

# Speed & Road Safety Concerns

## Oxford Road 17 and Oxford Road 30, Woodstock and East Zorra-Tavistock

**Presentation to Woodstock City Council**

**February 18, 2021**

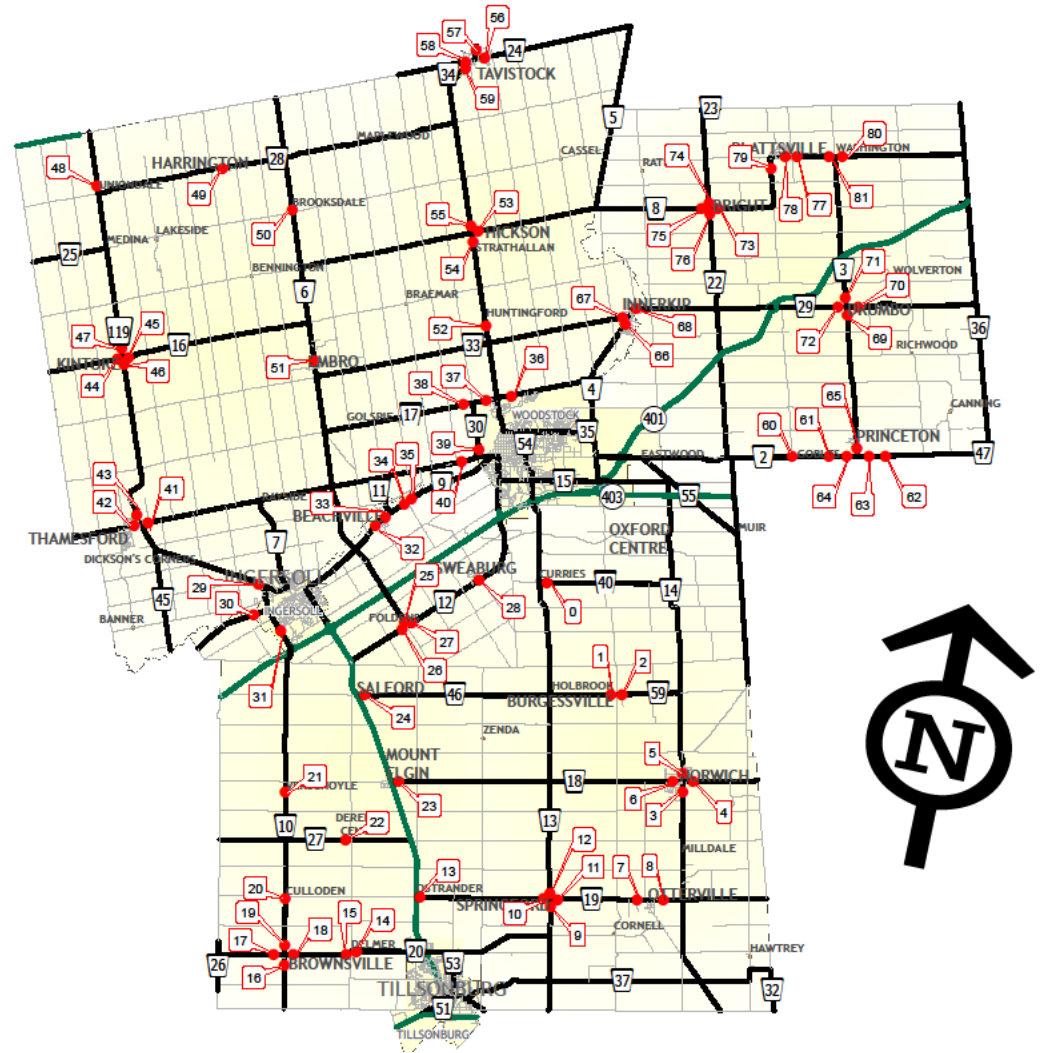
Frank Gross, Oxford County  
Manager of Transportation and Waste Management Services

# County-wide Traffic Calming Approach

- **Regular/ongoing speed monitoring in communities and settlement areas**
- **Information sharing and collaboration with Police, municipal partners and community**
- **Adoption of posted speeds which are consistent with driving environment**
- **Need and prioritization of traffic calming measures**
- **Consideration of traffic calming measures as part of road design for planned road rehabilitation and land development**
- **Speed monitoring to evaluate effectiveness of traffic calming measures**

