COUNTY OF EL DORADO
DEPARTMENT OF TRANSPORTATION

TRAFFIC IMPACT STUDY PROTOCOLS AND PROCEDURES

This set of protocols and procedures has been developed by the El Dorado County Department of Transportation (DOT) to guide the preparation of traffic impact studies for proposed development projects within unincorporated areas of El Dorado County. This guide is intended to ensure that the traffic impacts of proposed development projects are addressed in a manner that is consistent with the policies set forth in the Transportation and Circulation Element of the 2004 El Dorado County General Plan and to enable the County to conduct transportation and circulation impacts review of development proposals pursuant to the requirements of the California Environmental Quality Act (CEQA).

This guide is intended to be used for proposed development projects which are consistent with the land use designations and zoning densities applicable at the time that an application for County review of the project is submitted. Any application for a project that would not be consistent with applicable existing land use designations or zoning densities or that may result in concentrated residential development not anticipated by the General Plan will be reviewed by the Department of Development Services and DOT on a case-by-case basis and traffic impact study requirements for such projects may vary from those presented herein.
This guide presents a standardized template for project applicants to provide information concerning the potential transportation and circulation effects of proposed projects to facilitate County review of the project application. Each individual project will be subject to a review of the specific characteristics of the project by DOT staff through coordination with the project development team. Accordingly, DOT reserves the right to modify the procedures and requirements defined in this document to more accurately and consistently identify the impacts of a given project.

In accordance with the County's CEQA review requirements and consistent with General Plan Policies TC-Xa(5) and TC-Xb(C), DOT will review all proposed development projects to determine each proposed project's potential effects on transportation and circulation. To facilitate this review and to address General Plan Policies TC-Xa and TC-Xc, projects which worsen traffic conditions will be required to prepare a traffic impact study in accordance with these traffic impact study protocols and procedures.

General Plan Policy TC-Xe defines the term "worsen" on a given roadway facility as follows:

A A two (2) percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or
B. The addition of 100 or more daily trips, or
C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

To begin the review process associated with the requirement of a traffic study, the applicant shall complete a Phase 1 Traffic Impact Study form to determine the level of review required for the development of the proposed project (this can be found on the DOT website). A copy of this form shall be submitted to DOT. If the project qualifies for exemption as listed on the form, a Phase 1 Review and Traffic Impact Study will not be required. For a Phase 1 review, DOT's

consultant will conduct an initial screening to determine if the project is likely to trigger significant impact per the General Plan growth management policies. The method used to make this determination shall be done by computing the trip generation and distribution of the project, enter the information into the county project database and based upon the database of previous studies and approved projects. If the screening determines "no likely impacts," a letter will be prepared by DOT's consultant recommending conditions of approval to address any traffic impacts not covered by the General Plan growth management policies and no additional traffic study would be required. If the screening determines that the project may potentially have significant impact per the County's General Plan policies, a Phase 2 review shall be required. If it is determined that a Phase 2 review of the project is required, an additional deposit shall be submitted to the county to receive a scope for a consulting traffic engineer to prepare the necessary Traffic Impact Study.

The developer's engineer must cc all communications with DOT's traffic consultant. In addition, the developer's traffic engineer should proactively confirm with the County and the County's consultant receipt of materials for the review. Placement of reports on a website does not constitute delivery to DOT or DOT's consultant until the applicant or applicant's traffic engineer receives an e-mail confirmation from DOT's consultant that the report has been successfully received.

A Traffic Impact Study in El Dorado County shall consist of the following elements (the requirements of each are more fully described in subsequent sections of this guide):

1. Project Description;
2. Executive Summary
3. Zone of Impact Identification;
4. Analysis Methodology Description;
5. Impact Significance Criteria Definition;
6. General Plan Consistency Considerations for Cumulative Impact Analysis;
7. Traffic Impact Analyses (various *existing* and *future* scenarios);
8. Traffic Impact Mitigation Identification; and
9. Other Transportation-Related Impacts and Mitigation Considerations.

