# Traffic Study Guidelines

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Manatee County Public Works Transportation Planning Division 1022 26<sup>th</sup> Avenue East Bradenton, FL 34208

> Phone: (941) 708-7450 Fax: (941) 708-7503



## Manatee County Traffic Study Guidelines and Procedures

Purpose: The purpose of this procedure is to improve customer service by providing predictability and consistency in the County's preparation and review of studies used to evaluate transportation impacts of proposed development.

Applicability: This procedure shall govern the Manatee County Public Works staff in the preparation and review of traffic studies necessary to evaluate proposed developments' transportation impacts.

Authorization: Section 105 of the Manatee County Land Development Code authorizes the County Administrator to adopt administrative procedures to set forth technical and processing components of implementing the code. This procedure establishes the administrative procedures and traffic study guidelines to complement the adopted concurrency requirements of the Code.

Amendment: The Public Works Director is hereby authorized to amend the guidelines from time-to-time as needed to reflect the latest, professionally-accepted practices or to update administrative language such as filing locations, contact information, and review timelines.

#### Related Policies:

Policies of Land Use Objective 2.4.1, Comprehensive Plan Subsection F(2), Land Use Operative Provisions, Comprehensive Plan Policies of Traffic Objective 5.2.3, Comprehensive Plan Capital Improvement Policy 10.1.4.2, Comprehensive Plan

Effective Date: This procedure shall take effect on March 23, 2015.

Ed Hunzeker

County Administrator Manatee County

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#### **TABLE OF ABBREVIATIONS**

CIE Capital Improvement Element CIP Capital Improvement Program

CLOS Certificate of Level of Service Compliance

DTS Development Tracking System

FDOT Florida Department of Transportation FHWA Federal Highway Administration

FSP Final Site Plan

FSUTMS Florida Standard Urban Transportation Model Structure

GDP General Development Plan HCM Highway Capacity Manual HCS Highway Capacity Software

ITE Institute of Transportation Engineers
LDA Local Development Agreement

LDC Land Development Code

LOS Level of Service LUC Land Use Code

MPO Metropolitan Planning Organization

MUTCD Manual on Uniform Traffic Control Devices

NCHRP National Cooperative Highway Research Program

PSP Preliminary Site Plan
TIA Traffic Impact Analysis
TIS Traffic Impact Statement

TRB Transportation Research Board

#### I. INTRODUCTION

This document presents the general methodology and procedure guidelines for traffic studies to be submitted with Manatee County zoning and land development applications. These procedures are established to provide a consistent basis for evaluating the concurrency and operational transportation impacts of new development. The authority for these guidelines includes the following:

- Community Planning Act, Sections 163.3161 163.3248, Florida Statutes
- Policies of Land Use Objective 2.4.1, Manatee County Comprehensive Plan
- Subsection F(2), Land Use Operative, Manatee County Comprehensive Plan
- Capital Improvement Policy 10.1.4.2, Manatee County Comprehensive Plan
- Policies of Traffic Objective 5.2.3, Manatee County Comprehensive Plan
- Development Review Criteria, Sections 504-509, Manatee County Land Development Code
- Certificate of Level of Service Compliance Procedures, Section 510, Manatee County Land Development Code.

#### II. TRAFFIC STUDY TYPE REQUIREMENTS

Traffic studies are divided into two categories: Traffic Impact Statement (TIS) and Traffic Impact Analysis (TIA). Prior to determining which study type to perform, the Applicant shall contact the Manatee County Transportation Planning staff to discuss proposed development characteristics, such as land use(s), size, geographical location, and number and location of access points. This information will be used to determine the type of study to be undertaken. Table 1 provides the general study type required for each application type and development scale.

