

Speed & Road Safety Concerns

Oxford Road 119 and Oxford Road 28, Uniondale

Presentation to Township of Zorra Council
June 16, 2021

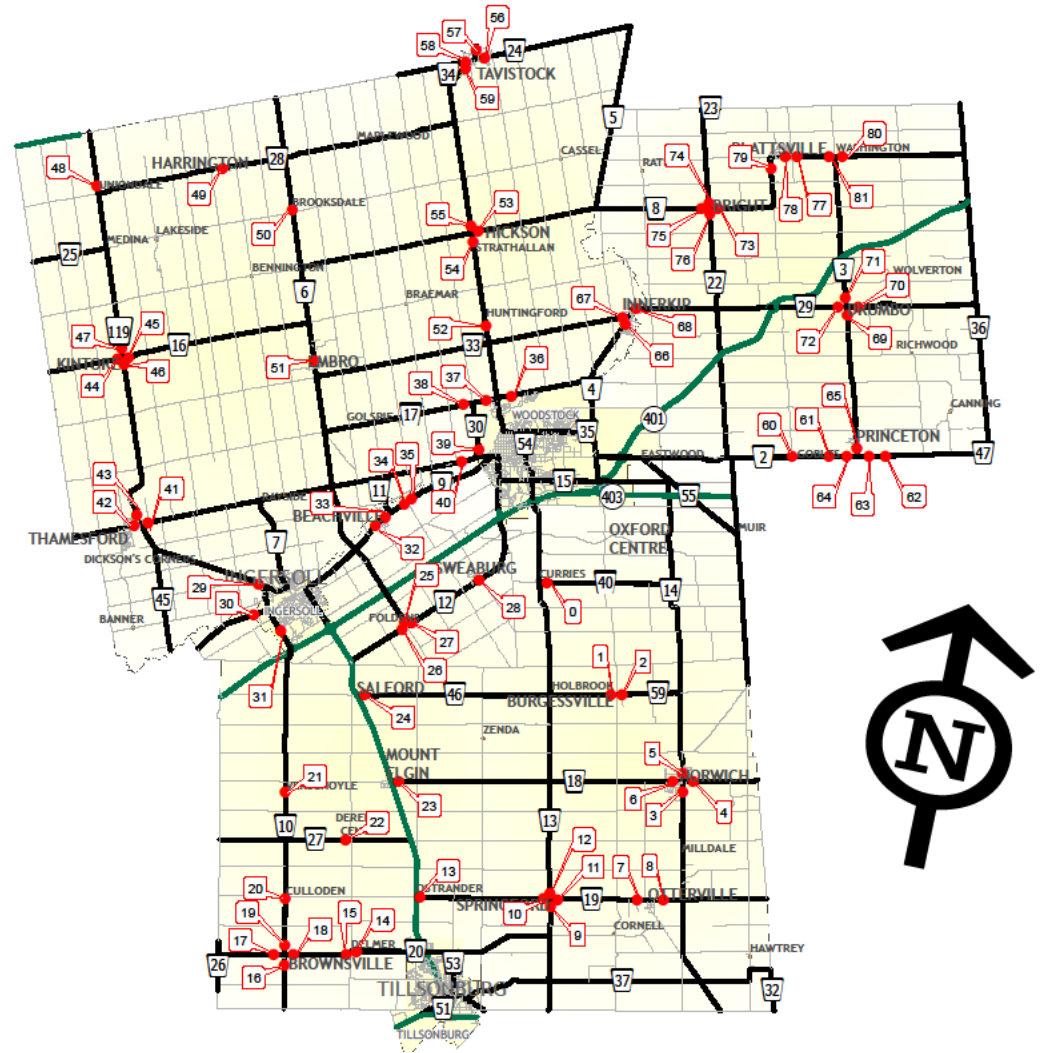
Frank Gross, Oxford County
Manager of Transportation and Waste Management Services

