

Subject Intersection: 26th Avenue East / London Road (T.H. 61)

Table 1 - 26th Avenue East Intersection Control Impacts

Intersection Control Alternative	Decreases Congestion / wait times	Improves Turning Movements	Traffic Calming (slow traffic down)	Improves vehicular safety	Improves pedestrian and bicycle mobility and safety	Right of Way Considerations
Traffic Signal Replacement	Moderate Improvement	Moderate Improvement	No Improvement	No Improvement	No Improvement	No Impact
Roundabout (single-lane with dual westbound lanes)	Major Improvement	Major Improvement	Major Improvement	Major Improvement	Major Improvement	Moderate Impact

Additional benefits of a Roundabout at the subject intersection:

- Will serve as a Gateway Treatment defining transition from the interstate to urban residential streets.
- When a roundabout replaces a signal, idling decreases which reduces CO2 emissions and fuel consumption. Also, a roundabout serves as a functioning intersection in a power outage.
- Severity of crashes would be lowered with roundabout. A roundabout, compared to a traffic signal, is found to have around an 80% reduction in fatal and serious injury crashes (*MnDOT - A Study of the Traffic Safety at Roundabouts in Minnesota*).

Subject Intersection: 40th Avenue East / London Road (T.H. 61)

Table 2 - 40th Avenue East Intersection Control Impacts

Intersection Control Alternative	Decreases Congestion / wait times	Improves Turning Movements	Traffic Calming (slow traffic down)	Improves vehicular safety	Improves pedestrian and bicycle mobility and safety	Right of Way Considerations
Traffic Signal Replacement	No Improvement	No Improvement	No Improvement	No Improvement	No Improvement	Moderate Impact**
Roundabout (single-lane)	Moderate Improvement*	Major Improvement	Major Improvement	Major Improvement	Major Improvement	Negative Impact

Additional benefits of a Roundabout at the subject intersection:

- When a roundabout replaces a signal, idling decreases which reduces CO2 emissions and fuel consumption. Also, a roundabout serves as a functioning intersection in a power outage.
- Severity of crashes would be lowered with roundabout. A roundabout, compared to a traffic signal, is found to have around an 80% reduction in fatal and serious injury crashes (*MnDOT - A Study of the Traffic Safety at Roundabouts in Minnesota*).

**During the peak hour (busiest time of day), the average London Road congestion / wait times are expected to be rather similar to a traffic signal however the 40th Ave E / Ecumen intersection legs will experience a major improvement. The roundabout will be designed to allow expansion to have two lanes in each direction along London Road to reduce congestion if traffic volumes increase significantly in the future.*

*** The intersection geometrics would be evaluated and likely revised as part of a traffic signal replacement to improve intersection radii, turn lanes and sidewalks, which would change the overall intersection footprint. These geometric revisions would require right-of-way acquisition.*

Subject Intersection: 60th Avenue East / London Road (T.H. 61)

Table 3 - 60th Avenue East Intersection Control Impacts

Intersection Control Alternative	Decreases Congestion / wait times	Improves Turning Movements	Traffic Calming (slow traffic down)	Improves vehicular safety	Improves pedestrian and bicycle mobility and safety	Mitigates sight line issues	Right of Way Considerations
2-Way Stop Control with raised pedestrian refuge island	No Improvement	No Improvement	Low Improvement	Low Improvement	Moderate Improvement	Moderate Improvement	Moderate Impact***
Traffic Signal*	Negative Impact	Major Improvement	Low Improvement	Moderate Improvement	Moderate Improvement	Moderate Improvement	Moderate Impact***
Roundabout (single-lane)	Major Improvement**	Major Improvement	Major Improvement	Moderate Improvement	Major Improvement	Major Improvement	Negative Impact

Additional benefits of a Roundabout at the subject intersection:

- Will serve as a Gateway Treatment defining entrance to urban residential corridor.
- When roundabout replaces signals, idling decreases which reduces CO2 emissions and fuel consumption. Also, a roundabout serves as a functioning intersection in a power outage.
- Severity of crashes would be lowered with roundabout.

**Intersection does not meet warrants required by MnDOT policy for installing a permanent traffic signal but considered as part of the evaluation to provide thorough comparison of alternatives.*

***Intersection Study results found that the overall impact to wait times/congestion on London Road are rather negligible, however the improvement to the 60th Ave E intersection leg was significant. Additionally, the 60th Ave E intersection leg would function worse over time under a 2-way stop condition whereas a single-lane roundabout is better equipped to handle additional traffic.*

**** Some sight distance issues would be addressed for each of these alternatives, which would require additional right-of-way.*