

The Corporation of the Town of Niagara-on-the-Lake Information Report to Council

SUBJECT: Traffic Data Collection and Speed Minders Program Results –
September and October 2022

DATE: 2022-12-13

REPORT #: OPS-22-055

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DEPARTMENT: Operations

BACKGROUND INFORMATION

The purpose of this report is to inform Council of the data collected during September and October as part of the Town's annual traffic data collection (volume, speed, and classification) and speed minder program. Data collection began on April 4, 2022, along various roads throughout the municipality's road network, focusing on collector roads and other local roads where Town Staff has received referrals from residents or Council, with concerns of speeding being a potential issue. The armadillo traffic data collector units were installed for a one-week period at the locations identified below.

Armadillo Data Collection Locations: September – October 2022

Notes:

- All speeds are in km/hr
- AADT (Annual Average Daily Traffic)
- 85th Percentile Speed or Operating Speed – refers to the speed of vehicles at a time when traffic volumes are low and drivers are free to choose the speed at which they travel. This speed indicates the speed that most motorists on the road consider safe and reasonable under ideal conditions and is a good guideline for the appropriate speed limit for that road. It is a guideline which is used by most jurisdictions across North America. Alternatively, the 85th percentile can be viewed as the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions along a street or road past a monitored point.
- A green highlight in the tables below indicates when the 85th percentile speed exceeds the posted speed limit by more than 10km/hr.

Week 22: August 29 – September 6

| Location | | Speed Limit | 85 th % Speed | Average Speed | AADT |
|----------|--|-------------|--------------------------|---------------|------|
| 1 | Regent Street From Market Street to Johnson Street | 50 | 33 | 26 | 665 |
| 2 | Victoria Street From Queen Street to Johnson Street | 50 | 35 | 28 | 732 |
| 3 | Rye Street From Flynn Street to Cottage Street | 50 | 46 | 35 | 133 |
| 4 | Hunter Road From Concession 4 Road to Four Mile Creek Road | 50 | 69 | 57 | 295 |

Week 23: September 6 – September 12

| Location | | Speed Limit | 85 th % Speed | Average Speed | AADT |
|----------|---|-------------|--------------------------|---------------|------|
| 1 | Line 1 Road From Concession 3 Road to Concession 4 Road | 80 | 78 | 65 | 286 |
| 2 | Line 2 Road From Concession 3 Road to Concession 4 Road | 80 | 79 | 64 | 778 |
| 3 | Church Road From Steward Road to McNab Road | 60 | 79 | 67 | 564 |
| 4 | Dumfries Street From Queen Street to Princess Street | 50 | 40 | 33 | 290 |

Week 24: September 12 – September 19

| Location | | Speed Limit | 85 th % Speed | Average Speed | AADT |
|----------|---|-------------|--------------------------|---------------|------|
| 1 | Line 2 Road From Concession 1 Road to Concession 2 Road | 80 | 80 | 60 | 382 |
| 2 | Line 3 Road From Concession 1 Road to Concession 2 Road | 80 | 82 | 69 | 727 |
| 3 | Warner Road From Tanbark Road to Four Mile Creek Road | 50 | 57 | 49 | 592 |
| 4 | Queen Street From Mississauga Street to Butler Street | 50 | 55 | 46 | 1530 |

Week 25: September 19 – September 26

| | Location | Speed Limit | 85 th % Speed | Average Speed | AADT |
|---|---|-------------|--------------------------|---------------|------|
| 1 | Queen Street From Mississauga Street to Simcoe Street | 50 | 48 | 41 | 5705 |
| 2 | Bordeaux Drive From Tuscany Court to Seyval Place | 50 | 48 | 41 | 562 |
| 3 | Homestead Drive From Line 1 Road to Harvest Drive | 50 | 49 | 44 | 623 |
| 4 | Andres Street From Line 2 Road to Henry Street | 50 | 49 | 41 | 570 |

Week 26: September 26 – October 3

| | Location | Speed Limit | 85 th % Speed | Average Speed | AADT |
|---|--|-------------|--------------------------|---------------|------|
| 1 | Henry Street From Cherry Street to Pine Street | 50 | 53 | 45 | 438 |
| 2 | Queenston Street From Walnut Street to Highlander Street | 50 | 48 | 37 | 347 |
| 3 | Princess Street From Walnut Street to Highlander Street | 50 | 36 | 27 | 500 |
| 4 | McNab Road From Lakeshore Road to Dead End (mid-block) | 50 | 49 | 41 | 209 |

