



October 26, 2017

Mr. David Bergmark, AICP
Planning Director
Town of Wendell – Planning Department
15 East Fourth Street
Wendell, NC 27591

Re: **Greater North Carolina Jurisdiction Church of God and Christ TIA**
AMT File No.: 113-551.001 *delivered via email to: dbergmark@townofwendell.com*

Dear Mr. Bergmark:

A. Morton Thomas and Associates, Inc. (AMT) has been retained by the Town of Wendell to provide review comments for the Traffic Impact Analysis (TIA) related to the Greater North Carolina Jurisdiction Church of God and Christ. The site is located in the northwest quadrant of the intersection of US 64 Business (Wendell Boulevard) and NC 97 in Wendell, Wake County, North Carolina. The TIA is dated October 18, 2017.

Below are AMT's review comments for the Greater North Carolina Jurisdiction Church of God and Christ TIA:

1. General: An executive summary was not provided in the report.
2. General: Any comments resulting from NCDOT's review should be provided to Town staff.
3. Data Collection: The traffic study states that no traffic volumes were observed traveling to or from Bishop Woolard Avenue during the AM or PM peak hours. This is possible considering that the Church is the only land use using Bishop Woolard Avenue, but the data in-order to verify this claim should be provided.
4. Trip Generation: Trips for the outparcel land uses were generated using general retail (i.e. shopping center / land use code 820). The study states that this is a higher generator than the other uses that have been considered for the site. However, the study does not state what other uses are considered for the site. If the eventual land uses exceed either the total daily, AM peak, or PM peak trips by ten percent (10%) or greater; the TIA should be revised.
5. Trip Generation: In-order to use the Continuing Care Retirement Community trip generation rates/equations, the community should be restricted to individuals 55 years of age or higher. Otherwise, the rates/equations for apartments (LUC 220) should be applied.
6. Site Trip Distribution: The trip distribution percentages are not representative of the traffic count data shown at the intersection of US 64 Business at NC 97. The trip distribution should be revised to be more reflective of the observed traffic patterns.
7. Edgemont Landing Trip Redistribution: The roadway network created by the proposed development would provide residents in the Edgemont Landing a more-efficient route to and from US 64 Business. However, the traffic study did not account for the approved development or existing traffic utilizing this new connection in the build analysis scenario. It is recommended that this is accounted for in the traffic volume calculations.

8. US 64 Business at NC 97: The study used a cycle length of 110 seconds at this intersection. The NCDOT Congestion Management Capacity Analysis Guidelines recommends that traffic signals operating with four or more phases utilize a minimum cycle length of 120 seconds.
9. US 64 Business at NC 97: U-turns should be prohibited on the eastbound approach of US 64 Business to this intersection. It is therefore recommended that a “No U-turn sign” (R3-4) be installed in the appropriate location per the Manual on Uniform Traffic Control Devices (MUTCD).
10. NC 97 at Edgemont Road: The study indicates that traffic signal warrants were evaluated at this intersection and that the installation of a traffic signal is not warranted. This is plausible, but the signal warrant evaluation data in-order to verify this claim should be provided.
11. NC 97 at Edgemont Road: The study notes that significant delays and queues are noted on the southbound approach of Edgemont Road at NC 97. The study also correctly notes that the development has a small impact on these delays and queues. However, the installation of an exclusive left or right turn lane should be considered on this approach. It is acknowledged that this mitigation may not be required if the trip distribution and Edgemont subdivision trip re-distribution may no longer require this mitigation.
12. Site Drive: The site drive should be designed to accommodate U-turn movements with the appropriate design vehicle per NCDOT. Landscaping in the median of US 64 Business should also be modified to provide adequate sight distance for vehicles entering the proposed development. Consideration should be provided to how the site driveway is designed in-order to minimize safety concerns arising with higher design speeds on US 64 Business and the potential for weaving movements for traffic on westbound US 64 Business.
13. Site Drive: The median break on US 64 Business should be designed to physically prohibit vehicles from turning left from the proposed development onto US 64 Business.
14. US 64 Business at Westbound U-Turn: The proposed exclusive westbound U-turn lane on US 64 Business should be constructed with a minimum of 175 feet of full-width storage and appropriate deceleration and taper. Special consideration should be given to grade differences between the eastbound and westbound travel lanes of US 64 Business in this area given the high travel speeds. This U-turn location should also consider the proximity of the Buffalo Creek bridge structures, drainage structures, and landscaping in the median as these items can obstruct sight distance.

If you have any questions or responses pertaining to these comments, please call me at 919-855-9989 or e-mail me at mpeach@amtengineering.com.

Sincerely,

A. Morton Thomas and Associates, Inc.



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