# Traffic Data Benchmarking

- 24 hr speed counts at over 80 locations in 2019
- reduced speed zones through rural communities, hamlets and built up areas



# OR 17 & OR 30 Speed and Traffic Review Work Plan

- Review speed data on OR 17 (Road 74) and OR 30 (11<sup>th</sup> Line)
- Review existing driving environment
- Review historical collision records
- Determine appropriate posted speed limit
- Data evaluation and recommendations
- Share results and proposed recommendations with Municipal Representatives and Police
- Evaluate speed management and traffic calming measures, if needed, for implementation

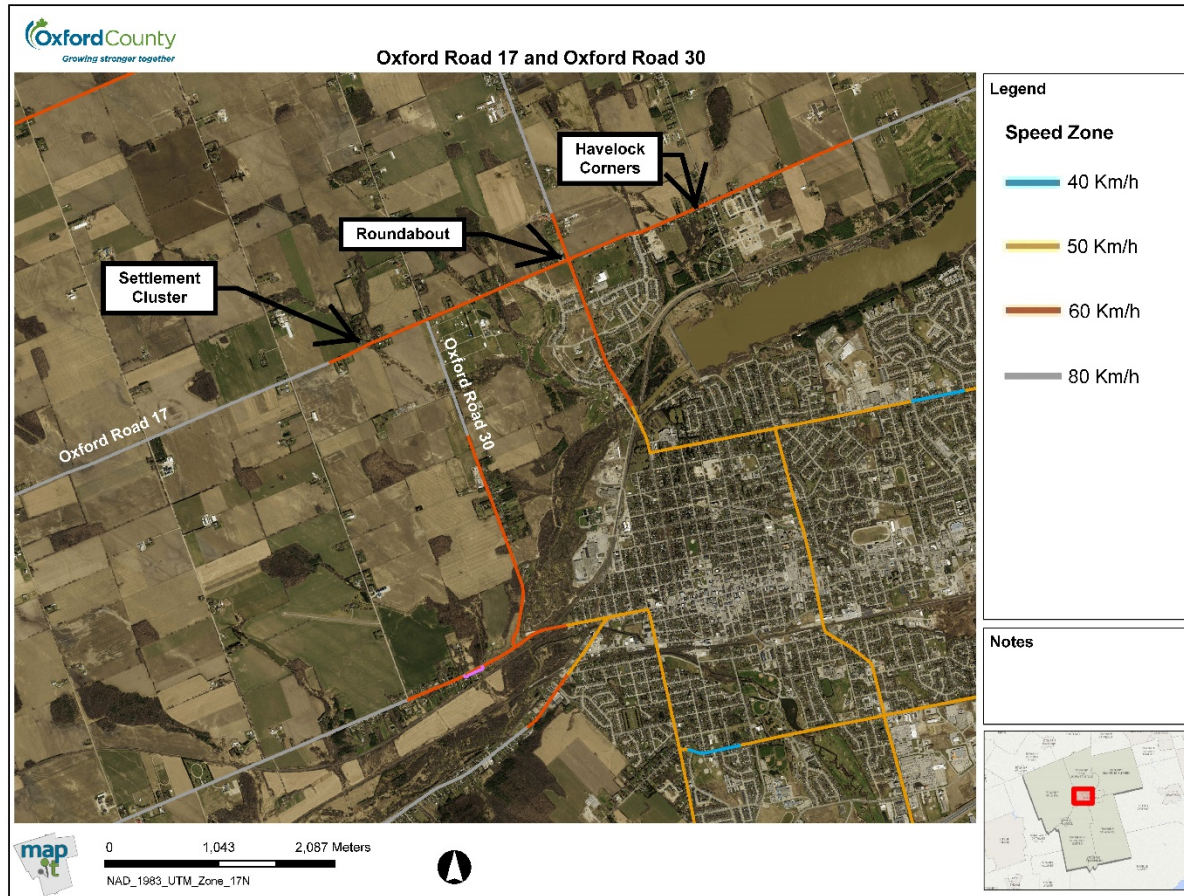
# OR 17 Existing Conditions

- **Boundary road – EZT and Woodstock**
- **Undivided rural arterial road**
- **Rural x-sec with gravel/asphalt shoulders**
- **Semi-urban x-section at Havelock Corners (13<sup>th</sup> Line)**
- **Roundabout OR 17 & OR 59**
- **Surrounding Land Use**
  - Urban Residential
  - Rural residential
  - Agricultural

