



Guidelines for the Preparation of Traffic Impact Studies

Policy Number:

Applies to: [xxx]

Approval Date: [Click or tap to enter a date.](#)

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1. Policy Statement

The Town of Collingwood is committed to ensuring that the impact of new growth and development is accommodated in the current transportation network.

2. Purpose

The purpose of this policy is to outline the guidelines for the preparation of Traffic Impact Studies (TIS), ensuring consistency and comprehensiveness in evaluating the impact of proposed land-use developments on traffic conditions.

3. Definitions

- “Transportation Impact Study (TIS)” means a study assessing the impacts of land use developments on the transportation network.

4. Scope

The guidelines apply to all Traffic Impact Studies conducted within the jurisdiction of the Town of Collingwood. The guidelines are based on a thorough review of existing standards and practices from the Ontario Ministry of Transportation, the County of Simcoe, the Township of Essa, the City of Ottawa, and the City of Toronto.

5. Principles of the Policy

A TIS assesses the impacts of proposed land use developments on the transportation network and, if necessary, indicates proposed mitigation strategies to address those impacts. They assess the impacts to traffic during peak traffic periods throughout the day. These peak traffic periods typically include a morning peak hour and an afternoon peak hour. A morning peak hour is the hour between 6 am and 10 am where the highest volume of traffic occurs. The afternoon peak hour is the hour between 3 pm and 7 pm where the highest traffic volume occurs. Usually, a TIS is undertaken for a single proposed development but can also be undertaken to address multiple proposed

developments concurrently. TISs support the Town's goal of developing a safe, multi-modal, and integrated transportation system as expressed in the Town's Official Plan (OP) by:

- Evaluating proposed development transportation characteristics with the Town's goals and policies.
- Comparing the transportation network performance around the site both before and after the development.
- Enabling negotiations between the Town and developers about sharing the costs for transportation system modifications.

Further principles include the following:

i. Full Build-Out Background Conditions

A TIS cannot assess a development solely against today's traffic volumes or only the traffic generated by the applicant's site. The analysis must incorporate background traffic from all other planned and approved developments within the study area, consistent with the Official Plan horizon.

ii. Fair-Share Infrastructure Contributions

Where multiple developments will ultimately trigger the need for infrastructure upgrades (e.g., signals, turn lanes, capacity improvements), the first development must still contribute its proportional share. The TIS must therefore demonstrate impacts under full OP build-out, even if the infrastructure is not warranted until later phases of area development.

iii. Use of the MMTP Meso-Model

The Town will provide the best available background growth and network demand information, including outputs from the MMTP meso-model. The TIS must incorporate this information as the basis for future background traffic. The model can then be integrated with Town model so that it too stays up to date.

6. Roles and Responsibilities

• Proponent's Role

If a TIS is required (see Section 3), it is the responsibility of the proponent (developer/owner or the owner's designated agent) to have a TIS prepared by a qualified and experienced transportation engineer licensed in the Province of Ontario. A term of reference will be prepared by the applicant to a minimum of the requirements in this policy. Town staff will receive and determine whether to accept it as fulfilling the noted requirements as part of the broader development application process. The proponent must provide a TIS stamped by a Professional Engineer (P.Eng.) licensed to work in Ontario.

The infrastructure improvements determined to be necessary to mitigate the impacts the development has on the transportation network will be paid for by the proponent via development charges, as determined by the Town. Development charges will be used to share the cost of infrastructure improvements among multiple stakeholders. Infrastructure improvements that are needed for traffic operations of one development only will be paid for exclusively by that development's proponent.

- **Town's Role**

The Town's role will be to:

- Provide a guideline for conducting Transportation Impact Studies
- Supply readily available data and relevant reports
- Review the submitted report
- Approve or reject the Transportation Impact Study in a timely fashion (4 weeks)
- Circulate (if necessary) the Transportation Impact Study to relevant Town Departments, Utility Organizations, and/or external agencies

7. Policy

Traffic Impact Study – Development Triggers

A Traffic Impact Study is not required for all proposed developments. Small-scale developments that are unlikely to contribute a significant number of additional trips to the transportation network will not need to include a TIS as part of their application. To help guide the Town of Collingwood as to when a TIS would be required, the following criteria would need to be satisfied by the proposed site:

- Estimated to generate 100 or more vehicle trips during the morning or afternoon peak hours.
- Satisfies any of the following minimum development size criteria:

Land Use Type	Minimum Development Size
Single Family Homes	40 Units
Townhomes or apartments/condominiums	90 Units
Office	3,500 m ²
Industrial	5,000 m ²
Fast-food restaurant or coffee shop	100 m ²
Destination retail	1,000 m ²
Gas station on the convenience market	75 m ²

- Incorporates direct vehicle access to an arterial road.

- Raises safety concerns such as the potential to cause adverse safety impacts on the road network or inadequate horizontal and vertical curves at access points (at the discretion of the Town of Collingwood staff).
- Is required at the discretion of the Town Engineer and/or Infrastructure department.

TIS are often requested during re-zoning or planning of subdivision applications. For developments that do not meet the criteria listed above, proponents should seek written confirmation of agreement from the Town of Collingwood to revoke the requirement for a TIS. For smaller scale developments where little or no impact on the adjacent road network is anticipated, a Traffic Impact Brief can be accepted. A Traffic Impact Brief will be a reduced scope and focus on localized issues based the judgement of Town staff.