PROJECT DESCRIPTION

The project applicant shall prepare and provide DOT with a description of the proposed development project. The project description (see following section) will help to determine if a traffic impact study is required as well as provide information for the Phase 2 review if required. At a minimum, the project description shall include the following information:

1. A written description of the proposed project which shall include a detailed description pertinent to the project such as square footage, APN numbers, site access alternatives, TAZ information, a discussion of the proposed land use(s), identification of the current land use designation(s) of the project area, and a statement confirming the project's consistency with the current land use designation(s);
2. A project location map which shows the proposed project location in relation to surrounding communities, roadways/highways, major water courses, and delineation of the Traffic Analysis Zone(s) (TAZs) boundaries[1] for those TAZs in which the project would

[1] TAZ maps are available on the County's Internet site at: http://www.co.el-dorado.ca.us/Planning/TAZ%20maps/TAZindex.pdf or may be requested from the County Department of Transportation.

be located (TAZ boundaries may be included on the project area boundary map required per Item 3 below);

3. A project area boundary map which shows the specific project boundary and off-site roadways and other transportation features (including any proposed transit, bicycle and/or pedestrian facilities) within adjacent and surrounding areas (this map may be combined with the site plan required per Item 4 below if the requirements of each can be clearly represented in one illustration);
4. A site plan showing the proposed layout of the internal site traffic circulation system, parking configuration, and any transit, bicycle and/or pedestrian facilities. The site plan shall also indicate the location and configuration of access and egress connections to the local street network;
5. A tabular listing of the types of development and/or land uses included in the proposed project and the quantity or amount of units, floor area gross square footage, acreage or other appropriate measure of the size of the project;
6. A description of the proposed construction and operational activities forecasted for the proposed project, including a schedule for completion and development phasing, if applicable; and
7. An initial estimate of the weekday average daily traffic (ADT), AM and PM peak hour traffic generation of the project (in the event that one or more proposed uses, such as retail, may generate peak-hour traffic during periods other than typical weekday AM and PM peak hours, these alternative or additional peak hours and trip generation must also be identified).

The Traffic Impact Study must address the final proposed project. As such, it is important to note that if the proposed project is modified in any way following the initiation of the traffic impact study and/or the County's review of the project, the scope of the traffic impact study will need to be reconsidered by DOT and the work performed to date may need to be revised to address the project modifications.

EXECUTIVE SUMMARY

The traffic analysis shall include an executive summary that summarizes the findings of the traffic impact study.

DOT PROJECT REVIEW PROCESS

Upon the receipt of a complete Phase 1 Traffic Impact Study form, DOT's consultant will conduct an initial screening to determine if the project is likely to trigger significant impact per the General Plan growth management policies. If the project qualifies for exemption as listed on the form, a Phase 1 Review and Traffic Impact Study will not be required. For a Phase 1 review, DOT's consultant will conduct an initial screening to determine if the project is likely to trigger significant impact per the General Plan growth management policies. The method used to make this determination shall be done by computing the trip generation and distribution of the project, enter the information into the county project database and based upon the database of previous studies and approved projects. If the screening determines "no likely impacts," a letter will be prepared by DOT's consultant recommending conditions of approval to address any traffic impacts not covered by the General Plan growth management policies and no additional traffic study would be required.

If the screening determines that the project may potentially have significant impact per the County's General Plan policies, a Phase 2 review shall be required. If it is determined that a Phase 2 review of the project is required, an additional deposit shall be submitted to the County to receive a scope for a consulting traffic engineer to prepare the necessary Traffic Impact Study.

The DOT's consultant will prepare a "scoping" memorandum to define the scope and content of the Phase 2 project-specific traffic analysis. The applicant's engineer will then prepare a draft "assumptions" memo to identify all relevant land use and operational assumptions (including traffic study modeling inputs and requirements), protocols and procedures for the traffic impact study as defined in this document. DOT will review and modify the proposed assumptions, as necessary. The applicant's engineer will then prepare and submit a draft traffic report to DOT's consultant according to the DOT specified scope and assumptions, and according to these guidelines. DOT's consultant will review and require changes to the draft report. A second draft may be required if the changes are likely to affect the technical conclusions. The applicant's engineer will revise the report per DOT instructions and submit a final traffic report to DOT and DOT's consultant. DOT will then develop recommended mitigations and conditions of approval based on this report.