Table 1. Study Type Requirements						
Application	With Rezone	With CLOS	Development	Required		
	Request?	Application?	Scale*	Study		
Rezone Request	yes	n/a	any	TIS		
General Development Plan	no	n/a	any	none		
General Development Plan	yes	n/a	any	TIS		
Preliminary Site Plan	no	no	any	none		
Preliminary Site Plan	yes	no	any	TIS		
Preliminary Site Plan		yes	small	TIS		
Preliminary Site Plan		yes	not small	TIA		
Final Site Plan		yes	small	TIS		
Final Site Plan		yes	not small	TIA		

<sup>\*</sup>Development Scale criteria for "small impact" development:

#### III. TRAFFIC IMPACT STATEMENT

#### A. Traffic Impact Statement Eligibility

A Traffic Impact Statement (TIS) is performed for application types that do not require transportation concurrency findings or for developments expected to have relatively low traffic impacts. A TIS satisfies the traffic study requirement when:

- 1) The transportation concurrency determination is deferred and an estimate of transportation impacts is required, such as the requirement for rezoning applications; or
- 2) A transportation concurrency determination is required and all of the following "small impacts" criteria are met:
  - The gross PM peak hour trip generation is 100 trips or less;
  - The net new PM peak hour trips do not exceed five percent of the PM peak hour, two-way maximum service volume of the adopted level of service standards for the first accessed, designated thoroughfares; and

a) development is estimated to generate 100 or less gross PM peak hour trips;

b) project trips are less than 5% of max service volume on first impacted thoroughfare(s); and

c) first impacted thoroughfares operate at or above the adopted LOS standard.

If a development does not meet all "small impact" criteria, it is "not small."

 The first accessed, designated thoroughfares operate at or above the adopted level of service standards under total traffic conditions. Total traffic is existing traffic plus reserved trips plus project trips.

#### B. Traffic Impact Statement Reports

A TIS report shall include the following elements:

- 1) Contacts and application information. Provide the following:
  - Applicant contact information;
  - Authorized traffic study agent contact information;
  - County Project/DTS Number & Case Number; and
  - Copy of Land Development Application, location map and other relevant maps, aerial photography, summaries, description of the surrounding environment (built and natural), project description, and analyses included in the application package.
- 2) TIS Eligibility. Provide documentation of eligibility for TIS, i.e., either due to deferred concurrency findings or demonstration of compliance with all "small impacts" criteria of III.A.2;
- 3) *Trip Generation*. Provide tabular data for adopted and proposed development scenarios, including land use type, land use scale, and estimated trip generation.
- 4) Existing Conditions Review. Review of PM peak-hour traffic conditions on the first accessed designated thoroughfare segment(s) using existing traffic plus traffic generated by development allowed under the adopted zoning category.
- 5) Proposed Conditions Review. Review of PM peak-hour traffic conditions on the first accessed designated thoroughfare segment(s) using existing traffic plus traffic generated from the maximum amount of development allowed under the proposed zoning category.
- 6) Operational Analysis. Based on traffic conditions of the first impacted thoroughfares and the proposed development's expected turning traffic, an operational analysis may be required for proposed access location(s) and to evaluate interactions between the access and adjacent intersections. Further information about this type of analysis is located in Section IV.C.8.

#### IV. TRAFFIC IMPACT ANALYSIS

#### A. Traffic Impact Analysis Requirements

A Traffic Impact Analysis (TIA) is performed for projects that require a traffic study for concurrency purposes and do not meet the small impacts criteria of Section III.A.2. A TIA is a more detailed analysis of a proposed development's transportation impacts. The parameters of the study shall be set forth in a methodology, and the study shall be documented in a report consistent with Section IV.C.

#### B. Methodology Meeting

Before initiating a TIA, the Applicant shall meet with the Manatee County Transportation Planning staff, and the County's Traffic Review Consultant when required, to set study methodology. Prior to the methodology meeting, the Applicant shall submit any relevant information for County staff review. This information should include project description and location, approximate location of proposed driveway connections, and preliminary project trip generation estimates.

As part of the methodology meeting, County staff will discuss with the Applicant specific items involving the TIA document, including trip generation and distribution, existing and background traffic that may need to be incorporated into the study, and potential access and operational issues. As appropriate, the methodology shall address the required methods for considering multimodal (pedestrian, bicycle, and transit) interaction with infrastructure and adjacent land uses.

The results of this methodology meeting shall be documented by the Applicant in a letter format and sent to County staff for review. The methodology letter should follow the outline for the report as provided in Section IV.C. Within ten workdays, County staff will review and respond to the Applicant with any comments regarding the methodology. Staff will coordinate any needed revisions for the final version to be approved.