Week 27: October 3 – October 11

| | Location | Speed Limit | 85 th % Speed | Average Speed | AADT |
|---|--|-------------|--------------------------|---------------|------|
| 1 | Simcoe Street From Johnson Street to Queen Street | 50 | 39 | 32 | 341 |
| 2 | Front Street South From Partition Street to Kent Street | 50 | 41 | 32 | 180 |
| 3 | Highlander Street From Niagara River Parkway to Queenston Road | 50 | 48 | 38 | 100 |
| 4 | Dumfries Street From Niagara River Parkway to Queenston Road | 50 | 43 | 36 | 255 |

Week 28: October 11 – October 17

| Location | | Speed Limit | 85 th % Speed | Average Speed | AADT |
|----------|--|-------------|--------------------------|---------------|------|
| 1 | Gate Street From Queen Street to Johnson Street | 50 | 35 | 28 | 340 |
| 2 | Warner Road From Four Mile Creek Road to Tanbark Road | 50 | 59 | 50 | 653 |
| 3 | Line 1 Road From Homestead Drive to Concession 6 Road | 50 | 63 | 54 | 1104 |
| 4 | Shakespeare Avenue From Lakeshore Road to Addison Avenue | 50 | 46 | 38 | 926 |

Week 29: October 17 – October 24

| Location | | Speed Limit | 85 th % Speed | Average Speed | AADT |
|----------|--|-------------|--------------------------|---------------|------|
| 1 | William Street From Dorchester Street to Nassau Street | 50 | 51 | 43 | 205 |
| 2 | Queen Street From Dorchester Street to Nassau Street | 50 | 54 | 44 | 1314 |
| 3 | Niagara Boulevard From Lakeview Street to Lansdowne Street | 50 | 46 | 37 | 870 |
| 4 | Tanbark Road From York Road to Stoneridge Crescent | 50 | 52 | 43 | 433 |

Week 30: October 25 – October 30

| Location | | Speed Limit | 85 th % Speed | Average Speed | AADT |
|----------|--|-------------|--------------------------|---------------|------|
| 1 | Line 2 Road From Bordeaux Drive to Andres Street | 50 | 56 | 47 | 1347 |

Speed Minder Locations September and October 2022

The following are locations where Speed Minder Boards were installed to mitigate speeding as determined through the previously conducted armadillo traffic data investigations noted above.

Speed Minders are considered warranted as a next step to mitigate a speeding issue if the 85th percentile is greater than 10 km/hr over the posted speed limit. As per a previous recommendation to Council by Staff, Speed Minders are to be installed for a total two-week period at a given location to educate motorists with the intent to have them adjust their driving behaviour.

1. John Street – Charlotte Street to Niagara River Parkway (Eastbound & Westbound)
2. Concession 4 Road – Paradise Grove to Sorensen Court (Northbound & Southbound)
3. Hunter Road - Four Mile Creek Road to Concession 4 Road (Eastbound & Westbound)
4. Church Road - Stewart Road to McNab Road (Eastbound & Westbound)
5. Townline Road – Line 1 Road to Line 2 Road (Northbound & Southbound)
6. Concession 2 Road - Line 8 Road to Line 9 Road (Northbound & Southbound)
7. Niagara Street - East & West Line to Charlotte Street (Northbound & Southbound)
8. Concession 2 Road – East & West Line to Line 1 Road (Northbound & Southbound)

Upon completion of the Town's traffic data collection investigations (volume, speed, and classification), where it has been determined that a speeding issue exists and additional mitigation efforts are warranted through the use of Speed Minders, Town Staff has compiled and forwarded a comprehensive list of locations to our Community Policing Officer Contact at Niagara Regional Police Service (NRPS). NRPS Staff will use the information to consider potential police enforcement at the identified locations at their discretion.

FINANCIAL IMPLICATIONS

Financial implications related to enacting an annual traffic data collection program include Staff time required to install and relocate the traffic collection devices and Speed Minders, download and analyze the data captured, and report the relevant information back to the enquirer and Council.

NEXT STEP / CONCLUSION

The Operations Department has concluded its traffic data collection program for 2022 and will advise original enquirers (if any) of the results of the investigations. Details will include the 85th percentile speed, a concise statement explaining what the 85th percentile speed means, and whether further action will be taken.

The Operations Department will resume the traffic data collection program in the spring of 2023 and communicate the results of those investigations to Town Council through similar Information Reports.