



### **TRAFFIC ANALYSIS REPORT**

To adequately review development proposals, the city may require that the applicant provide a traffic analysis to help determine the need for roadway, non-motorized and transit improvements to serve the proposed use and address the traffic impacts on the public transportation system. The following guidelines have been established to assist a professional engineer in providing the information needed to adequately analyze the development proposal.

#### **The written report should include the following information utilizing appropriate charts and graphics:**

1. A description and location of the development site
2. Proposed land uses and intensities
3. The area of influence of site traffic.
4. A right of way access plan for the development, including the proposed internal circulation and available sight distances at major entry points.
5. A vicinity map and site plan.

#### **Existing conditions and analysis:**

1. Description of the existing conditions of streets, intersections, non-motorized facilities and transit improvements in the area that will potentially be impacted.
2. Information on existing street widths, number of lanes, intersection geometrics, locations of traffic signals and other types of traffic control, parking restrictions, sidewalks, bicycle paths, transit stops, transit amenities (e.g., shelters) and transit routes should also be included.
3. 24-hour traffic counts on the affected streets and turning movement counts during morning and evening peak periods at the impacted intersections. Counts shall be collected a minimum of 3 consecutive days including Tuesday, Wednesday, and Thursday. Data used shall not be older than 2 years from the date the analysis is performed.
4. Capacity and level of service analysis for the existing conditions of the affected streets and impacted intersections. Refer to KMC 12.80.030 for the City's level of service standards.
5. Traffic crash data for the influence area both for mid-block locations and intersections for the last five years.

#### **Calculation, analysis, and representation of the following future conditions:**

1. Trip generation during the 24-hour and morning and evening peak periods, and peak hour of the generator for each land use category in the project should be calculated and shown. A trip table including type of land use intensity, trip generation rates and trips generated should be prepared.
2. The distribution of generated traffic and assignment of that traffic to the street system during morning and evening peak periods and peak hour of the generator along with reasons for the assumed distribution.
3. Future 24-hour and peak period traffic volumes and assignments upon completion of the development (by phases if applicable).
4. Capacity analysis and levels of service for morning and evening peak periods and for the peak periods of the generator, if necessary. Refer to KMC 12.80.030 for the City's level of service standards.
5. Street access and transit improvement plan with recommendations by development phases identifying all needed improvements and the improvements that are the responsibility of the applicant. These

recommendations should be based on both the morning and evening peak hour projected volumes with an emphasis on the safety aspects of the design.

6. Proposed driveway locations, geometrics, sight distances and turn restrictions taking into consideration the proximity of nearby intersections and anticipated queues based on arrival rates, should be shown. Sight distance data at driveways using city standards where horizontal and vertical alignments are critical should be included.
7. Impact of the development on the street network, signal warrants, crash frequency, and mitigation techniques should be included wherever appropriate.
8. Concise summary of findings and recommendations for the approval of the City before the development plan is presented to the City's Hearings Examiner for approval.

**Additional information that may be requested:**

1. Estimates of the cost of the recommended improvements and/or information on proposed street improvements in the area by the City, County, or WSDOT.
2. A more intense analysis using network operational and simulation software for special projects.

**LEVELS OF ANALYSIS**

The following guidelines are provided to assist the applicant and their consultants determine the size of the area to study for a traffic impact analysis and the detail of the analysis that the City will require. There are three levels of analysis. Each one has a different emphasis on the level of detail. Each development may have different or unique traffic issues and concerns that may require further study. The City may require a higher level of analysis or the submittal of additional information due to specific project location.

***Level One – On-Site Analysis:***

**Description:** Placement and design of internal (on site) features such as parking layout, access to public streets, site circulation, intersection sight distance, pedestrian circulation, delivery and loading areas and internal public street layout.

**Threshold:** Small commercial or residential development or an addition to an existing development creating less than 10 peak hour trips.

***Level Two – Project Area Analysis:***

**Description:** On-site analysis (Level One) plus the impact of the development and its traffic on adjacent and affected area streets, impacted intersections, adjoining developments, pedestrians and public transit facilities. The project analysis will include those facilities as designated by the City.

**Threshold:** Small to medium sized residential and commercial developments creating between 10 and 75 more peak hour trips.

***Level Three – Corridor Analysis:***

**Description:** On-site analysis (Level One) plus project area analysis (Level Two) plus the impact of the proposed development on a larger study area and the street and highway system that is being impacted by the addition or improvement of arterial streets and by other large developments in the study area.

**Threshold:** Large commercial and residential developments creating 75 or more peak hour trips.

***Pipeline Projections:***

**Description:** Prior to beginning the traffic analysis, the applicant's consultant shall meet with the City to determine which "pipeline" projects must be included in the analysis. Pipeline projects are defined as projects (both private and public) that have received some level of approval but full development has not been completed.

**Threshold:** All traffic analysis shall include the effect of those pipeline projects designated by the City.