Section 914.14. - Site plan submittal requirements.

(1) *Purpose and intent.* The purpose of this section is to ensure that all major and minor (including administrative approval) site plan applications include sufficient information and analysis for proper review and consideration in light of the comprehensive plan and land development regulations.

(2) *Applicability.* All information required herein shall be provided as part of a complete site plan application. All major site plans shall be prepared and sealed by a Florida registered architect or engineer.

(3) *General submittal requirements.*

(a) Three (3) surveys meeting the minimum technical standards and containing the information required in section 914.14(9), are required for major site plans, and may be required by the community development director for minor site plans and administrative approvals.

(b) Ten (1) plan sets containing all the information required in this section (914.14). If a formal pre-application conference was held for the project, the applicant shall submit a written response to each item in the project's pre-application conference discrepancy letter or a written description of all revisions made to the project plans since the pre-application conference review.

(c) A completed and signed site plan application form (furnished by the planning division).

(d) A completed and signed land clearing and tree removal permit application pursuant to Chapter 927, or a completed acknowledgement form (furnished by the planning division) stating that no tree removal and/or land clearing as defined in Chapter 927 is to take place on-site.

(e) When applicable, a completed stormwater management application and two (2) copies of the stormwater report pursuant to the requirements of Chapter 930.

(f) A landscape plan meeting the requirements of Chapter 926.

(g) A copy of the deed for the subject property.

(h) Written authorization from the property owner(s) if the applicant/agent is other than the property owner(s).

(i) A concurrency certificate or evidence of application for a certificate.

(j) For minor site plans and administrative approvals, the community development director or his/her designee may waive or modify submittal, information, tabulation, or any other application requirements if he/she deems that such information is not necessary or appropriate for a review of the proposed project.

(k) Traffic impact analysis or statement. All proposed developments which are determined to generate one thousand (1,000) trips per day or more, or generate between one hundred (100) and nine hundred ninety-nine (999) trips and are located at a critical transportation location, as determined by the public works director, shall submit a traffic impact analysis pursuant to the requirements of Chapter 952. All projects generating between one hundred (100) and nine hundred ninety-nine (999) trips shall submit traffic impact statements.

(l) A shared (non-concurrent) parking study shall be required where there is a proposal by the applicant to reduce normal parking requirements pursuant to section 954.08 of the land development regulations.

(4) *Conceptual site plans; submittal and informational requirements.*

(a) The intent of the conceptual site plan and process is to approve the use, scope, level of intensity, and scale of the proposed project. Also, the concept plan may address and allow approval of specific and detailed, project-wide, design requirements (eg. drainage, landscaping, parking provisions) that satisfy applicable development regulations. Such plans may be approved for the level of detail covered by the site plan application, as reviewed and approved by staff. Approval of the conceptual plan shall vest the project in relation to county development regulations, at the

level of detail of information and design indicated on the approved plans. The design of the overall project will be considered as it relates to general site plan requirements and any applicable specific review criteria contained in Chapter 971. Conceptual site plan applications may be submitted as requests for approval of special exception, administrative permit, or permitted uses. If a conceptual site plan request is approved, a separate and complete, "final" site plan application shall be submitted, reviewed, approved, and released (as specified in this Chapter 914), prior to issuance of a building permit for all or a portion of the development project.

(b) The following are submittal requirements for conceptual plan applications:

1. A complete application form with the appropriate review fee.
2. Two (2) copies of the owners deed and two (2) copies of a letter of authorization from the owner if the owner is different from the applicant.
3. Ten (10) plan sets to scale on twenty-four-inch by thirty-six-inch sheets at a scale of not greater than one inch equals fifty (50) feet. If a formal pre-application conference was held for the project, the applicant shall submit a written response to each pre-application conference discrepancy letter item.
4. A written description of the proposed use.
5. Verification that a concurrency certificate has been applied for, or a determination by staff that the project does not require a concurrency certificate, or an acknowledgement that the applicant will apply for a concurrency certificate. The acknowledgement shall be in writing on a form provided by Indian River County.
6. The plan shall depict the following information:
    a. Building envelope locations;
    b. Parking areas and circulation patterns;
    c. Stormwater management tract locations;
    d. Setbacks from all property lines;
    e. The location of all driveways;
    f. An estimate of average daily trips (for those uses not required to perform a traffic impact analysis);
    g. Flood zone;
    h. Location map;
    i. Any required buffering or conservation/preservation areas;
    j. Existing road rights-of-way;
    k. All fire lane and emergency access ways;
    l. Location of fire hydrant(s).
7. Project tabulations by phase and aggregate:
    a. Gross area;
    b. Number of units/density;
    c. Area and percent of site as open space;
    d. Area and percent of site as impervious space;
    e. Area and percent of site as building coverage;
    f. Parking requirements;