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 119 & OR 28 Speed and Road Safety Review Work Plan

- Review speed data on OR 119 (19th Line) and OR 28 (Road 96), Uniondale
- Left-turn lane assessment at OR 119 and OR 28 intersection
- 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

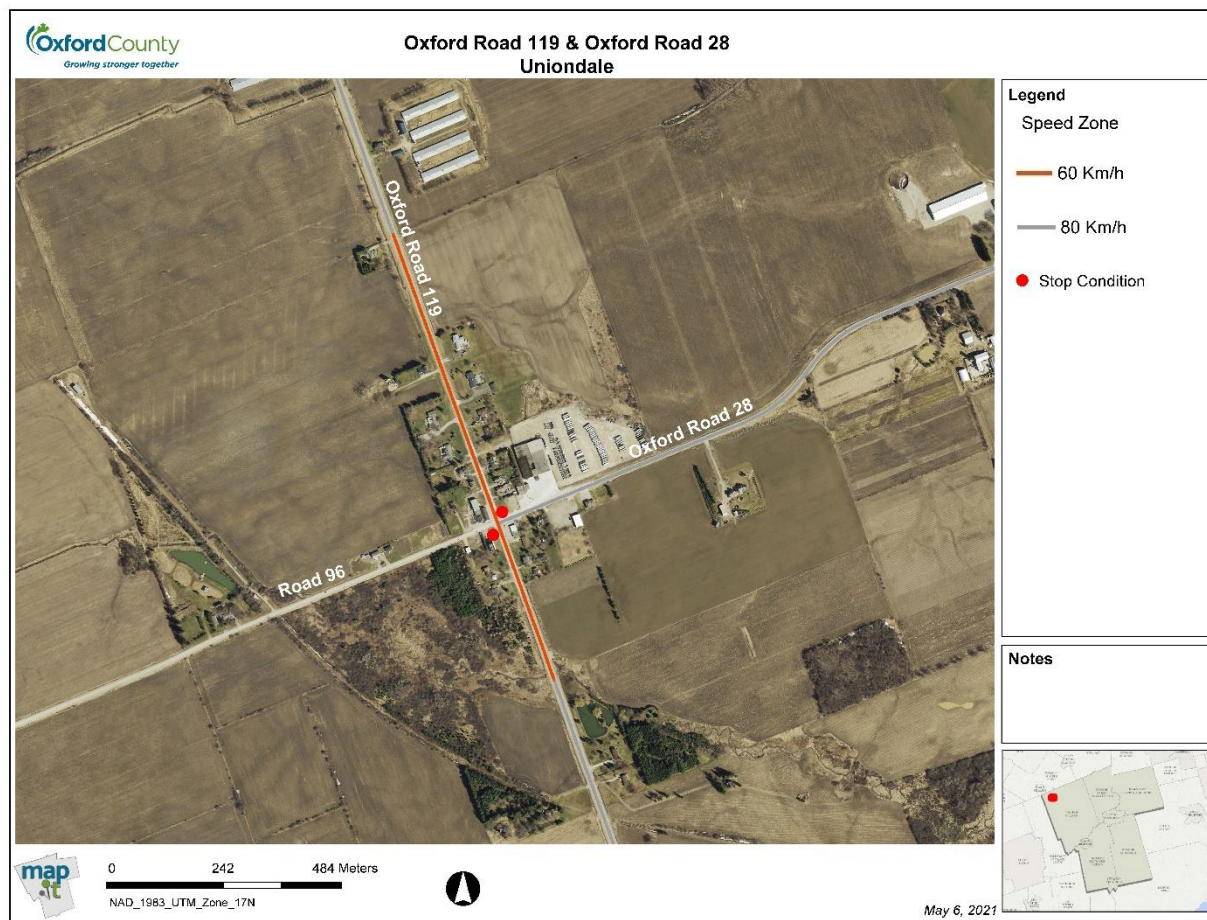
OR 119 Existing Conditions

- Semi-urban x-sec with barrier curb and paved shoulders extending 350m through built-up limits
- Rural x-sec with gravel shoulders to the north and south

