

Update on the Bus Network Redesign

Valley Line SE Increased Service Level Operations

Recommendation

1. That Administration prepare an unfunded service package for consideration by Council during the 2021 Spring Supplemental Operating Budget Adjustment deliberations, to increase service level operations for the Valley Line Southeast to Service Level 8.
2. That Attachment 2 of the April 12, 2021, City Operations report CR_6778, remain private pursuant to section 16 (disclosure harmful to business interest of a third party) of the *Freedom of Information and Protection of Privacy Act*.

Previous Council/Committee Action

At the November 28 - December 14, 2018, City Council Budget meeting, the following motion was passed:

That the Valley Line SE - Increased Service Level Operations service package be held and that Administration provide an update on the Bus Network Redesign and the impacts this may have on the Valley Line Southeast Service - Increased Service Level Operations service package.

Executive Summary

Based on a refined analysis of current ridership on the Valley Line Southeast LRT corridor, Administration recommends that the initial service level for Valley Line Southeast LRT be increased to accommodate the projected ridership. Out of the 14 service level options as defined in the P3 Project Agreement with TransEd Partners, Service Level 8 is the recommended starting point to meet customer demand upon opening. Service Level 8 requires an increase for operating payments and power costs of \$904,000 in 2021 and \$3.1 million in 2022 and \$3.2 million in 2023 and beyond on an ongoing basis from the tax levy.

Attachment 2 contains commercially sensitive information about a third party that the City is obligated to keep confidential.

Report

Providing a comfortable and positive customer experience without overcrowding is crucial to the successful opening of Valley Line Southeast LRT. A critical component of

this experience is frequent service with sufficient capacity to move the anticipated number of riders when service commences. To achieve these objectives, a service package (Attachment 1) was presented to Council as part of the 2019-2022 budget process that represents an increase in incremental operating payments and power costs. At that time, Council deferred consideration of the service package to allow Administration to provide an update on the Bus Network Redesign and impacts on this service package.

During the development of the funding model and Project Agreement for the Valley Line Southeast LRT in 2014-2016, ridership projections were developed to inform the required passenger demand and capacity of the Valley Line Southeast. The funding model assumed service would commence at Service Level 1 and service levels would increase one-step every two to three years.

Service Levels on the Southeast Valley Line

As per the Project Agreement for the Valley Line Southeast (Mill Woods to Downtown), the City sets the service level annually through the Annual Operations Plan. This Plan is submitted by TransEd Partners and approved by Administration. The Project Agreement outlines an increasing scale of 14 different service levels that can be operated on the Valley Line Southeast, utilizing variations in the number of one-car and two-car trains, with Service Level 1 using all one-car trains and Service Level 14 using all two-car trains. Frequencies on the Valley Line Southeast will be generally consistent with those on the Capital Line, with five minute frequency anticipated during peak periods, 10 minute frequency off-peak, and 15 minute frequency during evenings and Sundays. The 14 service levels and associated operating parameters are outlined in Attachment 2.

Through the Project Agreement, the City can establish different service levels throughout the year. Close monitoring of ridership trends will inform service level adjustments in the Valley Line Southeast Annual Operations Plan. The City can also direct service level changes that are not stipulated in the Annual Operations Plan up to three times per year by providing 30 days notice to TransEd Partners. During the first two years of operation, greater flexibility is provided to increase or decrease to any of the 14 service level options.

Once travel patterns are established, a more consistent pattern of seasonal service adjustments can be set. For example, similar to other ETS services, the Annual Operations Plan may establish a higher service level for September through April, slightly decrease the service level in May through June when full time post-secondary classes end and further decrease the service level over the summer months.

Recommended Service Level

As discussed in Attachment 2, in 2018, analysis was completed in order to refine understanding of the appropriate service levels for when LRT service commences. This analysis considered current ridership along the Valley Line Southeast corridor, as well as modelled projections using the Regional Travel Model. In light of the COVID-19 pandemic, Administration has reevaluated the appropriate service level taking into consideration decreases in ridership and continued desire to support physical distancing. Based on this updated analysis, Administration recommends Service Level 8 as an appropriate starting point when service commences.

Implementing Service Level 8 will mean that seven of the 13 trains operating will be two-car trains, with 5 minute frequencies in the AM and PM peaks. Administration believes this service level best aligns with the anticipated demand on opening day. Operating at this service level will minimize potential for overcrowded cars and passengers being passed up during the weekday morning and afternoon peak service hours. There could, however, be some spare capacity in the off-peak periods. Should Service Level 8 provide more capacity than required, Administration would have TransEd Partners implement a lower Service Level as per the provisions of the Project Agreement.