The developer's engineer must cc all communications with DOT's traffic consultant. In addition, the developer's traffic engineer should proactively confirm with the County and the County's consultant receipt of materials for the review. Placement of reports on a website does not constitute delivery to DOT or DOT's consultant until the applicant or applicant's traffic engineer receives an e-mail confirmation from DOT's consultant that the report has been successfully received.

GENERAL PLAN CONSISTENCY CONSIDERATIONS FOR CUMULATIVE IMPACT ANALYSIS

Each traffic impact study must provide a review of a proposed project's consistency with the land use designations and zoning densities of the 2004 County General Plan to determine if the project is consistent with such designation(s) as applicable within the proposed project area. Land use designation consistency must exist for a project traffic impact study to apply the methodologies identified within these protocols to ensure that trip generation of the proposed development is consistent with the cumulative trip generation forecasts and traffic studies conducted for CEQA review during the development of the 2004 El Dorado County General Plan.

The General Plan analyzed residential and employment growth, and the traffic impacts associated with that growth using both theoretical full build-out of the General Plan and at the conclusion of the "planning horizon" used in the General Plan for the Year 2025. To estimate the level of development at build-out, all land uses designated on the General Plan land use maps were assumed to be developed to the maximum density permitted. However, full build-out is not anticipated to occur by 2025, or most likely at any time. For 2025 forecasts, future development was projected based on future population estimates derived from state and regional population forecasts. The County was divided into 13 market areas and economists determined what percentage of the County's projected growth would occur in each area based on development constraints such as topographical features, distance form job centers and available infrastructure. The forecasts were further broken down by TAZs to provide the main input for the traffic modeling prepared for the EIR. The traffic analysis assumed that all "existing commitments" would be built by 2025. Existing commitments consist of parcels for

which a building permit had been issued, a tentative map had been approved or a development agreement had been executed prior to the issuance of the Writ of Mandate in 1999. In 2002,

existing commitments totaled 14,565 dwelling units. (General Plan Draft EIR, pages 4-12). Existing commitments differ from latent demand, because latent demand includes parcels that have not yet received a building permit, but which need no additional discretionary approval to build. The 2025 forecast did not assume that all of the County's "latent demand" would be built by 2025 since many of those parcels are in areas that are unlikely to build during that timeframe.

If a proposed project is of a magnitude that is clearly within the amount of development which was anticipated in the traffic study conducted for the General Plan, then the General Plan's traffic analysis will serve as the basis for the cumulative traffic analysis of the project.[2] If, however, the magnitude of the project is determined by DOT to have the potential to exceed the amount of growth forecast in the General Plan for the zones encompassing the project, DOT will determine whether a separate cumulative impact evaluation is required for the project as described below.

Two tests will be performed by the applicant's engineer and reviewed by the DOT to determine if the project is consistent with the General Plan Cumulative Impact Analysis.

Cumulative Test #1 – Test of Trip Generation for Single Zone Where Project is Located

First the existing plus approved plus pending project land uses (EPAP+Project), as defined in the County's Guidelines, is determined for the traffic analysis zone (TAZ) or zones in which the project is located[3]. The current Institute of Transportation Engineers (ITE) Trip Generation rates are applied to these land uses to determine AM and PM peak hour trip generation.

The General Plan model land uses for 2025 for the same TAZ(s) are converted from households and employment into the equivalent land uses using employment density values from the General Plan (and supporting documentation). The ITE trip generation rates are then applied to this land use to obtain 2025 General Plan AM and PM peak hour trip generation.

1. If the EPAP+Project AM and PM peak hour trip generation are both less than or equal to their respective 2025 General Plan AM and PM peak hour trip generation for the TAZ, then the project is deemed to fall within the magnitude of development contemplated in the 2004 General Plan EIR analysis.
2. If the EPAP+Project AM or PM peak hour trip generation exceeds the respective 2025 General Plan AM and PM peak hour trip generation for the TAZ, then
    a. The project locally exceeds the magnitude of development contemplated in the 2004 General Plan EIR. A cumulative 2025 General Plan plus project will be required for key county roads in the immediate vicinity of the project zone to determine if county roads will require additional mitigation measures beyond those already provided for in the 2004 General Plan.
    b. The project may or may not globally exceed the magnitude of development contemplated in the 2004 General Plan EIR. A second test is required to determine

[2] Note that dependent upon other development proposals which may have been approved or are currently undergoing County review at the time of a proposed development application, the General Plan traffic analysis may not adequately provide for the cumulative assessment of a proposed project and the project traffic impact study may be required to include supplemental information to determine proposed project cumulative impacts.

