TRAFFIC IMPACT ANALYSIS GUIDELINES

CITY OF SUGAR LAND, TEXAS
OCTOBER, 2007

PURPOSE OF THESE GUIDELINES:

Per the Development Code Chapter 1, Article 2, the City may require a Traffic Impact Analysis (TIA) if it is determined the development will have a significant impact on the street system. In addition the City may require any and all public improvements (or proportionate share) recommended by the TIA for the development. The purpose of these guidelines is to identify:

- Determining when a TIA is required
- The process for submitting a TIA
- The format of the TIA

These guidelines have been developed to ensure that the proposed TIA will include the necessary information in a format that allows City staff to review and make informed comments/decisions in a timely and efficient manner.

PURPOSE OF THE TIA

A Traffic Impact Analysis is intended to coordinate land use and transportation facility development and to adequately assess the traffic-related impacts of a development proposal on the existing and planned thoroughfare system. It is a means of identifying strategies and solutions to current and future traffic problems. The results of this analysis should:

- compare the traffic generated to thoroughfare system capacity;
- address the City's requirements;
- establish proportionate mitigation measures for the identified impacts;
- recommend the safest and most efficient transportation system in conjunction with the development process.

WHEN IS THE TIA REQUIRED

The City may require a TIA if the development meets one of the following conditions:

- Any Development within range of one of the following thresholds at the platting, site plan or general plan stage:
    - Generates ~100 trips/peak hour
    - Generates ~1000 trips/day
    - ~100 acres or more is involved in the development
- Planned Development (PD) requests
- Zoning/Rezoning requests
- Conditional Use Permit (CUP) requests
- Proposed Amendments to the City's Major Roadway Plan

Please note these are not absolute criteria but merely a guideline. The City Engineer has the right to require or not require a TIA as they deem necessary per the Development Code Chapter 1, Article 2.

The submission of a completed TIA Trip Generation Worksheet is the first step in the process. Upon review of this Worksheet, Engineering staff will determine the need for a TIA. The Trip Generation Worksheet is included in the City's plat and site plan applications and is also available on the City website. This worksheet shall be submitted with each plat and/or site plan that does not have an approved TIA on file for the development.

The worksheet shall be filled out using the latest edition of the ITE Trip Generation Manuals.

If the type of development use is not known at the time of the submittal then the Developer should make assumptions based on the worst-case scenario for the site. At a minimum, the following items need to be evaluated if this is the case:

- The type of land use allowed by the city's zoning criteria for the site.
- The maximum amount of developable land based on setbacks and other restrictions (ie: detention, etc.)
- Logical assumptions by the developer
- Adjacent land uses

If the proposed development is not listed in the ITE Trip Generation Manual, then the City shall require a letter from a licensed engineer. This letter will document the type of development proposed and identify the number of trips generated based on their professional opinion in lieu of the Trip Generation Worksheet. This letter should be signed and sealed by a registered professional engineer with adequate experience in transportation/traffic engineering. The previously stated guidelines/thresholds shall apply to this letter.

PRELIMINARY ENGINEERING MEETING

If it is determined that a TIA must be performed then the developer and their consultant engineer shall schedule a meeting with the City's Engineering staff to determine the scope of the TIA and the requirements for the TIA content. Additionally, any applicable standards and methodologies (TxDOT, HCM, etc) shall be identified in this meeting.

It is strongly recommended that this meeting take place before any work is done on the TIA. Any work completed without the City's knowledge or input is at the applicant's risk and the City reserves to have the applicant revise the TIA without a formal review or comments.

Non-conformance by the applicant to the scope and criteria set by the City may result in an incomplete submittal of the TIA. As a result of this the City reserves the right to stop review and require the applicant to revise the TIA without any formal comments.

TIA DATA SOURCES

To provide consistency in the evaluation process and to ensure that the TIA will be based on acceptable study methodologies and data sources, the standards listed below shall apply, where applicable.

	Source
Trip generation rates	ITE Trip Generation Handbooks
Trip reductions for passer-by trips and mixed-use developments	ITE Trip Generation Handbooks
Future traffic volumes	HGAC, Fort Bend County
Capacity analyses procedures	Current Transportation Research Board Highway Capacity Manual—Special Report 209
Signal warrants	Texas Manual on Uniform Traffic Control Devices
Signal timing procedures	Synchro or City's current signal timing model

The City has limited traffic data available and will provide it at the request of the developer or their representative. The traffic data should be no more than one year old unless there has not been any significant change to the area.

FORMAT OF THE TIA SUBMITTAL

The TIA should be prepared in an 8 1/2" x 11" format; however, it may contain figures on larger sheets, provided they are folded to this size. It must be signed and sealed by a registered professional engineer.

Exhibits

At a minimum the following exhibits shall be provided in a clear and consistent manner in the applicable sections of the TIA.

- Clearly show and distinguish between all existing, proposed and future facilities on the site
- Clearly delineate and distinguish between all existing and proposed traffic improvements including but not limited to turn lanes and driveways.
- Clearly show all applicable traffic counts at all existing and proposed intersections and driveways.

The various sections of the report should be categorized according to the subject areas below.

I. Executive Summary

    Key Findings, Recommendations

II. Introduction

    Proposed Development, Study Purpose and Methodology, Traffic Operations Analysis

III. Existing Conditions

    Study Area Roadway Network, Existing Land Use, Existing Traffic Volumes, Analysis of Existing Conditions, Project Specific Conditions (ie. Railroads, etc.)

IV. Trip Generation and Distribution

    Proposed Development, Trip Generation, Adjusted Trips, Trip Distribution

V. Pre and Post Development Comparative Analysis (Use a new section for each Phase if the development has multiple phases)

    Background Traffic Conditions, Background Level of Service, Total Traffic Conditions, Total Traffic Level of Service, Total Traffic – Mitigation Measures

VI. Conclusions (Expand on Executive Summary)

    Key Findings, Recommendations

VII. List of all Tables (w/Page Numbers)

VIII. List of all Figures (w/Page Numbers)

IX. Appendices

    Notes from Preliminary Meeting with City Staff, Response to City Comments, include City Comment Letter (for resubmittals only), Existing 24-Hour Directional Traffic Counts, Existing AM & PM Peak Hour Turning Movement Volumes, SYNCHRO Capacity Analysis – Existing AM & PM Peak Hour, Trip Generation Data, SYNCHRO Capacity Analysis - Project Completion/Phase # (year 20##) AM & PM Peak hour (Use a new appendix for each Phase # as needed), Signal Warrant Analysis (As Needed)