survey questions, posing a host of new questions and enacting inquisition to extract deeper, meaningful insights from the ridership.

Overall, satisfaction tends to be positive, showing an upward trend. However, there are a number of areas that show room for improvement. This report proposes a number of ridership improvement strategies in order to improve user experience, resulting in better outcomes for all ETS stakeholders and an increase in the use of ETS services. Ridership, in its most basic definition, is the persons who use ETS services – people riding the bus or taking the LRT train. Ridership also describes the number of persons who engage those services. The user experience aspect of ridership focuses more on how those persons interact with the transit system: how they feel when they use ETS services; their inclination to use ETS services; influencing factors; and perceptions of the transit system. Our analysis identified three major areas based on user experience, where the ridership showed a major decline in satisfaction or where riders had serious concerns. These three major areas were noted in the satisfaction surveys in our selected time horizon and the issues tend to be persistent or in some cases (i.e. safety and security, cleanliness) worsening. The three major areas putting downward pressure on ridership are:

1. Safety and security
2. Cleanliness
3. On-time reliability

### Safety and Security

The concept of Safety and security continues to be a highlight of the satisfaction surveys with more concern for safety and security noted in the 2022 survey (Edmonton Transit Service, 2022). A review of safety and security at ETS found that ETS has taken many steps to combat the rise in safety concerns over the last few years. ETS has implemented a Transit Safety Plan and a full assessment of the plan proves that ETS is committed to bolstering safety and security and trying to find ways to reduce problems that occur in ETS spaces.

Pursuant to the assessment and action plan noted in the City of Edmonton Council Report, "Implementation of the Edmonton Transit Service Safety Plan" (City of Edmonton, 2023), there are four key areas of safety and security that drive the solutions and measured outcomes needed to bolster safety in transit spaces, making for an overall safer city: integration, safety, perception of safety, and well-being (City of Edmonton, 2023). The Edmonton Transit Service Safety Plan is a comprehensive document that proposes a great number of solutions to address these four key areas and outlines how ETS has already taken action, investing in safety and security infrastructure and introducing both practical and innovative solutions to improve safety and security. Notwithstanding, our analysis uncovers a number of areas in the safety plan where outcomes and measures can be refined, particularly integration and the perception of safety.

### Integration

As outlined in the ETS Transit Safety Plan, integration suggests that safety concerns can be addressed through collaboration with other parties and stakeholders like the Edmonton Police Service (EPS) and Bent Arrow (City of Edmonton, 2023; Page 4). This is a step in the right direction, but it is difficult to measure integration and performance indicators are less quantifiable (City of Edmonton, 2023; Page 4). ETS could meet this key area of safety by considering several other groups to work with and forming even larger networks. We believe that large networks are needed to effectively pursue integration as a means of combating issues of safety and security. Bent Arrow and the Edmonton Police Service are great organizations to partner with but ETS should seek out other cultural groups and entities that are also representative of the ridership demographic. Having a diverse group of collaborators allows everyone to work together to facilitate discussion and constructive scrutiny, laying the groundwork for new policies and legislation that can help combat safety issues. We recommend that this collaborative group take the form of a council or advisory board – a physical embodiment of EPS officers, ETS Transit Peace Officers, security personnel, Bent Arrow representatives, representatives from various cultural groups, community laypersons, and interested persons from underserved communities. Additionally, industry practitioners like mental health experts, social workers, community support workers, medical doctors, and legal representatives would all work together to discuss issues and propose solutions. We consider that ETS is likely leveraging some of these networks indirectly in its current work and desire to improve safety and security, but one of the major benefits of an advisory board with multiple parties is the accountability that is inherent in board process. Accountability is achieved through governance and the board's mandate to think strategically and have a long-term vision for the safety and security of the ETS ridership. Understanding of the root problems and the ability to discover realistic and practicable solutions is the hallmark of an effective strategy - integration has the ability to ascertain some of the underlying factors driving safety issues and the potential to find solutions through consensus and formal dialogue with all

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relevant stakeholders. The ultimate goal of this board would be to developing policies that could become enforceable bylaws that result in better rider satisfaction, thereby improving ridership at ETS.