g. Approximate building area by use category;

h. Area and percentage of site as water;

8. Existing site conditions:

a. Waterbodies;

b. Area and location of jurisdictional wetlands shown on aerial photograph or survey;

c. Native vegetation coverage;

d. Protected trees or tree groupings;

e. Topography and drainage features (including canals and ditches), soil types;

f. Listed historical or archeological features or such features known or evident to the developer;

g. Wells, free-flowing or valved;

h. Buildings, structures, or driveways and their disposition (to be removed, to remain, to be altered);

i. Utilities services and facilities, including water, sewer, electric, telephone, cable;

j. Easements.

9. Vehicular and pedestrian systems, circulation plan, including typical or potential travelway surface(s) and right-of-way widths, proposed connections to existing streets and the planned street network in the vicinity of the project. Existing streets and driveways within three hundred (300) feet of the project area.

10. A traffic impact analysis if required by the Chapter 952 regulations, in accordance with the Chapter 952 regulations.

11. Vicinity map, showing the land area within three quarters (¾) of a mile of the project area.

12. Proposed stormwater management design and a signed and sealed letter from a professional engineer certifying that the conceptual stormwater management plan will be able to meet all applicable stormwater management and flood protection criteria of Chapter 930 relating to the retention/detention requirements of the appropriate Land Development Regulations. Unless requested by the applicant and approved by the Public Works Director, the conceptual plan shall in no way be construed as a final design as required by Chapter 930. The results of the drainage study required under Chapter 930 shall govern the retention/detention areas of the final site plan or plat.

13. When development or alteration of jurisdictional wetlands is proposed, the applicant shall provide the environmental planner with a qualitative assessment of the existing wetlands and indicate on the plans if wetlands mitigation is proposed on-site, off-site, or is to be satisfied by payment of a fee-in-lieu of direct mitigation.

a. If on-site mitigation is proposed, the applicant shall indicate if restoration and/or creation of wetlands is proposed, the approximate area and location of such restoration and/or creation, the type of wetlands to be restored or created, and alteration/mitigation area ratios.

b. If off-site mitigation is proposed, the applicant shall indicate the off-site area(s) to be used for mitigation and the information in subsection a., above.

c. If a fee-in-lieu of mitigation is proposed, the applicant shall provide an estimate of the fee amount, based on the assessed value of the project site and the area of wetlands to be impacted (reference subsection 928.06(5)).

14. Additional submittal requirements may be required by staff at a formal pre-application conference or a TRC meeting, whichever occurs first, based upon staff concerns and issues particular to the site, surrounding area, or proposed use. The posted sign notice requirements of 914.14(17) and 914.06(5)(g) shall be applied.

(c) The review and approval process for a conceptual plan application shall be the process appropriate for the use approval level (special exception, administrative permit, permitted).

(5) All site plan applications shall include statements on the plans regarding each of the following:

(a) Name of the project;

(b) Statement of intended uses to occur on the site;

(c) A statement describing the proposed means of conveying ownership in the property;

(d) Name, address, and telephone number of all equitable owners;

(e) Name, address and telephone number of the applicant and firm which he or she represents;

(f) Name, address, signature, and registration number of the professionals preparing the plan;

(g) Legal description, including the section, township and range, and the property appraiser's tax parcel number(s) of the subject property;

(h) Date plan was drawn and date of any subsequent revision(s);

(i) Approximate timetable (month and year) for completion of the project, and any proposed phases of a phased development project. All phases of multi-phase projects must be able to meet all of the site plan requirements within the subject phase;

(j) Existing zoning and comprehensive plan land use map designation(s) of the site and adjacent sites;

(k) Estimated number of vehicle trips attracted to the site using the latest edition of the ITE Trip generation rates, to ensure compliance with the requirements and provisions of Chapter 952.