[3] "Approved" projects to be considered by the County in this review will include projects which were approved but not included in the existing conditions assumptions of the General Plan EIR traffic and circulation evaluation (i.e., existing commitments or "Latent Demand") and projects which have been approved by the County subsequent to the General Plan EIR traffic and circulation evaluation. "Pending" projects will include those projects for which an application has been submitted to the County and are currently undergoing discretionary review.

c. if the exceedance is merely the result of an allocation of General Plan 2025 growth to an adjacent zone, rather than to the project zone.

Cumulative Test #2 – Test If Exceedance Extends to Adjacent Zones.

This second test is performed only if the first test indicates the project will cause local exceedances of the General Plan Cumulative Impact Analysis. The AM and PM peak hour trip generation for EPAP+Project land uses for the subject zone and all of its immediately adjacent zones within the same Impact Fee District are summed and compared to the sum of the General Plan 2025 AM and PM peak hour trip generation for the same zones.

1. If the EPAP+Project AM and PM peak hour trip generation (summed over the subject and adjacent zones) are both less than or equal to their respective 2025 General Plan AM and PM peak hour trip generation for the same set of zones, then the project is deemed to fall within the magnitude of development contemplated in the 2004 General Plan EIR analysis.
2. If the EPAP+Project AM or PM peak hour trip generation (summed over the subject and adjacent zones) exceeds the respective 2025 General Plan AM and PM peak hour trip generation for the same set of zones, then the project is deemed to exceed the magnitude of development contemplated in the 2004 General Plan EIR. A global cumulative impact analysis will be required. This analysis would require updating the land uses in the El Dorado County DOT Travel Demand Model with the new and proposed land uses. The results of this model run would used for the traffic impact analysis of the concerned project.

If these two tests show that the combined magnitude of development exceeds the total cumulative General Plan development assumptions for the year 2025, then the project will be found to be inconsistent with the General Plan growth projections and the applicant will be required to conduct a year 2025 cumulative traffic impact analysis for with-project and without-project scenarios. The applicant's engineer will be required to add the traffic generated by the proposed project to the year 2025 General Plan Cumulative Impact analysis volumes and determine if the project causes any significant traffic impacts.

As discussed in the introduction to this guide, projects which would result in a change in land use stipulated in the General Plan represent a special case and may require additional traffic analysis beyond those defined in this document.

ZONE OF IMPACT

U.S. Highway 50 is the primary regional and intrastate highway facility serving El Dorado County. As such, the functioning of the six U.S. 50 interchanges serving the County is critical to the overall quality of traffic circulation in the County. A part of the County's traffic mitigation fee program is a series of eight fee zones that represent the "watersheds" of these critical interchanges as shown in Exhibit 1. The traffic impact study of a project must include an analysis of the impacts on the interchange intersections and ramps serving the zone in which it is located. In some cases DOT staff may determine that the location and/or size of a project requires that two or more interchange zones be evaluated within a project traffic impact study.

As specified above, the General Plan Policy TC-Xe defines the conditions under which a project is considered to "worsen" traffic conditions. Based on this policy and general considerations of potential project impacts, the traffic impact study must included analysis for intersections meeting the following criteria:

- All intersections contiguous to the project site;
- All intersections where the project would potentially "worsen" traffic conditions per Policy TC-Xe;
- All intersections which are currently level of service "F" and which would be impacted by project traffic; and
- All intersections and ramps in the interchange area impacted by the project.

The scope provided by DOT's consultant for the Phase 2 review shall include intersections to be studied. Each of these intersections should be identified in the Traffic Impact Study on the project area boundary map and/or site plan to be included with the project description.

CAPITAL IMPROVEMENT PROJECTS

The traffic analysis shall identify the capital improvement list and/or improvement projects that are being assumed. In addition, the Traffic Impact Study shall address if the funding has been identified and provide reference documentation with applicable pages from the document included in an appendix as well as approximate time frame of construction of the assumed improvements. A listing of El Dorado County's CIP projects can be found on the DOT website.