### Perception of Safety

The perception of safety is a critical part of achieving a safe and reliable transit system. Perception in the context of safety and security is defined as how the ridership feels and understands (City of Edmonton, 2023; Page 5) but it is a subjective concept and our observations and general feedback lead us to believe that the perception of safety for ETS is currently negative – the ridership, generally, does not feel safe and perceives ETS spaces to be dangerous, frightening, eerie, unkempt, and at times, even violent. Edmonton Transit Service has taken fierce and prompt action to ensure that all of its transit spaces are safe and clean and welcoming to all riders, commuters, and the general public. Despite its best efforts, safety still continues to be an issue. Ridership satisfaction scores have been stable with steady increases year after year and only a small handful of issues that command some attention and improvement (Edmonton Transit Service, 2017) and yet the true rise in safety issues and the perception of safety seem to worsen. Our review of Transit Watch incidents for the years of 2021 to 2022 show that the number of safety and security issues are trending upwards (please see Attachment 1 for a summary of the reported safety and security incidents at ETS). Observations and feedback from commuters, Edmonton's working demographic that takes transit, social groups, families, and individuals are constantly voicing concerns with transit safety; in some cases it has forced them to stop taking transit as the fear for danger or a serious incident supersedes any satisfaction scores, survey results, or the fact that ETS vehicles are actually still safe for use. Our position on perception contends that the rise in satisfaction as noted in ETS surveys and other feedback mechanisms is actually divergent to the ridership's perception of safety to a substantial degree. We encourage ETS to consider our assessment of safety perception as plausible. We believe that ETS services and spaces are still generally safe but this truth lacks merit in the eyes of some. More needs to be done to reverse the perception of the day. A simple step like more pointed communication could help assuage fears and convince commuters that ETS has done a lot to help stem the rise in violence and danger on buses, trains, and in transit stations. ETS has a number of initiatives in progress and we do not believe that they have been communicated this effectively to the general public. Some of these initiatives are embedded in City Council reports but our plausible assertion is that a majority of the Edmonton populace does not read these reports. Intentional and robust advertising can aid in informing the public that ETS has a number of projects in progress and this alone may bring some peace and calm to public anxiety. Physical presence can also change perception in a big way and the deployment of more Transit Peace Officers in this fiscal year will contribute to better outcomes for the perception of safety (City of Edmonton, 2022). Budget discussions by Edmonton City Council in the latter part of 2022 secured funding for the hiring of more Transit Peace Officers (City of Edmonton, 2022) and these workers will play an important role in the ETS safety strategy. We encourage ETS to continue with this initiative – ensuring a physical presence of peace officers and other law enforcement personnel will directly contribute to a better perception of safety and ETS must advocate for the ridership by securing funding for this in future budget cycles. The threat of crime and violence is something that continues to increase and ETS needs to find more ways to ensure that the perception of safety is positive. Satisfaction surveys are a useful tool but we encourage ETS to receive this



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information with some objectivity. Better feedback tools are needed to gauge the true sentiment of riders. This in itself is a great challenge but not impossible if there are sufficient resources and a willingness to consider that the current feedback on transit safety sentiment may not necessarily reflect what the ridership truly feels, believes, and understands. The ability to make the perception of safety positive will directly translate to improved ridership.

### Cleaning

ETS survey respondents identified cleanliness as a major area of concern. Cleanliness in ETS vehicles and ETS spaces seems to be a recurring issue in the majority of the years in the period of our study. The ridership has voiced its displeasure concerning the state of ETS vehicles and untidiness found in ETS spaces: food and unclean debris on ETS vehicle seats, garbage left on benches and in train stations, misused bathrooms and bodily fluids left unattended and uncleaned, foul odours in bus stations and on ETS vehicles, poor cleaning completed by cleaning staff, a low cleaning standard, and a lack of policies and bylaws to prevent the spread of germs in ETS spaces. ETS is making efforts to ensure that cleanliness is paramount for all of the ETS ridership but we fear that if something is not done drastically and quickly, it will deter and discourage the use of ETS services, causing a decline in rider satisfaction, lower use of services, and damage to ETS' reputational risk. It is clear and logical that if riders perceive ETS to be unclean (and not concerned with the state of cleanliness), they are unlikely to recommend ETS services to others, further lowering the current Net Promoter Score (NPS) (Edmonton Transit Service, 2022). Finally, we note that a Healthy City is one of the City of Edmonton's strategic goals according to the City Plan (City of Edmonton, 2020). A clean and tidy and healthy transit experience contributes directly to a Healthy City.

### The Cleaning Conundrum

ETS has been trying to address the issue of cleanliness for many years. Survey, after survey, after survey yields the same result: the ridership can be improved if ETS vehicles and spaces were cleaner. It seems to be an insurmountable challenge but this report proposes some unique, sensible, and feasible solutions.

