

Feasibility of Relocation of NAIT LRT Station

Recommendation:

That the October 7, 2015, Transportation Services report CR_2905, be received for information.

Report Summary

This report summarizes the work completed to date related to the planning and relocation of the temporary NAIT LRT station from southeast of Princess Elizabeth Avenue to its current location, as well as the feasibility and implications of shifting the station back to the east of 106 Street.

Previous Council/Committee Action

At the September 2, 2015, Transportation Committee meeting, the following motion was passed:

That Administration provide a report on the feasibility of relocating/moving the NAIT LRT Station to the east side of 106 Street.

Report

NAIT Station Location Summary

The location of the temporary NAIT LRT station was originally planned in 2008 to be south east of the Princess Elizabeth Avenue/106 Street intersection, (referred to as the South Station in this committee report) (Attachment 1). In December 2009, City Council approved an amendment to the Transportation System Bylaw, which included relocating the temporary NAIT station to north west of this intersection (referred to as the North Station in this committee report) (Attachment 2). The revised Concept Plan for the relocation of the temporary NAIT station was approved by City Council on April 14, 2010.

The 2008 concept plan required the closure of the 106 Street access to the service road south of Princess Elizabeth Avenue, while the 2010 concept plan allowed for the existing service road access to be maintained. Some modifications to the previous NAIT access locations were required, including the re-alignment of 109 Street north of Princess Elizabeth Avenue, and reconfiguration of the NAIT parking lot, soccer field, and running track. However, access to Kingsway Garden Mall and the Avonair Curling Club were not affected.

Pedestrian circulation, traffic analysis, parking, noise/vibration, and cost/implementation reviews were carried out in support of the North Station. Future land use implications of the Blatchford Redevelopment were also taken into consideration, as per previous city Council direction.

Feasibility of Relocation of NAIT LRT Station

The South Station was planned to be very near to the Princess Elizabeth Avenue/106 Street intersection. It would have directed many of the passengers (NAIT staff and students) to the southeast corner of the intersection where they would cross using the pedestrian phases of the traffic signal at that intersection. Many would need to cross two legs of the intersection to arrive at their NAIT destination.

The North Station is on NAIT property and all NAIT staff and students using LRT are able to access their NAIT destination by crossing a maximum of one set of tracks and one internal NAIT roadway. The North Station provides a much closer stop for passengers to access NAIT.

The LRT alignment south of Princess Elizabeth Avenue changed when the station was relocated, with the constructed curved alignment beginning south of where the original station was located. Therefore, the South Station location as planned in the 2008 concept plan may not fit with what has been constructed.

The benefit of the North Station is that it establishes a footprint for LRT on NAIT and is consistent with current intentions to extend the LRT into Blatchford and ultimately out to St. Albert. The approved northwest LRT alignment includes crossing Princess Elizabeth Avenue and 106 Street at-grade as service extends from NAIT to St. Albert. The move of the NAIT station from South to North incorporates the ultimate LRT and roadway configuration sooner than if the South Station location had been utilized as the temporary terminus of the line.

Feasibility of Developing a South Station for NAIT

The current station at NAIT is temporary, with the ultimate NAIT station location being in Blatchford. The North Station is constructed today, so a move back to a South Station would result in additional throw away capital costs for the station itself before the permanent station is built in Blatchford. Depending on the development timing of Blatchford, the need for, and the ability to construct the permanent station may occur within a five to ten year timeframe.

If the South Station were to be constructed, it would need to be located south of the curve in the alignment crossing 106 Street, starting approximately 400 metres south of the Princess Elizabeth Avenue/106 Street intersection (Attachment 3). In addition, the tracks would need to be reconstructed to flare out to provide for a center platform, or the tracks could remain as is and two side platforms constructed. However, in either case, 106 Street would need to be shifted to the west to make room for the station and additional land acquisition may be required from Kingsway Mall. In the case of the side platform, additional encroachment on the east side into the community is probable, with the possibility of service road impacts for the platform and for sidewalks up to the Princess Elizabeth Avenue intersection. All of these details would need to be investigated further.

Feasibility of Relocation of NAIT LRT Station

The original South Station location could be established, but this would need more detailed investigations. The construction of the south station would result in additional construction costs and includes the realignment of 106 Street, resulting in impacts to service road access.

Operations

The estimated worst case operations of the Princess Elizabeth Avenue/106 Street intersection have not been realized since the Metro Line began operations on September 6, 2015. The LRT is having less impact on the existing traffic in the area than anticipated during the peak hours. Administration will continue to monitor the impacts on traffic and other intersections along the Metro Line to optimize efficient operation of the intersections. A separate report, October 7, 2015, CR_2906: Metro Line (North LRT to NAIT) - Issues and Traffic Impacts, provides detailed information on the operation of the intersections along the corridor.

Budget/Financial Implications

As the station is currently in place there are no additional financial implications at this time. Should Council wish to pursue moving the NAIT station, Administration would require funding for a more detailed investigation to determine the scope and capital requirements.

Attachments

1. South NAIT Station Location
2. North NAIT Station Location
3. Possible South Station Location

Others Reviewing this Report

- T. Burge, Chief Financial Officer and Treasurer
- K. Rozmahel, General Manager, Corporate Services
- R. Smyth, Acting General Manager, Community Services
- R. G. Klassen, General Manager, Sustainable Development