ANALYSIS SCENARIOS

The traffic analysis shall address both weekday AM and PM peak hour conditions (and project peak hour conditions, if different than the weekday peak hours) at all study intersections and ramp locations. At each location the following scenarios shall be evaluated. If the project involves land uses, such as retail, which have periods of peak traffic generation at other times of the day or on weekends, DOT may require that the analysis be expanded to include these additional time periods. The Highway Capacity Manual (HCM) (Transportation Research Board, 2000) operations capacity analysis methodology shall be used for the analysis. In some cases the DOT may request that a second set of capacity analyses be conducted using the Circular 212 (Transportation Research Board, 1980) methodology in addition to the HCM analyses.

Existing Conditions

Peak period (3 hours or more) traffic turning movement counts shall be conducted at each study location for the specified time periods. Weekday counts shall be performed on a Tuesday, Wednesday, or Thursday during typical traffic conditions. With DOT authorization, traffic counts which have been conducted by others may be utilized if they are less than two years old. Current traffic conditions shall be calculated using the Circular 212 and the HCM methodologies as explained below under Analysis Methodology.

Existing Plus Project

The peak hour traffic generation of the project shall be estimated for each of the specified time periods using the trip generation rates from the ITE Trip Generation Manual. If the Manual does not provide a rate for the particular land use type or the applicant desires to base the analysis on other trip generation data, the applicant shall provide DOT with a justification for the use of the data.

The applicant team shall document all assumptions regarding the distribution of project related trips on the street network, indicating how the trips would be distributed and providing a rationale for the distribution assumptions. The assigned trips from the project shall be added to the observed traffic count data to create an existing plus project scenario. The Circular 212 and

HCM methodologies shall be used to determine existing plus project traffic conditions as explained below under Analysis Methodology.

Existing Plus Approved Projects with and without Project

The study shall analyze conditions with and without the proposed project using two analysis scenarios. First, using the land use assumption that all existing commitments (including all projects with development agreements and approved tentative maps) are completed and operational; and second, analyzing conditions five years from the current year calculated using a straight line interpolation from existing traffic levels to the General Plan's 2025 traffic projections. The worst of these two analysis scenarios shall be used for purposes of impact and mitigation considerations. The traffic network to be evaluated in this scenario will include all applicable projects in the County's Five Year Capital Improvement Program (CIP).

Future Cumulative with and without Project (Year 2025)

The study will involve review of the year 2025 traffic analyses from the General Plan traffic study to determine if the proposed project would worsen traffic conditions in the year 2025. Projects which are found to be consistent with the General Plan land use designations and zoning densities and the traffic evaluation assumptions used for the General Plan traffic study typically will not be required to conduct a year 2025 analysis. Documentation of this consistency review shall be included within the traffic impact study and confirmation by DOT shall be obtained to confirm that a separate cumulative evaluation will not be required for the project. In the event it is determined that a separate cumulative impact analyses is required, the land use and transportation improvement assumptions to be used in this analysis shall be developed in coordination with DOT staff. See *General Plan Consistency Considerations for Cumulative Impact Analysis* in previous section for additional discussion of cumulative impact considerations.

ANALYSIS METHODOLOGY

This section describes the traffic forecasting, turning movement forecasting, and level of service methodology to be used in the analysis.

Traffic Forecasting Method

The El Dorado County Transportation Model forecasts for the year 2025 shall be the basis of all traffic impact studies. The County Transportation Model will be used to develop the background growth forecasts to be used in the development of the Existing Plus Approved Projects Scenario and will be used for all Future Cumulative Scenarios.

For the Existing Plus Approved Projects Scenario, the County model will be used to forecast the growth in AM and PM peak hour traffic per the preceding "Analysis Scenarios" section.

The scenarios shall be analyzed using the El Dorado County Transportation Model forecast for the year 2025 for the 2004 General Plan "with improvements" alternative as provided by the County.