### Recommendation: create a specific ETS cleaning job position

A full assessment of ETS cleaning services is beyond the scope of this report, however, we have some understanding of the cleaning process and infrastructure in place at ETS. It is our understanding that ETS uses contractors for the majority of its cleaning services. While contractors are an efficient and cost-effective way to complete needed tasks, salaried employees can be a better alternative. Our position posits that a salaried position will create a meaningful bond between the worker and the workplace. Salaried workers might therefore be more invested in their duties and feel a sense of connection to their work; a natural burden for the welfare of the company; and an innate drive to get work completed with a level of care and attention that may not be present in a contracted worker (Pearce, 1993; Bidwell, 2009). ETS should consider the cost well-accounted for – create an internal cleaning position within ETS and hire a number of workers that are specialized cleaning staff. Pay them well for what they do as they will have a high standard of cleaning to adhere to. Labour costs for salaried employees can be high as these government workers will be entitled to a livable wage, benefits, and a defined pension but as previously mentioned, the return on this investment has the potential to make needed changes

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that will improve ridership in an extraordinary way. There will be checks and balances and accountability for the work to be done. This will not be an easy job: extremely unclean bathrooms; bodily fluids; and exposure to strong cleaning chemicals and disinfectants are just some of the many challenges that will come with trying to secure hardworking, committed individuals to fill these jobs. This position will be costly from a salary and materials perspective but it will yield great value for ETS as the ridership will see the results firsthand, likely translating to better satisfaction scores and a vastly improved ridership experience. In summary, our proposed solution is to create a new job position focused exclusively on cleaning whereby cleaners can have titles based on a tiered system according to their experience and job duties. An overseer position such as a, "Director of Cleaning" should also be created to manage and lead the initiative. The Director of Cleaning will be a special management role and he/she will report directly to the City Manager or executive-level leadership positions at ETS.

### **Recommendation: adopt a formal cleanliness standard and review contracts**

Few details are known about the current ETS cleaning contract but we surmise that there may not be a mandated cleaning standard. If there is one, it may prescribe a low standard of cleaning or it is possible that it has been ineffectively communicated to the present cleaning staff (as evidenced by the poor cleaning that has been done the past number of years). ETS should review its contract with the current cleaner(s) and determine if there is a cleaning standard and what that cleaning standard should be. If there is not a cleaning standard in place, legal representatives from ETS should help create a new contract with a high standard for cleaning (a much higher standard than that which existed in the past), daily requirements, and penalties if the work is not completed according to the terms of the contract. This will help ensure that contractors and staff alike are aware of the cleanliness standard and it sets expectations for the level of cleaning and quality of work to be completed.

### **Tracking and Monitoring are Critical to the Success of a Cleaning Strategy**

Heavy monitoring also needs to be done and this will be the responsibility of cleaning managers. The management positions will be hired and paid according to a tiered system based on experience, job duties, and performance. All cleaning staff and managers could be paid bonuses based on public feedback and certain Key Performance Indicators. In addition to oversight of the frontline cleaning staff, cleaning managers will have special titles and would be tasked with monitoring cleaning duties and completion of tasks throughout the day with accountability at each level of management.

### **Revolutionary Cleaning**

The use of technology and advances in cleaning; climate-friendly chemicals and solvents; and renewable materials will be some of the features of a transit system that is the harbinger of global cleanliness, a trendsetter, an example, and a role model for all municipalities around the globe.

Surveillance and monitoring are imperative measures as a new cleaning system must be monitored along with a system of review and accountability for the workers and the cleaning completed at every level. Groundbreaking technology like artificial intelligence and cellular devices; robotics and electronics; premium toilets and infrastructure; touchless fixtures and sensing technology; and computing and programming can help the cleaning process and



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introduce a new cleaning and monitoring service to an improved ridership.

### Other Thoughts on Cleaning

The City of Edmonton's City Plan has a number of guiding values, some of which are Belong, Thrive, and Create. Improving cleanliness at ETS is congruent with these values and we can explain this further:

**Belong** - Persons who use clean ETS spaces will feel like they belong...cleanliness invites people to spaces and encourages togetherness. Togetherness begets collaboration and harmony; and harmony begets respect and understanding; and understanding and tolerance begets more welcomed people. This loop of benevolence can be reimagined as the ridership existing in ETS spaces in harmony with increased use of ETS services.