# OR 30 Existing Conditions

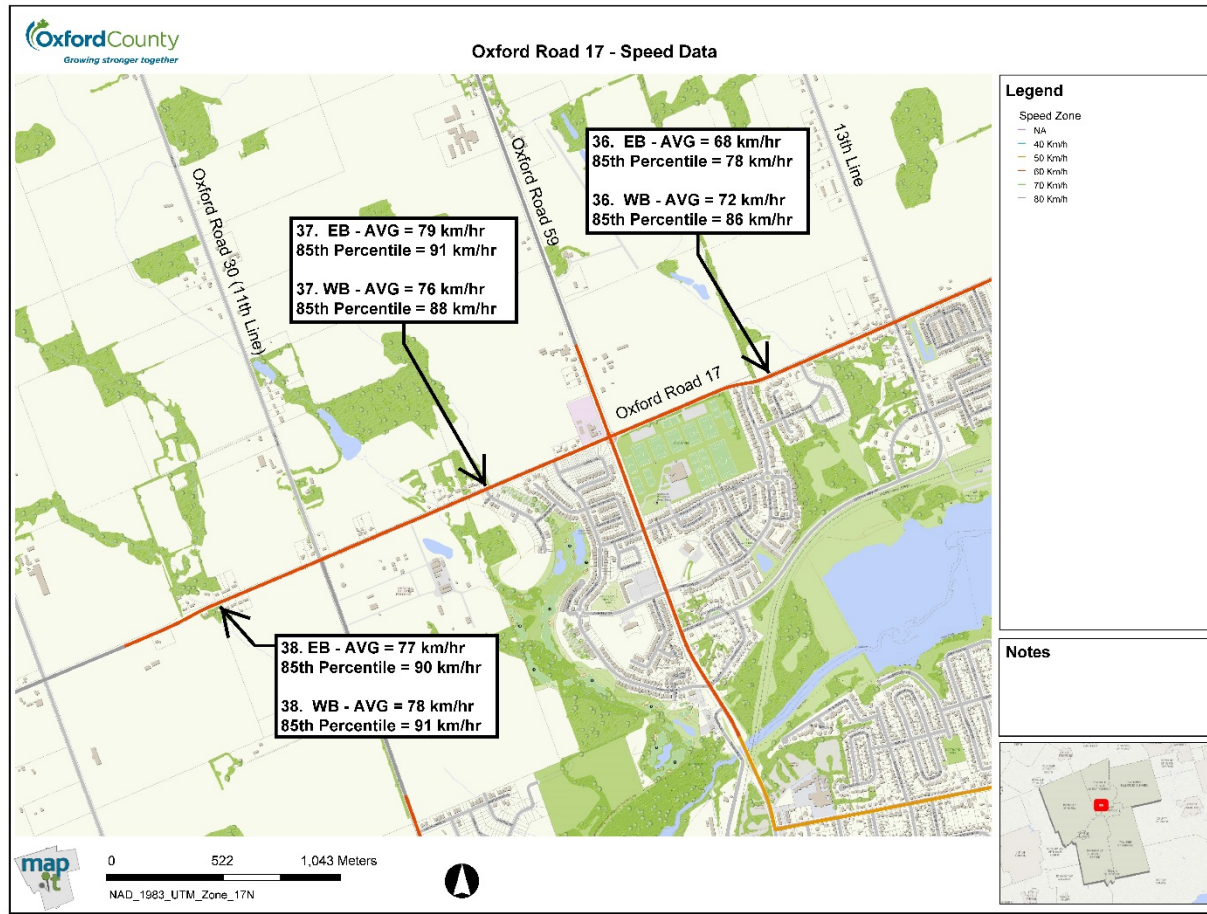
- **Boundary road – EZT and Woodstock**
- **Undivided rural arterial road**
- **Rural x-section with gravel shoulders**
- **Surrounding Land Use**
  - ▶ Urban Residential
  - ▶ Rural residential
  - ▶ Agricultural
  - ▶ Recreational trail