Section 952.07. - Traffic impact study.

(1) *Purpose.*

(a) The purpose of a traffic impact study is to identify the potential impacts of new development on the Indian River County transportation system and to provide information which will allow a concurrency determination to be made on each impacted segment. The traffic impact study will identify development traffic volumes on each impacted segment, identify those segments on which the adopted level of service cannot be maintained, include segment and intersection analysis and identify potential solutions for those segments and intersections on which the adopted level of service is not being met.

(2) *Intent.*

(a) The intent of this section is to define the requirements, procedures and methodology for the submission of a traffic impact study in Indian River County and to provide an equitable, consistent and systematic means of determining the future impact of proposed developments while maintaining the adopted service levels on all roadways.

(b) Nothing contained in this section shall waive any requirement contained elsewhere in the Indian River County Code.

(3) *Definitions.*

(a) The definitions used in this section are included in Chapter 901.

(4) *Applicability.*

(a) The requirements, procedures and methodology for a traffic impact study contained in this section shall apply to all conceptual, initial and final development orders and concurrency determination applications in unincorporated Indian River County.

(b) Any municipal jurisdiction within Indian River County opting to have development projects located within its municipal boundaries reviewed under the Indian River County Concurrency Management System for Transportation shall be required to follow the requirements, procedures, and methodology for the submission of a traffic impact study contained in this section.

(5) *Types of traffic impact studies.*

(a) *Small project (0—99 daily trips).*

1. For projects generating less than one hundred (100) average daily trips, trips will be assigned by the director of public works or his designee.

2. It will be the responsibility of the applicant or his engineer to determine and demonstrate to the director of public works that the small project will generate less than one hundred (100) average daily trips. A letter documenting the appropriate trip generation rate(s) will suffice. Individual single-family residential development is excluded from this requirement.

(b) *Large project (100 daily trips or greater).*

1. A traffic impact study shall be required for every project generating one hundred (100) or greater average daily trips.

(c) For developments of regional impact or Florida Quality Development projects, the analysis required by Indian River County for the purposes of determining concurrency and level of service compliance may be, at the director of public work's option, the same as the transportation methodology agreed on for preparing the application of development approval required by F.S. § 380.06(10). Otherwise, the required transportation analysis will be the same as that identified for a traffic impact study.

(6) *General requirements.*

(a) Submission of a traffic impact study is required for a determination of application completeness, data sufficiency in the concurrency review process and identification of needed traffic operations improvements.

(b) The applicant and/or his engineer is required to attend a pre-application conference to discuss the traffic impact study requirements, and report outline as it pertains to his specific project prior to conduct of the study.

(c) Each traffic impact study must meet the following submission requirements in order to receive a determination of application completeness.

1. Three (3) copies of the completed traffic impact study shall be submitted to the Indian River County Public Works Department and one (1) copy shall be submitted to the community development department.

2. The format of the traffic impact study shall follow the outline identified in subsection 952.07(7), Format of Traffic Impact Study.

3. The traffic impact study shall include a concurrency determination network form annotated with each impacted segment's average annual daily project traffic and peak hour, peak direction, peak season project traffic volumes.

4. The traffic impact study shall include a concurrency determination network map illustrating each impacted segment's average annual daily project traffic and peak hour, peak direction and peak season project traffic volumes and associated levels of service.

5. The traffic impact study shall be prepared under the responsible supervision and direction of, and be signed and sealed by a Florida-registered professional engineer whose area of practice is transportation engineering.

(d) The director of public works shall have fifteen (15) days from the date of determination of application completeness to evaluate and determine if roadway capacity is available on each impacted segment as presented in the traffic impact study.

(e) The following procedure shall be followed if the director of public works determines that additional information concerning the traffic impact study is required.

1. If the additional information can be provided by the applicant no later than the seventh day of the fifteen-day review period, the review will be completed within the fifteen-day time limit.

2. If the additional information is not provided by the seventh day of the review period, the traffic impact study must be resubmitted, along with other required information for determination of application completeness and data sufficiency.