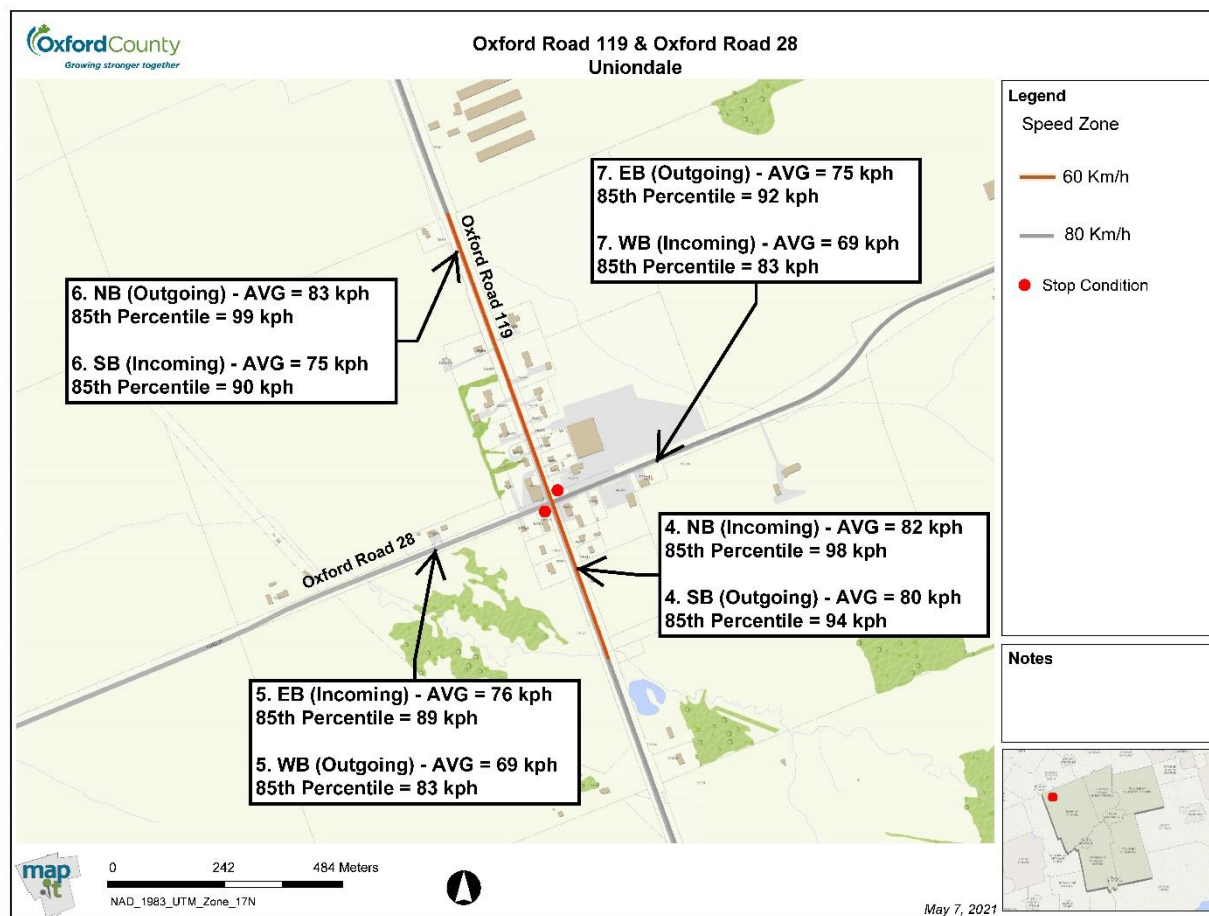
OR 28 Existing Conditions

- Semi-urban x-sec with barrier curb and paved shoulders from OR 119 to west limit of the Firehall
- Rural x-sec with partially paved shoulders east of the Firehall

