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February 24, 2012

Daniel Tormo Green Sound Control 6956 SW 47<sup>th</sup> Street Miami, FL 33155

### Re: Field Impact Insulation Class Testing Report Paramount Bay, Miami Florida

Dear Daniel,

This letter presents the test result of the Field Impact Insulation Class (FIIC) tests conducted at The Paramount Bay Residential Tower in Miami, Florida. The measurements were conducted on 4 ft x 4 ft mock up test specimens, and a measurement was conducted between units 4003 and 3003. Unit 4003 was completed and furnished, and the flooring consisted of <sup>3</sup>/<sub>4</sub>" thick marble installed over 5mm Regupol.

The purpose of the testing on the mock up specimen was to document the acoustical performance of four underlayments installed under <sup>3</sup>/<sub>4</sub>" thick marble.

The test specimens were placed in the living room of unit 801, and the measurements were conducted in the living room of unit 701 located directly below. The measurements were conducted on Tuesday, February 21, 2012.

### 1. Floor Assembly

The floor consisted of an 8" thick concrete slab with no ceiling.

#### 2. Test Specimen

The test specimens that have been tested consisted of <sup>3</sup>/<sub>4</sub>" thick marble over four underlayments as follows:

1. 5mm Cerazorb 2. 10mm Cerazorb

- 3. 5mm Regupol
- 4. 12mm Regupol

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### 3. Test Methodology

The equipment used for the measurements was a Scantek tapping machine and a Larson-Davis Laboratories 2900 Real-Time Spectrum Analyzer. The FIIC measurements were conducted by placing the tapping machine on the test specimen and measuring the resulting sound levels in the receiving room below. The measured sound levels were then adjusted based on the room absorption.

The methods and procedures used for the tests were conducted in accordance to the provisions and requirements of ASTM Procedure E1007-97 for Standard Test Method of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures. Additional measurements were conducted in the receiving room to determine the ambient noise levels to ensure that extraneous noise sources are not affecting the measurements.

### 4. Test Results

The results of the FIIC measurements are presented in the tables below. Table 1 presents the result of the measurements conducted on the mock-up test specimens. Table 2 presents the result of the FIIC measurement conducted between unit 4003 and 3003. The Limiting FIIC Contour Curves for each test are provided at the end of this document.

Test Specimen	FIIC	
Bare Concrete	36	
<sup>3</sup> / <sub>4</sub> " Marble over 5mm Cerazorb	<del>51</del>	
<sup>3</sup> / <sub>4</sub> " Marble over 10mm Cerazorb	<del>53</del>	
<sup>3</sup> / <sub>4</sub> " Marble over 5mm Regupol	53	
<sup>3</sup> / <sub>4</sub> " Marble over 12mm Regupol	55	

 Table 1: FIIC Mock-Up Test Results

Table 2. Unit #4003 / Unit #3003 FIIC Test Result			
Source Floor	<b>Receiving Room</b>	Partition	FIIC
Bedroom Unit	Bedroom #Unit	<sup>3</sup> / <sub>4</sub> " Marble over	53
#4003	3003	5mm Regupol	55

**Table 2:** Unit #4003 / Unit #3003 FIIC Test Result

If you have any questions or require further information, please feel free to contact us.

Sincerely, SSA Acoustics, LLP

Mohamed Ait Allaoua Managing Partner

### Appendix

### **Sound Descriptors**

Impact Insulation Class (IIC) is a single number rating used to represent the impact sound transmission performance of a floor/ceiling assembly. The higher the number the better the performance. As a field test, this measurement is referred to as FIIC.