# OR 17 & OR 30 Speed Zones



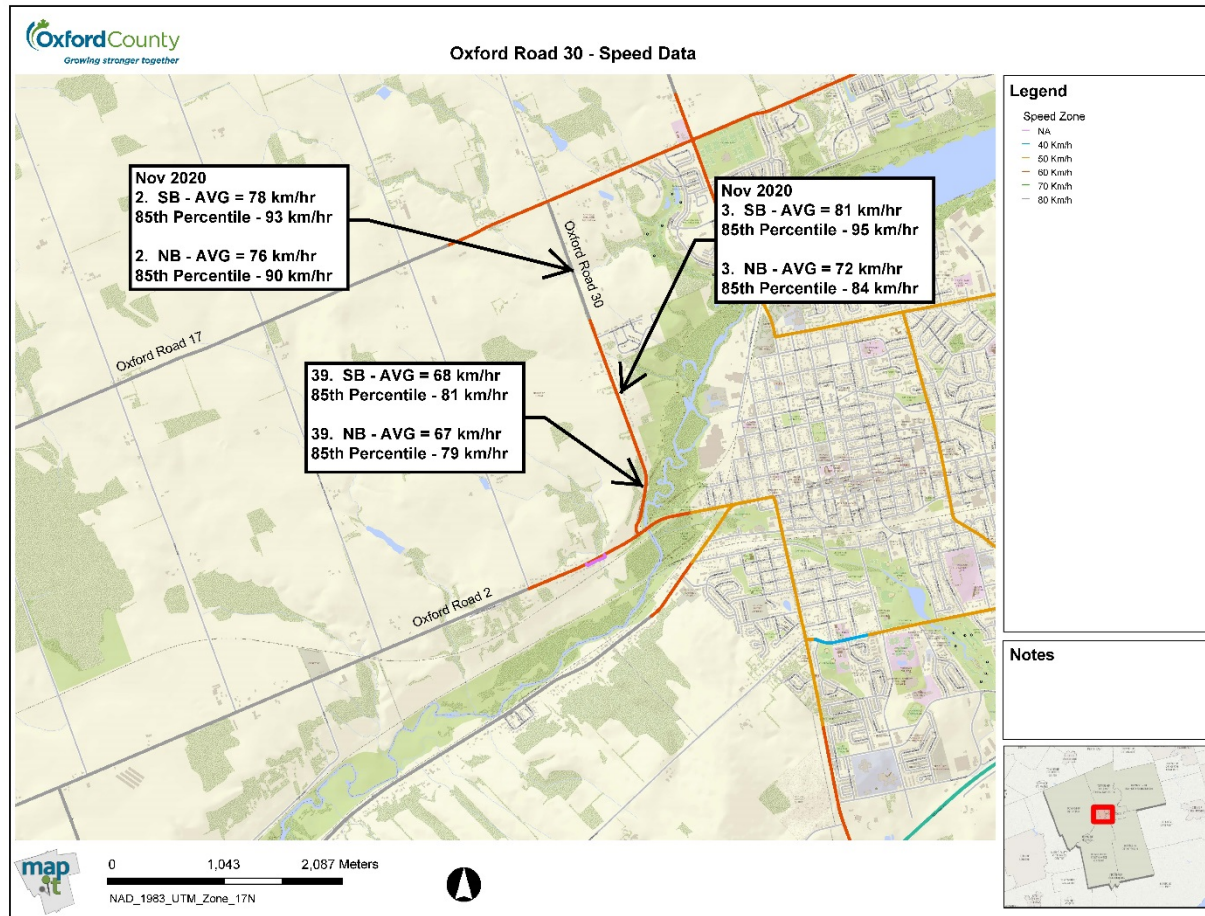


# Speed Data – OR 17





# Speed Data – OR 30



# Collision History Summary

## OR 17

| Year                             | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|----------------------------------|------|------|------|------|------|------|------|
| Property Damage Only             | 1    | 1    | 2    | 4    | 3    | 2    | 1    |
| Non-Fatal Injury                 | 0    | 0    | 0    | 1    | 1    | 0    | 1    |
| Fatal Injury                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Total                            | 1    | 1    | 2    | 5    | 4    | 2    | 2    |
| Total Collisions 2013 – 2019: 17 |      |      |      |      |      |      |      |