To ensure consistency among traffic impact studies, the county will provide the forecasted peak hour volumes for the key intersections at the eight U.S. 50 interchanges for the following scenarios:

1. Existing 2005
2. Existing Plus Approved Projects
3. Cumulative 2025

Loaded highway network files in electronic MINUTP format for the existing plus approved, and the cumulative 2025 scenarios will be provided for AM and PM peak hours to those consultants requesting them.

Intersection Turn Move Forecast Method

For intersections where the current road configuration is unchanged between the current year and 2025, the traffic model forecasted growth between the current year and the forecast year shall be applied to current year turning movement counts to arrive at future year turning movement counts. A Furness factoring process or other procedure approved by DOT shall be used to balance the forecasted inbound and outbound traffic for each intersection. For example, see description of model post-process methods in NCHRP Report 255, Highway Traffic Data for Urbanized Area Project Planning and Design, Transportation Research Board, 1982.

For intersections where the road configuration is expected to change between the current year and 2025 (for example, when a freeway interchange is reconstructed in a new configuration), then the model forecasted 2025 turning movements shall be used (after adjustment for any validation error between the model's year 2000 estimated volume and year 2000 traffic counts, if available). The engineer may submit an alternative method for approval by DOT.

The engineer conducting the traffic modeling should review the forecasted turning movements for reasonableness and make any necessary adjustments. A description of and justification for any manual adjustments to the forecasts must be included in the traffic report.

Level of Service Method

The level of service shall be computed using the latest edition of the Highway Capacity Manual (Transportation Research Board, 2000).

The level of service analysis must consider the existing and potential impacts of upstream/downstream queuing at nearby intersections, queue overflow interference with intersection operations (such as left turn pocket overflows), minimum pedestrian crossing times (if appropriate), and uneven lane utilization in the vicinity of freeway ramps on intersection operation and correct the computed level of service accordingly. A description of each of these factors and associated adjustments to the computation of the level of service must be included in the traffic report.

The computed level of service for existing conditions should be verified against field observations of level of service. A precise measurement of level of service in the field is not required (such as a field study measuring mean delay for an intersection). Rather, the engineer should verify in the field that when persistent queues are present during the peak hour of analysis, the computed level of service is reported as "F" for the relevant movement.

DOT may optionally request a confirming computation of level of service and/or analysis of traffic operations using an alternative method, such as the Circular 212 Planning Method (Transportation Research Board, 1980), for situations where the results of the HCM methodology are not confirmed by field observations or conditions otherwise suggest the need for additional analysis.

If the level of service analysis indicates that an intersection or road/freeway segment will fail to meet the General Plan level of service standards, then mitigation measures will be developed to meet the level of service standard.

IMPACTS AND MITIGATIONS

Impact Significance

Level of service impacts of a proposed project shall be determined based on the methods described above and shall be identified within the traffic impact study as either “significant” or “less-than-significant”.

General Plan Circulation Policy TC-Xd provides Level of Service standards for County roads as follows:

> Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2 or, after December 31, 2008, Table TC-3. The volume to capacity ratio of the roadway segments listed in Tables TC-2 and TC-3 as applicable shall not exceed the ratio specified in that table.

TABLE TC-2
EL DORADO COUNTY ROADS ALLOWED TO OPERATE AT LEVEL OF SERVICE F[1]
(Through December 31, 2008)

Road Segment(s)		Max. V/C[2]
Cambridge Road	Country Club Drive to Oxford Road	1.07
Cameron Park Drive	Robin Lane to Coach Lane	1.11
Missouri Flat Road	U.S. Highway 50 to Mother Lode Drive	1.12
	Mother Lode Drive to China Garden Road	1.20
Pleasant Valley Road	El Dorado Road to State Route 49	1.28
U.S. Highway 50	Canal Street to junction of State Route 49 (Spring Street)	1.25
	Junction of State Route 49 (Spring Street) to Coloma Street	1.59
	Coloma Street to Bedford Avenue	1.61
	Bedford Avenue to beginning of freeway	1.73
	Beginning of freeway to Washington overhead	1.16
	Ice House Road to Echo Lake	1.16
State Route 49	Pacific/Sacramento Street to new four-lane section	1.31
	U.S. Highway 50 to State Route 193	1.32
	State Route 193 to county line	1.51

Notes:
1 Roads improved to their maximum width given right-of-way and physical limitations.
2 Volume to Capacity ratio.