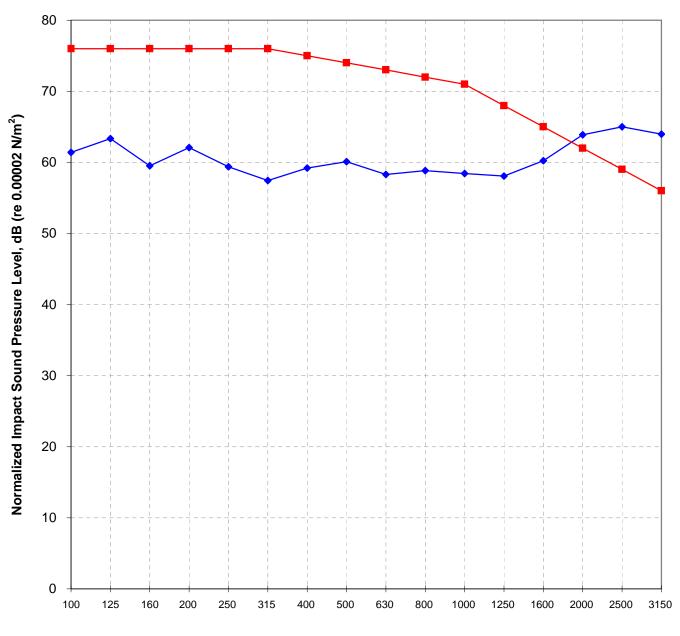
### Criteria

### **Building Code**

All of the building codes have identified minimum standards for impact noise transmission in multifamily housing projects (both apartments, and condominiums). These minimum standards apply to floor-ceiling assemblies between dwelling units, and the minimum laboratory rating is IIC-50. When a field measurement is conducted, this rating is lowered to a FIIC rating of 45.

Paramount Bay, Miami FL Floor Assembly: 8" Concrete Slab Test Specimen: Bare Concrete