**Thrive** - People will thrive if they are healthy and well. Cleanliness, hygiene, and a clean environment are major contributors to feeling healthy and improving wellness. ETS can contribute to this aspect of the City Plan by exuding a spirit of cleanliness and adhering to a cleanliness standard in all of its interactions with the ETS ridership.

**Create** - This initiative of hiring new ETS cleaning staff is an opportunity to create something new. Innovative thinking, new systems, new technology, new outcomes, a different way of doing things. If ETS sees the value in making a change and investing money in a needed cleaning job position, it will reap the rewards of creation. Creation is the impetus of change and ETS can be the catalyst of that positive change that will create a new - and much cleaner and comfortable - transit experience for its ridership.

### Planning and Longevity of the Cleaning Plan

More funding is needed to achieve the goal of a clean ETS. ETS should have a cleaning goal, a cleaning mission, and a cleaning vision. If a business plan and case is put together with thought and care, there should be sufficient funding to ensure that it comes to fruition. As of the date of this report, the Government of Alberta has given ETS the Alberta Transit System Cleanup Grant in the amount of \$5 million

(<https://www.cbc.ca/news/canada/edmonton/edmonton-using-5m-provincial-grant-to-address-transit-safety-concerns-1.6967200>). This money could be used in conjunction with other funding to improve cleaning standards, review the cleaning process, and hire internal positions that would provide far better cleaning than any done in the past.

### Recommendation: placing some accountability on the ridership

Another way to resolve the cleaning issue is to address the accountability of the ridership by introducing measures to reverse the roles of responsibility. It's time to make the ridership accountable for a clean transit environment. This fact must be addressed: bathroom rights and privileges and the use of transit facilities can be exploited by commuters. ETS would need to put a system in place to transfer some of the accountability to those who use the services. It is easy to access clean bathrooms and ETS spaces and show no regard - but it is difficult to clean up the mess left behind from discourteous, cavalier, and sometimes malicious riders who have a blatant disregard for public facilities. Heavy, bright, and friendly but impactful signage in bathrooms and ETS buses and train cars will remind passengers that a lot of care goes into cleaning and that they should treat the spaces with respect. ETS can remind the users to keep the spaces clean by

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advertising directly in the spaces, throughout the transit stations, and throughout the city. Constant in-service cleaning and hourly cleaning patrols will create a presence and deter misuse, poor care, and disregard for areas that are left in an unmanageable state. There are privacy laws that respect one's right to use bathrooms in privacy and comfort without the worry of direct video surveillance but cameras outside of those spaces can capture persons that misuse the facilities; bylaws that impose harsh penalties for misuse of bathrooms and ETS spaces can help deter poor hygiene, prevent exploitation of the cleaning staff's services, and ensure that cleaning staff avoid difficulty in maintaining and cleaning ETS spaces on a daily basis. As a final measure, certain areas will be kept off limits and locked (e.g. bathrooms) if misuse is constant and the ridership has a brazen disregard for the cleanliness rule and standard.

### **Recommendation: improve feedback and take action based on candid testimony**

Cleanliness can also be improved by additional feedback. ETS needs to gather more feedback and listen to the feedback – the ridership has been asking ETS to improve cleaning for years. It is time for ETS to really take this feedback seriously. Take the necessary measures to secure the funding that is needed to gather more feedback from the ridership and determine exactly how they feel about cleaning and what the ridership wants to be done. ETS has the bigger responsibility of determining what is reasonable, feasible, and practical. ETS can be assured that it will receive a plethora of responses and many ideas on how to improve cleanliness. One example of great feedback is a testimony that was received in completing this report. A passenger who frequently uses ETS stated the following when we asked her about her experience with cleanliness on ETS vehicles:

“I take the ETS bus early every morning. There are some mornings when I get on the bus before 6 AM and the bus is still very dirty. Sometimes garbage is left on the seats. One time I even saw popcorn on the bus seats early in the morning. It's disheartening. It makes me not want to take the bus but I have no other choice, a cab is too expensive or else I would rather take a cab sometimes and that says a lot because some cabs are actually pretty icky and gross, the backseats can sometimes be dirty if people from bars vomit in the back of cabs. I'll probably still take the bus but my concern is that if I find dirt all over the bus first thing in the morning, obviously the cleaners are not doing their job at the end of the day and night. I can guarantee that I'm the first ride at that time of the morning so there's not an excuse for it left that way and no system in place to make the cleaners do a good job. I honestly don't think ETS cares.”