Upon County approval of the methodology, the Applicant may proceed with the TIA study. The TIA shall be prepared consistent with the methodology and the guidelines and structure of Section IV.C. Traffic Impact Analysis Reports and shall be submitted within 120 days of County approval of the methodology. If the 120-day period expires without TIA submittal, the Applicant shall not submit a study until an updated methodology has been approved based on coordinated review.

#### C. Traffic Impact Analysis Reports

A TIA report shall be structured according to this Section IV.C and include all information required in the methodology, described below, and listed in Table 2.

TIA Checklist. The TIA Checklist is provide as a reference for the Applicant and is used by County staff to determine the completeness of a study.

#### 1. Contact Information

For this section of the TIA, the Applicant shall provide the following contact and general project information:

- Contact information for Applicant and traffic study consultant (name, title, company or agency, address, telephone number, and email address);
- County Project/DTS Number & Case Number; and
- Copy of Land Development Application, location map and other supporting maps, aerials, summaries, description of surrounding environment (built and natural),, project description, and analyses included in application package.

#### 2. Project Description and Location

The development's site-related information and characteristics shall be provided as follows:

- Type and size of the proposed development;
- Proposed build-out date for the development;
- Full size copy of a graphic and/or aerial that identifies the site, including the location of the site with relationship to adjacent public roadway network, and the access connections onto the roadway network; and
- Existing uses on-site Include a description of the existing land uses on the site.
- Description of surrounding environment (schools, pedestrian facilities, trails, parks, existing and potential transit facilities)

### Table 2. TIA Checklist Required Figures/Tables and Location within Report

Figure or Table	Location in Report	Title of Figure/Table	Description	<b>√</b>
Figure	Introduction	Project Site Location	Displays size of land parcel, location within jurisdiction and region, and roadway network.	
Table	Project Trip Generation	Project Trip Generation Potential	Includes AM and/or PM peak-hour volume for each land use, formula (average rate or fitted curve equation), ingress/egress volumes, and a sum of all land use volumes for AM and/or PM peak hour.	
Figure and Table	Project Trip Distribution	Project Distribution	Includes the percentages or estimated project-related volumes for the AM and/or PM peak hour on the impacted roadway system, including all intersections and roadways within the study area.	
Figure and Table	Study Impact Area	Determination of Study Area	Includes County link number; road name; from/to road names; 5% of the peak-hour, two-way service volume; project traffic distribution percentage; project trips assigned; and significant impact column.	
Table	Existing Traffic Conditions	Existing Intersection Analysis Results	Existing traffic volumes and LOS for significant intersections (overall and by approach).	
Table	Existing Traffic Conditions	Existing Roadway Link Analysis Results	Existing traffic volumes and LOS for significant roadway segments.	
Table	Future Traffic Conditions	Future Intersection Analysis Results	Future traffic volumes (background plus project trips) and LOS for significant intersections (overall and by approach).	
Table	Future Traffic Conditions	Future Roadway Link Analysis Results	Future traffic volumes (background plus project trips) and LOS for significant roadway segments. Access and Operational improvements.	

#### 3. Project Trip Generation

The trip generation potential of the development site shall be provided in tabular form and shall be based upon the most recent edition of *Trip Generation*, as published by the Institute of Transportation Engineers (ITE).

The *Trip Generation* fitted curve equation should be used to estimate trips for land uses where the equation is based on at least five data points and has a coefficient of determination (R²) equal to or greater than 0.75. If both guidelines are not met or *Trip Generation* does not provide an equation, the average trip rate should be applied. However, it is acknowledged that there may be situations where application of the equation yields negative results or extremely low or high values compared to application of the average rate. In these circumstances, County staff will work with the Applicant to determine the appropriate method to use and the resulting trip generation.

The PM peak period shall be analyzed for all studies. Additional time periods (AM peak or mid-day peak) may be required for special generators. The need for analysis of additional time periods will be identified during development of the methodology. Factors affecting the determination will be based on land use and scale where the peak hour of the generator is different than peak hour of adjacent street traffic or is otherwise likely to generate relatively high off-peak traffic volumes. The purpose of reviewing alternate time periods will be to determine the need for operational improvements at site access locations and at signalized intersections in proximity to the site.

