BY THE BOARD OF COUNTY COMMISSIONERS **RESOLUTION NO. 08-87**

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF PASCO COUNTY, FLORIDA, PURSUANT TO SECTIONS 402.5.B. AND 618.3 OF THE PASCO COUNTY LAND DEVELOPMENT CODE, AMENDING RESOLUTIONS 04-203 AND 07-53, AND ADOPTING UPDATED TRAFFIC IMPACT STUDY GUIDELINES AND SUBSTANDARD ROAD STUDY GUIDELINES; ADOPTING TRAFFIC IMPACT STUDY REVIEW FEES FOR TRANSPORTATION CONCURRENCY, SUBSTANDARD ROADS, ACCESS MANAGEMENT AND DEVELOPMENTS OF REGIONAL IMPACT; REQUIRING DEVELOPMENTS LESS THAN OR EQUAL TO 100 DAILY TRIPS TO PAY A FAIR SHARE FEE FOR SUBSTANDARD ROADS; PROVIDING FOR RESTRICTIONS ON THE EXPENDITURE OF SUBSTANDARD ROAD PAYMENTS; PROVIDING FOR ADDITIONAL TRIP GENERATION AND SUBSTANDARD ROAD REQUIREMENTS FOR INTERIM USES AND HEAVY VEHICLES; PROVIDING FOR MODIFICATIONS TO THE TRAFFIC IMPACT STUDY GUIDELINES TO ENSURE CONSISTENCY WITH COUNTY PROCEDURES FOR THE REVIEW OF TRAFFIC STUDIES; PROVIDING FOR EFFECTIVE DATE AND APPLICABILITY.

WHEREAS, on June 8, 2004, pursuant to Resolution No. 04-203, the Board of County Commissioners adopted "Guidelines and Review Fees for Traffic Impact Studies and Substandard Roads" to: (1) identify the transportation impact of land development proposals and develop appropriate mitigation strategies to offset the transportation impact of development, (2) ensure that substandard roads are analyzed for deficiencies and corrected or mitigated in connection with land development proposals, and (3) expedite the County's review of traffic impact studies for land development proposals (the "2004 TIS Guidelines"); and

WHEREAS, on June 27, 2006, the Board of County Commissioners ("Board") adopted Evaluation and Appraisal Report ("EAR") based amendments to the Pasco County Comprehensive Plan (the "EAR-Based Plan Amendments"); and

WHEREAS, the EAR-Based Plan Amendments included Transportation Element Policies 2.5.1., 2.5.2., and 2.5.3, requiring the adoption of amended concurrency management regulations consistent with the 2004 TIS Guidelines and state law, allowing for proportionate share contributions to mitigate local and regionally significant traffic impacts, and requiring implementation and update of the 2004 TIS Guidelines; and

WHEREAS, on November 21, 2006, the Board adopted amended concurrency management regulations pursuant to Ordinance No. 06-36 (the "Concurrency Management Ordinance"), and Section 402.5.B. of the Concurrency Management Ordinance required updated TIS Guidelines consistent with the amended concurrency management regulations; and

WHEREAS, on November 21, 2006, the Board also adopted an update to the 2004 TIS Guidelines as required by the EAR-Based Plan Amendments and Concurrency Management Ordinance (the "2006 TIS Guidelines"); and

WHEREAS, the Board desires to update the 2006 TIS Guidelines to: (a) require developments less than or equal to 100 daily trips to pay a fair share fee for substandard roads, (b) provide for restrictions on the expenditure of substandard road payments, (c) provide for additional trip generation and substandard road requirements for interim uses and heavy vehicles, and (d) add additional traffic study review fees, including review fees for special access management studies required pursuant Section 618.3 of the Land Development Code and Developments of Regional Impact ("DRIs"); and

WHEREAS, the Board of County Commissioners, on December 18, 2007 and January 8, 2008 held public hearings with due public notice on the proposed updated TIS Guidelines and review fees, and has considered all comments received at the public hearing.

NOW, THEREFORE, BE IT RESOLVED by the Pasco County Board of County Commissioners in regular session, duly assembled, as follows:

1. Resolutions No. 04-203 and 07-53 are hereby amended.

2. The Board of County Commissioners hereby adopts the "Guidelines and Review Fees for Traffic Impact Studies and Substandard Road Review" dated December 18, 2007 attached hereto (the "2007 TIS Guidelines").

3. The 2007 TIS Guidelines shall apply to Traffic Impact Study, Access Management, and DRI Application for Development Approval/Notice of Proposed Change/Development Order amendment applications for which a complete application has been filed, resubmitted after expiration or denial, or substantially amended on or after January 9, 2008.

4. Any project not subject to the 2007 TIS Guidelines shall continue to be subject to the 2006 TIS Guidelines or 2004 TIS Guidelines, as determined by the exemption and applicability provisions of the Concurrency Management Ordinance, unless the Concurrency Management Ordinance exempts the project from the TIS Guidelines and traffic study review.

5. In the event of a conflict between the 2007 TIS Guidelines and the adopted Concurrency Management Ordinance, the adopted Concurrency Management Ordinance shall govern until such time that the Concurrency Management Ordinance or TIS Guidelines are amended to resolve the conflict.

DONE and RESOLVED this 8th day of January, 2008.

(SEAL)

COUNTY COMMISSIONERS ORGANIZED JUNE 2nd 1887 PASCO COUNTY FLORIDA

ATTEST:

JED PITTMAN, CLERK

BOARD OF COUNTY COMMISSIONERS
OF PASCO COUNTY, FLORIDA

THEODORE J. SCHRADER, CHAIRMAN

APPROVED
JAN 8 2008

GUIDELINES AND REVIEW FEES FOR

TRAFFIC IMPACT STUDIES (TIS) AND SUBSTANDARD ROAD REVIEW

PASCO COUNTY, FLORIDA

December 18, 2007

PURPOSE AND APPLICABILITY

The purpose of the traffic impact study (TIS) is to identify the potential traffic impacts of new development on the transportation system and to develop mitigation strategies to offset the impact according to the methodologies and provisions described herein, in accordance with the provisions of Section 402.5.B of the LDC (LDC).

The TIS is to be signed and sealed by a registered professional engineer licensed to practice in Florida.

For Development of Regional Impact (DRI) developments and Florida Quality Developments, the methodological procedures and interpretation of level of service standards provided in the Definitions (as they relate to the Committed Network), Background Traffic Growth/Future Traffic, Level of Service Standards, Review Fee, and Substandard Roads sections herein shall be followed. DRIs and Florida Quality Developments shall also comply with the requirement to estimate when facilities are expected to fail and financial feasibility analysis requirements in the Analysis Scenarios section and mitigation requirements of the Substandard Roads section.

To demonstrate de minimis status, under LDC 402.5.C.4, the below-listed sections shall be applicable:

- Methodology Statement
- Definitions
- General Analysis Requirements and Software
- Impacted Roadways/Intersections
- Trip Generation
- Distribution/Assignment
- Internal Capture
- Passer-By Capture
- Traffic Counts
- Background Traffic Growth

as well as other requirements as determined by the County. The network on which de minimis determinations are based may include the Committed Network as defined herein.

Any reference to the "County" in these guidelines shall mean Pasco County, its consultants, contractors, or employees, as applicable.

1. METHODOLOGY STATEMENT

Prior to conducting any study, a methodology statement shall be prepared by the applicant and submitted for review and approval by the County. The purpose of the methodology statement is to establish agreed upon methodologies and assumptions prior to the start of the study and, if appropriate, to provide substantiation that the development's impacts are de minimis and further traffic study and review is not required. The following elements of the methodology, as listed below, should be specifically addressed at a minimum:

- Description of land uses, site location, build-out schedule, and phasing, including

any interim uses generating traffic
- Preliminary site plan
- Trip Generation
- Internal Capture
- Background Traffic Growth Procedure
- Distribution and Assignment
- De Minimis Assertion
- Committed Network

Unless otherwise agreed to in the methodology process, the procedures of this document will be followed.

A methodology statement shall be prepared using the guidelines provided in the following paragraphs. The methodology statement will be first reviewed by a County representative, if necessary, through a methodology meeting with the applicant's consultant. The applicant's consultant will then revise the statement based upon agreed upon methodologies. The applicant shall ensure the consultant does not prepare a traffic study without an approved methodology statement signed by the County.

The methodology agreements shall be valid to govern submittal of the TIS for a period of 6 months from the date of approval. If methodology agreements have been reached under earlier editions of these procedures, those agreements will remain valid for a period of six months after approval of the methodology. Expired methodology agreements must be updated to reflect the current version of the TIS Guidelines. Expired methodology agreements must also be updated to reflect changes in the Committed Network, Background Traffic Growth/Future Traffic, and the Non-Deminimis Roadway List.

In some sections, these TIS Guidelines identify optional ways to undertake elements of the analysis, and the methods to actually be applied should be agreed upon in the methodology process.

2. DEFINITIONS

For purposes of this document, the following definitions shall apply:

a. Committed Network – includes the Existing Network plus transportation system improvements under construction or scheduled to begin construction in the current fiscal year of the adopted work programs of the County, the Florida DOT, or other agencies with authority and responsibility for providing transportation system capacity, or other improvements that are guaranteed by a security instrument acceptable to the County that ensures construction will begin in the current fiscal year of such work programs.

b. Critical Road – is a road designated in the County's Comprehensive Plan as a hurricane evacuation route and that are identified in the County's annual Non-Deminimis Roadway List as having existing plus approved development volumes that exceed the service volume of the road, or other roads on the Major Road Network that are similarly identified as having existing plus approved development volumes that exceed the service volume of the road by more than ten percent. Section 402 of the LDC refers to these roads as "110 Percent Roadways" and "Hurricane Evacuation Roadways". The

Board shall adopt the Non-Deminimis List annually by resolution, with an effective date sometime between October 1 and December 31 of each year.

c. Existing Network – includes Major Roads that exist in the field and are open to use by the public.

d. Heavy Vehicle – vehicle that has more than four tires touching the pavement, including trucks, buses, and recreational vehicles (RVs). Trucks cover a wide range of vehicles, from lightly loaded vans and panel trucks to the most heavily loaded coal, timber and gravel haulers. RVs also include a broad range, including campers, both self-propelled and towed; motor homes; and passenger cars or small trucks towing a variety of recreational equipment, such as boats, snowmobiles, and motorcycle trailers. Heavy vehicles adversely affect traffic because they occupy more roadway space and have poorer operating capabilities than passenger cars, particularly with regard to acceleration, deceleration, and the ability to maintain speed on upgrades. Accordingly, for trip generation purposes, if heavy vehicles are 10 percent or more of the trips generated by the proposed land use, the total estimated trips for heavy vehicles shall be multiplied by 2 unless ITE heavy vehicle data or other County approved heavy vehicle trip generation data for the land use support a different multiplier; however, in no event shall the multiplier be less than 1.

e. Near Critical Road – is a Major Road that is identified in the County's annual Non-Deminimis Roadway List as having existing plus approved development volumes that exceed 90 percent of the service volume of the road. Section 402 of the LDC refers to these roads as "90 Percent Roadways". The Board shall adopt the Non-Deminimis List annually by resolution, with an effective date sometime between October 1 and December 31 of each year.

f. Major Intersections are all signalized intersections and/or unsignalized intersections with other major roadways.

g. "Major Roadway", "Major Road Network", or "Regulated Road" shall include all collector and above-classified roadways per the latest, adopted County Comprehensive Plan Vision Plan Map, County collector and arterial roads required by the County's adopted Collector and Arterial Spacing Standards, and the major roadways identified in the latest, adopted Metropolitan Planning Organization [MPO] needs plan.

h. Pending Development – is a development for which a complete application has been filed for (a) a Traffic Impact Study, (b) an Initial or Final Certificate of Capacity, or (c) an Initial or Final Certificate of Capacity Development Order.

i. Road Facility – is the minimum length of roadway for which level of service analysis is undertaken, and has previously been known as an "analysis section". For interrupted flow facilities, it will often consist of several road segments.

j. Road Segment – in an interrupted flow facility, a road segment is the piece of road from one traffic signal to the next traffic signal, and is usually considered to include the traffic signal at the "downstream" end of the segment. "Road Facilities" are usually composed of several contiguous road segments.

