

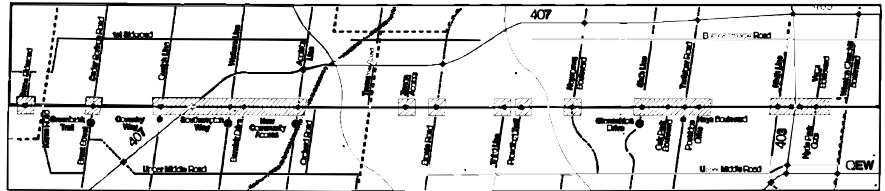
# Regional Road 5 Traffic Operations Assessment Halton Region

LEA were retained by Halton Region to assess traffic operations along Regional Road 5, also known as Dundas Street, between the western limit of Burlington and the Highway 403 interchange in Mississauga. The objectives of the project were to implement measures for immediate improvements in traffic operations, and to introduce a framework for continuous monitoring and evaluation of traffic operations, leading to the development of a pro-active traffic management program.

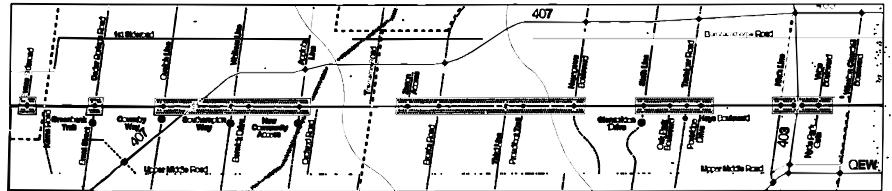
Regional Road 5 is one of the major east-west arterials traversing Halton Region across the municipalities of Burlington and Oakville, and then east through Mississauga to Toronto. In order to reduce traffic congestion along this corridor, LEA proposed recommendations for immediate improvements to traffic operations, short-term improvements, and potential long-term improvements in light of the anticipated developments and changes to the adjacent road network.

Existing conditions were evaluated on performance measures, namely travel speed to quantify traffic operations, and volume-to-capacity ratio and signal delay to quantify turning and through movements. Based on reasonable target levels, LEA established critical threshold levels for the above performance measures. Traffic operations were assessed using SYNCHRO, the traffic simulation/modelling software. The study area included a corridor of 17 signalized intersections.

## Existing Control Areas



## Proposed Control Areas



Immediate timing plan changes resulted in travel time reductions between 3% and 12% for peak hour travel, as well as easing turning movement.

Suggestions for short and long term improvements included widening of certain sections and intersections of the corridor, and an evaluation of ITS solutions for traffic management on Regional Road 5. Possible ITS solutions that would improve the corridor include an Intelligent Corridor Traffic Management System (CTMS) to optimize traffic operations, a Traffic Responsive Control or a Traffic Adaptive Control system to respond to recurring patterns of traffic congestion, and a centralized control of traffic signals to quickly fine-tune timing changes.

The final portion of the review included an assessment framework. This structured framework was developed to enable an objective review of traffic operations along Regional Road 5 in a routine and proactive manner.

## Legend

## PROJECT SUMMARY

Client:  
**Halton Region**

Location:  
**Halton Region, Canada**

Services Provided:  
**Traffic Operations Assessment**