If the site is already developed and the Applicant proposes expansion of current uses, trip generation shall be based on the incremental increase of the existing use. For all proposed developments, the trip generation potential for the site should be consistent with land uses proposed on the site plan. If no specific uses are identified on a plan, then the most trip intensive land use for that type of category should be considered. For this situation, the use of a proposed zoning district or future land use and the associated maximum units per acre or maximum Floor Area Ratio (FAR) identified for the particular category permitted in the Comprehensive Plan, shall be considered to estimate the amount of dwelling units or square footage for either residential, commercial, industrial, or office uses on-site.

The determination of the development's intensity shall be consistent with procedures found in *Trip Generation*. In general, the intensity shall be expressed an independent variable that is measurable from development plans, such as dwelling units for residential, rooms for lodging, and enclosed floor area for non-residential development. When performing studies where a range of intensities is possible, the study shall be performed based on the maximum dwelling units per acre for residential and maximum floor area ratio (FAR) for non-residential.

In the event that the Applicant wishes to use a different trip generation rate than identified in ITE *Trip Generation*, the Applicant may undertake an independent trip generation study for the development site. However, the need to undertake this type of study shall be limited to situations where County staff finds that the proposed land use for a project is significantly different or does not exist in the most recent edition of *Trip Generation*. In addition, the specific procedures for this study, including surveyed site locations and time periods, shall be consistent with the guidelines set forth in the most recent editions of ITE *Trip Generation Handbook*, *NCHRP Report 684*, *FDOT Transportation Site Impact Handbook*, *FDOT Expanded Transportation Performance Measures to Supplement LOS for Growth Management and Transportation Impact Analysis (FDOT Contract BDK77 977-14)*, *NCHRP 616* among standard practice documentation and shall be approved by the Manatee County Transportation Planning staff prior to commencement of the study.

As part of the trip generation estimate, the Applicant may consider internal capture potential when studying mixed-use developments. The applicant shall coordinate proposed use of internal capture rates and appropriate limits with Transportation Planning staff, and agreed-upon method shall be set forth in the approved methodology.

In addition to internal capture, pass-by capture may be considered if the proposed development is expected to include retail-oriented uses. The determination of pass-by capture potential shall be based on guidelines and rates in the latest edition of the ITE *Trip Generation Handbook* or as coordinated with the Applicant and set forth in the approved methodology.

#### 4. Project Trip Distribution and Assignment

The distribution and assignment of project-related traffic, as determined for the Project Trip Generation section, will be undertaken using techniques identified in the approved methodology. In general, the preferred method is a travel demand model "select zone" assignment using the latest available datasets from the Sarasota/Manatee Metropolitan Planning Organization's Long Range Transportation Plan. For smaller scale developments, other acceptable methods may include travel patterns based on traffic counts conducted for the analysis or historical data available from Manatee County and Florida Department of Transportation (FDOT).

#### 5. Study Impact Area

The first directly-accessed, designated thoroughfare segments(s) shall be considered in the study area. The study area also includes each thoroughfare roadway segment for which project traffic is estimated to equal or exceed five percent of the maximum service volume at the segment's adopted level of

service standard. The test for this threshold shall be based on the PM peak hour, two-way service volumes as determined based on the roadway characteristics and the generalized service volume tables of the latest edition of the Florida Department of Transportation's *Quality/Level of Service Handbook*.

If the TIA study will evaluate multiple phases of a project, the study area for all phases will be determined using the guidelines indicated above. However, the study area for an initial development phase shall be limited to evaluation of first impacted thoroughfares, evaluation of segments with project traffic exceeding the five percent threshold for that initial phase alone, and operational analysis of proposed access locations and their interactions with adjacent intersections. The study area for subsequent phases shall be based on project traffic from all previous phases (cumulative effect) as well as that phase under review. As part of verifying the appropriate study area, the Applicant will identify project trips on the next segment along a roadway that immediately falls below the five percent threshold.

Intersections meeting the following criteria shall be considered in the study area:

#### a) Thoroughfare Intersections within Study Area

All controlled intersections located at the end points of impacted roadways are considered to be in the study area. These intersections shall be reviewed for compliance with the County requirement that each intersection lane group operate with a volume-to-capacity ratio (v/c) less than 1.0 and that there be sufficient storage in auxiliary lanes to avoid queue overspill.

