

## **Livable Delaware Activity**

Activity/Policy/Program name: Traffic Impact Studies

Contact Person: T. William Brockenbrough

Purpose: Traffic Impact Studies help local governments decide whether to approve a new development by helping them understand whether the new development will make traffic congestion worse.

Enabling Laws: 17 Del. C. § 132 (General Authority)  
29 Del. C. § 2661, § 4961, and § 6961 (Quality of Life Act)

Policies: Interim Revisions to Section 15 of “Rules and Regulations for Subdivision Streets” (Policy Implement Number S-14) contain the Department’s current regulations with regard to traffic impact studies. Parallel agreements with each of the three counties control some parts of the traffic impact study process for those studies relating to developments under county jurisdiction. These agreements were negotiated per the requirements of the 1988 Quality of Life Act.

History: The Department’s current regulations with regard to traffic impact studies were adopted by policy implement in 1987 following significant changes in the field of traffic engineering (specifically the publication of the 1985 “Highway Capacity Manual,” which had not been revised for 20 years). The current legislative context for such studies was established in 1988 by the Quality of Life Act. On the local government level, only New Castle County has been active in this regard. Their focus has been on what applications warrant a study, what facilities should be examined in a study, and what standard those facilities should meet. Virtually no attention has been paid to the more technical aspects of the studies.

Current Situation: In support of local land use decisions, primarily, rezoning, subdivisions, and land development plans, the Department directs and reviews traffic impact studies. While the studies are technical, our reviews of them afford us an opportunity to present the Department’s position on whether the subject application should be approved and if so, under what conditions it should be approved. In these reviews, we reference both the “Strategies for State Policies and Spending” and our Long Range Transportation Plan.

There are at least five aspects of the process that should be revised. Three of them have to do with how the results of traffic impact studies are used and they are addressed separately in another document (Congestion Standards/LOS)(level of service). The other two, addressed here, have to do with how the studies are done:

- Current DelDOT rules and regulations for traffic impact studies – The practice of preparing these studies has evolved considerably since the current rules and regulations were adopted in 1987. Consequently, much of the communication as to how the studies should be done occurs on an ad hoc basis. Traffic engineers unfamiliar with the Department’s requirements for such studies do not have a reliable reference, and

preparers and reviewers of the studies disagree on matters where there should be a single standard. Updating the rules and regulations would help to streamline the regulatory process associated with traffic impact studies and streamlining such processes is another Livable Delaware goal.

- Acquisition of Delaware-specific data for use in traffic impact studies – The procedures used in these studies rely heavily on published data from sources outside Delaware. For example, some of the procedures used in the calculation of intersection (LOS) were validated in Phoenix, Arizona. The “Highway Capacity Manual” recommends that local data be collected to replace the default values that it provides, but DelDOT, like most other users of the manual, has never done so.

To cite another example, the manual provides a default value for the rate at which vehicles flow through an intersection when the traffic light turns green, known as the saturation flow rate. It is commonly understood that the actual rate is lower than the default value in rural areas and higher than the default value in urban areas, but there is no published data in that regard. By collecting and using such data, we could better assess the condition of our intersections, and we could better direct investment and future development to existing communities, urban concentrations, and growth areas, an important Livable Delaware goal.

Updating the rules and regulations for Traffic Impact Studies would help to streamline the regulatory process associated with those studies (Goal #5). Acquiring Delaware-specific data for use in traffic impact studies would help us better direct investment and future development to existing communities, urban concentrations, and growth areas (Goal #1).

For the remainder of this document, these two are treated separately from each other.

#### *Current DelDOT rules and regulations for traffic impact studies*

Revisions/Actions Needed: These rules and regulations are contained in Section 15 of DelDOT’s “Rules and Regulations for Subdivision Streets,” although they are only tangentially related to the rest of the document. That document needs to be rewritten and is addressed separately under Subdivision Regulations. The rewriting of Section 15 needs to be included in that process.

Resources Needed to Create/Revise: This task is being addressed separately under Subdivision Regulations.

#### Process for Creation/Revision:

This task is being addressed separately under Subdivision Regulations.

Schedule: This task is being addressed separately under Subdivision Regulations.

Measures to Guide Progress: Reductions in the number of preliminary submissions per traffic impact study (ideally there should be only one) and in the average number of technical review comments on final traffic impact studies.

Interactions or Inter-relationships with Other Agencies or Units of Government: This task can be performed with little or no interaction with other agencies or units of government.

*Acquisition of Delaware-specific data for use in traffic impact studies*

Revisions/Actions Needed: This effort has the potential to use whatever resources are available. However, specific efforts to collect data on saturation flow rates and on the trip generation of certain types of land uses, such as age-restricted active adult housing, would be particularly valuable.

Resources Needed to Create/Revise: Again, this effort has the potential to use whatever resources are available. However, specific efforts to collect data on saturation flow rates and on the trip generation of certain types of land use, such as age-restricted active adult housing, could be done, on a limited basis, as consultant studies for under \$50,000 each. We estimate a total of 50 person-hours of staff time will be needed to manage the two studies.

Process for Creation/Revision:

- Hire a consultant to collect data on saturation flow rates throughout the state and develop a map of recommended rates for use in the analysis of signalized intersections. These rates could then be used in traffic impact studies.
- Hire a consultant to perform trip generation studies on a task order basis. One land use that has been identified already is age-restricted active adult housing, but there will be others. Boat storage and used car sales are two that have been significant issues in the past.

Schedule:

- 09/02/01 – Start drafting requests for proposals for the services to be provided.
- 09/16/01 – Request proposals from consultants (Under \$50,000 and therefore exempt from the Professional Services Negotiation Act).
- 10/31/01 – Conclude agreements with the consultants to do the work.
- 11/28/01 – First trip generation study is complete.
- 10/30/02 – Saturation flow rate study is completed; begin using it with traffic impact studies.
- 10/31/04 – Agreement ends on trip generation studies.

Measures to Guide Progress: Publication by DelDOT of Delaware-specific trip generation data and saturation flow rates.

Interactions or Inter-relationships with Other Agencies or Units of Government: This task can be performed with little or no interaction with other agencies or units of government.