-Anonymous

Finally, we propose some very pointed cleaning recommendations if additional funding is received. Funding can support cleaning in a number of different ways:

- Continue with the changeover of transit seats from upholstery (which can easily absorb dirt and stains and is harder to clean) to a less absorbent material that repels dirt, stains, and unsanitary liquids and debris. These seats need a design that is more comfortable. ETS already undertook a project to change seats many years ago and we are encouraged by this, but there has to be some more thought when introducing the new seats – the seats made of the harder material are very uncomfortable to sit on.
- Where possible, include small refuse bins on the LRT trains and buses to allow for a place for waste to be discarded. This has the potential to significantly reduce the instances of

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waste being tossed on seats and floors. The use of clear signage at bus terminals, bus stops, and LRT stations would inform the ridership where waste disposal bins are located to prevent any confusion or difficulty finding them. Long-term plans can include future ETS bus and train car design that incorporates self-contained garbage disposal. Again, reverse the accountability as mentioned above. Create a system whereby riders are compelled to carry their waste off of the bus themselves. In-service cleaning on transit rides and a frequent presence of ETS cleaners in transit spaces can also reinforce cleanliness awareness so that those who may abuse the system are deterred from discourteous, wanton behaviour.

- For older LRT stations and bus terminals, while not directly related to cleaning, the improvement of infrastructure such as lighting and ventilation will assist in eliminating odours and stuffiness, improving the general warmth and ambience of the facility. If these stations feel more welcoming, there is a higher chance that more people will use them for the intended transit purposes and fewer individuals will see them as derelict and rundown, reducing the risk of vandalism and uncleanliness due to misuse.

### On-time reliability: connections, transfer time, and bus frequency

Service reliability has been a concern for the ridership over the five-year time horizon of our review. Research shows that ETS has worked hard to improve connections and transfer times. Service changes to accommodate both new and developed areas, the advent of On-Demand Transit, and qualitative studies like ethnography reports and detailed and objective passenger journey maps are just some of the tools used by ETS to improve ridership. There are a number of ways that ETS can continue to improve its service reliability. We suggest the following:

Recommendation: encourage more use of On-Demand Transit and secure future funding for same

This is a newer service that has been proven to reach a cross-section of the ridership that would otherwise have no public transit options. On-Demand Transit has the ability to increase trip frequency, thereby improving trip connections and reducing wait times and transfer times. We encourage ETS to push for more funding of On-Demand transit in future budget cycles to ensure that this service remains available to the those who need it, providing relief to commuters in remote areas of the city and along routes that have reduced or infrequent service.

Recommendation: better planning and the use of data analytics for improved efficiencies

Other direct measures to help improve ridership via transfer time and connections is less precise as there are a number of factors that affect connections and wait times (ETS Administration, 2023). Arrival times can be impacted by weather (as confirmed by our discussion with ETS administration) and other things such as unforeseen events, traffic accidents, personnel adjustments within the transit system, bus and train malfunction, and other factors beyond the control of ETS. Nevertheless, we would suggest better planning and finding ways to circumvent unforeseen events. We concede that this is easy to demand and difficult to deliver. However, to some extent, unpredictability can be predictable. Research and planning by internal ETS intelligence can produce valuable insights and administrators can work to revamp trip plans and streamline operational strategies to deliver more efficient service. This will allow for more slack to be built into the service schedules and to compensate for lost time along delayed or late routes. Operational specialists need to work harder to deliver realistic solutions that meet ridership

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expectations for expected pickup and drop-off times. Additionally, more data is needed to this end. Our research found that there is currently no ride-time data available in the current year. In order to do a proper and thorough assessment, it is necessary to track data and identify trends. Ride-time data is imperative if ETS wants to find strong, workable solutions to the challenges that come with perfecting connections and transfers. It is encouraging to know that ride time data will become available in the next iteration of the satisfaction survey to be released in 2024 (ETS administration).

### Ridership and DATS

Dedicated Accessible Transit Service (DATS) is committed to ensuring that persons with disabilities can access transit services when conventional ETS buses and LRT cars do not accommodate their travel needs (ETS administration, 2023). DATS has been delivering high quality service to the ridership for many years and satisfaction scores have been stable and increasing over the last number of years, the most recent satisfaction score being 85% (2022), a 4% uptick from the previous year. Our assessment of DATS customer satisfaction and other travel metrics shows that even at this ETS department's best, there is some opportunity to enhance the DATS rider's customer experience.

