

Traffic Impact Analyses - NCDOT Requirements



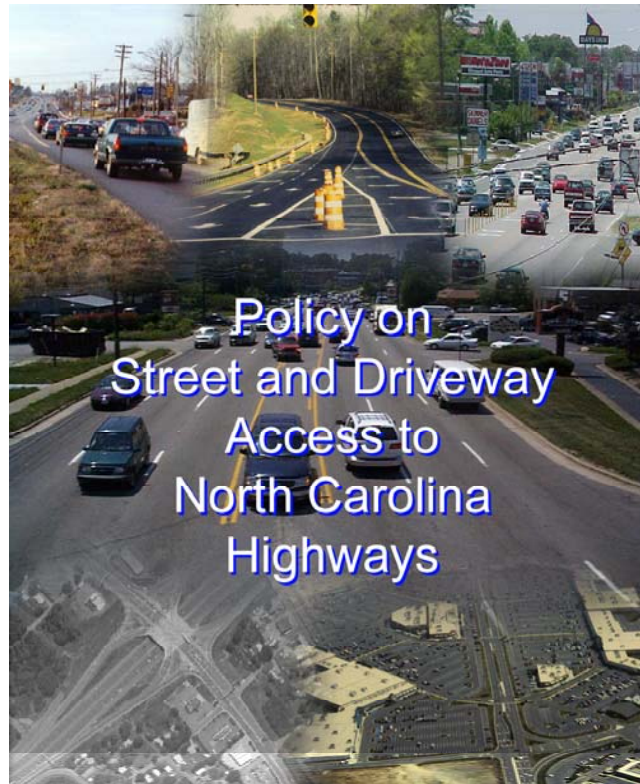
NCSITE Annual Meeting
November 17, 2005



North Carolina Department of Transportation Driveway Manual - July 2003



North Carolina Department of Transportation
July 2003



Traffic Impact Study Thresholds

When a development meets or exceeds 3,000 vehicles per day

General Land Uses that meet or exceed the threshold

- 55,000 sf retail
- 300 single family homes
- 250,000 sf office
- 400,000 sf industrial
- 300 room hotel

15,000 VPD Detail Review



- **Review by traffic engineering staff (DTE, Congestion Mgmt)**
- **More involved, complex developments**
- **Greater impacts to traveling public safety**
- **Greater impacts to transportation facilities**

Coordination with NCDOT

- First contact with District Engineer
- District Engineer will determine initial requirements
- Any projects on active TIP projects should be sent to the Roadway Design project engineer (by the District)
- Once determination has been made to involve Congestion Management, coordinate with CM on all TIA requirements and issues
- CM will issue preliminary memo evaluating basic requirements and technical issues
- TIAs found not in compliance with standards, or with significant errors, will be sent back for revisions, “clock” will not start until completed TIA has been submitted

Analysis Horizon Years

Generally will review the year full build-out occurs

For developments along active or recent TIP Projects:

- Review design year of project
- Include changes to traffic not included in project forecast (for example - rezonings)
- “Point” impact from new driveways/streets
- Protect public’s investment

Mitigation Requirements

The applicant shall be required to identify mitigation improvements to the roadway network if at least one of the following conditions exists when comparing base network conditions to project conditions:

- the total average delay at an intersection or individual approach increases by 25% or greater, while maintaining the same level of service,
- the Level of Service degrades by at least one level,
- or Level of Service is “F.”

NCDOT Congestion Management CAPACITY ANALYSIS GUIDELINES Traffic Impact Analyses or Studies October 1, 2005

“The values below serve as standard practices and default input values for traffic impact analysis reports (TIAs). Changes or deviations from these standards are allowed, but should be justified and documented. Failure to properly justify and document changes and deviations may result in the TIA being returned for changes, corrections and justification. A meeting regarding a scope of study is encouraged where significant deviations from standard practice are anticipated.”

<http://www.ncdot.org/doh/preconstruct/traffic/congestion/CM/default.htm>

NCDOT Congestion Management CAPACITY ANALYSIS GUIDELINES

Major Requirements

- Site Plans - Match TIA
- Strategic Highway Corridors
- Control of Access/Median Crossovers
- TIP Projects
- Trip Generation - Appropriate Land Use Code
- Internal Capture
- Pass-by/Diverted Trips
- Coordinated Signals
- Protected Left-Turn Phases
- Appropriate Cycle Lengths
- Right Turn on Red (RTOR)

NCDOT Congestion Management CAPACITY ANALYSIS GUIDELINES

Analysis Values

- Balance Traffic
- Lost Time
- Clearance Times
- Peak Hour Factor (PHF)
- AM and PM Peak Analyses
- Storage Lane Lengths
- Synchro/SimTraffic