- ▶ 3 collisions resulted in non-fatal injuries
- ▶ 14 collisions resulted in property damage
- ▶ Avg 2.4 collisions/year
- ▶ Collision rate = 0.46 collisions/1mil vehicle kms
  - MTO 2010 Avg = 1.7 collisions/1mil vehicle kms
- ▶ Intersection collisions (right angle impacts, turning movements) are below Ontario Traffic Manual warrant for an All Way Stop. (Avg. 4 collisions/year over 3 years)

# Collision History Summary

## OR 30

| Year                            | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------------------|------|------|------|------|------|------|------|
| Property Damage Only            | 0    | 0    | 2    | 3    | 0    | 2    | 0    |
| Non-Fatal Injury                | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Fatal Injury                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Total                           | 0    | 0    | 2    | 3    | 0    | 2    | 0    |
| Total Collisions 2013 – 2019: 7 |      |      |      |      |      |      |      |

- ▶ All collisions resulted in property damage
- ▶ Avg 1.0 collisions/year
- ▶ Collision rate = 0.59 collisions/1mil vehicle kms
  - MTO 2010 Avg = 1.7 collisions/1mil vehicle kms
- ▶ Intersection collisions (right angle impacts, turning movements) are below Ontario Traffic Manual warrant for an All Way Stop. (Avg. 4 collisions/year over 3 years)

# Posted Speed Limits – OR 17

| SEGMENT<br>(from west to east)                                | POSTED<br>SPEED<br>(KM/HR) | TAC<br>RECOMMENDED<br>POSTED SPEED*<br>(KM/HR) | DIFFERENCE<br>(KM/HR) | OXFORD<br>COUNTY<br>RECOMMENDED<br>POSTED SPEED<br>(KM/HR) |
|---|----------------------------|--|-----------------------|--|
| 10 <sup>th</sup> Line to OR 30<br>Line – Rural                | 60/80                      | 80   | +20/0                 | 60/80  |
| OR 30 to OR 59 –<br>Urban/Rural                               | 60                         | 70   | +10                   | 60   |
| OR 59 to 13 <sup>th</sup> Line –<br>Urban/Rural               | 60                         | 70   | +10                   | 60   |
| 13 <sup>th</sup> Line to 14 <sup>th</sup> Line<br>Urban/Rural | 60                         | 80   | +20/0                 | 60   |

\* TAC Canadian Guideline for Establishing Posted Speed Limits (2009)

# Posted Speed Limits – OR 30

| SEGMENT<br>(from south to north)             | POSTED<br>SPEED<br>(KM/HR) | TAC<br>RECOMMENDED<br>POSTED SPEED*<br>(KM/HR) | DIFFERENCE<br>(KM/HR) | OXFORD<br>COUNTY<br>RECOMMENDED<br>POSTED SPEED<br>(KM/HR) |
|--|----------------------------|--|-----------------------|--|
| OR 2 to 1.9km north of<br>OR 2 – Urban/Rural | 60                         | 70   | +10                   | 60   |
| 1.9km north of OR 2 to<br>OR 17 – Rural      | 80                         | 80   | 0                     | 80   |

\* TAC Canadian Guideline for Establishing Posted Speed Limits (2009)

# Appropriate Posted Speeds

- **Reduces speed variation/differential**
- **Promotes uniform traffic flow**
- **Reduces risk of collisions**
- **Improves enforcement effectiveness**
- **Enhances road safety**



# Speed Variation/Differential

- **Collision rate is more directly affected by speed variation then absolute speed**
- **Risk of collision is lower with uniform traffic flow.**
- **Posted speeds lower then design/operating speeds result in:**
  - ▶ Tailgating
  - ▶ Impatient Drivers
  - ▶ Passing
  - ▶ Greater collision risk