3. IMPACTED ROADWAYS/INTERSECTIONS

Impacted roadways and intersections that must be studied in the TIS shall include the following:

a. If a development generating less than 1,200 gross external (driveway) daily trips is determined to require a traffic study (e.g. is not de minimis under Section 402 of the LDC), then the study network for that development shall include the road facilities on the Non-De Minimis Roadway List causing that determination as well as any others required under the below sections. In the case that the roadway causing the requirement to undertake the traffic study is a Near Critical Road, and if development traffic consumes less than one percent of the service volume, then no further analysis of that facility is required.

b. Any Major Road Network Facilities to which development traffic makes its first connection to the Major Road Network, provided the development traffic consumes one percent or more of the facility service volume on any one Road Segment of the facility. If the first connection to the Major Road Network is to a Critical Road, then the facility shall be studied even if development traffic is below 1 percent of the service volume.

c. Major Road facilities on which the two-way peak-hour project traffic consumes five percent or more of the existing or committed two-way peak-hour service flow rate on any included Road Segment, and

d. The site driveway

Table 1

Lanes	Road Type	Area	Service Volume LOS C	Service Volume LOS D
2	Collector	Urbanized	870	1,390
4	Collector	Urbanized	2,030	2,950
2	Arterial	Urbanized	1,310	1,560
4	Arterial	Urbanized	3,300	3,390
6	Arterial	Urbanized	4,950	5,080
8	Arterial	Urbanized	6,280	6,440
4	Freeway	Urbanized	5,350	6,510
6	Freeway	Urbanized	8,270	10,050
8	Freeway	Urbanized	11,180	13,600
2	Collector	Transitioning	670	1,300
4	Collector	Transitioning	1,570	2,810
2	Arterial	Transitioning	1,260	1,490
4	Arterial	Transitioning	3,150	3,290
6	Arterial	Transitioning	4,730	4,930
4	Freeway	Transitioning	5,250	6,220
6	Freeway	Transitioning	8,110	9,600
8	Freeway	Transitioning	10,960	12,980
2	Arterial	Rural Undeveloped	740	1,190
4	Arterial	Rural Undeveloped	4,000	5,140
6	Arterial	Rural Undeveloped	6,000	7,710
4	Freeway	Rural Undeveloped	4,980	5,890
6	Freeway	Rural Undeveloped	7,690	9,090
2	Collector	Rural Developed	1,070	1,350
2	Arterial	Rural Developed	1,100	1,500
4	Arterial	Rural Developed	4,060	5,250
6	Arterial	Rural Developed	6,080	7,870
4	Freeway	Rural Developed	4,980	5,890
6	Freeway	Rural Developed	7,690	9,090

connections to public roads are considered impacted. In addition, intersections of the local/non-major roads with the Major Road Network segments identified in b., above that provide access between the site to the Major Road Network,

e. Major Intersections that are part of the impacted roadways.

Mainline segments of toll roads may be excluded from the analysis, but analysis of ramp merge and diverge sections, toll booths, and ramp connections of expressways to the non-expressway road network shall be included to ensure toll road operations do not adversely affect other public road operations.

For purposes of determining if peak hour development traffic consumes one percent or five percent or more of the existing service capacity of a road, the generalized roadway service volumes from the Generalized Service Volumes tables of the Florida DOT's current Q/LOS Handbook (the 2002 values are reproduced in Table 1 for convenience) shall be used. Roadway functional classification shall be based on the Vision Plan Map of the Comprehensive Plan.

4. ANALYSIS SCENARIOS

a. **Existing scenario** is defined as the analysis of existing traffic on the Existing Network.

b. **Future scenario** is defined as the analysis of existing traffic, plus background traffic, plus the project's traffic on the Committed Network. For locations which are estimated to fail, identify when each failure is expected as a fraction of the development trips, associated on-site land use quantities, and estimated year. These parameters may be estimated by interpolating between the "Existing Scenario" analysis and the "Future Scenario" (without mitigation) analysis. If new corridors that shift travel patterns are proposed as the solution, the interpolation should be based on an analysis that does not consider the new corridor. In the case of large MPUDs, DRI's and Florida Quality Developments, the County reserves the right to modify timing of failure estimates to reflect other Pending or approved developments that are presented between the time the methodology is approved and when the list of improvements to cure identified deficiencies at build-out are finalized by the County.

c. **Future scenario with mitigation** is defined as analysis of existing traffic, plus background traffic, plus project traffic on the Committed Network with the inclusion of any other improvements that are required to restore the adopted level of service standard. This analysis scenario will be required only if mitigation is required as the result of the future scenario analysis. For purposes of analyzing site access requirements only, the County may allow consideration of improvements scheduled in the first five years of the Capital Improvement Program. For large MPUD, DRI, and Florida Quality Development projects, the County may require an additional five, ten, and/or fifteen year analysis of the financial feasibility of the improvements that are required to restore the adopted level of service standard.

5. GENERAL ANALYSIS REQUIREMENTS AND SOFTWARE

a. Level of Service (LOS) and turn lane length analysis shall be undertaken for all impacted roadways and intersections in accordance with the procedures below.

b. For the facility on the Major Road network to which the development has direct access:

- if the future year total volume is 70 percent or less of the Major Road generalized service volume using the latest version of FDOT generalized tables, detailed capacity and turn lane length analyses shall be undertaken for site driveway connections to that facility, and/or of the local street providing site traffic access to that Major Road facility. Turn-lane length analysis shall be undertaken in accordance with the County's access management standards.
- if the future year total volume is more than 70 percent of the generalized service volume using the latest version of FDOT generalized tables, a detailed capacity analysis shall be undertaken for that facility that evaluates level of service and the adequacy of turn lane lengths. Turn-lane length analysis shall only be required for signalized and major unsignalized intersections within the directly accessed facility that are within one mile of the driveway or local street intersection providing access to the site from the Major Road. Turn-lane length analysis shall be undertaken in accordance with the County's access management standards.

c. For analysis of roadways outside of the area as described in Paragraph 5.b., the use of the latest version of FDOT's generalized tables is permitted as an initial screening tool. If failure is estimated, then more detailed analysis is required using the procedures described below.

d. Road Facility limits shall be as defined in the County's annual concurrency monitoring level of service report. Adjustments, if appropriate, shall be proposed in the methodology statement, and be developed based on acceptable engineering and planning practices as set forth in the Highway Capacity Manual (TRB).

e. All analysis shall be undertaken for conditions during the 100th highest hour of the year. Other time periods or a.m. analysis may be required if requested during the methodology meeting or during the first sufficiency review.

f. Use of analysis software is allowed in accordance with the following:

(1) For unsignalized intersections, the latest version of Highway Capacity Software (HCS) is the preferred software for analyzing delay and LOS.

(2) For signalized intersections, the latest version of Synchro software using the percentile delay methodology is required.

(3) For interrupted flow road segment analysis, the preferred software is the latest version of Synchro.

(4) For uninterrupted flow roads (those with more than two-mile signal spacing) the latest version of the Florida DOT's Highplan software is acceptable.

(5) The electronic copy of the analysis files shall be provided. The hard copy of the summary sheets shall be provided unless otherwise requested by the County.

(6) Other analysis software may be required by the County to address situations not addressed by the above provisions, or if requested by the applicant and approved by the County during the methodology step.

(7) If any analysis software is used as an alternative to the FDOT's

generalized tables, detailed LOS analysis of all Major Intersections within the facility is required.

(8) The input data to the software shall be field verified and provided in the report including, but not limited to:

(a) Geometry, including lane widths and turn-lane lengths

(b) Heavy vehicle factor

(c) Directional factor (D Factor, not to be less than 0.52 for the future conditions analysis)

(d) Peak-hour factor (PHF, not to exceed 0.95 for the future conditions analysis)

(e) Values of the above parameters should be estimated in the future conditions analysis to reflect unconstrained demand conditions.

(f) Existing signal timing and phasing can be obtained from the County Traffic Operations Division. The existing signal timing, including its maximum and minimum settings, shall be used for the initial analysis of future conditions. Any timing change outside of the existing minimum and maximum setting may be presented for County approval as part of the mitigation strategy.

(g) Segment lengths

(9) If the Florida DOT's generalized roadway service volume tables are used, the following information shall be provided in a separate table:

(a) Class of roadway (interrupted or uninterrupted)

(b) County or State maintained

(c) Area type

(d) Signal density

(e) LOS standard

(10) Other parameters that govern the roadway/intersection capacity analysis shall be based on the parameters described in the latest version of the *Highway Capacity Manual*.

(11) The County may require the inclusion of proposed or anticipated traffic signals in the future year condition that may not exist in the “existing condition”, including signals at development entrances.

g. Where driveway movements are restricted, the associated necessary U-turns and added flow at the upstream and downstream median openings or intersections should be identified and analyzed as development traffic.

h. Procedure to determine detailed facility service volume for purposes of establishing Critical and Near-Critical Roads:

(1) Undertake Synchro intersection capacity analysis using current 100th highest hour volume estimates,

(2) Check turn movements to be sure v:c less than or equal to 1.0 on all turning movements,

(3) Check turn lane length to accommodate 95th percentile queue – if inadequate, increase green to shorten the queue,

(4) Allocate remaining green time to through movements, to minimize delay subject to v:c ratio <=1.0,

(5) Apply the through movement G:C ratios determined in this way to an Art-Plan analysis to solve for facility service volume,

(6) Divide the weighted average volume for the facility (weighted by segment length) by the facility service volume determined by Art-Plan.

6. TRIP GENERATION

The trips from/to the site shall be estimated using the latest Institute of Transportation Engineers (ITE) *Trip Generation Handbook*, including separate trip generation estimates for interim traffic generating uses[1]. Other rates may be required by the County, or may be used if requested by the applicant and approved by the County. Use of other rates must be requested during the methodology step.

Heavy vehicles adversely affect traffic because they occupy more roadway space and have poorer operating capabilities than passenger cars, particularly with regard to acceleration, deceleration, and the ability to maintain speed on upgrades. Accordingly, for trip generation purposes, if heavy vehicles are 10 percent or more of the trips generated by the proposed land use, the total estimated trips for heavy vehicles shall be multiplied by 2 unless ITE heavy vehicle data or other County approved heavy vehicle trip generation data for the land use support a different multiplier; however, in no event shall the multiplier be less than 1. The multiplier shall not be used for purposes of study area determination. The multiplier shall not be used in addition to the multiplier used in the analysis software to determine LOS.

For estimating daily trip generation for purposes of establishing de minimis status, the daily trip generation rates of the County's Transportation Impact Fee Ordinance shall be acceptable.

To encourage redevelopment of previously developed sites, a credit against any previously existing land uses shall be given for the replacement of any traffic-generating building or structure that existed on or after January 1, 1985. If the petitioner can provide evidence of such a prior use on the site, the TIS shall analyze the net increase in trips associated with the proposed land use as development traffic. If the site was dormant during collection of the traffic count data the analysis is based upon, then the "prior vested" portion of the development traffic must be added as "background" traffic. For purposes of access management analysis, the total trips (prior vested plus additional, new trips) should be analyzed at site access and connection points to the Major Road network.

