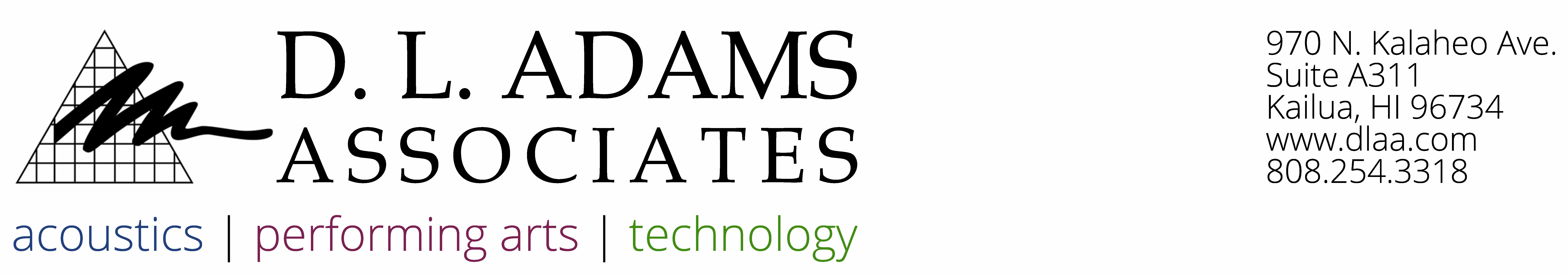
****July 13, 2022

Ms. Maris Fukuya

A-American Custom Flooring, Inc.

440 Kamani St.

Honolulu, HI 96813

**RE:** **Sky Ala Moana LVT AIIC Mockup Testing Results – (DLAA No. 22-031)**

Dear Maris:

DLAA conducted two impact sound isolation tests at the Sky Ala Moana development in Honolulu, Hawaii on Wednesday June 29, 2022. The two floor/ceiling assemblies tested were between the living areas of Unit 1107 and Unit 1007; and the living areas of Unit 1108 and Unit 1008.

**Impact Noise**

The Impact Insulation Class (IIC) is a single-number rating which grades how well a floor/ceiling assembly attenuates impact noise, such as footsteps. The higher the IIC rating, the more efficient the partition is at reducing impact noise between spaces. It should be noted that the IIC rating is limited in that it does not address low frequency noise below 125 Hz. This is generally not a concern when with concrete and/or steel structures. Field measurements of impact noise are classified as Apparent Impact Insulation Class (AIIC). The design objective for affordable housing flooring at Sky Ala Moana is IIC 52, which would correspond to a minimum field rating of AIIC 47.

**Testing Procedure & Equipment**

Impact sound insulation was measured in general accordance with ASTM E1007-16, Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures. Impact sound insulation ratings are determined in accordance with ASTM E989-06 (2012), Standard Classification for Determination of Impact Insulation Class (IIC). The results include a single-number Apparent Impact Insulation Class (AIIC) rating.

Equipment used for AIIC testing included a Larson Davis Model 831 Type 1 Precision Integrating Sound Level Meter (S/N 004328) with a PCB Model PRM831 preamplifier (S/N 046469) and PCB Model 377B20 ½” random incidence microphone (S/N 168830). The sound level meter calibration was verified with a Larson Davis Model CAL200 (S/N 5955) before all measurements and at the conclusion of all measurements. The tapping machine is a Norsonic Model Nor-277 (S/N 2775671).

**Test Conditions**

The purpose of these tests was to compare (2) different LVT installations. Tests were requested to determine if the underlayment products meet the IIC 52/AIIC 47 design goal. The tested floor/ceiling constructions are as follows:

Unit 1107

The floor/ceiling assembly in Unit 1107 can be described as follows:

* One (1) layer Wood Design Click Luxury Vinyl Tile as manufactured by KHARS, without adhesive;
* 7-inch concrete slab

Unit 1108

The floor/ceiling assembly in Unit 1108 can be described as follows:

* One (1) layer Wood Design Click Luxury Vinyl Tile as manufactured by KHARS, without adhesive;
* One (1) layer 2mm QuietStride 2.0 as manufactured by KHARS, installed without adhesive;
* 7-inch concrete slab

In both rooms the LVT was installed to the room perimeter and the perimeter expansion joint was sealed using Mapesil T. The client advised no self-leveling or slab treatment was applied. Client confirmed that no adhesive was used. Please note that results may vary with inclusion of adhesive, self-leveling or slab treatment.

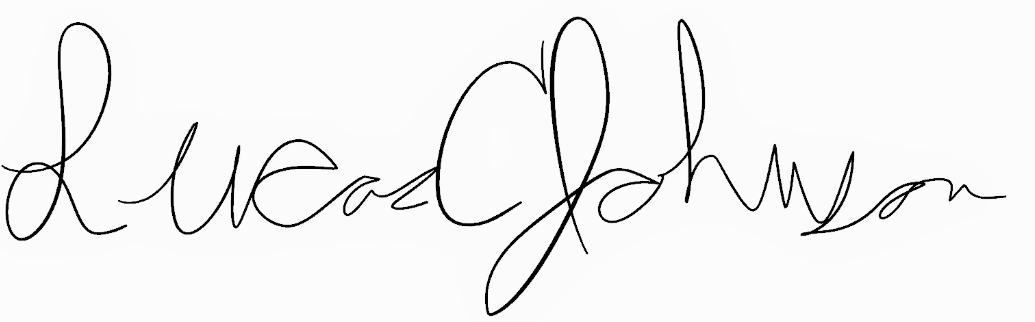
**Test Results Summary**

A summary of the tests is provided here, and the detailed test results for each test are attached.

**Table 1: AIIC Test Results**

|  |  |  |
| --- | --- | --- |
| **Test No.** | **Adjacency Tested** | **Result** |
| 22-031-1 | Unit 1107 to Unit 1007 | AIIC 58 |
| 22-031-2 | Unit 1108 to Unit 1008 | AIIC 60 |

Sincerely,



Lucas Johnson

Senior Consultant

Encl: Test Results Reports