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MIT 22 2010

Kamakana Villages at Keahuolu The Traffic Management Consultant

STATE OF HAWAII LAND USE COMMISSION

Initial Responses to Comments from QLT on TIAR Figures and Tables October 22, 2010

Figure 4 Existing AM Peak Hour Traffic

Queen Kaahumanu Highway and Hina Lani Street - There were errors in the data input of Figures 4 and 5 at this intersection. The actual existing peak hour volumes are represented in Appendix A-3. However, these errors are isolated and were <u>not</u> carried forward to the Year 2014, 2019, 2024 or 2029 traffic impact analysis. Therefore, it does not effect on my findings.

Mamalahoa Highway and Hina Lani Street - There are deviations between the turning movement volumes on Figure 4, which are slightly higher than the raw data contained Appendix A-9. The Figure 4 volumes represent adjustments the existing AM peak hour data based upon more recent AM peak hour volumes which was taken adjacent intersections for another project. The Figure 4 volumes and the worksheets in Appendix B-13. The adjustments range from 5 vph to 20 vph on an intersection that carried over 1,600 vph. Therefore, it does <u>not</u> effect on my findings.

Queen Kaahumanu Highway at Palani Road and at Henry Street - The deviations in Figures 4 and 5 volumes and the raw data in Appendix A-3 and A-4 represents adjustments between adjacent intersections which were surveyed on separate days. The adjustments were made to balance the volumes between intersections. In any case the adjustments do not affect my findings. (The SB LT on Figure 4 is 30 vph and 20 vph in Appendix B-6. However, this volume is <u>not</u> carried forward to the Year 2014, 2019, 2024 or 2029 traffic impact analysis. Therefore, it does not effect on my findings.

Figure 5 - Existing PM Peak Hour Traffic

QK Makala - There was an error in the data input for the EB LT on Figure 5 at this intersection. The actual existing peak hour volumes are represented in Appendix A-2. However, these error is isolated and were <u>not</u> carried forward to the Year 2014, 2019, 2024 or 2029 traffic impact analysis. Therefore, it does not effect on my findings.

Kealakehe Parkway and Ane K Hwy - The deviations in Figure 5 volumes and Appendix A-7 represents minor adjustments between adjacent intersections, which were surveyed on a separate days. In every case the adjustments did not affect my findings.

Figure 12, 13, 14, and 15 2014 Site Traffic Assignments and Peak Hour Traffic Without Project

The intersection of the extension of Makala Blvd and Ane K Hwy was omitted from the Figures. In both cases, the omissions did not affect my findings.

Figures 16, 17, 20, 21, 24, 25, 28, and 29 Site Traffic Assignments

These figures contain typos at minor intersections. However, typos are not replicated in my model and therefore do not affect my findings.

Figures 18 and 19, and 22 and 23, 26 and 27, 30 and 31 Peak Hour Traffic With Project

These figures represent future peak hour volumes with the proposed project. QLT's consultant attempted to draw a circle around the proposed project site and add up the total number of trips entering and exiting the project and compare it with the trip generation tables. What QLT's consultant's comparison does not account for existing and future traffic without the proposed project that will be diverted to Manawalea Street through the project site to Ane K Highway or QK Highway. (Figure 30 also contains some typos.)

Also on these Figures, it appears that QLT's consultant added. the future traffic volumes without the proposed project to the project's site traffic assignments and compared them with future traffic volumes with the proposed project. In very simplistic traffic assignments these comparisons may be valid check. However, Kamakana Villages contains over 2,300 dwelling units and almost 200,000 square feet of commercial floor area. The size of project is expected to affect the traffic assignments of other projects in region. This a very basic concept in transportation planning called the gravity model. An analogy is drawn between trips between origins and destinations and gravitational force between the earth, the moon, and the sun. Simply put, if I lived in Hawaii Kai, I would probably shop at the Hawaii Kai Costco instead of the Iwilei Costco because of shorter distance. However, I would probably work in Downtown Honolulu instead of Kaimuki because of the greater concentration of jobs in spite of the longer distance.

Table 8

In general, the discrepancies represent typos or subsequent refinements in traffic signal timing. However, the discrepancies with the proposed project do not result any worse case than LOS "D". Therefore, they do not affect my findings.