7. INTERNAL CAPTURE

Internal capture estimates shall be based on ITE acceptable methodologies and, where the ITE data is not applicable, professional judgment. However, in no case will an internal capture of more than 20 percent be acceptable, unless the County accepts a higher internal-capture percentage based on verifiable documentation (e.g. field studies of comparable sites).

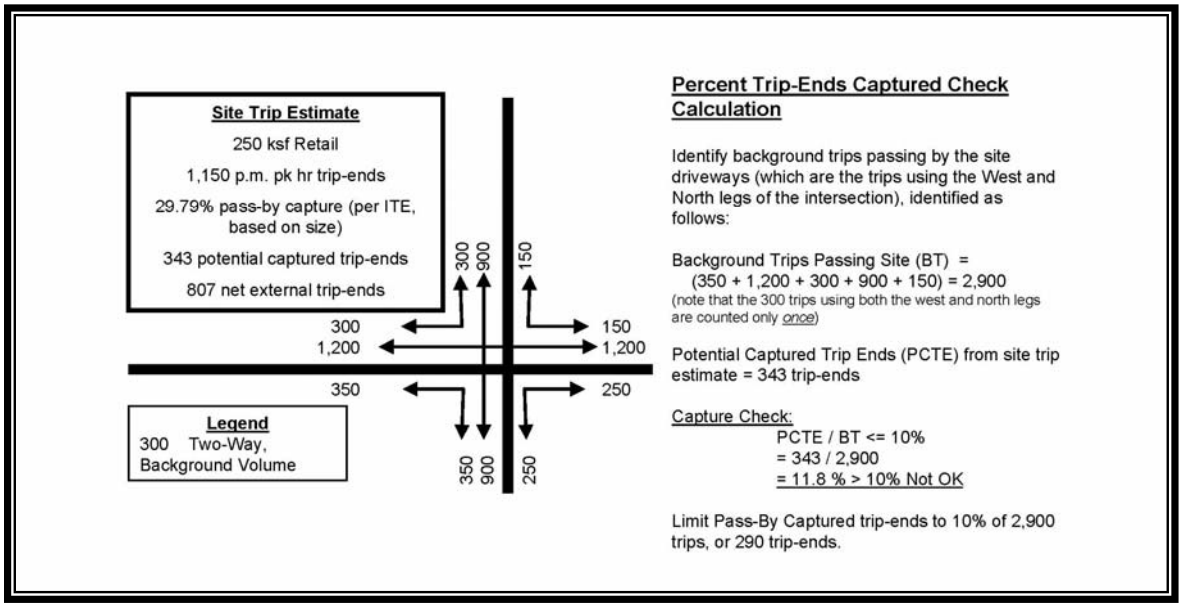
[1] Mineral extraction (as defined in Section 201 of the LDC) and removal of more than 30,000 cubic yards, even as a interim use, is presumed to be a separate and distinct mining land use requiring separate trip generation estimates. Such land use is also presumed to generate more than 10 percent heavy vehicles.

8. PASSER-BY CAPTURE

The total gross external trips of the project traffic may be reduced by a passer-by factor to account for the project traffic that is already traveling on the adjacent roadway. Passerby capture shall not exceed 20 percent of site-generated traffic unless data supporting higher rates are included in the current version of the ITE Trip Generation reference or are otherwise approved by the County. In no event shall the total passer-by trips entering and exiting a site exceed 10 percent of the total background traffic on the adjacent roadway. In analysis of the site-access intersections with major roads, the passer-by trips shall be included and separately identified.

In cases where median controls limit left-in/left-out access to the site, traffic on the "far side" of the road can be considered in assessing the upper limit on captured trips; however, the effects of that traffic in the associated necessary U-turns and added flow at the upstream and downstream median openings or intersections should be identified as development traffic at those locations.

The passer-by capture percentage shall be computed as the number of trips entering plus exiting the site land uses claimed as captured divided by the number of background trips passing by the site on major roads directly abutting or passing through the site. An example of this computation is provided below:



9. DISTRIBUTION/ASSIGNMENT

The latest, adopted, Tampa Bay Regional Planning Model (TBRPM) is acceptable in determining the trip distribution percentages and trip assignments. The results of the model will be reviewed by the County for reasonableness to ensure the existing and future travel patterns are correctly simulated. Manual trip distribution and assignment may also be acceptable as long as it is reviewed and accepted by the County and logically replicates the existing and future travel patterns.

10. TRAFFIC COUNTS

All counts shall be conducted based on acceptable engineering standards. Raw-turning movement counts and daily tube counts (minimum 48 hours) shall be provided for all the intersections and road segments that are being analyzed. The raw counts shall be converted to the 100th highest hour of the year based on the FDOT's peak-season adjustment factors and minimum K100 factors. Prior to approval of the methodology statement, other peak-season adjustment factors or adjustment methodologies that may result in different peak-season adjustment factors may be requested at the discretion of the County.

For saturated intersections, the FDOT's methodology shall be followed to estimate the turning movement counts by multiplying the average annual daily traffic (AADT) tube count at appropriate locations by field verified "D" and minimum K100 factors and by applying the percentage turns obtained from the field turning-movement counts. In no event, however, shall the estimated, turning-movement counts be less than the existing field counts.

Tube counts at appropriate locations shall be provided for segment analysis using the FDOT procedures. The segment tube counts at mid-block locations shall be checked against turning-movement counts at near intersections. In general, the mid-block counts and turning-movement counts shall not be significantly different unless the difference can logically be explained.

Approved FDOT or County-maintained counts may be used if they are less than one year old. However, new counts may be requested if there are recent improvements to the transportation system that cause significant changes in traffic patterns. Counts more than one year old will not be acceptable unless otherwise approved by the County. Machine counts should start no earlier than 9:00 a.m. on Mondays and end no later than 3:00 p.m. on Fridays.

11. BACKGROUND TRAFFIC GROWTH/FUTURE TRAFFIC

The existing traffic counts shall be increased by a growth factor up to the project's build-out date, which shall be reasonably specified, to account for increases in existing traffic due to other approved and Pending Developments, as determined by the County. The development build-out date shall be no less than two years and no more than either ten years for non-DRI developments or 15 years for DRI developments from the date of the initial transportation methodology submittal.

In the case of Pending or approved developments having a build-out period longer than the development under review, the County may allow the incorporation of a reasonable fraction of the approved or Pending development in the background traffic estimate. The County may maintain a database of traffic growth rates for this purpose.

Any development meeting all of the following criteria need not be considered in background traffic:

(a) the project is not built,

(b) the project is not Pending,
(c) the project is no longer exempt from transportation concurrency pursuant Section 402.7 of the LDC, and
(d) transportation capacity is no longer reserved for such project pursuant to Section 402.3 of the LDC.

It shall be the Applicant's burden to demonstrate that any development requested by the County to be included in the background traffic growth meets the above criteria.

Background traffic-growth rates and background traffic volume estimates shall be based on any combination of the following techniques, *which must be proposed and agreed upon in the methodology process*:

a. Historical growth rates (minimum of the past three years) may be used in areas where the expected growth is representative of the past growth.
b. Consideration of traffic from approved and Pending Developments may be required in areas where the historical trend is judged by the County to be inappropriate. This may be accomplished through application of the latest adopted Tampa Bay Regional Planning Model (TBRPM), the MPO's urban area transportation system planning model.
c. The growth/future traffic on roads that do not currently exist shall be based on the TBRPM (the latest, adopted model).
d. If the TBRPM is used, the background traffic growth for existing roads shall be determined as follows: (1) identify the validated year model volume and build-out year (future) model volume, (2) interpolate these values to identify a model-based volume for existing conditions (year to be consistent with the date of "current" count data), (3) identify the growth rate between the interpolated existing conditions model-based volume and the build-out year (future) model volume, and (4) apply this growth rate to the existing conditions traffic counts. The build-out year (future) model volume is determined by applying the project's build-out year socioeconomic data to the committed and/or improved network. The build-out year socioeconomic data may be obtained by interpolating between MPO's or the County's adopted validated year and the adopted interim or future year, socioeconomic data, then adjusting to reflect the Pending and approved developments.
e. The socioeconomic data of the model shall reasonably represent, if appropriate, the approved and Pending Developments in the vicinity of the project as approved by the County during the methodology process.
f. Minimum annual growth rates in all cases shall be two percent, unless otherwise approved by the County.
g. The assumed growth rate for each impacted roadway segment shall be presented in a table.
h. The background traffic growth estimates of the model will be reviewed by the County to ensure growth reasonably reflects recent and expected growth trends.
i. The connections of surrounding traffic analysis zones in the model should be reviewed to reflect other approved and Pending Developments and to ensure appropriate network loading.

For purposes of de minimis determinations under LDC 402.5.C.4, 100th highest hour traffic volume data shall be factored to account for vested and de minimis trips to the calendar year of the published List of Non-Deminimis Roads that is current at the time the petition for deminimis determination is submitted.

12. LEVEL OF SERVICE STANDARDS

a. The LOS standards for all major road segments (facilities) shall be consistent with the letter standards per the County's latest adopted Comprehensive Plan.
b. The overall intersection LOS standard is the same as the segment (facility) standard. Where different LOS standards apply to different legs of an intersection, the overall intersection LOS standard will be “D”.
c. The delay for individual turning-movements and through-movements may exceed the segment standard by one letter grade provided that the volume/ capacity (V/C) ratio for the subject movement remains less than or equal to one. Average delays up to 100 seconds are acceptable for individual turning movements where the V/C ratio is less than 0.8.
d. For site access driveways and local street connections serving site access traffic, delays up to 100 seconds will be considered acceptable.

13. INVENTORY OF THE EXISTING AND FUTURE CONDITIONS

At minimum, the following additional information shall be provided:

a. Build-out date of the project must be a reasonable date based on the size of the project, but not less than two years from the date the TIS is submitted, nor more than 10 years for non-DRI developments or more than 15 years for DRIs.
b. The geometry, speed limit, and the LOS standard of all the existing roadways and intersections and committed intersection and roadway improvement projects within and in close proximity of the study area.
c. Existing vehicle counts and data supporting heavy vehicle factor for capacity and substandard road analysis.
d. Graphic presentation of the project's proposed access locations, types, and internal roads with connections to the County's vision/build-out or long-range plan of roadways. The graphic shall also cover the area beyond the boundary of the project to include all the external, major roadways and existing or future, access points and types of developments surrounding the project.
e. Pavement marking plans/concept plans of roadways that provide direct access to the project and have completed or are undergoing design or route study phase, if available.
f. Graphic presentation of project, traffic-percent distribution and total background and project traffic assignments.
g. Inventory of existing or committed, traffic-control devices.

14. MITIGATION OF IMPACTS

a. General Guidance

1) This section provides discussion on how the adequacy of mitigation will be technically reviewed and determined by the County. The mitigation options discussed below are set forth in Section 402 of the LDC. In the event the discussions below are found to conflict with the requirements of the LDC, the LDC shall prevail.

2) Improvements for mitigation of impacts at an individual location must work effectively relative to upstream and downstream roadway conditions. As examples:

- a proposed improvement that relies upon dual lefts, three thru lanes, and a right turn lane to provide adequate capacity to serve the traffic demand at an intersection approach where only one lane feeds traffic might not be considered an effective improvement because (for example) one lane can only feed traffic at a rate of 1,850 vehicles per hour but the intersection capacity analysis relies upon approach lane capacity in excess of the 1,850 vehicles per hour.
- a proposed improvement that cannot achieve effective lane utilization due to downstream conditions would not be considered an effective improvement. For example, provision of a second through lane with a receiving lane on the far side of an intersection of only 300 feet in length.
- analyses of improvements to closely-spaced intersections should include evaluations of the traffic flow interaction and signal timings of the two intersections to ensure the proposed improvements will achieve the intended result.