TABLE TC-3 El Dorado County Roads Allowed to Operate at Level of Service F[1] (After December 31, 2008)		
Road Segment(s)		**Max. V/C[2]**
U.S. Highway 50	Canal Street to junction of State Route 49 (Spring Street)	1.23
	Bedford Avenue to beginning of freeway	1.13
	Beginning of freeway to Washington overhead	1.13
	Ice House Road to Echo Lake	1.03
Notes: [1] Roads improved to their maximum width given right-of-way and physical limitations. [2] Volume to Capacity ratio.		

If a project causes the peak hour level of service or volume/capacity ratio on a county road or state highway that would otherwise meet the County standards (without the project) to exceed the values listed in the above tables and text, then the impact shall be considered significant.

If any county road or state highway fails to meet the above listed county standards for peak hour level of service or volume/capacity ratios under existing conditions, and the project will "significantly worsen" conditions on the road or highway, then the impact shall be considered significant. The term, "significantly worsen" is defined for the purpose of this paragraph according to General Plan Policy TC-Xe as follows:

A A two (2) percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or

B. The addition of 100 or more daily trips, or

C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

Mitigation Requirements

Mitigation measures must be developed for all significant impacts identified according to the criteria in the previous section (Impact Significance) for the following scenarios: the "Existing Plus Project" scenario, the "Existing Plus Approved Projects Plus Proposed Project" scenario, and the "Future Cumulative With Proposed Project (2025)" scenario.

The mitigation measures must comply with General Plan Policy TC-Xf which states:

> "Prior to occupancy for development that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the developer shall do one of the following: (1) construct all road improvements necessary to regional and local roads needed to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element; or (2) ensure adequate funding is identified and available for the necessary road improvements and those projects are programmed. The determination of compliance with this requirement shall be based on existing traffic plus traffic generated from the project and from other reasonably foreseeable projects."

In any case where the project results in a significant impact the applicant team must identify appropriate project design changes and traffic improvements beyond those already included in DOT's approved CIP (Capital Improvement Program) to fully mitigate the impacts to a less than

significant level. Specific improvements proposed to mitigate direct impacts must be identified in the traffic impact study.

Potential mitigation measures may include project re-design, traffic signal improvements, physical road improvements, street re-striping, parking prohibitions, fair share contributions toward identified and scheduled projects, and transportation demand management programs. All traffic impact mitigation proposals must be supported by analysis of the mitigated project to illustrate the effectiveness of the proposed mitigation at reducing impacts to levels of less-than-significant. The applicant team shall consult with DOT staff to determine if proposed mitigation is acceptable. If mitigation is proven effective and approved by DOT, the mitigation shall be incorporated as an element of the proposed project and all CEQA review necessary for implementation of the mitigation shall be included within the CEQA review of the proposed project.

TRAFFIC IMPACT STUDY REPORT

Upon issuance of the scope of work from DOT, a draft copy of the Traffic Impact Study Report for the Project shall be submitted. The report shall include appropriate text, tables, maps, and drawings to fully document the required elements of the traffic analysis and results. Copies of all traffic counts and level of service calculations shall be provided in an appendix accompanying the main report. DOT staff will review the report and prepare written comments to the applicant team indicating any necessary revisions to the report. During its review, DOT may request a meeting with the applicant team to discuss any comments, questions, or apparent deficiencies in the report. Based on DOT comments, the applicant will then make the necessary changes to the report and if necessary the supporting analysis and will provide the final version of the Traffic Impact Study Report to DOT.

OTHER TRANSPORTATION-RELATED IMPACTS AND MITIGATION CONSIDERATIONS

The traffic impact study report shall also include documentation as to how the project will impact and mitigate its impacts related to the following issues and General Plan goals:

- Emergency Vehicle Access
- Deliveries of Goods and Services
- Access to Public Transit Services consistent with General Plan Circulation Element Goal TC-2: “To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.”
- Transportation System Management consistent with General Plan Circulation Element Goal TC-3: “To reduce travel demand on the County’s road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.”
- Non-Motorized Transportation consistent with General Plan Circulation Element Goal TC-4: “To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.”