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## Community and Economic Development in North Carolina and Beyond Blog: Traffic Impact Analysis: Reducing the Uncertainty of Development

By CED Program Interns & Students

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The real estate development process can become increasingly complex as new

requirements are added to a project's scope. Even when a project is on-schedule, it can be abruptly interrupted by the requirement of a government-mandated traffic impact analysis (TIA). TIAs can be costly and time-consuming, however, real estate developers and their public partners can be readily prepared.

Foundationally, TIAs are either performed voluntarily or are performed as a requirement. Frequently, voluntary TIAs are used to educate an organization or the public about the impact of a development on the surrounding infrastructure network. To contrast this, required TIAs are necessary based on the assessment of the state or local municipality. In the case of the State of North Carolina, analysis is required by any real estate development that is adjacent to a NCDOT road and generates *new* traffic above the specific threshold of 3000+ average daily trips (ADT). The government uses this required TIA to determine the level of infrastructure improvements needed before, during, or after construction. It is important to note that prior analysis can sometimes be used for a required TIA, but many times the data may only be reused within five years of its initial approval.

Although the process can be costly and time-consuming, there are developer-benefits of performing a traffic impact analysis. First, the traffic analysis identifies flaws in the site design as well as accessibility issues that may cause the site to have a low desirability for tenants. Secondly, if professionally-approved, the analysis can assist in public outreach and has the ability to reduce community disapproval. Finally, if upgrades to the infrastructure network are necessary, these improvements will enhance the appeal of the project and ultimately improve the long-term viability of the development.

From a developer's perspective, traffic impact analysis is not always seen in a positive light. The cost of a simple TIA starts at a few thousand dollars and can increase dramatically depending on the size and scope of the analysis. Sometimes, real estate developers are less concerned about the cost of the TIA and more concerned with the added uncertainty to the project timeline. Required TIAs begin with a scoping meeting with the state or local municipality, one or two months of analysis, and an additional month to receive approval. The traffic analysis process can stall the development of large sites and can determine whether or not a project will ultimately move forward to the construction-phase. Moreover, the process of approval requires accurate data. Therefore, errors or inaccurate estimates may cause additional delays in the timeline.

An example of a successful traffic analysis is the Tanger Outlet Mall in Mebane, NC. The project began with a simple traffic impact analysis (TIA) conducted by a traffic engineering firm. Over the course of more than five years, the traffic engineers worked closely with developers, the City of Mebane and NCDOT to provide traffic, transportation, and engineering services. Through this process, traffic engineers not only worked on the initial TIA, but also helped to consult on the development of new roadways, roadway widening, interchange improvements, signal design, signal timing plans, traffic control plans as well as utilities, drainage and construction management at Mebane Oaks Road and I-40/85. This project was successfully evaluated during the TIA process, and the development now includes a 50-store outlet mall with four restaurants, two hotels and a medical center.



Knowing how heavily projects rely on traffic impact analysis, real estate developers can advance by prioritizing and forging a long-term partnership with an engineering firm. For instance, if an engineering firm conducts traffic impact analysis for a project, the resulting data can inform designs as well as impact upcoming stages of development. This partnership may not only enhance the analysis experience but may also cultivate many benefits throughout the life of a project.

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