

MEMO

To: Melissa Stoker, Save Madison Valley

From: Ross Tilghman

Date: 9 September 2016

Subject: Review of Traffic Impact Analysis for Proposed Development at 2925 E. Madison

You asked me to review the traffic study submitted for the proposed mixed-use development at 2925 E. Madison to gain a better understanding of its methods, findings and conclusions. I have read the study prepared by Gibson Traffic Consultants (titled: 2939 E. Madison Development Traffic Impact Analysis, June 2016), reviewed the preliminary site plan presented to the Design Review Board, visited the site and made brief observations of afternoon peak hour traffic. My comments follow.

Comments

1. **The traffic study should address a number of important items that were not included in the June version.** These items include:
 - a. **The character of traffic flow.** The study calculates intersection levels of service, but does not identify the backups that frequently occur at area intersections. For example, drivers and residents familiar with area streets know that long back-ups occur at the Madison/Lake Washington Blvd. intersection for eastbound and southbound traffic. Eastbound backups can reach past the site's driveway, and southbound backups reach well past the Japanese Garden. Vehicles wait through numerous signal cycles to clear the intersection during both morning and afternoon peak hours. Those conditions are not consistent with report's calculation of LOS C. Similar backups and long travel times occur on Madison both east and west of 28th Avenue.
 - b. **Street widths and off-set intersections.** Narrow streets and awkwardly configured intersections reduce traffic flow and should be considered when evaluating the impact of adding traffic and pedestrians due to this project.
 - c. **On-street parking conditions.** No assessment of changes to on-street parking supply or demand is offered. While the study recommends removing parking from Dewey Street if access is located there (see p. 32), it does not quantify the impact. The study does not

indicate whether any changes to parking on Madison would occur. Given the proposed grocery store, it is reasonable to expect demand for short-term curb-side parking to occur since not all customers can be expected to use the garage.

- d. **The loading, delivery and garbage collection plan.** The study should identify the number and type of trucks expected to serve the PCC store and apartments and how they will enter and exit the site. Evaluations of truck needs have been provided previously for other, new PCC stores in the city. It is important to know whether curb-side commercial loading zones will be needed as they may affect on-street parking capacity. Similarly, understanding how garbage will be collected is important to know how it might affect vehicular and pedestrian circulation.
 - e. **Pedestrian and bicycle conditions.** The study should include an assessment of pedestrian use of area sidewalks and crosswalks, as well as cyclists' use of streets. Adding new residents and a grocery store will increase walking and cycling in the area, especially the need to cross Madison for access to transit. Planned implementation of new bike routes through neighborhood greenways in Madison Valley should be included in the study's analysis.
 - f. **Planned BRT operations.** The Bus Rapid Transit project planned for Madison would terminate at Madison/MLK/28th. Expected to enter service in 2019, the effect of more frequent buses and their turning maneuvers on traffic operations should be included in the study's analysis.
- 2. Key assumptions and analytical procedures should be revised.** These include:
- a. **City Peoples' trip generation should be measured directly.** The study estimated trip generation rather than measure it directly. This is important because the study takes credit for existing trips; if the study's estimation is higher than actual trips, it has under-reported the number of new trips generated by the project. My 45 minute observation on Wednesday, Sept. 7, between 4:50 p.m. and 5:35 p.m., showed 12 vehicle trips and 1 pedestrian trip, far less than the 78 peak hour trips reported in the traffic study. Since the store continues to operate and can be easily observed for vehicle and pedestrian trips, measuring its trips is a simple task and one that would produce a more accurate and appropriate value for existing trips.
 - b. **The determination of trip distribution should follow required city procedures.** The study should follow Director's Rule 5-2009 to derive distributions for residential and commercial trips. This is required for concurrency tests, which the study undertakes. Instead, the study used local turning movements as a guide to distribution. This yields some seemingly odd results:
 - i. Figures 4 & 5 do not differentiate residential trips from grocery store trips, which one would expect to differ. For instance, those figures show 60% of trips going to and from the north and east, with fully 35% of trips to/from Madison Park. That might be true of grocery trips, but seems a bit odd for residential trips.

- ii. No trips through the neighborhoods immediately south of the site are shown. It's reasonable to expect a grocery to attract trips from nearby homes along Dewey, 30th and Republican, even with access solely from Madison.
 - iii. The distribution for the Dewey access scenario ignores the difficulty of using 32nd to cross Lake Washington Blvd. That is not realistic for anything but a handful of vehicles given the grade on 32nd up to Lake Washington Blvd., the difficult sight lines at the intersection, and the volume on the boulevard.
- c. **The assumption that PCC would capture trips already on Madison, called pass-by trips, at the same rate as regular supermarkets bears examination.** Data for supermarket pass-by trips reflect stores that are generally much larger and that offer much broader arrays of products than do the specialty PCC markets. It is possible that PCC makes a less attractive pass-by candidate than a more conventional grocery store. In any case, data could be obtained from existing PCC stores to indicate actual pass-by rates. Also, the Dewey access scenarios complicate the notion of a pass-by trip (which the study acknowledges would actually be a diverted-link trip – one that uses multiple streets to enter and leave the site), suggesting that a lower rate would be more appropriate given the complexity of the access route.

3. Corrections should be made to these erroneous items:

- a. **Figure 6 and the level of service analysis should be corrected to include all trips at the site access.** Figure 6 shows turning movement numbers that don't add up to the trip generation totals shown in Table 4. Specifically, figure 6 shows 167 net trips (after pass-by reductions) at the site access while Table 4 shows 184 new trips (after pass-by reductions). That discrepancy should be fixed, but the larger problem is that the driveway should be analyzed for all trips (270 trips) including the pass-by trips since they all turn in and out of the driveway.
- b. **Similarly, Figure 8 should show all trips for the Dewey access, 29th, Republican and 32nd Ave.,** not just net new trips to the site. It is very misleading to show only net new trips on those streets when they would in fact carry the full complement of site trips due to the fact access from Dewey creates an entirely new way to reach the site.
- c. **Figure 8 should also correct its assignment of two-way trips to Arthur Place, which is one-way westbound.**
- d. **The intersection of 32nd/Lake Washington Blvd. should be included in the LOS analysis for the Dewey access scenarios since the project adds 55% of its traffic to that intersection.**

- 4. Evaluation of the left-turn lane on Madison should be revisited and clarified as a mitigation measure.** The evaluation should include all turning movements, not net new trips, and the effect of queues on Madison near the site's driveway. The study should also determine whether a turn lane will fit within the existing roadway, and what impacts to on-street parking might occur as a result.