In summary, Service Level 8 would:

- Satisfy AM peak hour period passenger demand;
- Provide flexibility to cover some variation in travel patterns;
- Offer a better initial experience for passengers and a more comfortable ride;
- Support ridership recovery post-pandemic, and improve potential for ridership growth.

Impacts of bus network redesign

Public transit is a critical part of building a great city and a key tool for achieving Council's strategic goals outlined in *ConnectEdmonton* and The City Plan. The redesign of Edmonton's bus network integrated the Valley Line as part of the full service design in southeast Edmonton. This means that bus routes that served a similar demand along this corridor were removed, and feeder service into the new LRT stations was increased.

As noted in the Fall 2020 Supplemental Operating Budget Adjustment, at the November 16/18/20, 2020, City Council meeting, due to the differences in timing of opening the Valley Line Southeast and implementing the new bus network, two precursor express bus routes are planned to operate from August 30, 2020 until the opening of the Valley Line Southeast. Upon Valley Line Southeast service commencement, these two routes will be replaced by the LRT service. As a result, an appropriate service level is required for service commencement on the Valley Line

Southeast to ensure sufficient capacity and a comfortable, attractive experience for riders.

Budget/Financial

A dedicated tax increase for Valley Line LRT was approved by Council each year since 2016. The funds generated from this dedicated tax increase go to the LRT reserve and are used to pay for the anticipated costs of operating the line and the debt servicing associated with the construction of the line. The tax increases and reserve requirements were based on the Valley Line LRT Funding Plan that assumed that service would commence at Service Level 1 and would increase one-step every 2-3 years, reaching Service Level 8 in year 22 of operation. These service level assumptions were based on the best ridership projections available at the time; more recent projections show a greater shift to transit than previously projected. Based on these initial assumptions in the Valley Line LRT Funding Plan, the reserve is fully committed.

Updated ridership projections suggest Service Level 8 as the required starting point. The funding required for the incremental increase in operating payments and power costs is \$3.1 million annually on an ongoing basis. \$904,000 is required in 2021, with the full \$3.1 million required in 2022 and \$3.2 million required in 2023 and beyond.

If the recommendation is approved, Administration will submit an unfunded service package to increase service level operations for the Valley Line Southeast to Service Level 8 for Council’s consideration during the Spring 2021 Supplemental Operating Budget Adjustment on April 19, 2021.

Public Engagement

The recommendations of this report are based on an evidence-based assessment of the projected ridership and required capacity on Valley Line Southeast, as well as customer service feedback from Edmonton Transit patrons.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmontonians use public transit and active modes of transportation			
Outcome(s)	Measure(s)	Result(s)	Target(s)
Mode shift to transit	Transit ridership (total)	87,121,534 (2018)	TBD
	Ridership per capita	89.6 in 2018	105 (as of 2019)

Risk Assessment

Risks if approved						
Risk Element	Risk Description	Likelihood	Impact	Risk Score (with current mitigations)	Current Mitigations	Potential Future Mitigations
Financial	Insufficient ridership to support proposed service level	3 - possible	2 - moderate	6 - low	Analyse current and projected ridership to select appropriate service level	Adjust service levels during first year of operation to reflect demand
Risks if not approved						
Customers / Citizens	Insufficient service levels lead to customer dissatisfaction due to overcrowding	4 - likely	4 - severe	16 - high	Seek alignment of budget with projected ridership needs	Review service performance and adjust service levels accordingly within the confines of the Project Agreement
Public perception	Constrained capacity leads to negative public perception of the LRT expansion	3 - possible	3 - major	9 - medium		Develop communications plan to address citizen concerns
Commercial	Decline in fare revenue due to impacts on customers and public perception	3 - possible	3 - major	9 - medium		

Attachments

1. Proposed Service Package - Valley Line SE Increased Service Operations
2. Valley Line Southeast - Service Level and Modelling - PRIVATE

Others Reviewing this Report

- M. Persson, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- A. Laughlin, Deputy City Manager, Integrated Infrastructure Services
- S. McCabe, Deputy City Manager, Urban Form and Corporate Strategic Development

- K. Fallis-Howell, Acting City Solicitor