### DATS Satisfaction Survey Summary

The DATS satisfaction survey covers the period for the year 2020 to 2022 and the overall satisfaction score is 85% (2022), an increase of 4% compared to the year of 2020. Generally, on-time performance has been stellar with DATS eclipsing the 90% benchmark in all years reviewed. Trip accommodation rates are similar with DATS meeting the 98% benchmark that is required. Overall, DATS has showed a relentless commitment to performance and finding ways to improve services but our research also noted a number of things that DATS has room to improve on.

### Consistency of Service

Our analysis found that consistency of service is currently at 78% for the most recent year of data, down 6% from the value of 84% that was achieved in the year 2021 and down 1% compared to the 79% achieved in 2020. The decline in consistency of service could be for a number of reasons: elevated levels of demand that have stabilized after the recent global pandemic may warrant a capacity adjustment by DATS. We also hypothesize that maybe different drivers – some contractors and some salaried DATS drivers – may deliver varying levels of service. This is all conjecture but DATS, although doing a great job of meeting customer demand, must find ways to elevate its consistency so that its ridership can expect the same level and quality of service time after time.

### Reliability

Reliability achieved a percentage of 79% in 2020 but declined to 75% in 2021 and then fell further to 74% in 2022. This drop in reliability could be due to a sharp increase in ridership; ridership is up 37% in 2021 based on the ridership witnessed in 2019 and up in the amounts of 70% and 87% respectively for the years of 2022 and 2023 using the ridership numbers of 2019 as a baseline. Increasing levels of demand have likely resulted in trip delays and thus, longer (and unforeseen) ride times. DATS has to find ways to improve on-time performance as further declines will likely

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lead to ridership dissatisfaction and the possibility of reputational risk.

### **Improvement Needed for Ride-time**

An analysis of average ride-time at DATS reveals that ride-time has been increasing over the last three years. Ride times have increased from 18.9 minutes in Q1 of 2021 to 27.24 minutes in Q2 of 2023. As mentioned previously, this increase in ride time is likely due to the increase in ridership with demand returning to pre-pandemic levels. The average 2021 ride time was 22.48 minutes compared to 27.68 minutes in 2022 and 27.10 minutes in the first two quarters of 2023 which shows that ride times are steadily increasing. This is something that we encourage DATS to continue to monitor as further increases in ride-time may translate to lower on-time performance and therefore, a reduction in rider satisfaction.

### **Call Centre Wait Times and DATS' New Online Booking System**

Our analysis also uncovered that call centre wait times have been on an upward path in the recent year. The data clearly shows that there has been an increase of nearly a full minute in call centre wait times to book trips due to service demand increasing after the global pandemic COVID-19. The wait time for the DATS call centre was 3:24 minutes in 2022 compared to 4:25 minutes in 2023. One minute may sound small but in context, that increase can be perceived by the customer to be a long time. If we quantify this change, wait time for each customer is up on average by approximately 29.90%. If wait times persist or increase, it could force customers to seek out other options. We believe that DATS recognizes this increase in call times and can make the necessary operational adjustments to bring call wait times down. One possible remedy that will help to this end is the current plan to utilize a new and improved online booking platform that is set to go live in 2024. DATS has been working on this for many years and we encourage the organization to expedite the process where possible. There is great need and high anticipation for a new online booking application and DATS is left to prove its ability to balance the need for timely rollout, customer efficiency, and excitement with the major benefit of waiting longer until all system deficiencies are fixed, thereby preventing a costly and disastrous premature release.

### **Managing Risk: the contractor relationship**

Based on our analysis, roughly 50% of DATS service is provided by contracted drivers. The use of contractors can be seen as a positive strategy when it comes to increasing reliability (on-time performance) as it provides DATS riders with reduced waiting times during peak hours and brings needed capacity to a dense demand since more vehicles can be pulled in to accommodate the increase in ridership needs. In recent years, contractor training and stringent job requirements have ensured that contractors meet the high service level required by ETS. DATS must continue to work with contractors and ensure better oversight of training and deliverables along with constant monitoring and feedback to ensure that the ridership receives the service that they have come to expect from DATS.

We also note that the use of contractors can pose additional risk when it comes to rider comfort and safety. While contractors receive training based on empathy, customer service, and disability awareness (ETS administration, 2023), there still remains a risk of isolated incidents due to poor training. Contractors who lack training may mishandle a situation leading to a negative experience for the rider.

