

**Leslie Street, Highway 401 to Sheppard Avenue East**

The intersection of Leslie Street from Highway 401 to Sheppard Avenue East is located in the North York District. There are three signalized intersections on Leslie Street between Highway 401 and Sheppard Avenue East. During the peak periods the volume of traffic is generated by the North York General Hospital, the ramps from Highway 401, general commuter traffic and the subway station that is located at the intersection of Leslie Street and Sheppard Avenue.

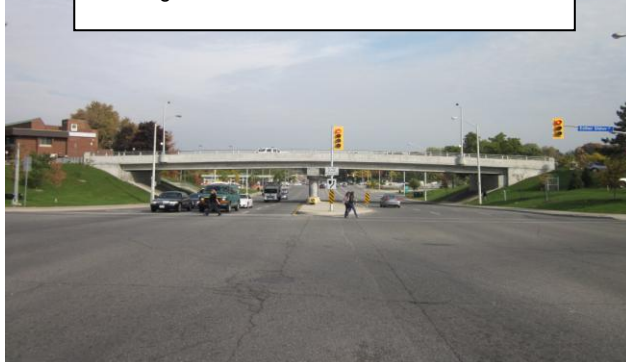
Looking North on Leslie St at Sheppard Ave



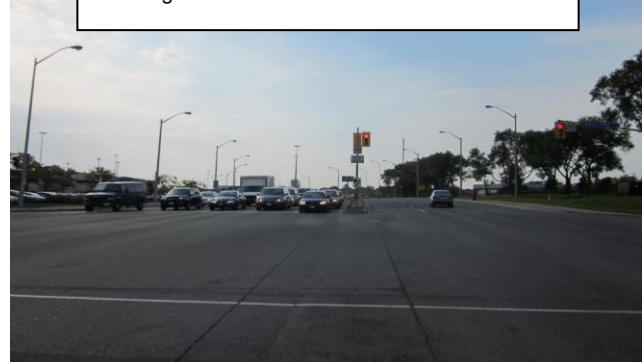
Looking East on Sheppard Ave



Looking North on Leslie St at Esther Shiner Blvd



Looking South on Leslie St at Esther Shiner Blvd


**Discussion of Issues**

Leslie Street provides direct access to eastbound and westbound Hwy 401. There is also a GO Station stop located at the intersection of Hwy 401 WB off-ramp and Leslie Street.

This signal at the intersection of Leslie Street and Sheppard Ave East is equipped with the TransSuite System. The intersection has two fully protected northbound left turn lanes callable and extendable by stop bar loop for 24 hours. Eastbound and westbound left turn signals are protected and permissive, callable and extendable by stop bar loop for 24 hours.

The intersection currently experiences significant delay, specifically for the southbound left-turn and through movements as well as the eastbound left-turn, through and westbound left and right turn movements.

## History of Actions / Background

The duration of eastbound/westbound left-turn movements during AM and PM peak hours were increased and Audible Pedestrian Signals (APS) to assist visually challenged pedestrians were installed.

## Data and Analysis

### Traffic Volume Information - 8 Hour Summary

Study Date	Northbound				Eastbound				Southbound				Westbound			
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total
May 27, 2010	2804	6624	2530	11958	2068	6735	4001	12804	941	7162	2039	10142	2042	7980	839	10861

Total 8 hour vehicle volume: **45765**

Total 24 hour vehicle volume: **91530**

Note: **A factor of 2 was used to convert the 8 hr total to a 24 hour total**

## Options for Consideration & Potential Benefits

### Actions Taken

- Increased the cycle length at the intersection of Leslie St and Sheppard Ave E
- The additional time was allocated to the eastbound and westbound left turn movements to minimize the delays

### Near term options

- Improvements to the efficiency of vehicles exiting the ramps from Highway 401
  - Allocate additional green time to provide improved co-ordination of the traffic control signals on Leslie Street
- Optimisation of the signal timings at the intersection of Sheppard Avenue and Leslie Street
- Sign Esther Shiner as an Alternate Route

### Longer Term options

- Optimisation of the traffic control signal timings on Leslie Street between Sheppard Avenue and Lesmill Road taking into account
  - the demand for the volume of traffic exiting the ramps from Highway 401
  - the future demand for additional side street demand at the intersection of Leslie Street and Esther Shiner Boulevard resulting from development intensification
  - The impact of increased cycle lengths relative to traffic control signal co-ordination
- Implementation of a dual eastbound right turn lane configuration taking into account
  - the impact of increased cycle lengths
  - pedestrian minimum timings The impact on capacity as a result of the redesignation of an eastbound through lane on Sheppard Avenue

Costs	Funding Source (Operating/Capital)
Immediate	2012 Operating Budget
Near Term	2013 Operating Budget
Mid Term	N/A
Long Term	Capital MTO