The Corporation of the
Town of Tecumseh

Public Works & Engineering Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Engineering Services

Date to Council: January 25, 2023

Report Number: PWES-2023-03

Subject: Traffic Radar Speed Survey for 2022

Recommendations

It is recommended:

That Report PWES-2023-03 Traffic Radar Speed Survey for 2022, **be received**.

Background

The Public Works & Engineering Services (PWES) Department deploys speed radar devices at certain locations throughout the Town to collect data in response to speeding complaints.

The Town has two mobile speed display boards (mounted on trailers) and two Black Cats (inconspicuous roadside radar detectors affixed to hydro poles). Both devices collect the speed of the vehicle and traffic volumes.

The speed radar devices are deployed at a given location for approximately one to two weeks, and the results are shared with the Ontario Provincial Police (OPP), identifying the best days and times for when enforcement may be most effective.

Comments

Traffic Data Collection

PWES staff receive numerous traffic-related inquiries each year from the public, the most prevalent are concerns related to speeding motorists.

When reviewing traffic concerns, PWES staff quantify the extent of the problem by gathering traffic data including, but not necessarily limited to, radar speeds, traffic volume counts, and/or collecting collision statistics.

Speed limits are established using traffic engineering standards that set the regulatory speed limit for a street facility using the 85th percentile speed, which is the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions.

Setting the speed limit to the 85th percentile speed maintains the uniformity of speeds, thereby increasing safety and reducing the risk for vehicular collisions. Selection of the most appropriate speed limit is important for driver compliance, allowing effective enforcement and reducing accident incidents.

The recommended posted speed limits for various road classes within Tecumseh are identified with the Official Plan as well as the Transportation Master Plan, and are as follows:

Road Class	Urban Commercial Main Street	Urban Minor Arterial	Urban Collector	Urban Local Road	Rural Minor Arterial	Rural Collector	Rural Local
Posted Speed	40-50 km/h	50-70 km/h	50-60 km/h	40-50 km/h	50-70 km/h	60-80 km/h	50-70 km/h

PWES staff deployed the digital speed display signs and Black Cats at seventeen (17) locations on fourteen (14) streets in 2022. Attachment 1 lists these locations, the recorded average speed and the recorded 85th percentile speed, as well as the Annual Average Daily Traffic (AADT).

According to the 85th percentile speed recorded, motorists were found to be traveling at speeds in excess of 10 km/h greater than the posted speed limit, which is an indicator to increase enforcement activities, at the following four (4) locations:

- Intersection Road
- Malden Road
- Shawnee Road
- Southfield Drive

Speeding is enforced by the OPP under the *Highway Traffic Act*. The OPP were notified of the above-noted areas of concern for further enforcement and follow up accordingly.

Speed Limits on a Roadway

Traffic engineers and analysts have found that the reduction of posted speed limits, without changing the characteristics of the roadway to encourage reduced speeds, has been shown to have a minimal impact on vehicle operating speeds. In addition, the posting of additional signage and/or adjusting the posted speed limit of a roadway are generally not considered to be traffic calming measures.

If, following a thorough traffic analysis, a reduction in speed limit on a given roadway is recommended, this should be accompanied by other measures (i.e. other traffic calming measures and/or increased enforcement) to ensure a reduction of the posted speed limit has an impact on operational speeds.

Road safety may be improved through posting of credible speed limits that match the expectation of drivers for a given roadway and its surrounding areas. Inappropriate speed reductions have the potential for undesirable speed differentials, which may have the effect of causing traffic conflicts (i.e. accidents).

In-road Traffic Calming Signs

PWES staff have installed temporary in-road traffic calming signs in the center of the road at targeted locations where speeding complaints were received. These in-road signs are intended to create a narrowing effect on the roadway which can give motorists the perception of the need to slow down. These visual cues remind motorists to drive according to the posted speed limit.

In 2021 the Town tested the effectiveness of these in-road traffic calming signs on driver behaviour, with having speed radar devices installed prior to and following the installation of these signs. The results showed a 5km/hr reduction in the Average Speed and 85th Percentile Speed.

The 2022 locations for in-road traffic calming signs included the following:

- Arlington Blvd.
- Edgewater Blvd.
- McNorton Street
- Riverside Drive
- Shawnee Road
- Southfield Drive
- St. Mark’s Street

Continued Monitoring and Enforcement Efforts

Public Works staff continue to conduct radar speed surveys on a complaint-driven basis. Where speeding is verified as a concern at a given location, via traffic data

collection, in-road traffic calming signage will be placed in the centre of the roadway with the desired effect of modifying driver behaviour. Staff will also continue to work closely with the OPP and provide traffic data to identify the best days and times for when enforcement may be most effective.

Consultations

Ontario Provincial Police

Financial Implications

The in-road traffic calming signs are approximately $260 per sign, which is funded from the Public Works Operating budget. Public Works will order 12 new signs in 2023 for a total approximate cost of $3,120.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
☐	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
☒	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
☐	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
☒	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
☒	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐ Social Media ☐ News Release ☐ Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

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Project Technician

Reviewed by:

Kirby McArdle, P.Eng.
Manager Public Works & Transportation

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Engineering Services

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	**Attachment Name**
1	2022 Speed Radar Device Locations

Attachment 1: Speed Radar Device Locations

Report No. PWES-2023-03 Traffic Analysis Report for 2022

Location	Posted Speed Limit (km/h)	Average Speed (km/h)	85th Percentile Speed (km/h)
12th Concession Rd. (at 3505 12th Conc. Rd)	50	45	58
Arlington Blvd. (at 200 block)	40	41	50
Clarice St.	40	39	47
Edgewater Blvd.	50	42	50
Fairway Cresc. (mid-block)	50	36	47
Grant Ave. (at 155 Grant Ave.)	40	40	48
Hayes Ave. (south of 149 Hayes)	50	34	43
Hayes Ave. (near 90 degree bend)	50	36	43
Hayes Ave. (at Lakewood)	50	33	44
Intersection Rd. (near Hebert)	50	49	58
Intersection Rd. (near Banwell)	50	60	69
Malden Rd. (at 6057 Malden)	50	58	69
Manning Rd. (at Little River Blvd.)	50	52	60
McNorton St. (near Lacasse)	40	42	48
Shawnee Rd. (between Arbour & Tecumseh)	40	46	55
Southfield Dr. (at Southfield Park)	40	44	51
St. Gregory's Rd. (east of Revland)	40	41	48