#### b) Access Intersections

Each of the proposed development's external access locations shall be reviewed to determine if auxiliary lanes are required.

#### c) Operational Analysis Intersections

A subset of intersections within the study area shall be reviewed for the need for operational improvements. These operational analysis intersections shall be any controlled intersections with a proposed project access within the controlled intersection's functional area.

#### 6. Existing Traffic Conditions

An analysis of current year peak-hour, peak-season traffic conditions for all roadway segments and intersections within study area shall be provided. This evaluation shall include any traffic counts conducted and any seasonal adjustments to these counts. All counts collected shall be less than twelve months old at the time of TIA submittal. The peak-season factors should be based on information from FDOT or other sources accepted by Manatee County.

If traffic counts are not collected along roadway segments, data provided from Manatee County sources (such as Concurrency Link Sheets) can be used to develop "existing" conditions. However, growth rates will need to be developed to reflect current year conditions if traffic counts are older than twelve months old. The specific growth rate(s) to use will be based upon historical counts from Manatee County or other public agencies within the area of concern.

As part of this analysis, adopted LOS standards and associated service volumes (for roadways) will need to be provided. In addition, the source and type of analysis software to be used in this scenario will need to be identified.

For example, the analysis for roadway segments, which should be undertaken on a directional basis, may be a multi-tier approach where the most recent and published generalized service volumes, as developed by FDOT, should initially be used. If necessary, the secondary tier approach can be used by the Applicant which could include the most recent and approved version of FDOT's ART-PLAN or HIGH-PLAN programs or the Highway Capacity Software (HCS) programs, or any similar software as set forth in the approved methodology.

For intersections, the use of the latest version of HCS or Synchro is generally acceptable. Information regarding traffic signal phasing and timing for use in the above software programs shall be obtained from the Manatee County Traffic Design Division for signals on County roads and Florida Department of Transportation for signals on State roads. The TIA shall include the "Signalized Intersection Input Data" sheet for HCS-based analysis or the "Lanes, Volumes, Timings" report for Synchro-based analysis. Manatee County staff will use this information to determine if existing conditions are modeled correctly. The results of the roadway and intersection analyses shall be in tabular form and illustrated in figures.

#### 7. Background (Non-project) Traffic

Future background (non-project) traffic shall be estimated using procedures set forth in the approved methodology pursuant to review and discussion during the methodology meeting. Potential methods include the application of a historical growth rates, model-derived growth rates, and reserved trips from the County concurrency management database. For short range analysis, the general approach is to use 100 percent of reserved trips. When using reserved trips, a justified growth trend may also be applied if the proposed development is in an area with potential for additional traffic from sources that are not tracked in the concurrency database.

#### 8. Future Traffic Conditions

An analysis of a future year peak-hour, peak-season traffic scenario for all roadways and intersections within the study area at project buildout shall be provided. The specific time period to evaluate shall be that used for the existing

conditions scenario unless otherwise specified in the approved methodology statement. This evaluation shall include both project traffic and background traffic estimates.

The future scenario may include any scheduled and fully funded transportation improvements programmed in the first two years (current year and following year) of the currently adopted Manatee County Capital Improvement Program (CIP) or FDOT adopted Work Program. Capital projects undertaken by other agencies or private entities shall not be included unless identified in the approved methodology. Inclusion of any improvement planned by other parties may result in the improvement being stipulated as a required for the project under review.

As part of this analysis, adopted LOS standards and associated service volumes for roadways shall be provided. Also, the source and type of analysis software to be used in this scenario shall be identified. Similar guidelines for the type of analysis to use for roadway segments and intersections, as identified in the Existing Traffic Conditions section, will also be applied for this scenario. The results of this analysis shall be in tabular form and illustrated in figures.

