

TRAFFIC IMPACT STUDIES

Section 1. Determination of the Necessity for Submission of Traffic Impact Study.

Upon application for special permit, subdivision or site plan review, a determination will be made regarding the necessity of submitting a complete traffic impact study to the Zoning Board of Appeals and the Planning Board. Projects that result in insignificant project impacts do not have to automatically submit traffic impact statements to the Planning Board. Projects that do have significant traffic impacts shall be required to submit a traffic impact statement, prepared and stamped by recognized professional engineers licensed in the Commonwealth of Massachusetts and who have extended experience conducting such studies, as outlined herein. This determination will be based upon the following criteria:

A. Action Resulting in Insignificant Traffic Impact

An application will be considered to result in an insignificant traffic impact to the local roadway network if it is expected to generate less than 20 vehicle trip ends during the peak hour period or less than 200 vehicle trip ends per day. Determination of trip generation will be based upon criteria published in the latest edition of Trip Generation by the Institute of Transportation Engineers (ITE).

Determination of an action resulting in insignificant traffic impact does not preclude the Planning Board and or Traffic Engineering Division of DPW from requesting traffic impact information in the event that site-specific impact is anticipated.

B. Action Resulting in Significant Traffic Impact

An application will be considered to result in a significant impact to the local roadway network if it is expected to generate 20 or more vehicle trip ends during the peak hour period or 200 or more vehicle trip ends per day.

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Applications determined to result in significant traffic impact will be required to submit a complete traffic impact analysis addressing site-specific impact on the adjacent roadway network. Projects that involve redevelopment of an existing site proposed for a similar use as it exists may not require a traffic impact study, or may be accompanied with a limited study only. This exception applies only to projects that have had a traffic impact study submitted no longer than thirty (30) months prior to redevelopment application, and subject to approval by the Traffic Engineering Division of DPW.

Procedures and guidelines for submitting a complete traffic impact analysis are outlined in the following section.

These requirements cannot be a substitute for or do not eliminate the need for preparation of Environmental Notification Form (ENF), Draft Environmental Impact Report (DEIR) or Final Environmental Impact Report (FEIR) as mandated under the Massachusetts Environmental Policy Act (MEPA), Massachusetts General Laws, Chapter 30, Section 61 (1972, amended 1973) and 62 through 62H (1977). MEPA is implemented on the basis of 301 CMR: Executive Office of Environmental Affairs, 11.00: MEPA Regulations.

Section 2. Scheduling of project-scoping Meeting

In the event that the proposed development meets the criteria for determination of significant traffic impact, a project-scoping meeting will be scheduled with the applicant and the City's Traffic Engineering Division of DPW. Further definition of the scope and type of information to be provided will be discussed at this meeting, including the following:

A. Type of Report

1. Study Area
2. Letter Report
3. Full traffic impact analysis report

B. Area of influence

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1. Automatic traffic recorder locations
2. Manual peak hour turning movement locations

C. Period of Analysis

1. AM peak hour
2. PM peak hour
3. Midday peak hour
4. Weekend peak hour
5. Daily traffic
6. Other peaks generated by specific development

D. Analysis Scenarios

1. Existing Conditions
2. Opening Year (+ 5) years conditions without development
3. Opening Year (+ 5) years conditions with development

E. Trip Generation and Distribution

1. Trip generation category
2. Diversion assumptions
3. Distribution assumptions

F. Growth Rate Assumption (for projections)

G. Planned Development and Improvements to be Considered

H. Access Location and Design Elements

In addition, the scoping meeting will serve to identify available data, will allow coordination of multiple developments, will assist in the prevention of duplication of work efforts, and will assure that the product to be submitted will contain all information required by the City, and achieves a level of completion to the satisfaction of the Zoning Board of Appeals, the Planning Board and Traffic Engineering Division of DPW.

Section 3. Elements of Traffic Impact Study

The following items will be considered as the minimum information required to be provided to the City in order to accurately assess the traffic impact of a specific proposed development. The size and scope of the

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proposed development will serve to determine the level of detail determined to be satisfactory to Worcester DPW.

A. Existing Conditions

1. Field survey of physical roadway characteristics
 - a. Roadway widths
 - b. Lane usage
 - c. Traffic control
 - d. Signing
 - e. Sight distance
 - f. Adjacent uses with driveway locations
 - g. Road conditions
2. Automatic traffic recorder counts on adjacent roadway network
3. Peak hour manual turning movement counts, including heavy vehicles (adjusted for seasonal variation)
 - a. AM peak hour (when required by Traffic Engineering Division)
 - b. PM peak hour
 - c. Midday peak hour
 - d. Weekend peak hour (when required by Traffic Engineering Division)
4. Accident data of study area locations over the latest three year period
 - a. Accident Rates
 - b. Collision Diagrams
5. Capacity Analysis
 - a. Intersection capacity analysis for both unsignalized and signalized intersections
 - b. Segment capacity analyses (where appropriate)

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6. Other analysis (deemed necessary) trip distribution, gap, queuing, weaving, etc.
7. Locus map showing study area, development, ATR and manual count locations.

B. Future Conditions Without Development

1. Opening year or 5 years (Horizon Year) conditions without development.
 - a. Determination and documentation of background traffic growth rate assumptions used for projection purposes (Include data in Appendix)
 - b. Identification of planned or approved development in the vicinity of the proposed development
 - c. Identification of planned roadway improvements in the vicinity of the proposed development
 - d. Consideration of a, b, and c, in developing base network volumes for analysis purposed
 - e. Capacity analysis using approved methodology as outlined in the latest edition of the Highway Capacity Manual, or computer software for this publication.
 - i. Intersection capacity analysis (signalized and unsignalized)
 - ii. Segment capacity analysis (where appropriate)
 - f. Other analyses (when deemed necessary)
 - g. Identification of physical improvements necessary to provide acceptable operating conditions (level of service “D” or better)

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C. Future Conditions with Development

1. Trip generation using appropriate rates from the most current ITE Trip Generation Manual.
2. Trip distribution based upon existing traffic flow patterns, marketing study or other approved methodology determined by Traffic Engineering Division.
3. Capacity analyses for Horizon year (5 years into future)
 - a. Study area locations
 - i. Intersection capacity analyses
 - ii. Segment capacity analyses (where appropriate)
 - b. Proposed access location
 - i. Intersection capacity analysis
 - ii. Warrants for left turn facility
4. Comparative analysis to determine impact of proposed development (if any)
5. Determination of proposed improvements necessary to mitigate impacts of proposed development (if any), including but not limited to:
 - a. Warrants for left turn facilities (AASHTO)
 - b. Warrants for traffic signals (MUTCD)
 - c. Minimum sight distance requirements (ASSHTO and/or Massachusetts Highway Department's Highway Design Manual)
6. Determination of contribution (percentage) toward programmed improvements in the vicinity of the proposed development (if any).

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7. Conceptual plan (s) of proposed site access and other locations (if any) impacted by site-related traffic.

8. Associated costs of roadway improvements necessitated by site-related traffic.

D. Summary of existing conditions and future conditions with and without development.