



August 1, 2014

DELAWARE COUNTY, RADNOR TOWNSHIP
S.R. 0030 (LANCASTER AVENUE)
HIGHWAY OCCUPANCY PERMIT APPLICATION NO. pre913
VILLANOVA UNIVERSITY
TRAFFIC LOG NO.: D13-008XR
PRELIMINARY REVIEW

Frank Tavani, P.E., PTOE
F. Tavani and Associates, Inc.
105 Kenilworth Street
Philadelphia, PA 19147

Dear Mr. Tavani:

The Department has reviewed the preliminary submission of the Traffic Impact Assessment dated August 27, 2013 for compliance with applicable Department Regulations. This review has identified deficiencies that must be addressed in order for your application submission to be processed as efficiently as possible.

The Department understands that the provided analysis is preliminary in nature. As such, the Department reserves the right to make future additional comments based on the formal submission of a complete Transportation Impact Study.

Our comments on your preliminary submission are as follows:

PRELIMINARY COMMENTS

1. Future submissions should include a letter that describes how each comment, from this or previous reviews, has been addressed and where each can be found in the associated studies or plans. Based on the manner in which this project has taken place the inclusion of formal review letters and/or comments provided via email may be appropriate.
2. Transportation Impact Study
 - a. The PennDOT project number, D13-008XR, for this preliminary review must be referenced when the formal HOP application is submitted.
 - b. In consideration of the previously submitted information and coordination to date, future submissions to the Department may be limited to:
 - i) Site accesses to State Routes

- ii) S.R. 0030, from S.R. 0320 to Garrett Avenue
- iii) S.R. 0320 and County Line Road
- c. ~~Based on the magnitude of the anticipated modifications associated with the proposed development, including roadway modifications and traffic re-distribution, the submitted document is considered a Transportation Impact Study and should conform to the Department guidelines as such. As previously noted, this includes:~~
 - i) Land Use Context
 - ii) Roadway Classification (reference the Smart Transportation Guidelines)
 - iii) Pedestrian and Bicycle Facilities
 - iv) Photographs of study intersections and accesses
 - v) Sight distances at access
 - vi) Turn lane warrant analysis for site accesses and intersections serving the site (e.g. Ithan Avenue)
- d. The study should consider an alternative that includes providing an eastbound right turn lane on S.R. 0030 approaching Ithan Avenue. The right turn lane is a recommended improvement and not a requirement from the Department.
- e. As previously noted, tables and figures should be organized so that there is a clear flow from trip generation to trip distribution and the resulting Levels-of-Service.
- f. The crash history noted six accidents involving pedestrians. Additional information should be provided to determine if there is a correctable pattern or other elements that should be considered as part of this project.
- g. As previously noted, additional information is also needed for the Performing Arts Center accesses, addressing proximity to the signal, flow and restrictions, etc. Specific issues include the manner in which previous submissions appeared to direct traffic away from Ithan Avenue and the operation of the full-movement access to S.R. 0030, including evaluation of the access pre and post event.
- h. Please note that the various materials submitted in relation to this project include minor discrepancies in the campus-wide parking supply figures. These are generally minimal and are not expected to change the results of the analyses; however they should be addressed as part of future submissions.
- i. As previously noted, Level-of-Service data tables should include the delay in seconds for each lane group operating at LOS F.
- j. Verify that the figures clearly illustrate proposed volumes at all accesses to state roads, including but not limited to the proposed right in and right out access to the modified commuter lot along S.R. 0030.

- k. The Synchro analyses should address the following:
 - i) Ensure that Future Build volumes are consistent with the submitted figures.
 - ii) Per the current Highway Capacity Manual the overall intersection peak hour factor should be used.
 - iii) Ensure that all turn lanes are coded appropriately.
 - iv) As previously noted, ensure that the pedestrian phase clearance intervals are coded appropriately. In particular, for S.R. 0030 and Ithan Avenue:
 - (1) Ensure that pedestrian times meet or exceed the minimums for existing (26 seconds per the current Traffic Signal Permit) and future conditions.
 - (2) Enter an appropriate number of pedestrian calls. If the number of calls is assumed to be reduced under future conditions due to proposed improvements, include documentation of the methodology used to develop the assumed number of calls.
 - v) Ensure the appropriate coordination and recall settings are utilized.
- l. The submitted Conditional Use Plan shows two lanes exiting Chapel Drive to S.R. 0030; verify that this is addressed in the analyses.

3. Conditional Use Plans

- a. Note that all improvements will be required to comply with current ADA standards.
- b. To the maximum extent feasible existing accesses to S.R. 0030 within the project limits should be removed where new access is provided as part of the proposed development (e.g. the two story buildings adjacent to the West Lancaster Parking).
- c. Future submissions should include calculations supporting the proposed transition taper lengths.
- d. The westbound stop bar for S.R. 0030 approaching Church Walk appears too far west; adjusting this will impact the proposed eastbound transition taper.
- e. The eastbound stop bar for the S.R. 0030 left turn lane approaching Ithan Avenue may need to be adjusted to account for the shifting of the northbound left turn lane.
- f. Consideration of re-aligning the crosswalks at S.R. 0030 and Ithan Avenue may be warranted as a means to reduce pedestrian crossing distances.
- g. Ensure that appropriate visibility is maintained for the pedestrian crossing of the Performance Arts Center access; the magnitude of the setback may warrant reconsideration.

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The Department has performed this preliminary review based only on the limited information provided. We reserve the right to make future, additional, detailed comments based on the formal submission and application for a Highway Occupancy Permit. If you have any questions pertaining to the technical aspects of this review, please contact Albert Federico, P.E., PTOE of McCormick Taylor, Inc. at 215.592.4200 or apfederico@mtmail.biz.

Respectfully,



Francis J. Hanney
District Traffic Services Manager
Engineering District 6-0

cc: M. Miele
L.R. Belmonte
Traffic Services File
Radnor Township
Delaware County Planning Commission