(f) The appeals process for a traffic impact study shall be governed by the procedure set forth in section 910.11, Appeals Process and Vested Rights Determination.

(g) Site access for a traffic impact study shall be consistent with the requirements identified in section 952.12, Access Control. The applicant or his engineer is required to provide a site access plan at the pre-application conference. The site access plan is subject to review and approval by the director of public works. This review will be made according to currently accepted traffic engineering principles.

(h) Once a determination of application completeness and data sufficiency is made, and the traffic impact study has been reviewed and accepted by the director of public works, the approved study shall be valid for as long as the concurrency review process is active for the specific project being reviewed or one (1) year, whichever is longer.

(7) *Format of traffic impact study.*

(a) In order to simplify staff review, each large project traffic impact study shall follow the outline defined below. Further definition and clarification of the items listed on the outline may be found in subsequent sections. Figures and maps are to be used to the maximum extent possible.

1. Traffic Impact Study Executive Summary;
2. Title page;
3. Letter of transmittal;
4. Table of contents:
    a. List of figures;
    b. List of tables;
5. Introduction (includes description and location of project, current and proposed zoning both address and map format, size of the project and any other pertinent information such as phasing and project build-out);
6. Summary of pre-application conference and traffic impact study methodology;
7. Inventory of existing conditions (includes listing of all segments within the study area, source of traffic count data, and identification of roadway characteristics);
8. Trip generation methodology (including daily and peak hour volumes);
9. Percent new trips;
10. Internal capture (used for mixed use projects only);
11. Traffic distribution and assignment methodology;
12. Area of influence shall consist of those roadway segments assigned eight (8) or more project peak season/peak hour/peak direction trips for a two-lane roadway or fifteen (15) or more project peak season/peak hour/peak direction trips for a four-lane (or wider) roadway (known as "significant" links or segments) that lie within an eight (8) mile radius of the project;
13. Impacted segments traffic volumes;
14. Internal site circulation and access needs;
15. Intersection analysis (required at collector and arterial intersections on significant links, where links are operating at eighty (80) percent or greater of Level-of-Service "D" and an approach link assigned eight (8) or more project peak season/peak hour/peak direction trips for a two-lane roadway or fifteen (15) or more project peak season/peak hour/peak direction trips for a four-lane (or wider) roadway);
16. Segment analysis (optional traffic study of impacted segments which will operate below FDOT adopted capacity)
17. Roadway needs (identification of proposed improvements and cost);
18. Appendix (as applicable to the specific traffic impact study):
    a. Methodology agreements;
    b. Traffic count worksheets;
    c. Trip generation, internal and adjacent street capture worksheets;
    d. Trip distribution and assignment worksheets;
    e. Computerized travel time study printouts;
    f. Intersection capacity analysis using the latest highway capacity analysis "Highway Capacity Manual" and worksheets accepted by the public works director or his designee;
    g. Link analysis/computerized modeling (if performed);
    h. Other analysis worksheets.

(8) *Pre-application conference.*

(a) The purpose of the mandatory pre-application conference is to provide guidance and direction to the applicant or his engineer concerning the conduct of traffic impact statements and analysis.

(b) At a minimum, the following topics shall be discussed and approval from the director of public works obtained at the pre-application conference:

1. The applicant or its engineer will provide a site access and internal circulation plan;
2. Review of the format of a traffic impact study;
3. The concurrency determination network form will be provided to the applicant or his engineer;
4. Procedure to track the project's traffic will be defined;
5. Availability and use of county data as identified in subsection 952.07(11) county data;
6. Procedures for traffic counts, the location of current traffic count stations, and the identification of possible additional locations;
7. Source of trip generation for project traffic;
8. Selection of origin destination survey sites for determination of percent new trips factor;
9. Traffic distribution and assignment technique and approach;
10. Justification of internal capture factor if different than those presented in subsection 952.07(17)(b);
11. Methodology and approach for intersection analysis;
12. Methodology and approach for segment analysis.

(c) Failure by the applicant or his engineer to discuss and obtain resolution to the above topics may result in disapproval of the traffic impact study or request for additional information.

(9) *Level of service standards.*

(a) The level of service used in traffic studies shall be consistent with the Indian River County Traffic Circulation Element.