OR 119 & OR 28 Speed Zones



Speed Data – OR 119 & OR 28



Collision History

OR 119 & OR 28 Study Limits

| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-------------------------------|------|------|------|------|------|------|------|------|
| Property Damage Only | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Non-Fatal Injury | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Fatal Injury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 0 |
| Total Collisions 2013 – 2020: | | | | | | | | |

- Historical collision data from 2013 to 2020:
 - ▶ 5 total collisions
 - ▶ 1 collisions resulted in non-fatal injuries
 - ▶ 4 collisions resulted in property damage
 - ▶ Avg 0.63 collisions/year
 - ▶ Collision rate = 0.24 collisions/1mil vehicle kms
 - MTO 2010 Avg = 1.7 collisions/1mil vehicle kms
 - Annual collisions (right angle impacts, turning movements) are below Ontario Traffic Manual warrant for an All Way Stop (Avg. 4 collisions/year over 3 years) at OR 28 & OR 119

Posted Speed Limits – OR 119

| SEGMENT (east to west) | POSTED SPEED (KM/HR) | TAC RECOMMENDED POSTED SPEED* (KM/HR) | DIFFERENCE (KM/HR) | OXFORD COUNTY RECOMMENDED POSTED SPEED (KM/HR) |
|---|----------------------------|--|-----------------------|--|
| Road 92 to 175m south of OR 28 – Rural | 60/80 | 90 | +30/+10 | 80 |
| 175m south of and 400m north of OR 28 – Urban | 60 | 70 | +10 | 70 |
| 400m north of OR 28 to Hwy 7 – Rural | 60/80 | 90 | +30/+10 | 80 |

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

Posted Speed Limits – OR 28

| SEGMENT (north to south) | POSTED SPEED (KM/HR) | TAC RECOMMENDED POSTED SPEED* (KM/HR) | DIFFERENCE (KM/HR) | OXFORD COUNTY RECOMMENDED POSTED SPEED (KM/HR) |
|---|----------------------------|--|-----------------------|--|
| OR 119 to Uniondale Fire Hall - Urban | 80 | 60 | -20 | 60 |
| Uniondale Fire Hall to 23 rd Line – 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