3) For unsignalized intersections, below-standard conditions should be mitigated by first considering addition of auxiliary lanes, then consideration of signalization. If development traffic contributes to the side-street volumes but the deficient delay is not mitigated through auxiliary lane addition, warrants for signalization are not met, and signalization is shown to be a viable solution when warranting conditions are met, then a financial contribution to future signalization may be considered as mitigation. Widening of the major road may also be necessary. See the "Proportionate Share Mitigation" section below for share computation methodology for adding a traffic signal at a previously unsignalized location.

b. Mitigation Options

1) Restore to adopted standard – Identify an improvement at an impacted location that restores level of service to the adopted standard for the "future year with development traffic" condition, as defined in the Analysis Scenarios section of these Guidelines.

2) Proportionate Share Mitigation – The proportionate share payment shall be calculated as follows:

a) Identify all the needed improvements to bring all deficient locations in the study network back to the LOS standard,

b) Submit a cost estimate of the required improvements in accordance with procedures below.

c) Calculate the proportionate-share cost of those improvements per the following formulae:

For road segments:

Proportionate share cost = Total cost of improvement x Project traffic / Increase in capacity created by the improvement. The increase in facility capacity shall be based on the generalized

service volume table provided in the "Impacted Roadways/ Intersections" section of this document. The above values shall be in units of peak hour, two-way values.

For signalized and unsignalized intersections (where signalization is not needed):

Proportionate share cost = Total cost of improvement x Project traffic / Increase in capacity created by the improvement,

Where: Project traffic is the development traffic in all movements at the intersection

Increase in capacity is the sum of the changes in physical capacity of all of the movements at the intersection

For installation of signals at unsignalized locations:

Proportionate share cost = Total cost of improvement x Project traffic / Increase in capacity created by the improvement,

Where: Project traffic is the development traffic in *all* movements at the intersection

Increase in capacity is the sum of the changes in physical capacity for the *minor-street movements only* at the intersection

If other unforeseen situations arise, they will be dealt with on a case-by-case basis.

d) Cost values shall include route study costs, design, right-of-way, construction, construction engineering/inspection costs, and contingency costs.

1. For improvements to County roads, the following general rules shall apply to estimate improvement costs. The County reserves the right to make use of more detailed information when available prior to issuance of a certificate of capacity requiring a proportionate share or cost calculation. The latest available cost estimates will be used only after the needed improvements for the proposed development are identified to the satisfaction of the County using the County's concurrency management system.

i. The route study cost should be $40,000 per mile.
ii. The construction cost should be based on 85% of the costs in the latest available FDOT District 7 cost reports column presently titled "Subtotal". This cost column represents Long-Range Estimates (LRE) costs plus Maintenance of Traffic (MOT) plus Mobilization.
iii. The design cost should be 5% of the total construction cost from step ii.
iv. The Construction Engineering Inspection (CEI) cost should be 3% of the cost from step ii.
v. Contingency Cost shall be ten percent of the construction cost from step ii.

vi. Right-of-way costs from a location-specific study should be used when available. Right-of-Way costs of at least 23.5% of the cost from step ii are generally expected. For intersections, site-specific conditions should be reviewed in every case.

The County Engineering Department will be the agency responsible for review and approval of the County Road improvement cost estimates.

2. For FDOT maintained roads the following general rules shall apply to estimate improvement costs. If more detailed studies have been undertaken that provide better estimates, they may be submitted for consideration. FDOT shall have the right to change these general rules no later than two weeks prior to issuance of a certificate of capacity requiring a proportionate share or cost calculation.

i. The construction cost, including Design and CEI for improvements, should be based on latest available general cost estimates produced by FDOT District 7.
ii. The ROW cost estimate should be 120% of the estimated construction cost (LRE column).
iii. The PD&E cost should be 5% of the construction cost.

The latest available cost estimates will be used after the list of needed improvements are finalized to the satisfaction of the COUNTY using the COUNTY'S concurrency management system.

e) Where an improvement to an alternate road (which draws background traffic away from an existing road estimated to fail) is identified as a solution to congestion, and development traffic is assigned to both the existing road as well as the alternate road, then the proportionate share computation will include the total development traffic on the existing road and the new road.

15. SUBSTANDARD ROADS

Unless otherwise required by the Development Director, Development Review Committee (DRC) or Board of County Commissioners (Board), a TIS as it relates to the Substandard Road section shall be required only for those developments generating more than 100 driveway trips, as indicated in Exhibit A. Developments generating less than or equal to 100 driveway trips ("Substandard Road Sub-Threshold Developments") shall be required to pay a substandard road fair share payment, calculated by the County, if the development has access, or is required to have access, to a substandard road or roads (as defined below). For Substandard Road Sub-Threshold Developments, the assessment of whether the road(s) to be accessed are substandard and the estimate for correcting substandard conditions shall be prepared by the County Project Management/PVAS Department. For Substandard Road Sub-Threshold Developments, the calculation of the fair share payment shall be based upon the cost estimate for correcting substandard conditions prepared by the County Project Management/PVAS Department, and shall be computed using (a) County PVAS Equivalent Residential Unit

(ERU) assessment methodology for local roads, or (b) the fair share formula set forth below for subdivision collector and collector roads. Any Substandard Road Sub-Threshold Development that disagrees with the substandard road assessment, the cost estimate for correcting substandard conditions, or the calculation of the fair share payment, as determined by the County, shall have the right to prepare a substandard road assessment in accordance with the requirements set forth below, or seek a variance in accordance with Section 18. For purposes of this sub-section, the term "Development" shall be defined as a "project" pursuant to the definition in Section 402.5.C.5. of the LDC.

All TIS's shall include a separate section assessing substandard roads. Substandard roads that are subject to this assessment include non-State public roadways and privately-owned roadways on which anyone other than the owners travel, that do not meet the minimum roadway design and maintenance standards as defined in *Florida's Design Criteria for Resurfacing, Restoration, and Rehabilitation of Streets and Highways (RRR)*, current edition).

The substandard road assessment shall be signed and sealed by a registered professional engineer licensed in Florida.

The Substandard Road assessment may be waived by the County if it is aware that all roads to be accessed, as required by the LDC, meet the minimum standards outlined herein.

Prior to undertaking a Substandard Road assessment, the applicant shall prepare a written methodology statement, that indicates the following items, and submit it with the appropriate review fee, to the County for review:

- Location of development (illustrated on a map),
- Proposed land uses and size,
- Estimated daily traffic generation,
- Estimated distribution and assignment of daily traffic,
- Indication of proposed potentially substandard roads to be reviewed.

The County will review and comment on the acceptability of the proposed review within one week.

The substandard assessment is not intended to be a topographic survey of the impacted roadways, but rather a "windshield survey", supplemented with appropriate field measurements and "ground observations" when potentially sub-standard conditions are observed.

At a minimum, the criteria below shall be used to assess whether the roads are substandard and to identify the improvements that are required to bring the substandard roads to standard status:

a. Lane width and Shoulders
b. Pavement Condition
c. Flooding
d. Side-Slope
e. Clear-Zone Widths
f. Railroad Crossing Traffic Control

If other below-standard conditions are observed that would compromise the safety of the

traveling public, they should also be noted for correction.

Except as otherwise required by the LDC, the Development Director, the DRC, or the Board, the traffic study shall demonstrate that 80 percent of the project traffic will access the site from the major road network continuously on (not merely crossing) standard roads. Up to 20 percent of the project traffic, but not more than 100 daily trips on any given road, will be allowed to access the site via substandard roads.

The traffic study shall contain all the necessary data and assessment and list of any potential improvements that are needed to achieve the above “80 Percent Rule”. The data and assessment shall be sufficient for the Engineering Services Department's review and approval of the substandard section of the study.

Except as otherwise required by the LDC, the Development Director, the DRC, or the Board, the required mitigation for substandard roads shall be the payment of the development's fair share of the cost of designing, constructing, and acquiring right-of-way for all the improvements needed to achieve the 80 percent rule and the applicable minimum roadway design and maintenance standards. The fair share shall be calculated in accordance with the following equation:

Developer share = Daily Development Trips / (Existing AADT + Daily Development Trips)

Except as otherwise required by the LDC, the Development Director, the DRC, or the Board, mitigation for proposed development that exceeds the maximum entitlements of the existing zoning or land use (whichever is more restrictive), shall be the design, construction, and right-of-way donation/acquisition for all the improvements needed to achieve the 80 percent rule and the applicable minimum roadway design and maintenance standards.

The applicant shall prepare an estimate of the cost to cure the substandard conditions, and the County Engineering Services Department shall be the agency to review and accept the cost estimate. The Engineering Services Department may develop a procedure and maintain unit costs for estimating the costs of upgrading sub-standard roads.

Any substandard road fair share payment collected by the County shall be budgeted separately from concurrency proportionate share or transportation impact fee revenue, and shall be utilized only to correct substandard conditions on one or more of the roads which formed the basis of the fair share calculation.

More specific guidelines in regard to data collection, standards, and assessment of the substandard condition of roadways as related to the criteria previously identified are provided in the following sections.

a. Lane Width and Shoulders.

(1) Data Collection: The lane and shoulder widths that represent a typical lane and shoulder width of the impacted roadways shall be field measured and reported. Extreme variations from the existing typical widths shall also be reported.

(2) Standards: The minimum lane and shoulder widths allowed are provided

in Tables 25.4.5.1, 25.4.5.2, and 25.4.5.3 of the *RRR*. The design year and speed as stated in the above-referenced tables shall mean the build-out year of the project and posted speed limit respectively.

TABLE 25.4.5.1
Lane and Shoulder Widths - Rural Multilane

Design Year AADT	Design Speed (mph)	Minimum Lane Width (Ft.)	Minimum Shoulder Width (Ft.)
ALL	ALL	12	6

TABLE 25.4.5.2
Lane and Shoulder Widths Two-Lane Rural and Urban - Without Curb and Gutter

Design Year AADT	Design Speed (mph)	Minimum Lane Width (Ft.)	Minimum Shoulder Width (Ft.)
1-750	ALL	10[1]	6[3]
751-2000	<50	11[1 2]	6[3]
	=>50	12[2]	6[3]
>2000	ALL	12[2]	6[3]

1. For rural and urban projects without curb or gutter (regardless of traffic volume), when widening is required, a minimum lane width of 11 feet is required. A minimum lane width of up to 12 feet may be required if heavy vehicles are 10 percent or more of the total daily driveway trips.
2. May be reduced by one foot if heavy vehicles are less than ten percent of design-year traffic and are less than 10 percent of the total daily driveway trips.
3. May be increased up to 8 feet if heavy vehicles are 10 percent or more of the total daily driveway trips.

TABLE 25.4.5.3
Urban Multilane or Two-Lane With Curb and Gutter

Design Year AADT	Design Speed (mph)	Minimum Thru-Lane (Ft.)	Minimum Turn-Lane (Ft.)	Minimum Parking Lane (Ft.)
ALL	ALL	10[1]	9[2]	7[3]

1. For rural and urban projects without curb or gutter (regardless of traffic volume), when widening is required, a minimum lane width of 11 feet is required. A minimum lane width of up to12 feet may be required if heavy vehicles are 10 percent or more of the total daily driveway trips.
2. May be reduced by one foot if heavy vehicles are less than ten percent of design-year traffic and are less than 10 percent of the total daily driveway trips.
3. A minimum width of seven feet, measured from the face of the curb, may be left in place. Otherwise provide eight feet minimum, measured from the face of the curb.

