

Traffic Engineering Studies Webinar 11-21-2024 (Q & A)

Tahmina Khan: I remember the Table is showing 0.5 mile it is 1 mile. This is referring to the TIA categories. For Category 2 & 3 the site access driveways and intersection analyzed are within 1 mile of the development. Slide 32 in the presentation has been updated to reflect this.

Robert Davis: Will there be some kind of safety score associated with traffic determinations? It might help explain to a property owner if we deny a driveway. Safety scoring tool is available to use at any point, may be used for driveways but is not necessarily required.

Jimmie Sitz: Where, on TxDOT's website, can I find a recording of this webinar and the updated 2534 Form and instructions? <https://crossroads/divisions/des/traffic-engineering-studies-guidance.html>

Robert Davis: sometimes we get developers for a large vacant lot "unofficially" ask where and how many drives they can get so they can start the site plan. But they don't have an initial site plan yet. How should we approach that? Barbara Russel: you mean like access management spacing? Early in the process, sometimes not enough information is initially being provided by the developer. A fair response from TxDOT is that we need additional details (driveway spacing, Land use, etc.) so we can make reasonable recommendations for the development.

Christina DeLaCruz: What defines an impact from a LOS. Increase in delay by 10 secs. LOS D or worse? Any change due to the traffic generated by the proposed development can be considered an impact. In many cases a change from LOS B to LOS C may not be an impact that needs mitigation. In other cases mitigation may only be required if the build out LOS is worse than LOS D. Local entities will have different requirements for mitigation with varying criteria on how to define an operational or safety impact.

Manuel Palma: What are the mitigation criteria in terms of acceptable LOS? LOS D is usually considered an acceptable LOS in an urban/suburban context. Mitigation criteria will vary depending on the requirements of local authorities as well as the existing conditions on the roadways near the proposed development.

Christina DeLaCruz: If you fall in an area where the municipality already has a well defined TIA process that includes TxDOT then do they follow that cities process and how they define impacts. Early in the process, there should be a coordination/scoping meeting between developer, TxDOT and

local entity. If the local entity does not have permitting authority, then TxDOT policy ultimately has precedence, but a pre-scoping meeting will allow these details to be worked out.

Christina DeLaCruz: Is the right turn lane thresholds only account for the proposed development rights turn traffic? The turn-lane thresholds in Table 2-3 of the Access Management pertain to the total traffic at the driveway. The existing traffic plus the traffic generated by the development and grown to the buildout year.

Matthew Johnson: Do the Trip Gen range apply to net or gross trips? This question pertains to the pass-by and internal capture trips. Different Districts may have different allowable limits with respect to pass-by and internal capture. The ITE Trip Generation Manual has information and processes for suggested pass-by and internal capture rates. For a determination of turn lane thresholds what's relevant are the total trips at the driveway (whether pass-by or not pass-by).

Khang Nguyen: If the existing condition or no-build condition warrants a mitigation measure, would the developer be responsible for that mitigation measure? The developer would not be responsible for existing condition or no-build existing issues. The developer is responsible for the mitigations that may be needed due to the additional trips from the proposed development. It should be noted that total Build scenario contains analysis that considers addition of new generated trips to background traffic, if this analysis shows degradation of acceptable LOS to unacceptable LOS compared to Future No-Build scenario analysis, it is considered a negative traffic impact that needs mitigation.

Jeanne Tarrants: Where can we find the updated 2534 form? Link below:
<https://www.txdot.gov/txdot/forms/GetForm?formName=/2534.pdf&appID=/DES&status=/reportError.jsp&configFile=WFServletConfig.xml>

Christina DeLaCruz: What software is to be used? Synchro, Vistro? Any software that provides a process to measure the impact of proposed mitigations can be utilized. The TSAP manual provides guidance on the capabilities of many available software alternatives. Chapter 4 of the TSAP manual provides an overview of software for operational analysis, and Chapter 6 covers software for safety analysis.

Tony Voight: regarding scope: 100-499 typically does 1/4 mile and buildout year only. 500-1000 1/2 mile and buildout year (and maybe five year horizon), 1000+ trips 1 mile, buildout year and horizon year (5 year). Extremely rare to get a 10 year after buildout scenario required. For category 1 (100-

499) ¼ mile may be reasonable but it will depend on the site. For category 2 the analysis is to include site access drives and intersections within 1 mile of the development and five years after full buildout. For category 3 the analysis is also to include site access drives and intersections within 1 mile of the development and five and ten years after full buildout. Slide 32 from the presentation has been updated with current table found as Table 16-1 from the TSAP manual.