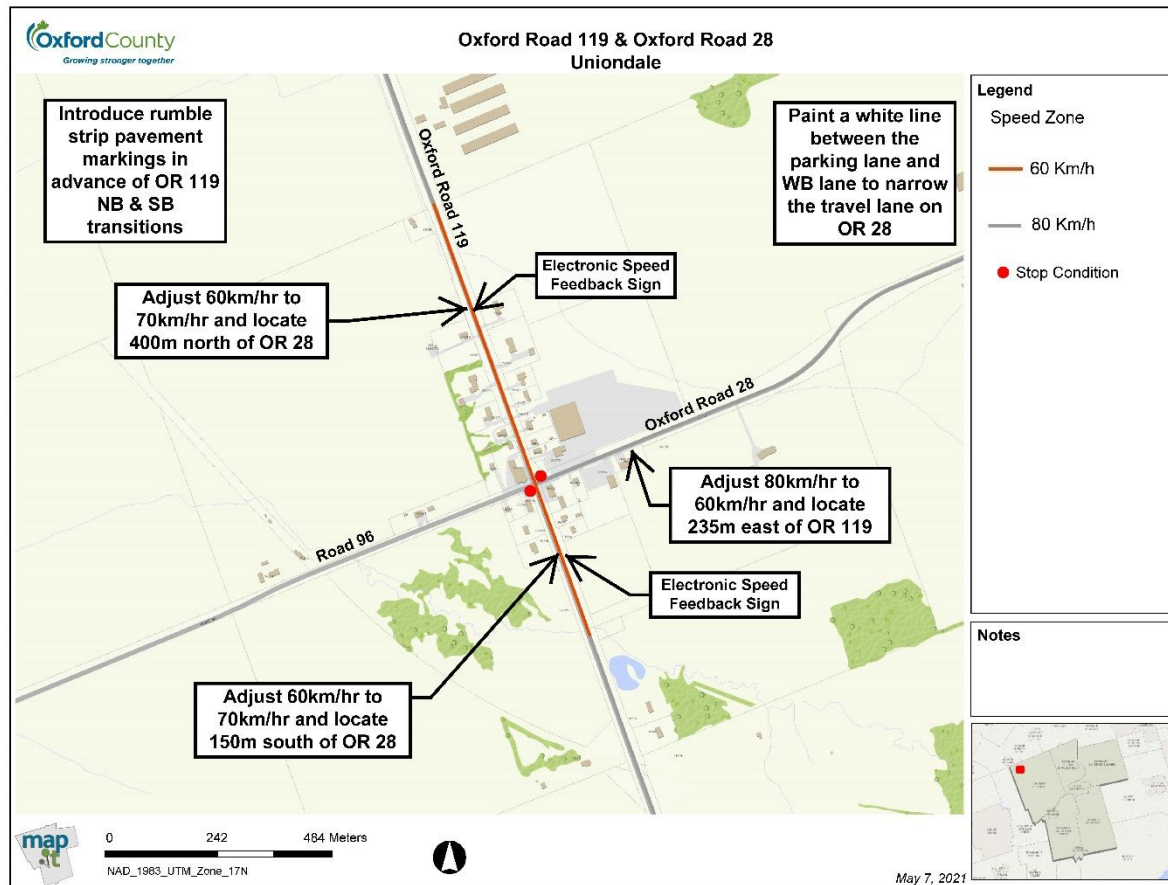
Establishing Posted Speeds (TAC)

- 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

- Left-turn lanes southbound and northbound on OR 119 at OR 28 intersection are not warranted
- Operating speeds on OR 119 approaches to Uniondale are excessive
- 60km/hr speed zone on OR 119 does not align with the built driving environment
- Operating speeds on OR 28 westbound approach are not excessive
- Historical collision data did not show apparent speed related trends

Recommendations – Immediate OR 119 and OR 28



Future Considerations OR 119 & OR 28

- **Extend the semi-urban x-sec on OR 119, south & north to align with limits of proposed 70km/hr speed zone**
- **Consider installation of sidewalk on one or both sides of OR 119**
- **Ongoing Police enforcement and speed data sharing**
- **Community Watch Program (Township)**
- **Physical features at village limits**
 - ▶ Community sign
 - ▶ Landscaping, trees, shrubbery

Community Safety Zone Designation

- **Highway Traffic Act (HTA)**
 - ▶ permits CSZ designation on part of highway where public safety is of 'special concern'
 - ▶ speed fines can be doubled in CSZs
- **Ontario Traffic Manual (OTM)**
 - ▶ evidence that public safety is of special concern
 - ▶ CSZs not intended for entire length of roadway
 - ▶ number/location of CSZs are critical for successful enforcement

Proposed County-wide CSZ Designation Criteria

- **Areas of special safety concern**
 - Schools, community centres, recreational areas, hospitals, senior centers/residences, high pedestrian volumes
- **Safety risk analysis for areas of special concern**
 - Collision ratio, traffic volumes, pedestrian volumes, operating speeds, % sidewalks, # of entrances/km
- **CSZ designation would support potential implementation of Automated Speed Enforcement (ASE)**
- **County Council approval of proposed CSZ criteria (June 23, 2021)**
- **Segments in Uniondale would not meet area of special concern**

Next Steps

- **Report to County Council – July 14, 2021**
- **Implementation of immediate measures**
 - ▶ Speed zone adjustments
 - ▶ Installation of speed feedback signs
- **Post Monitoring**

Speed & Road Safety Concerns

THANK YOU