(3) Assessment: The assessment shall include a statement as to whether the

existing, typical condition meets the standards, a general description of physical constraints that may prevent upgrading the substandard condition to standard condition and a proposal of alternative standards if necessary, and a detailed description of the proposed improvements and associated costs.

b. Pavement Condition:

(1) Data Collection: The thickness of the surface pavement and base and the cross-slopes that represents a typical surface and base thickness and cross-slopes of the impacted roadways shall be field-measured and reported. The thickness of the subbase need not be field-measured unless practical. If the subbase is not measured, the thickness of the subbase can be assumed standard. In addition, any quarter-panel failures and wheel-rutting shall be noted and reported. Extreme variations from the existing, typical conditions shall also be reported.

(2) Standards: The minimum, structural numbers (SN) for roadways are:

(a) Local Streets: 2.36

(b) Subdivision Collector: 2.58

(c) Collector: 3.00

(d) Arterial: 4.00

A minimum structural number of up to 4.00 may be required on local and collector roadways if heavy vehicles are 10 percent or more of the total daily driveway trips.

Layer coefficients are provided in Tables No. 1 and 2 of the FDOT's *Flexible Pavement Design Manual*. Asphaltic-material-layer coefficients shall be reduced as listed within Table No. 2 for existing asphalt.

TABLE 1

Structural Coefficients for Different Pavement Layers

Specification Section	Layer Coefficient	Layer
337	0.00	FC-2
337	0.22	FC-3
331	0.44	Type S
333	0.30	Type III
332	0.20	Type II
280	0.30	ABC-3 (Marshall - 1,000)
280	0.25	4ABC-2 (Marshall - 750)
280	0.20	ABC-1 (Marshall - 500)
272	0.25	Econocrete (1,100 psi)
272	0.22	Econocrete (800 psi)
270	0.20	Soil Cement (500 psi)
270	0.15	Soil Cement (300 psi)
335	0.15	SAHM (Marshall - 300)
204	0.15	Graded Aggregate (LBR-100)
250	0.18	Cemented Coquina Shell (LBR-100)
200	0.18	Limerock (LBR-100)
250	0.16	Bank Run Shell (LBR-100)
230	0.12	Limerock Stabilized (LBR-70)
240	0.12	Sand Clay (LBR-75)
260	0.10	Shell Stabilized (LBR-70)
160-3	0.10	Stabilized Subbase
180	0.08	Stabilized Subbase
160-2	0.08	Type B Stabilized (LBR-40)
160-2	0.06	Type B Stabilized (LBR-30)
160-2	0.06	Type C Stabilized
170	0.12	Cement Treated Subgrade (300 psi)
165	0.08	Lime Treated Subgrade

TABLE 2
Reduced Structural Coefficients
Asphaltic Materials

Layer	Original Design	Pavement Condition Good	Fair	Poor
Type I	0.37	0.30	0.23	0.15
Binder	0.30	0.25	0.20	0.15
SBRM (300 M)	0.15	0.13	0.11	0.08
FC-3	0.22	0.17	0.15	0.12
Type S	0.44	0.34	0.25	0.15
Type III	0.30	0.25	0.20	0.15
Type II	0.20	0.17	0.15	0.12
ABC-3 (1,000 M)	0.30	0.25	0.20	0.15
ABC-2 (750 M)	0.25	0.20	0.16	0.12
ABC-1 (500 M)	0.20	0.17	0.14	0.10
SAHM (300 M)	0.15	0.13	0.11	0.08

Note: Reduced structural coefficients for use in the AASHTO Flexible Pavement Design Equation can be obtained from this table for all asphalt layers based on Pavement Condition. Pavement Condition for this table should be based on the surface appearance of the asphalt pavement (cracking, patching, rutting, etc.) and may be supplemented by additional testing. Structural coefficients are not reduced for existing rock base, subbase, or subgrade.

Recommended Criteria:

Good: No cracking, minor rutting/distortion.
Fair: Crack Rating = 8 or higher, minor rutting/distortion.
Poor: Crack Rating = Less than 8, rutting 3/8 inch or greater.

Note: Quarter-panel failures and wheel-rutting are considered to be substandard conditions.

Roadway Cross-Slopes shall conform to Table 25.4.6 of the RRR.

TABLE 25.4.6
Roadway Cross-Slopes

Feature	Standard	Range
Travel Lanes	0.02	0.02-0.041
Shoulders	0.06	0.03-0.082
Parking Lanes	0.05	0.03-0.05

1. Existing multilane curb and gutter sections originally constructed with a parabolic-crown section may be resurfaced using a series of tangents with a cross-slope range from 0.015 to 0.05.
2. When existing shoulders are to remain, the algebraic difference between the shoulder-slope and adjoining roadway pavement-slope shall be .0.07.

c. Flooding:

(a) Data Collection: The data collection includes the compilation of historical flooding locations that is readily available from the Engineering Services Department. The flooding location GIS map layer titled "Observed Flooding" shall be used to identify flooding areas.

(b) Standards: The standard is no surface ponding upon roadway.

(c) Assessment: The assessment shall include a statement as to whether impacted roadways are within the flood area, a general description of physical constraints that may prevent upgrading the substandard condition to standard and propose alternative standards, and a detailed description of the proposed improvements and associated costs.

d. Side-Slope:

(1) Data Collection: The front- and back-slopes that represent a typical front- and back-slope of the impacted roads shall be field-measured and reported. Extreme variations from the existing typical conditions shall also be reported.

(2) Standards: The maximum front-slope shall be 1:4 within the clear zone and 1:3 outside the clear zone. However, front-slopes 1:3 or flatter may remain within the clear zone, but shielding may be required. Front-slopes steeper than 1:3 shall be shielded as per Design Standards, Index 400, General Notes. Consideration should be given to flattening slopes of 1:3 or steeper at locations where run-of-the-road-type crashes are likely to occur (e.g., on the outside of horizontal curves).

The maximum back-slope shall be 1:3 in the clear zone. The maximum back-slope shall be 1:2 outside the clear zone without shielding.

(3) Assessment: The assessment shall include a statement as to whether the existing conditions meet the standards, a general description of physical constraints that may prevent upgrading the substandard condition to standard and propose alternative standards, and a detailed description of the proposed improvements and associated costs.

e. Clear-Zone Widths:

(1) Data Collection: The clear-zone widths that represent a typical clear-zone width of the impacted roads shall be field-measured and reported. Extreme variations from the existing typical conditions shall also be reported.

(2) Standards: Maximum clear-zone widths shall be as listed within Tables 25.4.14.1 through 25.4.14.9 of the *RRR*. The design speed, as stated in the above-referenced tables, shall mean the posted speed limit.

TABLE 25.4.14.1

Clear-Zone Width (Feet)

Design Speed (mph)	Travel Lanes and Multilane Ramps	Auxiliary Lanes and Single-Lane Ramps
<45	6	6
45[6]	14	8
>45	18	8

General Notes:

1. In control zones, horizontal clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11 of this volume.

2. When relocation is required to meet minimum clear-zone requirements, consideration should be given to providing new construction widths.

3. Clear-zone widths are for side-slopes 1:4 and flatter. For steeper slopes, provide a clear, run-out area at the toe of the fill according to Chapter 4, this volume.

4. When crash history indicates need, or where specific site investigation shows definitive crash potential, clear-zone widths shall be adjusted on the outside of horizontal curves with flush shoulders in accordance with Table 2.12.2, Chapter 2, this volume.

5. Clear-zone width is measured from the edge of the traveled way.

6. May be reduced to <45 mph widths if conditions more nearly approach those for low speed (40 mph or less).

TABLE 25.4.14.2

Horizontal Clearance for Traffic Control Signs

Placement	Placement shall be in accordance with the Design Standards. Placement within sidewalks shall be such that an unobstructed, sidewalk width of four feet or more (not including the width of the curb) is provided.
Supports	Supports, except overhead sign supports, shall be frangible or breakaway. When practicable, sign supports should be located behind barriers that are justified for other reasons. Overhead sign supports shall be located outside the clear zone unless shielded.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.	

TABLE 25.4.14.3

Horizontal Clearance for Light Poles

Conventional Lighting	Not in the median except in conjunction with barriers that are justified for other reasons. Rural (Flush Shoulders): 20 feet from the travel lane, 14 feet from the auxiliary lane (may be clear-zone width when the clear zone is less than 20 feet). Urban (Curb and Gutter): From the right-of-way line to 4 feet back of the face of the curb (may be 1.5 feet back of the face of the curb when all other alternatives are deemed impractical). Placement within sidewalks shall be such that an unobstructed, sidewalk width of 4 feet or more (not including the width of the curb) is provided.
High Mast Lighting	Outside the clear zone unless shielded.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.	

TABLE 25.4.14.4

Horizontal Clearance for Utility Installations

Shall not be located within the limited access right-of-way, except as permitted by the Telecommunications Facilities on Limited Access Rights-of-Way Policy (Topic No. 000-625-025). Shall not be located in the median. Flush Shoulders: Not within the clear zone. Install as close as practical to the right-of-way without aerial encroachments onto private property. Curb or Curb and Gutter: At the right-of-way line or as close to the right-of-way line as practical. Must maintain 1.5 feet clear from the face of the curb. Placement within sidewalks shall be such that an unobstructed, sidewalk-width of 4 feet or more (not including the width of the curb) is provided. See the Utility Accommodation Manual, Topic No. 710-020-001 for additional information.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.

TABLE 25.4.14.5

Horizontal Clearance to Signal Poles and
Controller Cabinets for Signals

Shall not be located in medians. Flush Shoulders: Outside the clear zone. Curb or Curb and Gutter: 4 feet from the face of outside curbs and outside the sidewalk. However, when necessary the signal poles may be located within sidewalks such that an unobstructed, sidewalk-width of 4 feet or more (not including the width of the curb) is provided. Also, when site conditions make the 4-foot clearance impractical, clearance may be reduced to 1.5 feet.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.

TABLE 25.4.14.6

Horizontal Clearance to Trees

Minimum Horizontal Clearance for new plantings shall meet new construction criteria. Minimum Horizontal Clearance to existing trees where the diameter is or is expected to be greater than four inches when measured six inches above the ground shall be: Flush Shoulders: Outside the clear zone. Curb or Curb and Gutter: 1.5 feet from the face of outside curbs. 3.5 feet from the edge of the inside traffic lane where a median curb is present.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.

TABLE 25.4.14.7

Horizontal Clearance to Bridge Piers and Abutments

Minimum Horizontal Clearance to bridge piers and abutments: Flush Shoulders: Outside the clear zone. Curb or Curb and Gutter: 16 feet from the edge of the travel lane.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.

TABLE 25.4.14.8

Horizontal Clearance to Railroad Grade Crossing Traffic Control Devices

Placement shall be in accordance with the design standards.
In control zones, horizontal clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.

TABLE 25.4.14.9

Horizontal Clearance to Other Roadside Obstacles

Minimum Horizontal Clearance to other roadside obstacles: Flush Shoulders: Outside the clear zone. Curb or Curb and Gutter: 4 feet back of the face of the curb. May be 1.5 feet back of the face of the curb when all other alternatives are deemed impractical.
Note: Horizontal Clearance to mailboxes is specified in the construction details contained in the Design Standards, Index No. 532.
In control zones, horizontal, clearance widths shall be based on new construction criteria provided in Chapter 2, Section 2.11, this volume.

(3) Assessment: The assessment shall include a statement as to whether the existing conditions meet the standards, a general description of physical constraints that may prevent upgrading the substandard condition to standard and propose alternative standards, and a detailed description of the proposed improvements and associated costs.

f. Railroad Crossing Traffic Control:

(1) Data Collection: Document/inventory existing control devices and other data needed to assess conditions relative to the following issues:

- traffic control (presence and advance visibility of signing and markings, need for beacons and gates),
- minimum crossing sight distance requirements,
- road surface smoothness (vertical alignment), and
- road surface width through crossing.

