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June 2, 2017

City of Ann Arbor
301 E. Huron St, PO Box 8647
Ann Arbor, MI 48107

Attn: Cynthia Redinger, PE, PTOE, Traffic Engineer

Re: 1140 Broadway
Traffic Impact Study Review

HRC Job No. 20170332

Dear Ms. Redinger:

Hubbell, Roth & Clark, Inc. (HRC) and the City have reviewed the revised Morningside Lower Town Traffic Study conducted by Fleis & Vandenbrink dated May 15, 2017. Our comments are as follows:

≡ Synchro/SimTraffic Models

- ≡ Remove the additional eastbound through lane, east of the dummy node between Fuller Road and Neilson Court.
- ≡ The westbound Moore approach lane assignment at Pontiac Trail should have one shared left turn/through lane and one dedicated right turn lane, the right turn movement is not stop controlled and allow vehicles to enter blocked intersection.
- ≡ Southbound Pontiac Trail approaching Swift Street should have both lanes continue to southbound Swift Street approaching Broadway Street.
- ≡ Remove the median on the south leg of the Broadway Street/Plymouth intersection and correct the vehicle-lane assignment.
- ≡ At Broadway Street/Plymouth and Maiden, outbound Broadway Street should be permissive-protective, instead of permissive only. The phasing sequence is incorrect.
- ≡ Southbound Swift at Broadway should be no turn on red.
- ≡ Include the signalized intersections of Fuller Road/Cedar Bend Drive and Fuller Road/Bonisteel Boulevard in the model.
- ≡ The existing and background PM SimTraffic models freeze up when running.

≡ Existing with Improvements

- ≡ An exclusive right turn lane for westbound Maiden Lane to northbound Plymouth Street is recommended in the study; however, this is existing. It appears that an exclusive left turn lane is being recommended by the study. Please clarify.
- ≡ During the PM peak hour, the southbound Plymouth Road queues at Broadway Street/Maiden Lane/Moore Street are still unacceptable.

≡ Background with Improvements

- ≡ During the PM peak hour, the southbound Plymouth Road and northbound Broadway Street queues at Maiden Lane/Moore Street are still unacceptable.

≡ Trip Generation

- ≡ The total new trips in Table 6 should be total trips generated minus the pass-by trips. Please revise.
- ≡ Revise the calculated person-trips in Table 8 as rounding is still off.
- ≡ Describe how the pass by trips were included in the modal split trip generation (Table 10).
- ≡ The note for Table 10 states that the values have been rounded up to the nearest whole number. This is not always the case.

≡ Trip Distribution and Assignment

- ≡ Explain why only pass-by trips were shown entering the parking area south of the Broadway Avenue/W. Site Drive and no new trips were added here.
- ≡ Existing pass-by trips are not shown leaving any site drives in Figure 5. Please revise.

≡ Future with Improvements

- ≡ Provide a more complete signal warrant analysis at the intersection of Maiden Lane and Nielson Court. Even though 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.
- ≡ 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.

≡ 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.

≡ Conclusions

- ≡ Conclusions number 2 and 10 have contradicting information.

In addition, the City is requesting a design horizon year of 10 years after build out to be included in the study due to the large size of the development and high number of projected peak hour generated trips.

Ms. Cynthia Redinger, PE, PTOE
June 2, 2017
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If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.



Lia Michaels, P.E., PTOE
Project Engineer

LFM/lfm

pc: City of Ann Arbor; Luke Liu
HRC; C. Hill-Stramsak, File