

## Y. Ebisu & Associates

Acoustical and Electronic Engineers

1126 12th Ave., Room 305 Honolulu, Hawaii 96816 Ph. (808) 735-1634 – Fax (808) 732-0409 e-mail: ebisuyassoc@aol.com

February 22, 2013

Pacific Rim Land, Inc. P.o. Box 220 1300 North Holopono, Suite 201 Kihei, Hawaii 96753

Attention: Mr. Steve Perkins
Project Coordinator

Subject: Changes to April 2012 Noise Study for Maui Research and Technology Park,

Kihei, Maui, Hawaii

Dear Mr. Perkins:

I used the Revised February 2013 Traffic Impact Analysis Report (TIAR) for the Maui Research and Technology Park (MRTP) to develop my revisions to the conclusions of my April 2012 Acoustic Study for the Maui Research and Technology Park. The following conclusions regarding future traffic noise levels in the MRTP environs were based on an examination of the changes in traffic volumes from the February 2012 to the Revised February 2013 TIAR, and the use of logarithmic (or decibel, dB) scaling factors to revise the traffic noise level results contained in my original April 2012 traffic noise study.

The following general conclusions were possible as a result of my examination of the Revised February 2013 TIAR:

- 1. No changes regarding existing traffic noise levels occurred.
- 2. Existing traffic noise levels along Pillani Highway from East Waipulani Road to Kaonoulu Street were similar to those previously reported for areas north of East Waipulani Road.
- 3. Existing traffic noise levels along Kaonoulu and Kulanihakoi Streets west of Piilani Highway are 50 DNL (Day-Night Sound Level) or less at 100 feet setback distance from their centerlines.
- 4. By 2024, increases in non-project traffic noise levels are anticipated to be between zero and 1.1 DNL greater than those originally reported in my noise study. By 2024, project related traffic noise increases along Pillani Highway are expected to be slightly lower (between zero and 0.5 DNL) than those originally reported in my noise study.

- 5. By 2034, increases in non-project traffic noise levels are anticipated to be between 0.8 and 1.2 DNL greater than those originally reported in my noise study. By 2024, project related traffic noise increases along Pillani Highway are also expected to be greater (between 0.9 and 1.5 DNL) than those originally reported in my noise study.
- 6. By 2024, no significant changes in traffic noise levels along Lipoa Parkway or along East Welakahao Street east of Pillani Highway should occur from my prior noise study.
- 7. By 2034, increases in traffic noise levels along Lipoa Parkway without and with the MRTP and regional roadway improvements were 4.7 and 2.0 DNL (respectively) greater than in my prior noise study.

I have also attached my revisions to Chapter I. Summary of my April 2012 noise study report, which incorporate this current review of the Revised 2013 TIAR. The italicized text in parentheses were deletions from my April 2012 noise study report.

Let me know if you have any questions regarding these findings. If you require copies of my revised report tables, let me know.

Sincerely,

Yoichi Ebisu, P.E.

encl.

## CHAPTER I. SUMMARY

The existing and future traffic noise levels in the vicinity of the planned Maui Research and Technology Park (MRTP) in Kihei, Maui were evaluated for their potential impacts and their relationship to current FHA/HUD noise standards for noise sensitive land uses. The traffic noise level increases along the roadways servicing the project site (see Figure 1) were calculated. Significant increases in traffic noise levels at noise sensitive properties are not expected to occur as a result of project traffic following project build-out by CY 2024 and 2034.

Along Piilani Highway fronting the project site, traffic noise levels of approximately 70 DNL are expected to increase to approximately 71 to 73 (71) DNL at 100 foot distance from the centerline by CY 2024 as a result of project and non-project traffic. By CY 2034, traffic noise levels along Piilani Highway are expected to increase by 1 to 3 DNL units along Piilani Highway with or without the MRTP and regional roadway improvements. (be reduced to existing noise levels following completion of the proposed north-south collector road on the mauka side of the project site).

The largest increases (1.5 to 10.4 DNL) (1.4 to 7.7 DNL) in project related traffic noise are predicted to occur along Lipoa Parkway, East Welakahao Street east of Piilani Highway, along Lipoa Street west of Piilani Highway, and along South Kihei Road south of East Lipoa Street. Adverse traffic noise impacts along Lipoa Parkway and East Welakahao Street are not expected to occur since noise sensitive developments are not planned to be located along those two roadways. The noise sensitive buildings along Lipoa Street west of Piilani Highway have adequate setback distances from Lipoa Street, such that predicted CY 2024 and CY 2034 traffic noise levels should remain in the "Moderate Exposure, Normally Acceptable" category at these buildings. For these reasons, traffic noise mitigation measures should not be required.

The project site is planned such that noise sensitive residential uses of the project are situated at very large setback distances from Piilani Highway, where existing and future traffic noise levels are predicted to be less than 61 (60) DNL. The large buffer distances to the highway will allow for the use of naturally ventilated buildings on the project site.

The dominant traffic noise sources in the project environs will continue to be traffic along Piilani Highway and South Kihei Road. In addition, the addition of the proposed north-south collector road mauka of the project will increase the existing background ambient noise levels at the mauka end of the project site and along the proposed corridors of the collector road and connecting roadways.

Unavoidable, but temporary, noise impacts may occur during construction of the proposed project, particularly during the excavation and earth moving activities on the project site. Because construction activities are predicted to be audible within the

project site and at nearby properties, the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases, but the use of quiet equipment and compliance with State Department of Health construction noise regulations are recommended as standard mitigation measures.