### 88-440 TRAFFIC IMPACT STUDIES

88-440-01 PURPOSE

The regulations of this article are intended to help ensure that the traffic and transportation impacts of proposed developments are identified, evaluated, and mitigated as necessary. The purpose of a transportation impact study is to assess the effects that development will have on traffic conditions, transit users, pedestrians, bicyclists, and neighborhood livability.

88-440-02 WHEN REQUIRED

**88-440-02-A.** A traffic impact study is required at the time of application for approval of any special use permit, preliminary subdivision plat, or other similar site-specific development plan if:

1. the proposed development, or phases of development, or contiguous tracts under the same ownership, would accommodate or could be expected to generate 100 or more added vehicle trips to or from the site during the peak traffic hour (based on the proposed development or the adjacent roads and intersections); or

2. the proposed development, or phases of development, or contiguous tracts under the same ownership, would accommodate or could be expected to generate 1,000 or more added vehicle trips to or from the site during a 24-hour period (based on the proposed development or the adjacent roads and intersections).

**88-440-02-B.** In calculating the number of added vehicle trips expected to be generated, trip generation rates must be obtained from the most recent editions of Trip Generation and Trip Generation Handbook, published by the Institute of Transportation Engineers (ITE). Only "new" vehicle trips will be counted; no pass-by or internal trip capture will be used in calculating "added vehicle trips."

**88-440-02-C.** The city planning and development director may waive the requirement for a traffic impact study, in whole or in part, when the applicant shows that the proposed development's impact on adjacent roads intersections, pedestrian, bicycle and transit facilities will be minimal and insignificant, or will be no greater than those projected by a traffic impact study prepared and submitted within the past 2 years for the same site under the same or similar background conditions. The city planning and development director must document the reasons for any waiver.

88-440-03 LEVEL OF SERVICE STANDARDS

**88-440-03-A.** The traffic impact study must demonstrate that the proposed development would not cause build-out-year, peak-hour levels of service on any arterial or collector road or intersection within the study area to fall below Level of Service (LOS) "D," as defined by the latest edition of the highway capacity manual, or, where the existing level of service is already LOS "E" that the proposed development would not cause the LOS to fall to the next lower letter grade.

**88-440-03-B.** If the road segment or intersection is already LOS "F," the traffic impact study must demonstrate that the proposed development, with any proposed improvements, would not cause build-out year peak-hour operation to degrade more than 5% of the total delay on any intersection approach.

**88-440-03-C.** To the extent that application proposes specific access points, the study must also demonstrate that the proposed development would avoid unsafe conditions on adjacent roads.

**88-440-03-D.** The traffic impact study must include an assessment of the proposed development's impacts on pedestrian level of service as established in the Kansas City Walkability Plan. This assessment must be in the form of a pedestrian impact study, which must be prepared in accordance with the methodology contained in "Appendix C" of the Walkability Plan. The pedestrian impact study must demonstrate that the proposed development meets the minimum level of service standards by measurement and area type.

**88-440-03-E.** The traffic impact study must also address on-street parking impacts; the availability of transit service and facilities and connections to transit; impacts on immediate and adjacent neighborhoods; and the convenience and safety effects on all modes of transportation.

**88-440-03-F.** Failure to meet these standards may serve as a basis for denying the application, or for conditioning approval of the application or application on provision of improvements or other mitigation measures needed to correct deficiencies due to the proposed development's impacts.

88-440-04 STUDY AREA

The traffic impact study must address the proposed development's traffic impacts on at least:

**88-440-04-A.** Roads, sidewalks, bicycle routes, transit facilities and intersections within the development site, as designated by planning and development department staff;

**88-440-04-B.** road segments, sidewalks, bicycle routes, transit facilities and intersections abutting the development site as designated by planning and development department staff; and

**88-440-04-C.** off-site road segments and intersections where traffic from the proposed development is expected to account for at least 10% of the road's or intersection approach leg's average daily traffic

88-440-05 QUALIFICATIONS

Traffic impact studies must be prepared by a licensed professional engineer.

88-440-06 STUDY CONTENTS

Traffic impact studies must include charts, graphics, and narrative presenting at least the following information:

**88-440-06-A.** a description of existing land uses and development intensities in the study area, the location and characteristics of roads, sidewalks, bicycle routes, transit facilities and intersections in the study area, and the existing traffic volumes and conditions (including levels of service) of those facilities;

**88-440-06-B.** a description of the location and traffic-related characteristics (land use, intensity, expected date of full build-out and occupancy, vehicular access points, pedestrian connections, bicycle routes and transit facilities and characteristics, etc.) of the proposed development and other developments in the study area that are under construction, approved, or pending approval, as well as roadway and other transportation facilities and improvements in the study area that are under construction, programmed, or planned;

**88-440-06-C.** projections of future background traffic (existing vehicular, pedestrian, bicycle and transit volumes forecasted to build-out year levels based on agreed upon traffic growth rate) plus traffic generated by other development in the study area that is under construction, approved, or pending approval, future site traffic and total future traffic (the sum of future background traffic and future site traffic);

**88-440-06-D.** future background and site traffic projections must be made for the peak hours (as identified by planning and development department staff) of the adjacent road segments and intersections and for the development's expected full build-out and occupancy date, and must include trip generation, trip distribution (using pre-approved distribution by planning and development department staff), and traffic assignment estimates;

**88-440-06-E.** studies of the proposed development's incremental impacts on:

1. road capacity during peak hours at all site access points and at road segments and intersections in the study area (including determination of the level of service for the road segments and intersections, queuing vs. existing/proposed storage);

2. the need for signalization of intersections in the study area;

3. pedestrian, bicycle and transit-user safety and convenience; and

4. existing or potential high accident areas (as referenced in the adopted transportation plan or determined by planning and development department staff);

**88-440-06-F.** a qualitative study/review of sight distance at access points, when required by planning and development department staff;

**88-440-06-G.** a description of the location, nature, and extent of site access and transportation improvements and other measures recommended to mitigate any failure to meet traffic operation standards due to the proposed development's traffic impacts, including the expected effectiveness of each mitigation measure in addressing deficiencies, the feasibility of implementing the measures, suggested allocation of responsibility for funding and implementing the measures, the measures' relationship to planned public transportation improvements, and a suggested time schedule for the implementation of the measures;

**88-440-06-H.** résumés of the preparers of the study, demonstrating specific education, training, and professional experience in traffic-related studies and, if the study involves roadway or traffic signal design, traffic engineering; and

**88-440-06-I.** identification of all assumptions and data sources used in its projections, studies, and recommendations.