## **Attachment 1**

## **Constraints and Opportunities Matrix**

Below is a summary of constraints and opportunities associated with the closure of the single eastbound traffic lane on 102 Avenue.

	Constraints	Opportunities
Active Edges and Streetscape Activity	The current land use mix limits the ability to activate 102 Avenue as a pedestrian focused corridor. As a result, pedestrians may not be drawn to this corridor.	There are different types of pedestrianization. While 102 Avenue would not work as a pedestrian mall, it could have potential as a car-free mobility space.
		Future consideration: Work with 102 Avenue property owners to encourage more active frontages as part of site redevelopments.
Design	The current 102 Avenue corridor design consists of a single eastbound travel lane, ranging from 3 to 3.3 metres in width.  The travel lane is located between the LRT tracks and a 2-way protected bike lane, making it a less desirable space for formal programming.  The travel lane is separated from existing sidewalks on the north and south side of the corridor. This could cause pedestrian confusion due to a non-intuitive allocation of pedestrian space.  No permanent or semi-permanent streetscape amenities or fixtures would be permitted within the travel lane space. A total width of 6m clearance must be maintained along the corridor for	Closure of the travel lane could improve comfort and attractiveness for remaining corridor users by allocating more space to pedestrians and reducing proximity and interactions with motor vehicles. The additional space would also provide the opportunity for more flexibility within the right-of-way which can help mitigate occasional operational impacts of maintenance.  Future consideration: Reallocation of travel lane space to pedestrians. Potential to combine travel lane and existing protected bike lanes space into a shared active transportation corridor; this would require further corridor safety review and significant changes to the existing infrastructure (eg. pavement/paving stones, traffic signals).

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	emergency access purposes.	Future consideration: Closure of the travel lane opens up the opportunity to relocate protected bike lanes to the south side of LRT tracks, resulting in a wider combined pedestrian space. This would require further corridor safety review and significant changes to the existing infrastructure (eg. pavement/paving stones, traffic signals).
Local Access	Additional considerations such as vehicle turn-arounds, access management and traffic circulation would be required at 102 Street and 101a Street/Rice Howard Way intersections due to near-by parkades and location specific access needs.  Nearby roadway/intersection capacity and operation would be impacted due to diverted vehicular traffic from 102 Avenue to Jasper Avenue.  The discontinuation of 102 Avenue reduces overall vehicular access to Downtown and may introduce wayfinding challenges.	Reallocation of roadway to pedestrians would improve overall pedestrian and cyclist access along the corridor.
Mobility Corridor Safety	Introducing pedestrians on travel lane space will create new crossing control challenges at intersections. Additional signage or signal fixtures would need to be considered. Special consideration would be required for visually impaired pedestrians to assist with corridor navigation.  When pedestrian activity is low during specific times of day or during winter months, the closure	Closure of the travel lane could improve safety by reducing conflict points between vehicles with cyclists, pedestrians and LRT. At intersections, the overall severity of conflicts would be reduced. Vehicle-pedestrian and vehicle-cyclist conflicts, which have a higher risk, would be reduced.  Future consideration: Assess opportunity to

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	of travel lane would reduce overall natural surveillance along the corridor ("eyes on the street").  Increased potential for jaywalking across the protected bike lanes or LRT tracks to access new pedestrian space.  Changes to 102 Avenue operation could potentially trigger a new cycle of safety audit and certification process by the Valley Line Southeast LRT operator TransEd.	install signal infrastructure to allow pedestrians to cross intersections directly between the pedestrianized travel lane rather than having to cross from the intersection corners.
Network Operations	Based on the 1.25 million population horizon, closure of a travel lane on 102 Avenue is estimated to divert approximately 300 and 600 eastbound vehicles during the morning and afternoon peak periods respectively. Most of the traffic is anticipated to divert to adjacent Jasper Avenue and 104 Avenue.  No infrastructure or traffic signal timing changes are considered at this time as it would impact existing Valley Line Southeast LRT agreement.	The removal of vehicular traffic on 102 Avenue could improve overall bike network operation in Downtown by reducing conflict points with vehicular traffic at intersections.