(2) Standards: Relative to

- Traffic control: Manual on Uniform Traffic Control Devices (MUTCD) Chapter 8, FHWA report “FHWA-TS-86-215”, and Florida DOT Design Standard Indices 17881 and 17882.
- Sight distance at passive crossing: AASHTO Greenbook, Case 1, 2004 edition, Florida DOT Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways.
- Road surface smoothness and width through crossing: Florida DOT Plans Preparation Manual (Volume 1 Chapter 6) and Design Standard Indices 560, 17881, and 17882.

(3) Assessment: Compare existing conditions with the requirements of the MUTCD and Florida DOT standards, undertake analysis to determine the need for changes. If changes are needed, consult with Florida DOT and CSX Railroad Company for agreement or disagreement, and recommend appropriate changes.

16. REVIEW SCHEDULE AND APPEAL PROCESS

a. Within ten days after initial submittal of the methodology statement, the County shall review and approve the statement (can be with conditions). Upon the request of the applicant, the County shall schedule a methodology meeting no more than 5 working days after the applicant's request for the methodology meeting. Failure by the applicant to request a methodology meeting within the ten days following issuance of the County comments on the methodology shall constitute acceptance by the applicant of the methodology statement with all the associated conditions of approval.

b. The applicant shall have ten working days to revise (if needed) the methodology statement to reflect discussions during the methodology meeting and resubmit the statement to the County for review. The County shall have ten working days from the date of the re-submittal to approve or make final comments. Failure of the applicant to submit the traffic study within six months of approval/acceptance of the methodology statement may result in the County requiring a new methodology statement and/or reanalysis in accordance with the requirements of the TIS guidelines in effect at that time. Disputes over the approved methodology shall be governed by the appeal procedures set forth in Subsection i. below.

c. Within six months after approval of the final methodology statement, the applicant shall submit the traffic study to the County for review.

d. The County shall have 30 days to review the study and make written comments to the applicant.

e. The applicant shall have 30 days to respond to comments and revise the study if necessary and submit it to the County for review.

f. Each subsequent round of review and each subsequent round of revisions shall not take more than 15 days.

g. After the second sufficiency response, if the information submitted remains inadequate for the County to develop conditions of development approval, the County shall prepare a recommendation for denial of the development for insufficiency of supporting information.

h. If disputes remain between the County and the applicant over the TIS, the applicant may either: 1) supply additional sufficiency responses until the issues in dispute are resolved, with additional fees for continued reviews, or 2) follow the appeal procedures set forth in Subsection i below.

i. In the event the County and the applicant are unable to agree on an approved methodology or TIS, the County or the applicant may request an appeal which shall consist of the following: 1) appellant’s payment of the applicable appeal fee; and 2) referral of the issue(s) in dispute to a third party transportation consultant chosen by the County, in consultation with the applicant, who shall make a determination on the issue(s) in dispute within ten working days of the date of the referral. If either party disagrees with the determination made by the third-party consultant, they may appeal the issue(s) in dispute to the DRC. If either party fails to appeal the issue(s) in dispute within ten days of the County's final comments on the methodology statement, or within ten days of the County's comments to the final sufficiency response submitted by the applicant, or within ten days of the third-party consultant's determination, the County's comments or the third-party consultant's determination shall be deemed a binding part of the approved methodology statement or TIS, as applicable. The decision of the DRC may be appealed to the Board of County Commissioners pursuant to Section 317 of the LDC. All appeals shall be submitted through the Growth Management Administrator, or his designee.

17. REVIEW FEE

An applicable consultant review fee in accordance with the schedule set forth in Exhibit D shall be paid to the appropriate County department, along with a minimum of two copies of the TIS and/or methodology statement. On the page following the cover page of the TIS Report, the applicant shall provide a list of, and indicate the number of intersections studied in the TIS, for the purpose of establishing the review fee. Projects subject to a detailed or special access management study in accordance with Section 618.3 of the LDC shall pay the additional review fee set forth in Exhibit "E". DRI projects are subject to the analysis/review fees as set forth in Exhibit "F." The parameters of the special access management study are usually different than a standard TIS or DRI traffic study, including, but not limited to, background growth or committed improvements assumptions. The amount of the review/analysis fee in exhibit "F" can be reduced by the amount of such fee that will be paid by another review agency for the same review.

18. VARIANCE

Except where the foregoing guidelines specifically allow for deviation or variance by the County, the DRC, the LDC, or the Board, the foregoing guidelines may only be varied in accordance with the procedures set forth in Section 316 of the LDC.

EXHIBIT A

PASCO COUNTY TIS GUIDELINES
SIZE OF DEVELOPMENT THAT GENERATES 100 DAILY DRIVEWAY TRIPS

Land Use	Trip Rate (1)	Size of Dev.	Unit
RESIDENTIAL:			
Single-Family (Detached)	7.59	14	DU
Multifamily (Apartments)	6.30	16	DU
Mobile Home Park	4.67	22	DU
Age-Restricted Single-Family	3.71	27	DU
Congregate-Care Facility (Attached)	2.25	45	DU
Low-Rise Condominium (1 to 2 stories)/Townhouse	5.20	20	DU
High-Rise Condominium (3 or more stories)	4.18	24	DU
LODGING:			
Hotel	8.30	13	Room
Motel	5.63	18	Room
Resort Hotel	5.10	20	Room
Recreational Vehicle Park	3.70	28	RV Space
RECREATION:			
Marina	2.96	34	Berth
Golf Course	35.74	3	Hole
Miniature Golf Course	3.30	31	Hole
Movie Theaters	106.63	1	Screen
General Recreation	2.28	44	Acres
Racquet Club/Health Club/Spa/Dance Studio	14.03	8	1,000 SF
Bowling Alley	33.33	4	1,000 SF
Community Center	22.88	5	1,000 SF
INSTITUTIONAL:			
Hospital	17.57	6	1,000 SF
Nursing Home	2.48	41	Bed
Elementary School	1.29	78	Student
Middle School	1.62	62	Student
High School	1.71	59	Student
Junior/Community College	1.20	84	Student
University	2.38	43	Student
Church	9.11	11	1,000 SF
Day Care	3.03	34	Student
Cemetery	4.73	22	Acres
OFFICE:			
General Office - 50,000 SF or less	15.65	7	1,000 SF
General Office - 50,001 to 100,000 SF	14.25	All	1,000 SF
General Office - 100,001 to 200,000 SF	12.15	All	1,000 SF
General Office - 200,001 to 400,000 SF	10.36	All	1,000 SF

Land Use	Trip Rate (1)	Size of Dev.	Unit
OFFICE (cont.):			
General Office - Greater than 400,000 SF	8.83	All	1,000 SF
Medical Office	35.95	3	1,000 SF
Office Park	11.70	9	1,000 SF
Veterinarian Clinic	32.80	4	1,000 SF
RETAIL:			
Specialty Retail	49.99	3	1,000 SF
Shopping Center - Under 50,000 GSF	86.56	2	1,000 SF
Shopping Center - 50,000 to 200,000 GSF	62.81	All	1,000 SF
Shopping Center - 200,001 to 400,000 GSF	46.23	All	1,000 SF
Shopping Center - 400,001 to 600,000 GSF	38.66	All	1,000 SF
Shopping Center - 600,001 to 800,000 GSF	34.37	All	1,000 SF
Shopping Center - Greater than 800,000 GSF	30.33	All	1,000 SF
Pharmacy/Drug Store with Drive-Through	95.21	2	1,000 SF
Home Improvement Superstore	29.80	4	1,000 SF
Hardware/Paint	51.29	2	1,000 SF
Quality Restaurant	91.10	2	1,000 SF
High-Turnover Restaurant	126.50	1	1,000 SF
Fast Food Restaurant with Drive-Through	522.62	All	1,000 SF
Gasoline Station	168.56	1	Fuel POS
Quick-Lube	40.00	3	Bays
Auto Repair or Body Shop	30.09	4	1,000 SF
Self-Service Car Wash	108.00	1	Bay
Tire Store	24.87	5	1,000 SF
New/Used Auto Sales	32.93	4	1,000 SF
Supermarket	103.38	1	1,000 SF
Convenience Store with Gas Pumps	803.24	All	1,000 SF
Furniture Store	5.06	20	1,000 SF
Bank/Savings Drive-In	281.55	All	1,000 SF
Convenience/Gasoline/Fast-Food Store	984.59	All	1,000 SF
INDUSTRY:			
General Light Industrial	6.97	15	1,000 SF
General Heavy Industrial	1.50	67	1,000 SF
Industrial Park	6.96	15	1,000 SF
Manufacturing	3.82	27	1,000 SF
Warehouse	4.96	21	1,000 SF
Miniwarehouse	2.50	41	1,000 SF
High-Cube Warehouse	1.20	84	1,000 SF
Airport Hangar	4.96	21	1,000 SF

NOTES: For land uses not listed herein, either the *ITE Trip Generation Handbook*, latest edition, or other trip-generation studies as approved by the County shall be used.

To estimate total daily driveway trips for land uses listed herein with heavy vehicles that are 10 percent or more of the total daily driveway trips, the total estimated daily driveway trips for heavy vehicles shall be multiplied by 2, unless ITE heavy vehicle data or other County-approved heavy vehicle trip generation data for the land use support a different multiplier; however, in no event shall the multiplier be less than 1. The size of development thresholds listed herein may be reduced based on additional heavy vehicles trips.

Source: Pasco County 2006 Transportation Impact Fee Update Study Summary Report.

EXHIBIT B

PASCO COUNTY TIS GUIDELINES
SIZE OF DEVELOPMENT THAT GENERATES 600 DAILY DRIVEWAY TRIPS

Land Use	Trip Rate (1)	Size of Dev.	Unit
RESIDENTIAL:			
Single-Family (Detached)	7.59	80	DU
Multifamily (Apartments)	6.30	96	DU
Mobile Home Park	4.67	129	DU
Age-Restricted Single-Family	3.71	162	DU
Congregate-Care Facility (Attached)	2.25	267	DU
Low-Rise Condominium (1 to 2 stories)/Townhouse	5.20	116	DU
High-Rise Condominium (3 or more stories)	4.18	114	DU
LODGING:			
Hotel	8.30	73	Room
Motel	5.63	107	Room
Resort Hotel	5.10	118	Room
Recreational Vehicle Park	3.70	163	RV Space
RECREATION:			
Marina	2.96	203	Berth
Golf Course	35.74	17	Hole
Miniature Golf Course	3.30	182	Hole
Movie Theaters	106.63	6	Screen
General Recreation	2.28	264	Acres
Racquet Club/Health Club/Spa/Dance Studio	14.03	43	1,000 SF
Bowling Alley	33.33	19	1,000 SF
Community Center	22.88	27	1,000 SF
INSTITUTIONAL:			
Hospital	17.57	35	1,000 SF
Nursing Home	2.48	242	Bed
Elementary School	1.29	466	Student
Middle School	1.62	371	Student
High School	1.71	351	Student
Junior/Community College	1.20	501	Student
University	2.38	253	Student
Church	9.11	66	1,000 SF
Day Care	3.03	199	Student
Cemetery	4.73	127	Acres
OFFICE:			
General Office - 50,000 SF or less	15.65	39	1,000 SF
General Office - 50,001 to 100,000 SF	14.25	All	1,000 SF
General Office - 100,001 to 200,000 SF	12.15	All	1,000 SF
General Office - 200,001 to 400,000 SF	10.36	All	1,000 SF