1. Level of service C shall be maintained on all rural major intersections and rural principal arterials and rural freeways during the peak hour, peak direction, peak season conditions.
2. Level of service D or better shall be maintained on all other freeway, arterial, and collector roadways, and major intersections during the peak hour, peak direction, peak season conditions.
3. For the purposes of the level of service as specified in subsections 1. and 2. above, the current FDOT generalized capacity tables will be used or where better data is available, the director of public works may adjust the segment capacity accordingly.

(b) When two (2) roads of differing performance standards intersect and an intersection analysis is required, the lower level of service performance standard shall be the performance standard used to analyze the intersection.

(c) Segment specific traffic capacity analysis.

1. A project applicant may choose to conduct a segment specific traffic capacity analysis according to the procedures identified in subsection 952.07(20) and submit the results of the study to the director of public works for review.
2. Upon review of the segment specific capacity analysis, the director of public works may approve a capacity higher than the FDOT generalized capacity or current segment capacity. The approved capacity from the segment specific analysis will be limited to the existing traffic plus vested traffic plus project traffic.

(d) The following procedure will be used to track the project's traffic.

1. Traffic attributable to the development will be tracked on all segments within the concurrency determination network and those segments extending out of the concurrency determination network that are within the project area of influence. Project radius of influence is limited to a maximum of eight (8) miles from project. A project area of influence consists of those roadway segments assigned eight (8) or more project peak season/peak hour/peak direction trips for a two-lane roadway or fifteen (15) or more project peak season/peak hour/peak direction trips for a four-lane (or wider) roadway.

2. The percent new trips adjustment factor will not be used to reduce the number of trips assigned to the most directly accessed roadway segment and corresponding intersection on the concurrency determination network in the north, south, east and west cardinal directions. For all other impacted segments, the percent new trips adjustment factor may be applied to the trip rate to reduce the trips assigned to impacted segments.

3. When a project's impacts are such that no roadways are impacted as defined in [subsection 952.07(9)(d)(1)] then the impact of the project traffic on the most directly accessed roadway segment and the closest intersection (signalized or non-signalized) on the concurrency determination network in the north, south, east and west cardinal directions, at minimum, shall be evaluated for ensuring the maintenance of the adopted level of service standard on those roadways.

4. For the purposes of the transportation analysis, project traffic may be assigned only to those roadways and future roadways:

   a. Shown on the concurrency determination network; and

   b. Meeting the criteria established in subsection 910.09(4)(a) concurrency management system, transportation supply;

   c. Where an improvement based on a local government development agreement is relied upon to achieve the acceptable levels of service, default on any such agreement by any party other than Indian River County shall be identified as a basis for reconsideration and, if necessary, invalidation of the development order and certificate of concurrency for the development that has relied upon the improvement.

(10) *Count data.*

(a) The Indian River County Community Development and Public Works Departments shall maintain and update several sources of data. These data sources are described below.

1. *Traffic count data.* Reliable traffic count data are not available on many of the functionally classified roadways. However, new traffic counts as well as traffic count data from approved traffic impact analyses will be used to update the traffic counts in the concurrency management database. It will be the responsibility of the applicant or engineer to obtain traffic count data on those links for which data are not currently available, or as specified during the pre-application meeting.

2. *Roadway characteristics inventory.* A roadway characteristics inventory shall be maintained on each segment in the transportation links database. The features inventory will include road segment identification (name of street, state or county road number and termini), existing road and group type, jurisdictional responsibility, performance standard, length, right-of-way type and width, date of traffic count, counted volume, adjusted average daily volume, peak hour, peak direction, peak season volume, vested development volume, existing service level volume, future service level volume, and the segment specific available capacity. This inventory will be updated as new information becomes available and is approved by the director of public works.

3. *Socioeconomic database.* A socioeconomic database shall be maintained by TAZ. This database shall contain pertinent characteristics about the single-family and multifamily

population, dwelling units, vacancy rate, and auto ownership. Additionally, the SE database will maintain information on the number of commercial, service, industrial and total employment.