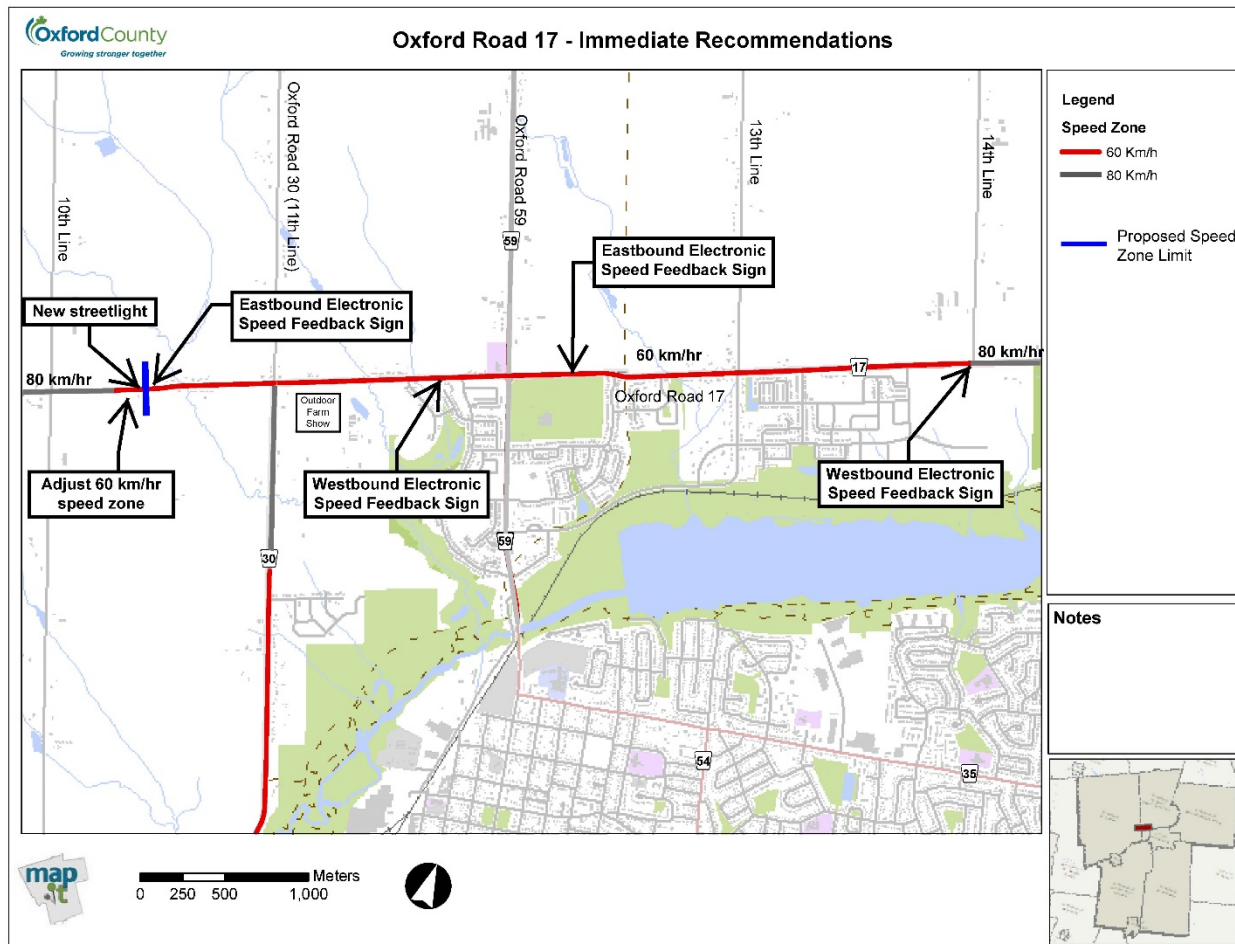
# Establishing Posted Speeds (TAC)

- **TAC Canadian Guideline – 2007**
- **Risk based analysis**
- **Physical and Road-User characteristics**
- **Systematic, consistent approach**
- **Site specific characteristics, engineering judgement**
- **Excludes school zones/playground areas**
- **Local, Provincial policies**