Land Use	Trip Rate (1)	Size of Dev.	Unit
OFFICE (cont.):			
General Office - Greater than 400,000 SF	8.83	All	1,000 SF
Medical Office	35.95	17	1,000 SF
Office Park	11.70	52	1,000 SF
Veterinarian Clinic	32.80	19	1,000 SF
RETAIL:			
Specialty Retail	49.99	13	1,000 SF
Shopping Center - Under 50,000 GSF	86.56	7	1,000 SF
Shopping Center - 50,000 to 200,000 GSF	62.81	All	1,000 SF
Shopping Center - 200,001 to 400,000 GSF	46.23	All	1,000 SF
Shopping Center - 400,001 to 600,000 GSF	38.66	All	1,000 SF
Shopping Center - 600,001 to 800,000 GSF	34.37	All	1,000 SF
Shopping Center - Greater than 800,000 GSF	30.33	All	1,000 SF
Pharmacy/Drug Store with Drive-Through	95.21	7	1,000 SF
Home Improvement Superstore	29.80	21	1,000 SF
Hardware/Paint	51.29	12	1,000 SF
Quality Restaurant	91.10	7	1,000 SF
High-Turnover Restaurant	126.50	5	1,000 SF
Fast Food Restaurant with Drive-Through	522.62	2	1,000 SF
Gasoline Station	168.56	4	Fuel POS
Quick-Lube	40.00	16	Bays
Auto Repair or Body Shop	30.09	20	1,000 SF
Self-Service Car Wash	108.00	6	Bay
Tire Store	24.87	25	1,000 SF
New/Used Auto Sales	32.93	19	1,000 SF
Supermarket	103.38	6	1,000 SF
Convenience Store with Gas Pumps	803.24	1	1,000 SF
Furniture Store	5.06	119	1,000 SF
Bank/Savings Drive-In	281.55	3	1,000 SF
Convenience/Gasoline/Fast-Food Store	984.59	1	1,000 SF
INDUSTRY:			
General Light Industrial	6.97	87	1,000 SF
General Heavy Industrial	1.50	401	1,000 SF
Industrial Park	6.96	87	1,000 SF
Manufacturing	3.82	158	1,000 SF
Warehouse	4.96	121	1,000 SF
Miniwarehouse	2.50	241	1,000 SF
High-Cube Warehouse	1.20	501	1,000 SF
Airport Hangar	4.96	121	1,000 SF

NOTES: For land uses not listed herein, either the *ITE Trip Generation Handbook*, latest edition, or other trip-generation studies as approved by the County shall be used.

To estimate total daily driveway trips for land uses listed herein with heavy vehicles that are 10 percent or more of the total daily driveway trips, the total estimated daily driveway trips for heavy vehicles shall be multiplied by 2, unless ITE heavy vehicle data or other County-approved heavy vehicle trip generation data for the land use support a different multiplier; however, in no event shall the multiplier be less than 1. The size of the development thresholds listed herein may be reduced based on additional heavy vehicles trips.

Source: Pasco County 2006 Transportation Impact Fee Update Study Summary Report.

EXHIBIT C

PASCO COUNTY TIS GUIDELINES
SIZE OF DEVELOPMENT THAT GENERATES 1,200 DAILY DRIVEWAY TRIPS

Land Use	Trip Rate (1)	Size of Dev.	Unit
RESIDENTIAL:			
Single-Family (Detached)	7.59	159	DU
Multifamily (Apartments)	6.30	191	DU
Mobile Home Park	4.67	257	DU
Age-Restricted Single-Family	3.71	324	DU
Congregate-Care Facility (Attached)	2.25	534	DU
Low-Rise Condominium (1 to 2 stories)/Townhouse	5.20	231	DU
High-Rise Condominium (3 or more stories)	4.18	288	DU
RECREATION:			
Hotel	8.30	145	Room
Motel	5.63	214	Room
Resort Hotel	5.10	236	Room
Recreational Vehicle Park	3.70	325	RV Space
INSTITUTIONAL:			
Marina	2.96	406	Berth
Golf Course	35.74	34	Hole
Miniature Golf Course	3.30	364	Hole
Movie Theaters	106.63	12	Screen
General Recreation	2.28	527	Acres
Racquet Club/Health Club/Spa/Dance Studio	14.03	86	1,000 SF
Bowling Alley	33.33	37	1,000 SF
Community Center	22.88	53	1,000 SF
INSTITUTIONAL:			
Hospital	17.57	69	1,000 SF
Nursing Home	2.48	484	Bed
Elementary School	1.29	931	Student
Middle School	1.62	741	Student
High School	1.71	702	Student
Junior/Community College	1.20	1,001	Student
University	2.38	505	Student
Church	9.11	132	1,000 SF
Day Care	3.03	397	Student
Cemetery	4.73	254	Acres
OFFICE:			
General Office - 50,000 SF or less	15.65	None	1,000 SF
General Office - 50,001 to 100,000 SF	14.25	85	1,000 SF
General Office - 100,001 to 200,000 SF	12.15	All	1,000 SF
General Office - 200,001 to 400,000 SF	10.36	All	1,000 SF

Land Use	Trip Rate (1)	Size of Dev.	Unit
OFFICE (cont.):			
General Office - Greater than 400,000 SF	8.83	All	1,000 SF
Medical Office	35.95	34	1,000 SF
Office Park	11.70	103	1,000 SF
Veterinarian Clinic	32.80	37	1,000 SF
RETAIL:			
Specialty Retail	49.99	25	1,000 SF
Shopping Center - Under 50,000 GSF	86.56	14	1,000 SF
Shopping Center - 50,000 to 200,000 GSF	62.81	All	1,000 SF
Shopping Center - 200,001 to 400,000 GSF	46.23	All	1,000 SF
Shopping Center - 400,001 to 600,000 GSF	38.66	All	1,000 SF
Shopping Center - 600,001 to 800,000 GSF	34.37	All	1,000 SF
Shopping Center - Greater than 800,000 GSF	30.33	All	1,000 SF
Pharmacy/Drug Store with Drive-Through	95.21	13	1,000 SF
Home Improvement Superstore	29.80	41	1,000 SF
Hardware/Paint	51.29	24	1,000 SF
Quality Restaurant	91.10	14	1,000 SF
High-Turnover Restaurant	126.50	10	1,000 SF
Fast Food Restaurant with Drive-Through	522.62	3	1,000 SF
Gasoline Station	168.56	8	Fuel POS
Quick-Lube	40.00	31	Bays
Auto Repair or Body Shop	30.09	40	1,000 SF
Self-Service Car Wash	108.00	12	Bay
Tire Store	24.87	49	1,000 SF
New/Used Auto Sales	32.93	37	1,000 SF
Supermarket	103.38	12	1,000 SF
Convenience Store with Gas Pumps	803.24	2	1,000 SF
Furniture Store	5.06	238	1,000 SF
Bank/Savings Drive-In	281.55	5	1,000 SF
Convenience/Gasoline/Fast-Food Store	984.59	2	1,000 SF
INDUSTRY:			
General Light Industrial	6.97	173	1,000 SF
General Heavy Industrial	1.50	801	1,000 SF
Industrial Park	6.96	173	1,000 SF
Manufacturing	3.82	315	1,000 SF
Warehouse	4.96	242	1,000 SF
Miniwarehouse	2.50	481	1,000 SF
High-Cube Warehouse	1.20	1,001	1,000 SF
Airport Hangar	4.96	242	1,000 SF

NOTES: For land uses not listed herein, either the *ITE Trip Generation Handbook*, latest edition, or other trip-generation studies as approved by the County shall be used.

To estimate total daily driveway trips for land uses listed herein with heavy vehicles that are 10 percent or more of the total daily driveway trips, the total estimated daily driveway trips for heavy vehicles shall be multiplied by 2, unless ITE heavy vehicle data or other County-approved heavy vehicle trip generation data for the land use support a different multiplier; however, in no event shall the multiplier be less than 1. The size of the development thresholds listed herein may be reduced based on additional heavy vehicles trips.

Source: Pasco County 2006 Transportation Impact Fee Update Study Summary Report.

EXHIBIT D

Pasco County Traffic Impact Study Review Fee Schedule

(Effective January, 9, 2008)

Fees will be paid incrementally as the development proceeds: Methodology Review, Analysis Review, and Sufficiency Reviews. A Substandard Road Review may be required if the development does not have ready access to standard roads. Fees for appeals, additional meetings, or other optional services are also provided below.

Task	Fee
1. **Methodology Review and DeMinimis Review Requiring Technical Analysis** includes review of a submitted methodology statement, including review of submitted trip generation estimate, distribution, and assignment, review of a de minimis determination, written approval/comments on a proposed methodology statement, and written confirmation of a re-submitted, amended methodology statement, and one meeting in Pasco County, if needed.	$1,990 ($1,730 plus 15% County Administrative Fee)
2. **Analysis Review** includes field visit to site, confirmation of trip generation, special trip generation and/or trip length study, distribution, and assignment, confirmation of committed improvements, review of traffic volume data collected/assembled, review of traffic growth analysis, review of off-site roadway operations and capacity analysis, review of site circulation, any necessary improvement proposals and associated cost estimates, and preparation and review of up to two rounds of "sufficiency" comments/questions and/or recommended conditions of approval (if no proportionate share). Note that Section 17 of the TIS Guidelines requires the applicant's consultant to include a statement of the number of intersections studied on the second page of the traffic analysis report, for the purpose of computing the appropriate review fee. Example fee calculation for TIS with 5 intersections: $3,853+$498*5 = $6,343.	$3,853 ($3,350 plus 15% County Administrative Fee) plus $498 x number of intersections studied ($433 plus 15% County Administrative Fee) (Includes two rounds of sufficiency review).
3. **Substantial Change in Traffic Impact Statement** -- If the applicant changes the proposed land uses or quantities, changes the distribution or assignment of site traffic, or background traffic volume estimates, in a way that requires re-review of issues and analyses already reviewed, an additional fee of 40 percent of the original Analysis Review fee (e.g. 40 percent of the sum of the fees for items 2 and 3, above) will be charged. If there are additional intersections not previously reviewed that need to be reviewed as a result of the revision, the full review fee of $498 each ($433 x 15%) for the buildout scenario plus the 60 percent fee for any intermediate year scenarios will be assessed. Therefore the total bill would be 40% of the original fee, plus fees for any added intersections.	$1,542 ($1,340 plus 15% County Administrative Fee) plus $199 x original number of intersections studied ($173 plus 15% County Administrative Fee) plus $498 x number of new intersections studied ($433 plus 15% County Administrative Fee).
4. **Review of Proportionate Share/Conditions of Approval** -- Review of initial proportionate share computation (costs and proportions) review of one re-submittal, and proposed recommended conditions of approval.	$2,185 ($1,900 plus 15% County Administrative Fee)

5. Review of Timing and Phasing Analysis - This includes reviewing the analysis submitted by the applicant to determine the year and level of development that can be achieved prior to certain specified improvements being needed in the study area. The methodologies used to achieve such analysis shall be discussed with and agreed upon with the County. This fee also includes one meeting between the County and its designated review consultant.	$3,450 ($3,000 plus 15% County Administrative Fee)
6. Financial Feasibility Review -- Consultant will review an analysis submitted to address the financial feasibility requirements of the Comprehensive Plan as a supplement to an approved TIS. This analysis will be based on addition of development-generated traffic from the TIS to estimated five-year future traffic volume estimates published by the County in its annual Roadway Level of Service report, and comparison of the total to service volumes published in the Roadway Level of Service report. If a long-term concurrency management strategy is adopted for a facility, then the review for that facility will be based on the long-term (e.g. 10- or 15-year) concurrency horizon. If a multi-phased analysis that requires review of the five-year and a longer-term horizon is reviewed, the fee will be viewed as a "per-horizon year" fee. The review will include a written statement of approval, or comments regarding issues that should be resolved in a re-submittal.	$1,150 ($1,000 plus 15% County Administrative Fee) *per horizon year*.
7. Substandard Road Review -- Consultant will review the submitted substandard road review methodology statement and analysis, contact the County Engineer to request information regarding known deficient conditions in the area, undertake a field visit to gather data and review the impacted road network, document his analysis, and prepare a letter-report summarizing his findings.	(If undertaken with no traffic impact study) $2,052 ($1,784 plus 15% County Administrative Fee) – (If undertaken with traffic impact study) $1,304 ($1,134 plus 15% County Administrative Fee)
8. Analysis Waiver (Requires Variance) -- A variance waiver shall be required when the applicable threshold levels are clearly exceeded; however, the applicant believes for some justifiable reason that an analysis should not be performed. Justification for this variance waiver may require a detailed and complex technical analysis, and requires a separate variance application and approval by the Development Review Committee (DRC).	$1,990 ($1,730 plus 15% County Administrative Fee). Normal variance fees ($400 for rezonings/MPUD applications or $100 for preliminary plan/site plan applications) are still applicable.
9. TIS Review Appeal -- If any methodology, analysis, or development conditions relating to the analysis are appealed by the applicant, the County will retain the services of a third-party consultant to resolve the dispute. The fee for the original reviewer and third-party consultant's involvement will be established based on the nature of the appeal, and will be established as a part of the appeal process.	

