

Citizen Comment #2/Responses for Wegmans Draft TIS

Comment	HNTB Response
<p>1.The Wegmans site appears to be predicted to generate around 10,000 car trips a day. Is that correct? How was that projection determined?</p>	<p>See Table 5, page 11. The Wegmans raw trip estimates are around 10,000, but these are not “new” car trips. Some trips are expected to be made by bus, pedestrians, and bicycles. About 3,000 trips are projected to be pass-by trips, which means these vehicles are already in the traffic stream and enter/exit Wegmans and continue their original trip purpose. The impacts of the Wegmans redevelopment also need to consider the estimated 3,500 daily trips that Performance Motors generates and the fact they will be “removed”. Information on the projection process is found on pages 9 and 10 of the TIS.</p>
<p>2.Why is no consideration given to the impact of GIS and traffic apps in the distribution of these trips? That would seem to be an increasingly important factor as that technology improves and extremely relevant particularly as to the impact on Legion Road extension, Cooper Street and Scarlett Drive given that the Wegmans street address would now be 125 Old Durham Road rather than a Fordham Blvd address. Does traffic engineering not consider how drivers make decisions on which routes to take and how technology will affect those decisions?</p>	<p>There is no established research available on a suitable method to incorporate the utilization of apps/GPS devices and their effects on trip routing to a defined parcel for a traffic impact study. Trip distribution patterns are estimated through available daily and peak hour traffic pattern data, with engineering judgement applied to estimate quickest and most direct routes. While a case could be made that a trip from Ephesus Church Road east of US 15-501 might (if completely reliant on GPS/app for routing) use Legion Road, and potentially Legion Road Extension/Cooper Street, the number of these trips in comparison to the regional trip-attractiveness of the Wegmans site, would likely be very small.</p>
<p>3. There is no intersection that consists of 15-501 and Sage Road/Scarlett Drive. All of the Figures in the report show Old Durham Road (or Old Chapel Hill depending on the Figure) ending at Scarlett Drive and Scarlett Drive intersecting with 15-501, which is wrong. The intersection indicated in the report as being 15-501 and Sage Road/Scarlett Drive is actually 15-501 and Sage Rd/Old Durham Road. Is that correct?</p>	<p>The report and figures will be reviewed for consistency. Current signage shows Scarlett Drive intersecting with US 15-501 across from Sage Road.</p>

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<p>4. All of the current and projected delays for vehicles entering that intersection from Old Durham Road exceed 80 seconds (some by a large amount) according to answers to my previous questions. That would place that intersection into LOS F which is described as featuring</p> <ul style="list-style-type: none"> - forced or breakdown flow - volumes exceed roadway capacity - formation of unstable queues - stoppage for long periods of time because of traffic congestion Is that correct? 	<p>It places the individual traffic movements and potentially this particular approach into the LOS F category, if the per vehicle delay data exceeds 80 seconds. The overall intersection may still operate much better than a LOS F if other movements and approaches experience less delay.</p>
<p>5. For the volume to capacity ratios for the scenario of cars using Old Durham Road to access that intersection can you provide some actual projected numbers instead of a ratio. In other words, how many cars per cycle can clear that intersection and how many cycles per hour versus the projected traffic volume per hour?</p>	<p>The number of cars per cycle that can clear the intersection is dependent on the green time apportioned to the particular movement. The cycle lengths analyzed in the study have a 180 second cycle, which is 20 cycles per hour. In general, this approach is getting 25-30 seconds for the dual left-turn, through and right turn movements, and generally a vehicle can clear every 3 seconds, so the number of vehicles that can clear is about 350-400 for the dual left-turns and 200 each for the throughs and right-turns (though the right-turns can turn on red, which means more could in fact be processed).</p> <p>None of the projected peak hour traffic volumes with Wegmans traffic included exceed these “rule of thumb” thresholds. Part of the reason for the lengthy delays at this (and the Sage Road) approaches to the intersection is the 180 second cycle length and the fact that US</p>

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	15-501 and its left-turn lane signal phases demand most of the signal cycle time.
6. What impact on 15-501 volume to capacity ratios and LOS would timing the lights at that intersection to reduce the LOS for Old Durham and 15-501 to be C or better.	Without going through a detailed analysis of this hypothetical scenario, it could be generally assumed that it would cause significant queuing issues along the 15-501 corridor and harm optimized progression of traffic flow along the corridor at adjacent intersections.
7. How does congestion caused by conflicts between busy driveways like Hardees or Wegmans affect the ability of traffic to clear that intersection?	The Wegmans driveway was specifically analyzed in the network to study its effects with the Old Durham Road traffic stream. No major issues that impeded flows due to vehicle queues were noted. The Hardees Driveway was not specifically analyzed.
8. What will keep customer vehicles from using the delivery vehicle entrance to Wegmans? It will be the most convenient entrance for traffic from both east and west (using Legion Road extension and Cooper St to a right on Old Durham and left into that entrance avoids a lot of congestion and traffic lights) and will provide access to a part of the customer parking lot that is remote from the main entrances but very close to the store. Signage may discourage some people, but not all by any means.	The Site Plan proposes signage (trucks only) and striping ("trucks only" and stop bar) across entire driveway approach to detract drivers from utilizing the rear access driveway.
9. The developer is proposing improvements to Eastowne Drive on the north side of 15-501 but no improvements or mitigation efforts for Cooper Street, Legion Road extension or Scarlett Drive. Traffic on Eastown Drive would be minimally affected, if at all, by Wegmans and traffic on Cooper, Legion extension and Scarlett will be significantly impacted by Wegmans. Can you explain why Eastowne Drive should be improved and Cooper, Legion extension and Scarlett Drive be ignored?	<p>Site traffic will have impacts at existing Lakeview/Eastowne intersection and several improvements to all approaches (whether they are carrying Wegmans-related traffic or not) were recommended to keep this intersection operating acceptably.</p> <p>No significant capacity issues were found from operational analysis results in the study in the Cooper/Legion Extension/Scarlett area, other than to limit access at the Scarlett/Old Durham intersection, which is an operational and safety hazard. An important study recommendation is for a future detailed analysis and study of those local streets to add additional traffic calming measures, if needed, if the Wegmans is approved.</p>
10. The traffic counts for this study were done in April 2016. Can you tell me when your department was first made aware of the potential for a project	Early April 2016

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<p>like this for the Performance site – whether under the name of Wegmans, Gateway Grocery, Project Eagle or anything else?</p>	
<p>11. Do you feel like this analysis appropriately addresses the traffic impacts on area roadways for the current proposal which places 100% of Wegmans traffic on Old Durham Road?</p>	<p>The study was conducted to mitigate impacts created by the current Wegmans site plan and access. In the draft report, a final recommendation is for the Applicant to continue to work with the adjacent parcel to create a means to create access from Eastowne Drive, which would lessen traffic impacts to Old Durham Road. The study was done to Town and NCDOT standards and input/review from both agencies will be incorporated in the final report.</p>