Third-Octave Band Frequency, Hz

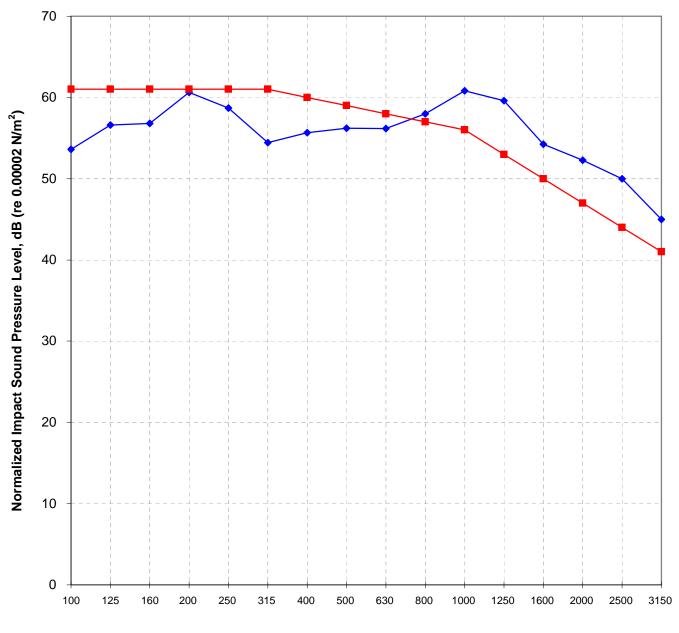
Impact SPL Curve Limiting FIIC Contour

Paramount Bay, Miami FL

Floor Assembly: 8" Concrete Slab

Test Specimen: 3/4" Marble on 5mm Cerazorb





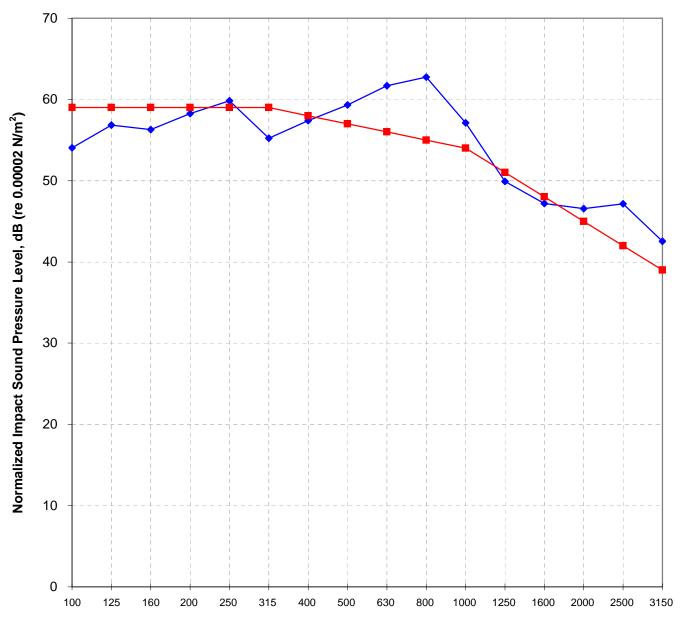


Paramount Bay, Miami FL

Floor Assembly: 8" Concrete Slab

Test Specimen: 3/4" Marble on 10mm Cerazorb





Third-Octave Band Frequency, Hz

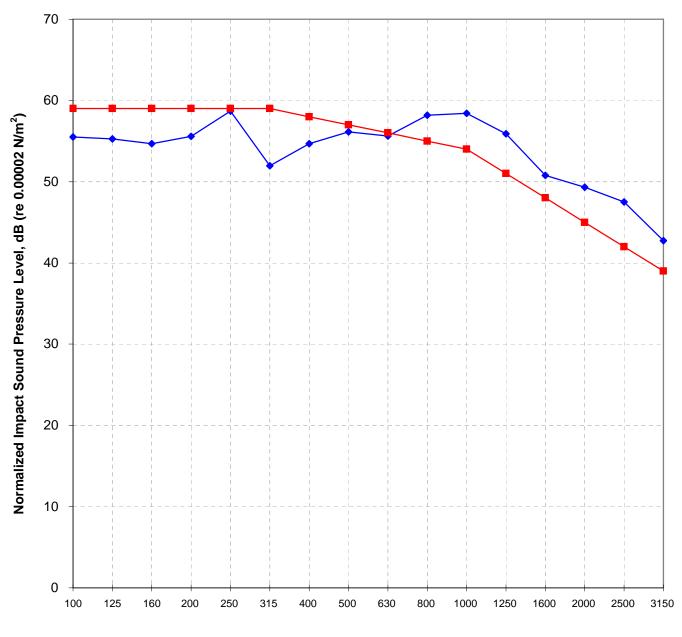
Impact SPL Curve — Limiting FIIC Contour

Paramount Bay, Miami FL

Floor Assembly: 8" Concrete Slab

Test Specimen: 3/4" Marble on 5mm Regupol





Third-Octave Band Frequency, Hz

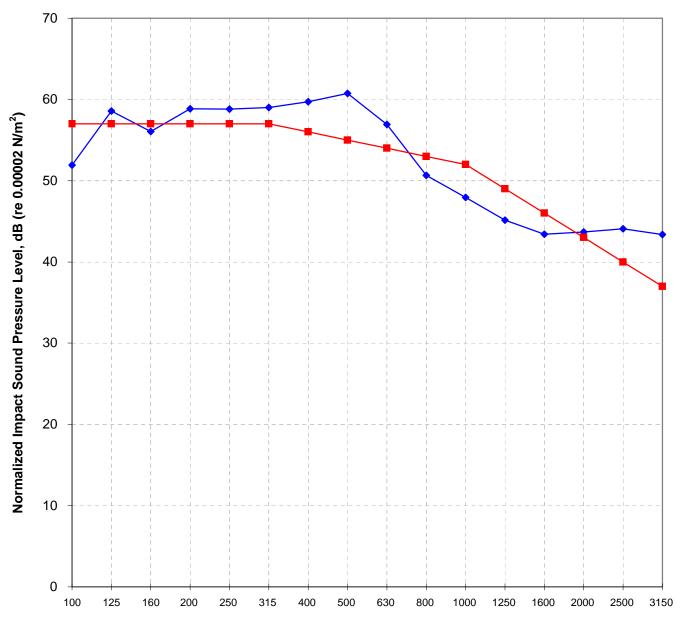
Impact SPL Curve — Limiting FIIC Contour

Paramount Bay, Miami FL

Floor Assembly: 8" Concrete Slab

Test Specimen: 3/4" Marble on 12mm Regupol





Third-Octave Band Frequency, Hz

Impact SPL Curve — Limiting FIIC Contour