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Also, the City of Edmonton should consider investing more in hiring full time DATS employees that have the full benefits of being an official DATS worker. This could include costly financial transactions like purchasing the business of various contractors that meet the requisite criteria, subject to financing guidelines. Contractors may feel less connected to their jobs than full-time salaried DATS employees and this could be reflected in engagement, fulfillment of work duties, or other productivity measures.

### **Other Employee Risks**

Contractor risk becomes evident if we consider the operational and business risk that is inherent in having a workforce that is comprised of approximately 50% contract workers. What if contractors failed to live up to their contractual duties or something like legislation or a social or political event precludes the use of contractors? How would DATS adjust and cope with the deficit in capacity? How would that impact the ridership, its satisfaction, and perception of DATS? In context, 50% is a large value and this should be carefully considered in the organization's risk management plan and long-term strategy.

Salaried DATS workers are not exempt from risk. Considering the fact that full-time salaried DATS workers are unionized, there is always a potential for collective bargaining issues. In fact, as of the date of this report, DATS workers are in talks with the City of Edmonton, hopeful to arrive at a deal on wages after a fiery strike in April 2023 based on wage discrimination (<https://edmontonjournal.com/news/local-news/edmonton-dats-bus-union-puts-strike-plan-on-hold>). More recently, these contract talks have been positive, however, there is a possibility of a breakdown in negotiations. DATS must be vigilant in managing this risk and continue to prepare for a scenario where a prolonged strike occurs, or workers become unhappy, overworked, and not compensated fairly. DATS must show its workers that they are an essential and valued part of the organization. Where workers perceive that they are not valued or compensated fairly, a major disruption in the DATS workforce could easily translate to a loss in rider satisfaction and lower ridership improvement.

### **What Edmonton Transit Service is Doing Well**

It is important to acknowledge the work and progress that ETS has made in its efforts to improve ridership year after year. The organization has been consistent in soliciting and gathering data and implementing tools and solutions to improve outcomes and make ETS and Edmonton at large, a better city. Our research considered all of the areas in which ETS has excelled and it is important that the ridership understand the efforts that ETS has made and is making on its behalf. Please see Attachment 2 for a summary of ETS accomplishments that have helped to improve ridership.

### **Recommendations and Suggestions to Improve Ridership**

#### **Reworking the Satisfaction Survey – New Insightful Questions**

Our analysis of the current ETS Satisfaction Surveys led us to reimagine the survey by creating new questions that we feel may yield more insightful answers, creating value and leading to better decision-making for ETS leaders. Please see Attachment 3 for a host of new questions and prodding inquiry that have the power to excite and engage the ridership, allowing for an easy and



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fruitful exchange of information between ETS/DATS and system users.

### **Improving Ridership Through Strategies and Incentives**

Other recommendations for ridership improvement can be viewed in the context of technological advancement, networks, and incentives. In this sense, providing transit is akin to strategy. In making some novel recommendations to improve ridership, we spotlight some very distinct yet successful global strategies that have significantly elevated ridership and improved the public perception of transit.

Furthermore, we note that in order to improve ridership, it is necessary to consider the integration of services, networks, and elements of urban design that work together to prioritize the needs of the ridership and incentivize the use of transit services. Technologies and the introduction of new programs that create an element of attraction can encourage the use of services, allowing for a better user experience and increased use of ETS services. Our analysis was not limited to the boundaries of Canada – we considered transit and program services in other global municipalities that may be equally or more successful if implemented by ETS. We recommend that ETS consider using these strategies to improve ridership.

### **Free Transit Rides during Extreme Cold Days:**

Edmonton experiences harsh winters that often deter transportation usage and extreme weather conditions have historically been associated with increased traffic accidents. ETS ridership data provided to the Edmonton Transit Service Advisory Board (ETSAB) indicates that there is a considerable drop in ridership during winter months compared to the fall, aligning with Stover's findings (Stover & McCormack, 2012). Stover's research in Pierce County, Washington, revealed that cold temperatures reduced bus ridership, while warmer temperatures had the opposite effect (Stover & McCormack, 2012). In light of these insights, exploring approaches to improve ridership during the winter and times of extreme cold weather is crucial. One effective strategy could be the introduction of free transit rides during extreme cold days. This initiative has the potential to attract new passengers to experience ETS services but it could also reduce the number of personal vehicles on the road, subsequently decreasing potential collisions. Our analysis of the literature considers that the City of Edmonton and ETS have offered a rider support program in extreme cold weather situations. In these scenarios, ETS vehicles are not allowed to refuse unoffending riders who need service and bus drivers are encouraged to stop at all stops along their routes. We pledge our support for this practice but we highly recommend for ETS to enact a formal policy to ensure permanence of the benefits provided by free transit service in extreme weather and find more ways to advertise that it is available. Our research found that some portion of the ridership is not aware of any official transit policy nor are they aware that this service is available on days when the City of Edmonton or ETS declares that riders cannot be refused for any reason during periods of extreme sub-zero temperatures.