4. *Concurrency determination network map.* A concurrency determination network map shall be maintained by the community development and public works departments that illustrates all roads on the Indian River County traffic impact study network. This map will include those road segments scheduled for completion within the first three (3) years of the FDOT, Indian River County, and local jurisdictions five-year capital improvement program, and those roads scheduled for completion within three (3) years that will be built pursuant to a local government development agreement. All future roads added to the map must be approved by the public works and community development department directors. Additionally, the map will illustrate those segments that are backlogged and/or constrained as well as those critical transportation segments which are projected to operate at ninety (90) percent of capacity with the inclusion of vested development.

5. *Traffic impact study file.* The public works director shall maintain a file of approved traffic impact studies. The county shall provide information and data, when available, in order to prevent duplication of efforts and unnecessary costs. It will be the responsibility of the public works director to approve the use of data from a prior traffic impact study.

(11) *Procedures for traffic counts.*

(a) The concurrency management database shall maintain an inventory of all current traffic count locations and the most current peak hour, peak direction, peak season traffic count.

(b) The number of traffic count locations required for a traffic impact study shall be determined by the number of segments impacted based on the project area of influence and the intersections required to be analyzed. The public works director shall have the authority to require additional traffic count locations besides those identified in the concurrency management database for a traffic impact analysis when such counts are necessary to more accurately determine the existing and future level of service on impacted segments.

(c) The applicant or engineer may use available traffic count information for all impacted segments from the concurrency management database for a traffic impact study. If traffic count information is unavailable on an impacted segment, the applicant or engineer will be required to make a current traffic count according to the procedures identified in subsection 952.07(12)(e) and (f).

(d) The applicant or engineer may use available traffic count information for all impacted segments from the concurrency management database for a traffic impact study upon obtaining approval from the director of public works. Generally, existing traffic count information may be used when it is less than one (1) year old from the date that the traffic study methodology is approved. If traffic count information is unavailable on an impacted segment, the applicant or engineer will be required to make a current traffic count according to the procedures identified in subsection 952.07(12)(e) and (f).

(e) The applicant or his engineer shall provide segment traffic counts by direction as required by the director of public works. Directional counts shall be made for at least three (3) days and include the continuous seventy-two-hour period from 6:00 a.m. Tuesday to 8:00 p.m. Thursday. Legal holidays or other days as specified by the director of public works shall be excluded. Friday, weekend, or holiday counts may be required for churches and other land uses as determined by the director of public works. The data will include a summary of traffic count data by fifteen-minute increments with a.m., p.m. and other peak hours being highlighted as well as the peak hour to daily traffic ratio and peak hour directional split. All data will be subject to review and acceptance by the director of public works. This review will be based on currently accepted traffic engineering principles.

(f) The applicant or his engineer shall provide turning movement counts as required by the director of public works. These turning movement counts shall be made from 7:00 a.m. to 9:00 a.m., 11:00 a.m. to 1:00 p.m., 3:00 p.m. to 6:00 p.m. or as otherwise specified by the director of public works.

Legal holidays or other days as specified by the director of public works shall be excluded. Friday, weekend, or holiday turning movement counts may be required for churches and other land uses as determined by the director of public works. The data shall include a summary of traffic count data by fifteen-minute increments with a.m., p.m. and other peak hours being highlighted as well as the peak hour to daily traffic ratio and peak hour directional split. All data shall be subject to review and acceptance by the director of public works. This review shall be based on currently accepted traffic engineering principles.

(12) *Background traffic considerations.*

(a) For non-DRI size projects, the available capacity of each segment shall be provided by the county. The effect of the background traffic on each segment contained in the concurrency determination network will be considered through the combined impact of the existing development for which either an initial or final concurrency determination has been issued, and all segments where CO's have been issued but no updated traffic counts have been made since CO issuance. Therefore, only the impact of the development traffic shall be provided in the traffic impact study for the purposes of a concurrency determination for a non-DRI size project.

(b) For DRI size projects, the procedure to estimate background traffic shall be defined at the DRI traffic methodology meeting and shall consider the impacts of all vested development, including development vested prior to September 1, 1990.

(13) *Trip generation.*

(a) Each traffic impact study shall list all land uses, applicable ITE land use code, size and/or dwelling units.

