City of Ann Arbor
Traffic Engineering Review

Review Memo

To: Alexis DiLeo, Planning and Development Services
Cynthia Redinger, PE, PTOE, Public Services Area – Engineering
From: Luke Liu, PE, PTOE, Public Services Area - Engineering
cc: Via Trakit
Date: August 25, 2017
Re: SP17-009: 1140 Broadway

This application is **not** recommended for approval.

Transportation Impact Analysis:

The applicant's engineer provided responses to the following comments. Several of the comments have not been satisfied at this time.

- Future with Improvements: *Provide a more complete signal warrant analysis at the intersection of Maiden Lane and Nielson Court. Even through 24-hours of data were not collected, the five hours that were can still be applied to all the warrants. Pedestrian related warrants should also be considered.*
    - The applicant's engineer has not completed the work requested. The previously requested analysis shall be submitted as a condition to traffic engineering approval. The requested analysis at the intersection of Maiden Lane and and Nielsen Court will be used to determine if a traffic signal is currently warranted, if conditions nearly meet warrants, or if another type of device is required to support pedestrians and bicyclists crossing Maiden Lane at Nielsen Court. Submittal of signal warrant spreadsheet as an Excel file is required.
- Future with Improvements: *During the AM and PM peak hours, the intersection of Plymouth Road/Broadway Street/Maiden Lane/Moore Street has approaches that operate with unacceptable levels of service and delays worse than background with improvements. Provide recommendations for mitigating this increase in delay.*
    - The applicant's engineer has clarified their analysis results. The resulting proposed conditions analysis results will not meet the requirements established in the City's Land Use Regulations Attachment D. In order to offset this deficiency traffic engineering staff recommends the applicant's mitigation strategy include additional traffic detection to optimize SCOOT signal control operations. The recommended strategy includes motor vehicle detection and bicycle detection

using GRIDSMART camera at the existing signalized intersections of Broadway & Swift, Broadway & Maiden, Plymouth & Broadway, and Barton & Plymouth.

- Broadway Street and Proposed Site Driveway-Intersection Alternatives: *The all-way stop, three-way stop, roundabout and signalize options shows vehicles waiting to make the left turn from westbound Broadway Street to southbound Plymouth Road backing up through the intersection/roundabout.*

    - The applicant's proposed intersection does not meet the recommendations of the Michigan Access Management Guidebook for corner clearance. While the existing public right of way access, i.e. the old Broadway alignment, has an access point at this location that access point is extremely low volume. The proposed site access will create a scenario with far more trips destined for the existing signalized intersection. The applicant has proposed a roundabout at this location to minimize the negative impacts of the new intersection on the existing signalized intersection. The applicant's engineer has acknowledged that the queuing will occasionally extend between the two intersections creating an undesired condition.

Responses to further staff comments include:

- The engineer's response to these comments does not acknowledge the City's need to review the requests data and analyses in order to ensure a complete transportation system that will be reasonably safe and convenient for all modes of travel. Only the output of some analyses were provided. Please provide source analysis for review as previously requested.