Alex Flores: How are you to consider rough proportionality when the developer is responsible for implementing mitigation measures? Are they responsible for the complete cost of mitigation? [At the scoping meeting between the parties, these types of questions can be negotiated with the developer.](#)

Christina DeLaCruz: If a development shows that in the No build condition a traffic signal is required is TxDOT then obligated to install or will signal be required of the development? Also if a signal is part of a coordinated system will the applicant be required to analysis the whole system if optimization is recommend? [If the existing traffic shows that a signal is warranted, then TxDOT or the local municipality would be responsible for the signal. If a signal is part of a coordinated system, the whole coordinated system should only be analyzed if it is part of the proposed mitigation. In most cases this means that there should be a fixed cycle length that is part of the coordinated signal system.](#)

Christina DeLaCruz: Who determines of the Trip Generation Rate average rate is to be used or linear rate equation? [The trip generation rates are prepared by the ITE committee that produces the Trip Generation Manual. For most land use cases there are multiple data points available, and a best fit curve is used to determine the trip rate. In some cases where there are only a few data points the trip rate may be linear. A good R-square value for linear regression for ITE model is generally considered at least 0.75 to choose Linear rate equation versus Average rate.](#)

Michael Morgan: How does pro-rata share work with TxDOT TIA (not jointly scoped)? From what I understood is that TxDOT cannot accept partial payment for improvements (i.e. Donation Agreement for full improvement cost). [At the pre-scoping meeting between the parties, these types of questions can be negotiated with the developer.](#)

Matthew Johnson: Looking at category 2 and 3, the table says to analyze site access drives and intersections within 0.5 miles of the development. Does this mean that we will need to do vehicle counts on driveways within 0.5 miles of the site? [The site access driveways and intersection analyzed are within 1 mile of the development. Slide 32 in the presentation has been updated to reflect this..](#)

Vehicle counts on driveways within 1 mile of the development will need to be collected for category 2 and 3.

Matthew Johnson: What I am asking about is the exceptional amount of data that may need to be collected if we have to perform vehicle counts on driveways. If there is a high density of driveways within 1 mile of the development, the proposed driveway may have several impacts to the existing traffic, and vehicle counts should be made at all the driveways and intersections. One potential mitigation could be to combine some driveways to reduce conflict points.

Christina DeLaCruz: At what point is the TIA or memo required. At the MDP, Platting, or building permit stage? The association would be with driveway permit application, the TIA or memo (if required by the District) would be a necessary product for the final approval of the driveway permit.

Pragathi Kolimi: How to contact TxDOT district engineers if we want to discuss/clarify something before starting the TIA. Where can we get their contact information . A good starting point would be the respective Area Engineer within that District. The link at <https://www.txdot.gov/about/districts.html> will direct you to the District points of contact.

Shoshana Vogt: Is there a plan to harmonize the turn lane warrant criteria in the 2024 RDM with the 2011 Access Manual? To my knowledge these criteria do not conflict. The turn-lane volume thresholds are in the Access Management Manual Table 2-3. Chapter 3 of the RDM provides the geometric design criteria for right-turn and left-turn lanes.

Conference room: When will these updates be implemented? The implementation timeline for the Districts to incorporate this guidance is March 31, 2025. The Districts may use this updated guidance prior to that if desired.

Margaret Lake: We usually joint scope with municipalities, so the TIA meets both needs.

Keri Collins: Local municipalities have land use and zoning authority for the site and development. TxDOT has legal permitting authority for the driveway access. Both have legal requirements. The best solution is for a collaboration between the municipality and TxDOT. We typically work with the city/county to make sure everyone's mitigation needs are met.

Barbara Russel: We typically work with the city/county to make sure everyone's mitigation needs are met.

Santosh Andem: How do you make a decision on driveway full access vs partial access. For a development where a proposed driveway will be on a roadway with a median the level of access will become part of the mitigation process. Many developments that have lower trips generated may be comfortable with right in and right out only driveway. If the generated volumes are higher a right in and out driveway will start to impact nearby intersections with high U-turning volumes, then a full access driveway may be a better option.

Chad Windham: It was mentioned there was a formula for proportional share or Pro-rata. Can you share where this is found? At the pre-scoping meeting between the parties, these types of questions can be negotiated with the developer.

Christina DeLaCruz: Will the development be required to provide mitigation for 5 and 10 yrs out from their build out? Yes, for developments in Category 3 where the peak hour trip generation range is greater than 1,000 veh/hr mitigations analysis is to include five years and ten years after full buildout.