This analysis will also identify and provide a table of transportation-related improvements at roadway segments and intersections (both on-site/site-related at project driveways and off-site locations). If off-site improvements are necessary, the applicant may provide a project trip threshold to determine when, in terms of number of trips, an improvement will be required. For each phase of the proposed development, the analysis should be conducted to differentiate mitigation requirements as follows:

#### a) Background

Background traffic mitigation is the minimum feasible set of improvements for background traffic conditions (total without proposed development) that allow each studied road segment to operate at or above adopted level of service and each studied intersection lane group to operate with a v/c ratio less than 1.0.

#### b) Concurrency

Concurrency mitigation is a set of improvements in addition to the Background mitigation. The analysis shall be based on the study area network as if the Background mitigation is in-place. For each road segment and intersection that is significantly and adversely impacted by the development under consideration, Concurrency mitigation is the additional improvements for total traffic conditions that allow each studied road segment to operate at or above adopted level of service and each studied intersection lane group to operate with a v/c ratio less than 1.0.

#### c) Access

Access improvements are operational improvements at the development's access connections to public roadways. Based on the type, volume, and speed of traffic, the applicant shall assess each access location and identify any improvement necessary for it to operate safely and efficiently for pedestrians, bicyclists, and drivers.

Auxiliary lanes are left-turn and right-turn lanes that are constructed at a development access to enhance safety for pedestrians, bicyclists, and drivers. The need for auxiliary lanes at a proposed project access along a County-maintained roadway shall be determined using the methods of NCHRP 745 for left-turn lanes and NCHRP 279 for right-turn lanes. Any required auxiliary lane analysis will be identified at the time of the Traffic Impact Analysis Methodology Meeting for both Traffic Impact Statements and Traffic Impact Analyses. In order to perform these analyses, the analyst must collect existing turning movement counts at the proposed access locations during the worst-case peak hour for all study intersections and project these counts to be consistent with the future traffic conditions scenario.

The total length of a left-turn lane is the sum of the deceleration length and the queue length. The latest version of FDOT Standard Index 301 shall dictate the deceleration length of a left-turn lane for a design speed equal to the posted speed limit plus five miles per hour. Back-of-queue calculations from traffic analysis software that are based on the latest edition of the Highway Capacity Manual (such as Highway Capacity Software or Synchro) shall determine the queue length of a recommended left-turn lane for each proposed access. If no queue is calculated, a 50-foot minimum queue length will be required.

Depending on the results of the analysis from NCHRP 279, one of these three right-turn treatments shall apply:

- Full-width right-turn lane This 12-foot wide right turn lane shall have a deceleration length determined by applying the latest version of FDOT Standard Index 301 for a design speed equal to the posted speed limit plus five miles per hour.
- Taper The taper provides a 12-foot width for right turns at the curb radius and ends at a 0-foot width upstream of the curb radius at a taper length prescribed by Figure 3-13 of the Florida Greenbook for a design speed equal to the posted speed limit plus five miles per hour.
- Radius Only

All proposed auxiliary lanes and site-related improvements must be listed in applicable TIA and TIS approval letters. All site-related Access improvements shall be shown on the FSP/Construction Plans, including those for pedestrian, bicycle and transit. Both the traffic consultant and the Engineer-of-Record for the design plans must propose auxiliary lane designs and site-related

improvements that are integrated into the existing roadway signing design, pavement marking design, and any driveway access locations, sidewalks, bicycle lanes, or transit amenities.

#### d) Operational

Operational improvements are control adjustments (i.e., signal timing and/or phasing changes), lane additions, or lane modifications required to allow turning traffic at Operational Analysis Intersections (see Study Area of Impact) to operate without interfering with through movement traffic or walking, bicycling and public transportation travel. For each Operational Analysis Intersection lane group with left turning or right turning traffic, improvements shall be identified that will allow the lane group to operate with a volume-to-capacity ratio (v/c) less than 1.0 and to create no adverse queuing effects. The operational conditions shall address the safe and convenient travel to and from the development on foot, by bicycle, by public transportation, and by motorized vehicle.

#### 9. Conclusion

The last section of the report should be a clear and concise description of the study findings, including whether or not the impacted roadway segments will operate at or above the adopted LOS standards and whether all intersection lane groups will operate within the v/c threshold when reviewed under total traffic conditions. This section shall provide a summary of the improvements for all users including pedestrians, bicyclist, transit riders and motorist identified pursuant to Section IV.C.8 by type.