Components of a Traffic Impact Study Report

If a TIS is determined to be required, it shall be prepared under the supervision of a qualified and experienced transportation engineer, licensed under the Province of Ontario. The TIS must evaluate development impacts using both existing traffic conditions and the full future background traffic associated with build-out of the Town's approved Official Plan (to 2051).

A TIS can be divided into three sections: Scoping, Forecasting, and Analysis.

Section 1: Scoping

The objective of this section is to determine if the transportation network will require modifications to offset the estimated impacts of the proposed development and should include the following subsections:

Proposed Development: Provide a detailed description of the proposed development along with key details such as the existing and proposed land uses, development size, date of occupancy, planned phasing of developments, proposed parking spaces, and access points.

Study Area & Time periods: This subsection will determine the study area boundaries in consultation with Town staff in the Development Engineering division, including the intersections to be analyzed and study area boundaries. The proponent will also identify the appropriate peak hour time periods for operational analysis. The proponent must consider two (2) horizon years for the analysis:

1. The expected year of development build-out or full occupancy (if not the same as build-out)
2. Ten (10) years after development build-out or full occupancy

Existing Conditions: Document the existing roads, ramps, and intersections within the study area and provide details such as the jurisdiction, classification, number of lanes, posted speed limits, type of traffic control, and turning restrictions. In addition, this subsection will also need to identify the existing pedestrian, cycling, and transit infrastructure, and existing traffic management measures within the study area. The proponent will obtain existing traffic counts (less than 5 years old) at locations within the study area where traffic impacts will occur due to the development, which will be confirmed by consultation with Town Staff at the start of the study. The traffic counts will be used to determine existing peak hour travel demands by mode within the study area. Development Engineering Staff may, at their discretion, require the proponent to review historical collision data (provided by the Town) at locations within the study area in proximity to the site where data is available and if it is anticipated that the site may exacerbate safety issues.

Section 2: Forecasting

This section will detail an estimate of future transportation demand required to analyze the future road network performance. It will consider the proposed development itself, nearby background developments, and general changes in background traffic demands anticipated to occur on the road network in the future. This section will consist of the following subsections:

Development-generated travel demand: Estimate the number of trips generated from the proposed development, estimate the percentage of trips by each mode of travel (e.g. vehicle driver, vehicle passenger, public transit, bicycle, walking), and assign the estimated additional vehicular trips onto the road network.

Background Network Travel Demand: Forecast changes in background vehicle travel demand on the road network by applying to the existing traffic counts a background traffic growth rate, which will project traffic volumes that are not generated by the development to the second horizon year (i.e. ten (10) years after development build-out or full occupancy). This rate may be obtained from the EXP meso model provided by the Town. However, this model was developed as a desktop study and was not informed by an origin-destination study. It may be used based on professional judgement of the proponent. Other methods including analysing historical traffic counts may also be used.

Demand Rationalization: This subsection rationalizes future traffic demands in the study area to account for capacity limitations of the transportation network and potential adjustments in travel behaviour*.

*There may be cases where a proposed development is being considered in a location where:

- the surrounding road network is already near or at its vehicular capacity limit;
- there is nominal potential for increasing vehicular capacity on the network; and
- there are good existing and/or proposed alternatives to driving such as public transit and active transportation routes.

In situations like this, travel demand on the road network is likely to adapt to changing land use environments over time. For example, peak hour traffic will 'spread' over a longer peak period as a proportion of motorists avoid travelling during the busiest hours of the day. Some trips will be done by other modes and or eliminated altogether.

Section 3: Analysis

This section requires the proponent to assess the network under four (4) different scenarios:

- Existing conditions: existing traffic volumes in the existing transportation network.
- Background conditions: background traffic volumes in the existing transportation network.
- Future conditions: future traffic volumes (i.e. development generated traffic volumes added to the background traffic volumes) in the existing network.
- Future conditions with mitigations: future traffic volumes in the transportation network with the mitigations required to offset the impact of the proposed development and meet the Town's established performance targets. It is not necessary to evaluate this scenario if the Town's established performance targets are met without any mitigations.

Proponents should refer to essential Town planning documents including Development Standards and the Zoning By-law. This section will consist of the following subsections:

Development Design: This subsection will review the proposed development's internal circulation functionality, including the ability to accommodate municipal service vehicles and loading.

Parking requirements: The subsection will ensure that the proposed vehicle and bicycle parking capacity comply with the zoning requirements and demand estimates. This subsection also requires the assessment of potential spillover parking (i.e. parking activity that is generated by the site but occurs off-site) and the implementation of mitigation measures strategies if necessary.

Boundary Streets: This subsection determines the design elements required for boundary streets (i.e. streets at the property boundaries of the proposed development) to accommodate the proposed development so that they are consistent with the Town's Complete Streets Policy and urban design objectives.

Access Intersections: This subsection is required to document the design elements of access points to the proposed development and determine if they are consistent with the Town's complete streets policies, and urban design objectives within the study area.

Intersection Design: This subsection will assess if the study area intersections can accommodate the additional travel demands generated by the proposed development. It will assess if the appropriate control measures, intersection configurations, and control strategies are provided to accommodate the proposed development.

8. Costs

All costs associated with the preparation of the TIS and peer reviews shall be borne by the applicant.