Civil Engineering Department, Faculty of Engineering
Postgraduate Section

TRANSPORT IMPACT ASSESSMENT

Week-05 : REPORTING

The TIA Guidelines document outlines

- The scope of analysis required to support development applications, depending on the type of development application and the size and scope of the proposal;
- The types of analysis required to determine transportation system impacts resulting from developments and acceptable levels of service for elements of the transportation network, consistent with Transportation Master Plan policies; and
- The format recommended for TIA reports that will facilitate staff review and expedite timing for comments and approvals

- TIA reports are a critical part of the development review and approval process, as they are the primary tool for identifying the potential net effects from a development proposal

TIA reports establish:

- The impacts to the transportation system as a result of the proposed development;
- Transportation infrastructure and programs needed to mitigate impacts to an acceptable level; and
- Site design features needed to support system-wide transportation objectives

Types of analysis

- **System Congestion and Capacity**
- **System Operations and Safety**
- **Non-Auto Modes**
- **On-Site Design and Operations**
- **Community Impacts**
- **Transportation Demand Management**

Analysis Parameters

- **Study Area**
  - The location and type of proposed development;
  - The existing traffic volumes on the adjacent road network; and
  - The existing transportation network adjacent to the site
- **Time Periods**
  - The impact of the development on the peak conditions of the adjacent transportation infrastructure; and
  - The impact of the peak site generated traffic volumes on the adjacent transportation infrastructure
- **Horizon Years**
  - buildout/full occupancy of the development, and
  - buildout/full occupancy + 5 years

Documentation and Reporting

- **Report Context**
  - Location relative to major elements of the existing transportation system
  - Proposed land uses and relevant planning regulations to be used in the analysis;
  - Proposed development size (building size, number of residential units, etc.) and location on site;
  - Estimated date of occupancy;
  - Planned phasing of development;
  - Proposed number of parking spaces (not relevant for Draft Plans of Subdivision); and
  - Proposed access points and type of access (full turns, right-in/ right-out, turning restrictions, etc.).
  - Study area;
  - Time periods and phasing; and
  - Horizon years (include reference to phased development).

- **Existing Condition**
  - Existing roads and ramps in the study area, including jurisdiction, classification, number of lanes, and posted speed limit;
  - Existing intersections, indicating type of control, lane configurations, turning restrictions, and any other relevant data (e.g., extraordinary lane widths, grades, etc.);
  - Existing access points to adjacent developments (both sides of all roads bordering the site);
  - Existing transit system, including stations and stops;
  - Existing on- and off-road bicycle facilities and pedestrian sidewalks and pathway networks;
  - Existing system operations (V/C, LOS); and
  - Major trip generators/ attractors within the Study Area should be indicated

- **Demand Forecasting**
  - General background growth;
  - Other study area developments;
  - Changes to the study area road network;
  - Trip generation rates;
  - Trip distribution and assignment:
    - include figures documenting total future travel demands by mode for each horizon year

- **Impact Analysis**
  - Network Capacity Analysis;
  - Non-auto network connections and continuity;
  - Potential for community impacts, and
  - TDM