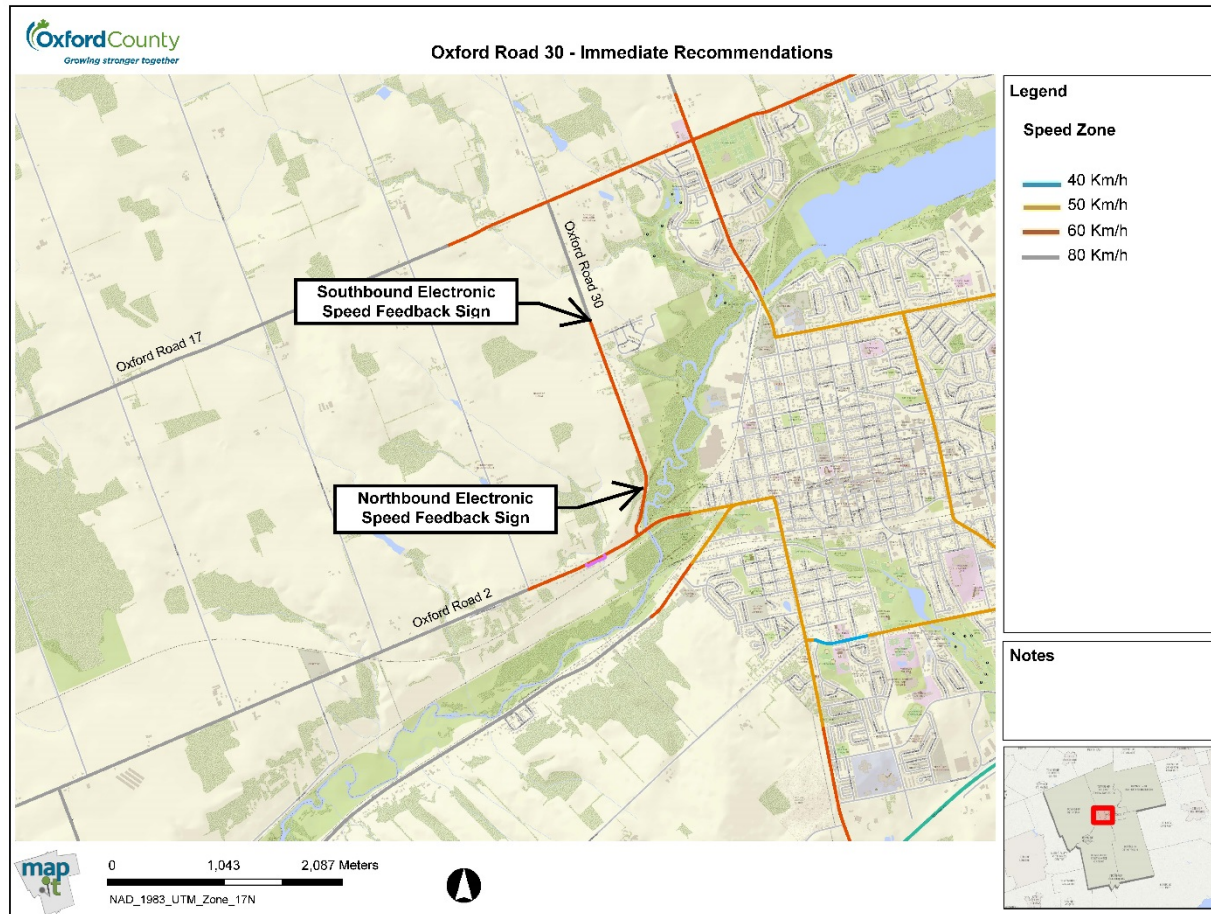
# Speed and Road Safety Review Findings

- **Operating speeds excessive on OR 17 in 60km/hr zone**
- **Operating speeds are excessive on OR 30 in relation to the posted speed (60 km/hr)**
- **Speed limits are below the recommended TAC speed guidelines on OR 17 and south OR 30**
- **Historical collision data did not show apparent speed related trends**
- **Intersection collisions do not meet warrants for All Way Stop**
- **Historical reduction in posted speed has not reduced vehicle operating speeds**

# Recommendations – Immediate OR 17



# Recommendations – Immediate OR 30



# Future Considerations OR 17 & OR 30

- **Ongoing Police enforcement and speed data sharing**
- **Automated speed enforcement/CSZ designation**
- **Road urbanization – OR17**
- **Community Watch Program (Township/City)**



# Next Steps

- **Report to County Council March 24, 2021**
- **Implementation of immediate measures**
  - ▶ Speed zone adjustment (west limit of 60km/hr zone at OR 17)
  - ▶ Installation of electronic speed feedback signs
- **Post Monitoring**

# Speed & Road Safety Concerns – OR 17 & OR 30

# THANK YOU