(b) Allowable sources for trip generation rates for each land use listed in (a) above are identified below:

1. The Institute of Transportation Engineers Trip Generation Manual, latest edition;

2. The trip generation rate from a previously approved Indian River County traffic impact study of a similar land use as approved by the public works director or his designee;

3. A site specific trip generation study of the same type or similar land use approved by the director of public works or his designee at the pre-application conference. Such site specific study shall be conducted at three (3) separate sites. The survey data shall be collected for at least five (5) days and include the continuous seventy-two-hour period between Tuesday, 6:00 a.m. to Thursday, 6:00 p.m. Legal holidays or other days specified by the director of public works shall be excluded. Alternative trip generation study times may be selected when it is determined by the public works director that collection of data at the above specified times will result in an unreasonable estimation of the trip generating characteristics of the studied land use. The data shall include a summary of traffic count data by fifteen-minute increments, average daily volume, volume during the a.m. and p.m. peak hours of the adjacent street, and peak hour of the generator, if different from the a.m. and p.m. peak hours of the adjacent street. The accuracy of the traffic counts shall be verified by performing manual counts and comparing them to machine count volumes twice daily; once in the a.m. and once in the p.m. for each day of the traffic counts. All data shall be subject to review based on currently accepted traffic engineering principles.

(14) *Percent new trips.*

(a) The percent new trips factor represents the percent by which the trip rate is multiplied in order to obtain only those trips that are added to the roadway by new development. Thus, those trips going to a new development that would have been on the roadway anyway and are included in the trip rate must be deducted from the total trips.

(b) Each traffic impact study shall list all land uses, applicable ITE land use code, size, and/or number of dwelling units.

(c) Allowable sources for the percent new trip factor for each land use identified in (b) above are listed below:

1. The Institute of Transportation Engineers Trip Generation Manual, latest edition.
2. Percent new trips factor from a previously approved study of a similar land use.
3. A site specific origin/destination survey of an identical or similar land use as approved by the public works director.
    a. The origin/destination survey shall collect, at a minimum, the following information:
        i. Date;
        ii. Location;
        iii. Time of interview;
        iv. From where did the interviewee trip begin immediately prior to arriving? (1) home (2) work (3) retail (4) other;
        v. The city, area or zip code where the trip began;
        vi. The nearest intersecting streets closest to the location of where the trip began;
        vii. Transportation mode: (1) car (2) walk or bike (3) bus (4) taxi drop off;
        viii. Where the interviewee trip will end immediately upon leaving: (1) home (2) work (3) retail (4) other;
        ix. The nearest intersecting streets closest to final destination.

b. The location at each origin and destination will be plotted graphically on a map and the trip lengths calculated. To determine whether the trip is to be considered a new trip, a rectangle will be drawn on the map in such a manner so as to locate the origin of the trip in one (1) corner and the destination of the trip in the opposite corner. If the interview location is outside the rectangle, the trip is considered to be a new trip and if the interview site is inside the rectangle, then the trip is not classified as a new trip. The percent new trips is computed by dividing the number of new trips by the total number of trips generated by the site.

c. Copies of the original surveys and maps indicating trip ends will be submitted as part of the study. All data will be subject to review and acceptance by the director of public works. This review will be based on currently accepted traffic engineering principles.

(15) *Traffic distribution and assignment.*

(a) The distribution and assignment of project traffic shall be made in accordance with the following procedures and in conformity with accepted traffic engineering principles such as those documented in NCHRP Report 187, "Quick-Response Urban Travel Estimation Techniques and Transferable Parameters Users Guide."

1. Use of gravity model as approved by the director of public works;
2. Review of the socioeconomic database which illustrates pertinent characteristics about single-family and multifamily population, dwelling units, vacancy rate and auto ownership. Additionally, the SE database shall maintain information on the number of commercial, service, industrial, and total employment by TAZ. This information will assist in determining the characteristics surrounding a proposed project in terms of traffic assignment relative to general production and attraction attributes of the proposed development's TAZ, as well as TAZs surrounding the development. The socioeconomic database will assist in making assignments for the project that will be based upon accepted traffic engineering principles;
3. Traffic assignment may also be based upon an approved traffic impact study of a similar land use within the TAZ of the project. Such use of a prior study must be justified, based upon

sound traffic engineering principles and techniques and approved for use by the director of public works.