Other Miscellaneous Services:

Additional services, if necessary, will be provided per the schedule below:

• Attend meeting in Pasco County	$575 ($500 plus 15% County Administrative Fee)

• Each additional sufficiency round	$1,633 ($1,420 plus 15% County Administrative Fee) plus $173 ($150 plus 15% County Administrative Fee) for each intersection analyzed. (e.g. for 5-intersection study, [$1,633 + 5*$173] = $2,498)
• Attend public meeting	$750 ($650 plus 15% County Administrative Fee)

EXHIBIT E
Special Access Analysis Review Fee Schedule
(Effective January, 9, 2008)

Fees will be paid incrementally as the development proceeds through the Methodology Review, Analysis Review, and Sufficiency Reviews. Fees for appeals, additional meetings, or other optional services are also provided below.

Task	Fee if submitted at same time as original TIS or DRI	Fee if submitted subsequently or independently
1. Methodology Review includes review of a submitted methodology statement, including review of submitted trip generation estimate, distribution, and assignment written approval/comments on a proposed methodology statement, and written confirmation of a re-submitted, amended methodology statement, and one meeting in Pasco County, if needed.	None	$1,990 ($1,730 plus 15% County Administrative Fee)
2. Analysis Review includes confirmation of trip generation, distribution, and assignment, confirmation of committed improvements, review of traffic volume data collected/assembled, review of design traffic volumes, review of adjacent street operations and capacity analysis, review of on-site site circulation, access recommendations, and preparation and review of up to two rounds of "sufficiency" comments/questions and recommended conditions of approval. Note that Section 17 of the TIS Guidelines requires the applicant's consultant to include a statement of the number of intersections studied on the second page of the traffic analysis report, for the purpose of computing the appropriate review fee. Example fee calculation for TIS with 5 intersections: $3,853+$498*5 = $6,343.	$498 x number of intersections studied in the special site access analysis ($433 plus 15% County Administrative Fee) (Includes two rounds of sufficiency review).	$3,853 ($3,350 plus 15% County Administrative Fee) plus $498 x number of intersections studied in special site access analysis ($433 plus 15% County Administrative Fee) (Includes two rounds of sufficiency review).
3. Substantial Change in Access Analysis-- If the applicant changes the proposed land uses or quantities, changes the distribution or assignment of site traffic, or design traffic volume estimates, in a way that requires re-review of issues and analyses already reviewed, an additional fee of 40 percent of the original Analysis Review fee (e.g. 40 percent of the $6,343 in the example above) will be charged. If there are additional intersections not previously reviewed that need to be reviewed, the full review fee of $498 each ($433 x 15%) will be assessed. Therefore the total review fee would be 40% of the original fee plus any added intersections.	$199 x original number of intersections studied ($173 plus 15% County Administrative Fee) plus $498 x number of new intersections studied ($433 plus 15% County Administrative Fee)	$1,542 ($1,340 plus 15% County Administrative Fee) plus $199 x original number of intersections studied ($173 plus 15% County Administrative Fee) plus $498 x number of new intersections studied ($433 plus 15% County Administrative Fee)

Other Miscellaneous Services:
Additional services, if necessary, will be provided per the schedule below:

• Attend meeting in Pasco County	$575 ($500 plus 15% County Administrative Fee)
• Each additional sufficiency round	$1,633 ($1,420 plus 15% County Administrative Fee) plus $173 ($150 plus 15% County Administrative Fee) for each intersection analyzed. (e.g. for 5-intersection study, [$1,633 + 5*$173] = $2,498)
• Attend public meeting	$750 ($650 plus 15% County Administrative Fee)

EXHIBIT F
Pasco County Development of Regional Impact (DRI) Review Fee Schedule
Effective January 9, 2008

Task	Fee
1. Methodology Statement Review includes review of the submitted Methodology Statement, including a review of the trip generation estimate, preliminary review and comments for the distribution and assignment (if provided), list of 'committed roadways' (if all provided in this stage and not in the 'Interim Analysis Report') and a thorough review of the procedures and methodologies to be followed in the DRI/ADA/NOPC/Build-Out Date Extension analysis. Written approval and/or comments on the initial methodology submittal and/or written confirmation of a re-submitted, amended methodology statement and attendance of the methodology meeting at TBRPC are also required.	$2,300 ($2,000 plus 15% County Administrative Fee)
2. Interim Analysis Report Review includes review of the submitted Interim Analysis Report, including a review of the trip generation estimate, distribution and assignment, list of 'committed roadways', roadway inventories and capacities, study area network determination, and roadways and intersections to be analyzed in the original ADA/NOPC submittal (if not previously submitted and approved in the 'Methodology Statement'). Written approval and/or comments on the initial Interim Analysis Report and/or written confirmation of a re-submitted, revised Interim Analysis Report will be provided, if necessary. NOTE: The applicant is not required to submit an Interim Analysis Report between the methodology and the original ADA/NOPC submittal unless requested by the agencies at the methodology meeting or if the applicant decides to do so.	$4,600 ($4,000 plus 15% County Administrative Fee)
3. The DRI/ADA/NOPC/Build-Out Date Extension Original Study Review includes: field visit to site, confirmation or trip generation, special trip generation and/or trip length study, distribution and assignment (including detailed review of the TBRPM model inputs and outputs), confirmation of committed improvements, review of traffic volume data collected/assembled, review of future traffic forecasts including growth rate assumptions, review of off-site roadway operations and capacity analysis, review of site access and circulation, and a preliminary review of any improvement proposals, associated cost estimates and the proportionate share, if provided. Written review comments/questions and/or recommendations shall be provided.	$6,900 ($6,000 plus 15% County Administrative Fee)
4. The DRI/ADA/NOPC/Build-Out Date Extension First Sufficiency Review includes a review of the applicant's response to agency review comments to determine if all issues have been adequately resolved. Includes review of all material submitted in the original DRI/ADA/NOPC/Build-Out Date Extension submittal that may require further consideration based on previous comments. Additional written review comments/questions and/or recommendations shall be provided, if issues still remain with the submittal.	$4,025 ($3,500 plus 15% County Administrative Fee)
5. Subsequent Sufficiency Reviews include a review of the applicant's response to agency review comments for the first sufficiency round and any additional rounds to determine if all issues have been adequately resolved. Please note that these reviews can be either prior to approval by TBRPC or after approval by TBRPC (post-sufficiency). Includes review of all material submitted in the previous submittal(s) that may require further consideration based on previous comments. Additional written review comments/questions and/or recommendations shall be provided if issues still remain with the submittal until the agencies (Pasco and FDOT) have approved the DRI. This fee also includes one meeting between the County and its designated review consultant.	$2,875 ($2,500 plus 15% County Administrative Fee)
6. Change to DRI/ADA and/or Sufficiency Reports (Each Round) - If the applicant changes the proposed land uses or quantities, changes the distribution or assignment of traffic, or background traffic volume estimates, in a way that requires re-review of issues and analyses already reviewed, an additional review fee will be charged.	$5,175 ($4,500 plus 15% County Administrative Fee)

7. Computation of Proportionate Share Calculations (Done by Review Consultant) - At the request of the County, the proportionate share table may be determined and finalized by the review consultant. This includes finalizing all improvements, calculating the percent project contribution to the proposed improvements, the improvement costs and the corresponding proportionate share payments.	$5,750 ($5,000 plus 15% County Administrative Fee)
8. Review of Proportionate Share Calculations - This includes verifying all improvements, and reviewing the percent project contribution to the proposed improvements, the improvement costs and the corresponding proportionate share payments. This fee also includes one meeting between the County and its designated review consultant.	$3,450 ($3,000 plus 15% County Administrative Fee)
9. Timing and Phasing Analysis (Done by Review Consultant) - At the request of the County, the timing and phasing analysis may be conducted and finalized by the review consultant. This includes performing analysis to determine the year and level of development that can be achieved prior to certain specified improvements being needed in the study area. The methodologies used to achieve such analysis shall be discussed with and agreed upon with the County.	$5,750 ($5,000 plus 15% County Administrative Fee)
10. Review of Timing and Phasing Analysis - This includes reviewing the analysis submitted by the applicant to determine the year and level of development that can be achieved prior to certain specified improvements being needed in the study area. The methodologies used to achieve such analysis shall be discussed with and agreed upon with the County. This fee also includes one meeting between the County and its designated review consultant.	$3,450 ($3,000 plus 15% County Administrative Fee)
11. Review of Conceptual Plan for Intersection/Roadway - Includes the review of a conceptual plan for an intersection and/or roadway improvement. These plans are generally done to provide a more detailed cost to be used in the proportionate share table.	$3,450 ($3,000 plus 15% County Administrative Fee)
12. Development of Conceptual Plan for Intersection/Roadway - At the request of the County, the review consultant shall develop a conceptual plan for an intersection and/or roadway improvement. These plans are generally done to provide a more detailed cost to be used in the proportionate share table.	$5,175 ($4,500 plus 15% County Administrative Fee)
13. Review of Conceptual Plan for Interchange/Freeway - Includes the review of a conceptual plan for an interchange and/or freeway improvement. These plans are generally done to provide a more detailed cost to be used in the proportionate share table.	$5,750 ($5,000 plus 15% County Administrative Fee)
14. Development of Conceptual Plan for Interchange/Freeway - At the request of the County, the review consultant shall develop a conceptual plan for an interchange and/or freeway improvement. These plans are generally done to provide a more detailed cost to be used in the proportionate share table.	$8,625 ($7,500 plus 15% County Administrative Fee)
15. Review of Mitigation Proposals and/or Development Order Conditions, including improvements, costs, access/driveway exhibits and trip generation monitoring language. This fee also includes one meeting between the County and its designated review consultant.	$2,875 ($2,500 plus 15% County Administrative Fee)
16. Review of Developer's Agreement, including but not limited to, detailed mitigation concepts and associated improvement costs and schedule of such improvements. This fee also includes one meeting between the County and its designated review consultant.	$1,150 ($1,000 plus 15% County Administrative Fee)

Other Miscellaneous Services:

Additional services, if necessary, will be provided per the schedule below:

• Attend meeting in Pasco County	$575 ($500 plus 15% County Administrative Fee)
• Attend public meeting	$750 ($650 plus 15% County Administrative Fee)

NOTES

*All above review fees are also applicable to projects that are coming in for build-out date extensions or Notice of Proposed Change (NOPC) studies.

*The amount of the review fee can be reduced by the amount of fee that will be paid by another review agency for the same review