### **Temporary Transit Lanes for Improved Reliability:**

Achieving reliable transit service, where vehicles adhere to schedules and run on time, has been a fundamental objective in the transportation industry's history. Reliability is critical in attracting and retaining riders, especially in an era with an array of transportation options. The reliability of ETS schedules, particularly in winter, has been something that ETS riders have had concerns with. Introducing temporary transit lanes on historically congested routes during winter can augment

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bus speed and enhance scheduled operations. Collaborating with the city's traffic operations branch to identify such locations and implement measures that prioritize transit movement is essential. The success of similar initiatives, like the permanent transit lane along the City of Edmonton's Fox Drive, and dedicated bus lanes during morning and evening commutes underscores the effectiveness of this approach. Utilizing data-driven insights and evidence-supported transit route planning services like dedicated bus lanes will help ETS to improve reliability, leading to higher customer satisfaction and improved ridership.

### Commuter Contests and Challenges:

Coordinating commuter-focused competitions, challenges, or prize incentives through collaborative efforts with neighborhood businesses and organizations is another promising solution. For example, non-profit organizations like the, "Commuter Challenge" (<https://commuterchallenge.ca>) organize week-long competitions between Canadian cities and workplaces to promote active transportation during Canadian Environment Week. This engagement of services promotes integration and networks and incentivizes the ridership. Similarly, programs like, "commuteSMART Seacoast" (<https://commutesmartseacoast.org>) orchestrated a successful and enjoyable Winter Commuter Challenge for individuals working in the greater Seacoast region of New Hampshire in January 2020. Participants registered online and logged their sustainable trips during the month of January to earn prizes and gain eligibility for a grand prize raffle. ETS can adopt a similar constructive approach to retain existing riders and entice new ones.

### Public Transit Gamification:

Research consistently demonstrates that gamification can effectively instigate favorable shifts in perception and behaviours (Deterding, Dixon, Khaled, & Nacke, 2011; Hamari, Koivisto, & Sarsa, 2014). Despite the common utilization of fictional characters and scenarios in these games, gamification stands as a powerful tool to establish a meaningful connection with users, driving engagement with the intended objectives such as message dissemination, experience enhancement, or conversion optimization. In the context of ETS and public transit services, the core objective revolves around augmenting ridership while maintaining a balance of cost-effectiveness. Transit agencies leveraging mobile technologies are presented with a distinct opportunity to directly advance these objectives through the implementation of a gamified application. A notable illustration lies in the strategic move made by Amsterdam's public transport system (<https://www.bloomberg.com/news/articles/2012-08-22/commuter-game-of-the-day-use-this-monster-sticker-to-eat-people-s-heads>) wherein monster-themed stickers were affixed to the windows of every tram across the city. Commuters were incentivized to record their journey and manipulate the visual perspective to create the illusion of the monster devouring pedestrians outside. Upon 'consuming' ten virtual people during their trip, participants could share the video and subsequently receive a reward from the transit operator. While not every gamified experience necessitates a direct challenge and reward system of this nature, the overarching aim remains to inject an element of amusement or novelty into contexts where it was previously lacking. By using the concept of gamification to incentivize transit, ETS has the unique opportunity to engage new and existing segments of the ridership and provide a new user experience that has never been experienced before.

### Final Recommendations

As mentioned above, there are a number of things that ETS is doing well. In this last section of the report, we give some recommendations that we feel ETS can consider in its quest to improve ridership; these recommendations address some of the factors that directly contribute to the user's experience. Please see Attachment 4 for a final list of general recommendations to improve ridership.

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**ATTACHMENTS**

1. Summary of Survey Results and Transit Watch Incidents
2. ETS Excellence in Ridership Improvement
3. Recommendations for Future Consideration Based on Analysis of the ETS Customer Satisfaction Survey Reports
4. Final Recommendations for Ridership Improvement