(b) The director of public works shall make available a summary listing of all traffic impact studies within the TAZ of the project.

(c) The traffic distribution and assignment technique must be presented by the applicant or engineer at the pre-application conference, and reviewed and approved by the director of public works. This review will be based on currently accepted traffic engineering principles.

(16) *Internal capture.*

(a) The use of an internal capture factor will be allowed for certain types and sizes of mixed use developments per the Institute of Transportation Engineers Trip Generation Manual and/or studies as provided by Transportation Research Board National Cooperative Highway Research Program (NCHRP).

(17) *FSUTMS modeling.*

(a) The following FSUTMS data files shall be available for use by DRI size projects:

1. One (1) data set shall include the current approved base validation SE data combined with SE data from all certificate of occupancies issued since the last FSUTMS base update;

2. The second FSUTMS data set shall combine the SE data from all vested development with Number 1. above.

(b) Upon request of the director of public works, the applicant or its engineer shall provide all input and output files from the execution of any FSUTMS runs used in a traffic impact study electronic or map plot formats.

(18) *Intersection analysis.*

(a) An intersection analysis shall be performed on each major intersection, both signalized and non-signalized, where links are operating at eighty (80) percent or great of Level-of-Service "D" and where links are assigned eight (8) or more project peak season/peak hour/peak direction trips for a two-lane roadway or fifteen (15) or more project peak season/peak hour/peak direction trips for a four-lane (or wider). Intersection analysis of a non-signalized location will include a warrant study performed according to the procedures and specifications identified in the "Manual on Uniform Traffic Control Devices."

(b) The procedure for performing an intersection analysis shall be based upon the methodology found in the latest County approved highway capacity analysis. Any questions, issues or methodology other than that referenced in the above publication will be submitted at the pre-application conference and will be subject to the review and approval of the director of public works. This review shall be based on currently accepted traffic engineering principles.

1. Turning movements for vested and project traffic shall be determined based upon the distribution of existing traffic; and/or

2. As submitted by the applicant or engineer at the pre-application conference.

(c) For each intersection in which the project traffic results in a level of service below the acceptable adopted level of service, the applicant and/or engineer will develop proposed improvements to the intersection that result in the intersection operating at an acceptable level of service with the existing, vested and specific project traffic included in the analysis.

(d) The applicant and/or engineer shall be required to provide the following information relative to each intersection analysis:

1. Printouts and worksheets for all highway capacity analysis performed on the intersections or roadway segments;

2. Copies of any traffic counts performed or used in the analysis, including the source of count data;

3. Copies of any signal warrant studies performed in the analysis of non-signalized intersections;

4. Documentation of any assumptions used in the analysis including trip generation data, if not already specified for the analysis;

5. Turning movement volumes and documentation of methodology used to project existing, prior vested and project traffic;

6. Any other applicable data or information.

(19) *Segment analysis.*

(a) If a roadway segment is operating at or above eighty (80) percent (for projects generating from one hundred (100) to more than one thousand (1,000) average daily trips) of the available Level-of-Service "D" peak hour, peak direction FDOT generalized planning capacity with the inclusion of vested development and the roadway segment is assigned eight (8) or more project peak season/peak hour/peak direction trips for a two-lane roadway or fifteen (15) or more project peak season/peak hour/peak direction trips for a four-lane (or wider) roadway, then an arterial analysis shall be performed to determine if the actual roadway segment operating characteristics are such that additional capacity is available.

1. The applicant or engineer shall submit the methodology and approach of each segment analysis at the pre-application conference. The methodology and approach shall be subject to review and approval by the director of public works. This review shall be based on currently accepted traffic engineering principles.

(b) A segment capacity analysis may be performed to review signal spacing and timing, as well as signal coordination. Such segment capacity analysis shall be performed in accordance with accepted traffic engineering principles and techniques using software approved by the public works director or his designee.

(c) A travel time study may be performed to determine the operating speed and corresponding level of service at which the roadway is operating. The travel time study shall be performed using a computerized recording device that automatically calculates distance and average travel speed. All printouts and graphs from each travel time study shall be submitted as part of the study.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 91-48, § 56, 12-4-91; Ord. No. 92-39, § 26, 9-29-92; Ord. No. 2012-019, § 2, 7-10-12)