

# TRAFFIC IMPACT ANALYSIS

## City of Suffolk Standards

### **Existing Conditions Summary**

To include twenty-four (24) hour volumes, peak periods and peak volumes on adjacent roadways, roadway geometrics; grades; lateral clearance; heavy vehicle, pedestrian, bicycle and recreational vehicle percentages; existing lane configurations; traffic control devices and timing plans if signals are present and, if appropriate, level of service analysis.

### **Future Conditions Summary**

To include future roadway improvements, traffic growth factors combined with forecasts for adjacent sites to determine future background traffic (both twenty-four (24) hour and peak period), and, if appropriate, level of service analysis, compared with existing conditions.

### **Traffic Generation and Design Hour Volumes**

To include traffic forecast for site development to include twenty-four (24) hour and peak hour volumes both for the traffic generator itself and on adjacent roadways. Trip Generation Manual (ITE, 5<sup>th</sup> Ed.) rates or equations should be used unless verifiable local data is available. Any assumptions or adjustments should be fully documented and, where appropriate, justified with source reference provided.

### **Trip Distribution and Traffic Assignment**

To include a directional distribution of site traffic to its area of influence based on primary market, analogy, origin-destination, gravity model or other similar methods.

### **Design Year Total Volumes**

Developed for both twenty-four (24) hour and peak periods on adjacent roadways.

### **Capacity Analysis**

To include intersection and lane capacity based on the most recent Highway Capacity Manual. Where intersections (both signalized and unsignalized) are spaced in such proximity or the volumes are such that the intersection does not operate independently, appropriate progression and queing analysis performed using a recognized methodology or analysis or simulation package must accompany the capacity analysis.

### **Traffic Accidents and Safety Analysis**

To include the distribution and frequency of traffic accidents and a determination made as to whether any safety deficiencies exist or will be caused or exacerbated. This should include a safety analysis of all proposed street extensions.

### **Traffic Improvements**

The recommended roadway and traffic network improvements based on the design hour in the design year should be shown on a scaled plan sheet with appropriate narrative. Such improvements should be designated to yield a minimum level of service of “C” as defined by the most recent Highway Capacity Manual. Where the existing conditions provide a current level of service of less than “C”, the improvements should be designed to maintain the current level of service without further degradation through the design year plus two (2) years. A detailed construction cost estimate of the required improvement should be provided.

### **Internal Site Improvements**

To include the appropriate throat lengths (both unobstructed and with cross traffic permitted) for ingress and egress points, stacking and queing lanes, pedestrian accommodations, bicycle facilities, and any other facilities or accommodations which could impact traffic operations along the adjacent roadways or overall traffic safety. The internal circulation system should be designed to preclude stacking or queing in the travel lanes of adjacent roadways during the peak hours of the traffic generator.

### **Conclusions**

To include all conclusions of the analyst applicable to the site, particularly with respect to the appropriate timing and phasing of improvements. Timing and phasing must be clearly tied to identifiable stages of development or specific time frames. Conclusions about the relative safety of the post-development situation shall also be included.

### **Summary of findings and recommendations**

To include an executive summary containing key findings and recommended actions.