



June 13, 2019
File: 192510716

Attention: Sanyogita S. Chavan
Director of Planning
Township of Middletown
1 Kings Highway
Middletown, NJ 07748

Dear Ms. Chavan,

Reference: Review of Traffic Impact Study for Middletown Walk

Stantec has reviewed a document provided by the Middletown Township Planning Board, entitled *Traffic Impact Study for Middletown Walk*, prepared by Langan Engineering and Environmental Services, Inc. and dated March 26, 2019. The Traffic Impact Study (TIS) is based upon the data and projections included in *Traffic Impact Study for Shoppes at NJ Route 35*, prepared by Langan Engineering and Environmental Services, Inc., dated September 22, 2015 and Revised February 10, 2016, which assesses the cumulative impact of the residential and retail portions of the proposed development. The March 2019 TIS includes an additional supplemental analysis that assesses the potential transportation impacts of just the residential portion of the development.

This review letter provides the following comments on the supplemental analysis of the residential portion of the development. Comments and findings regarding the analysis for the overall site can be found in our review letter dated May 28, 2019. Thus, the comments and findings contained in this review letter should be considered in addition to those in the May 28, 2019 letter.

Based on our assessment of the documentation, it is our opinion that the Traffic Impact Study and associated analysis files have been prepared utilizing appropriate standard traffic engineering methodologies that comply with NJDOT requirements. However, the applicant should review and address the following comments:

1. The capacity analysis summary tables (Tables 3 and 4) do not provide a volume-to-capacity (V/C) ratio. According to the Highway Capacity Manual, a V/C ratio of 1.0 or greater indicates LOS F regardless of the delay value. Because Synchro does not automatically adjust LOS results to account for V/C ratio, the applicant should verify if any movement would operate with a V/C of 1.0 or greater and adjust the capacity analysis results table if necessary. If there are no movements that operate with a V/C of 1.0 or greater, the applicant should testify to this point.
2. The applicant should clarify whether any modifications to study area signal timings were made as part of the Build Condition. For example, at the intersection of Twin Brooks Highway and NJ 35

Reference: Review of Traffic Impact Study for Middletown Walk

delay for the eastbound and westbound movements decreases in the Build condition as compared to the No Build condition (see Table 3).

3. The analysis of the residential portion of the site includes the construction of the proposed local connector road. It is our opinion that the local connector road should be constructed even if the retail portion of the site is delay or not constructed.

Regards,

Stantec Consulting Services Inc.



Adam Catherine PE, PTOE, ENV SP
Senior Associate
Phone: 856 234 0800 ext 6040
Fax: 856 234 5926
Adam.Catherine@stantec.com

Attachment: Village 35 Traffic Operations Review Letter (May 28, 2019)



Stantec Consulting Services Inc.
10000 Midlantic Drive Suite 300W, Mount Laurel NJ 08054-1520

May 28, 2019
File: 192510716

Attention: Sanyogita S. Chavan
Director of Planning
Township of Middletown
1 Kings Highway
Middletown, NJ 07748

Dear Ms. Chavan,

Reference: Village 35 Traffic Operations Review

The Middletown Township Planning Board provided Stantec with the following documents to aid in the review of transportation-related impacts of the proposed development:

- Traffic Impact Study for Shoppes at NJ Route 35, prepared by Langan Engineering and Environmental Services, Inc., dated September 22, 2015 and Revised February 10, 2016.
- The Shops at Middletown Traffic Analysis Data, prepared by Langan Engineering and Environmental Services, Inc., dated July 25, 2016.
- NJDOT Access Permit Plan Set, prepared by Langan Engineering and Environmental Services, Inc., submission date of January 8, 2018.
- Site Plan set, prepared by Langan Engineering and Environmental, Inc., dated December 17, 2018.

In addition to the above documentation, Langan provided electronic copies of the Synchro traffic analysis files that were used to generate the revised traffic analysis results presented in the July 25, 2016 documentation.

Based on our assessment of the documents, it is our opinion that the Traffic Impact Study and associated analysis files have been prepared utilizing appropriate standard traffic engineering methodologies that comply with NJDOT requirements. However, the applicant should review and address the following comments:

1. The Traffic Impact Study evaluates 380,000 square feet of general retail space, along with 275 townhomes and 75 apartment units which no longer reflects currently proposed conditions. While the TIS does not specifically include the Wegman's, which is a higher-intensity trip generator than a typical grocery, **the results of the analysis may be considered conservative in that it utilizes a higher retail square footage, does not account for existing retail activity on the site, does not account for internal trip capture, and utilizes pass-by trip credits which are lower than would**

Reference: Village 35 Traffic Operations Review

be allowable with the smaller retail square footage. The applicant should provide testimony to discuss how the anticipated number of trips compare to that generated in the traffic impact study.

2. The applicant should clarify whether any background developments within the study area were considered when developing the No Build traffic volumes for the TIS.
3. Because the study was completed in 2015, it does not take into account additional traffic volumes associated with recently proposed developments within the study area. The applicant should provide testimony to discuss how this may impact the results of the traffic impact study.
4. Approximately 38% of site generated retail trips, as well as 49% of residential trips would originate from points north and require vehicles to utilize southbound NJ 35. However, the planned improvements provide only one point of access from southbound NJ 35 to the site. The applicant should clarify if other options were considered, why those options were not incorporated into the proposed improvements, and whether or not they consider this access adequate to meet the needs of the site.
5. After reviewing the trip generation data and site plan, it is our opinion that the proposed internal site circulation plan provides for appropriate separation of vehicle circulation, parking activity, and pedestrians. All of the primary circulating roadways are outside of the parking areas and do not run between the parking areas and the building entrances. Separate and designated pedestrian pathways with crosswalks are provided. Furthermore, the internal circulation is appropriate for what would be anticipated for a development of this size.
6. Given the inherent uncertainty in trip generation estimates it is our recommendation that the developer conduct a post-development study at least six months after retail occupation exceeds 75% GSF. This study would evaluate the estimated trip generation rate, assess the operation of the proposed roadway improvements, and determine if modifications to signal timing and phasing may be required to optimize intersection operations.

Regards,

Stantec Consulting Services Inc.



Adam Catherine PE, PTOE, ENV SP
Senior Associate
Phone: 856 234 0800 ext 6040
Fax: 856 234 5926
Adam.Catherine@stantec.com