The significance of the improvements summary is that any developer-provided Concurrency improvements and all site-related Access and Operational improvements shall be shown on subsequent site plan and construction plan submittals.

If the Applicant proposes proportionate share mitigation for Concurrency improvements, the Applicant shall make application following current State and County proportionate share procedures.

#### V. REPORT SUBMITTAL AND REVIEW PROCESS

The applicant shall initially set methodology based on discussion with Transportation Planning staff (see Section IV.B). Then the applicant shall prepare and submit the study with the Land Development Application package to the Building and Development Services Department, Planning Division, Reviewer On Call. This initial submittal should include a full report, required supporting information, and a CD-ROM with relevant analysis software data and output.

The report will then be routed to the Transportation Planning Division for review. At the discretion of the Public Works Director, the report may be reviewed by a County's Traffic Review Consultant. If a Traffic Review Consultant is assigned for the review, the Applicant will be required to coordinate with Transportation Planning staff prior to contacting the Traffic Review Consultant. After the initial coordination efforts, the Applicant may communicate directly with the Consultant on technical-related issues to expedite the review process.

As part of expediting the review process, the Applicant may submit a study on a CD-ROM or via e-mail, ftp site, or Buzzsaw (if Applicant has access) to the Transportation Planning staff. The electronic deliverables shall include all electronic files, including a PDF copy of the study, aerial photography, model output files, capacity analysis worksheets, and any other pertinent information in the study. When possible, the County may initiate early review, but a study will follow review deadlines when a formal Application has been submitted and routed for review.

A study will be reviewed for completeness when routed to the Transportation Planning Division. It must be consistent with the approved methodology. Staff will cease review of inconsistent studies until the methodology or analysis is updated to provide consistency. Staff will not complete study review until all required information has been submitted in accordance with the approved methodology and these guidelines.

After receiving initial comments from the Transportation Planning staff, the Applicant may contact the assigned review staff for any needed clarification. The applicant shall provide complete responses for all comments and questions in a written report that includes any updated information, analysis, or supporting material. Study revisions may be submitted directly to Transportation Planning staff.

If the Applicant does not address questions and comments, or there are matters that cannot be satisfactorily resolved, Transportation Planning staff may not be able to make policy and regulatory consistency findings required for the corresponding Land Development Application. To reduce the likelihood of this occurrence, when there are unresolved matters, staff will engage the services of a Traffic Review Consultant (or second Traffic Review Consultant, if a consultant is lead reviewer). The purpose of the additional review services will be to provide a second opinion on the matter that has remained unresolved. Based on staff review and input of the Traffic Review Consultant(s), staff will propose a resolution. If the proposed resolution is unacceptable, the Applicant may appeal the matter as part of the Land Development Application to be considered by the Planning Commission and Board of County Commissioners.

#### VI. APPROVAL PROCESS & INVOICING

After Transportation Planning staff have completed study review, staff will provide approval correspondence to the applicant. This correspondence will include any conditions, stipulations or mitigation related to the approval of the project. Upon approval of a TIA report, the Applicant shall prepare a final report that includes the Transportation Planning

approval letter and a cover dated with the full approval date in "mm/dd/yyyy" format. Two bound, signed and sealed printed copies of the final report shall be submitted to the Building and Development Services Department, Planning Division, Reviewer-on-Call, along with a CD including a PDF copy of the final report, supplemental information, and analysis files.

For projects with proportionate share mitigation improvements, public hearings, or a Local Development Agreement (LDA), additional review and coordination may be necessary prior to the Transportation Planning staff's final determination of sufficiency which permits the Planning Division's scheduling of the public hearing.

According to the Building and Development Services Department Fee Schedule (County Resolution 15-026, as may be amended), the Applicant (property owner or assigned agent) is responsible for the actual cost the County incurs if contracted Traffic Review Consultant services are used during the review process. In these circumstances, the County will invoice the Applicant after completion, invoicing, and County payment for all study-related review activities undertaken by the Traffic Review Consultant. The Applicant shall be invoiced by the County with documentation of costs incurred during review of the study, and the amount shall be due in-full prior to County issuance of Certificate of Level of Service (CLOS) issuance and approval of the related Final Site Plan.