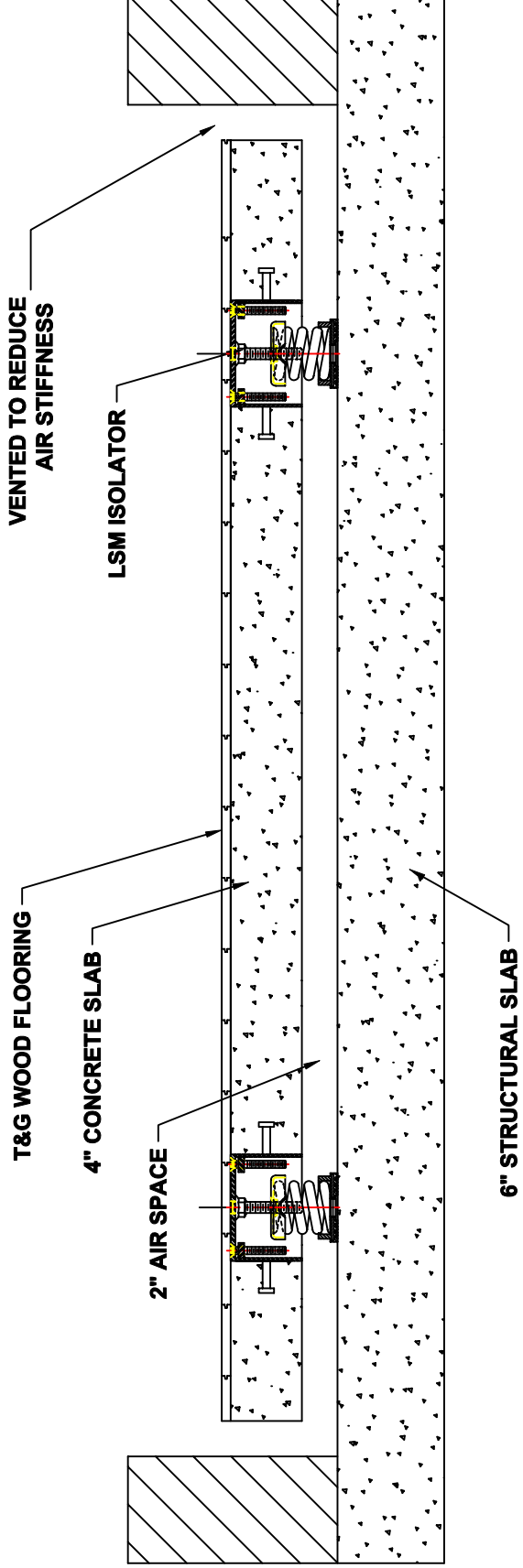


FIIC 72



TITLE

TEST D1-b

LAST DATE
REVISED
11-11-04

REVISED BY
JAE

DRAWING NO.

D1-b



3208 15th Avenue W., Seattle Washington 98119 (206) 270-8910 Fax (206) 270-8690

IMPACT INSULATION CLASS TEST REPORT **BRC 2000-006**

Report Date: March 22, 2000

Client: Westbank Investments (USA) Inc.
177 West Hastings Street
Vancouver, BC V6E 2K3
Canada

Kinetics Noise Control
6300 Irelan Place
Dublin, Ohio 43017
USA

Product: Kinetics Spring Jack-up
Floating Floor System
Studio 2 (hardwood)

Project: NY Sports Club
Test Date: March 10, 2000

PROCEDURE

This report presents the results of testing completed on the sound impact insulation performance of a Kinetics spring jack-up floating floor system. The procedures used to conduct this test were in accordance with the provisions and requirements of the American Society for Testing and Materials (ASTM) E1007-97 Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures and E989 Classification for Determination of Impact Insulation Class (IIC). Testing was completed at NY Sports Club and the Banana Republic Store in Rockefeller Center, New York City, NY. The test room within the Sports Club was Aerobics Studio 2 constructed to achieve sound and impact isolation to the retail spaces below. Testing was completed after hours to eliminate the impact of retail and sports club activity noise levels on the measurement results. Ambient noise levels generated by external sources of traffic and equipment did impact the overall results of these measurements. All testing was completed within established professional standards and practices.

DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of a 6-inch structural concrete floor with a Kinetics spring jack-up floor assembly providing acoustic isolation. The finish floor was T&G wood flooring. The floating floor included 1-inch deflection springs, type LSM-1, distributed 4 feet on-center in a 4" thick dense concrete slab (150 pcf). The floating slab made no contact with the walls, creating a 2-inch gap around the perimeter. This gap was a flanking path for airborne sound transmission that was identified before testing. No effort was made to block sound from being transmitted

TEST PROCEDURE

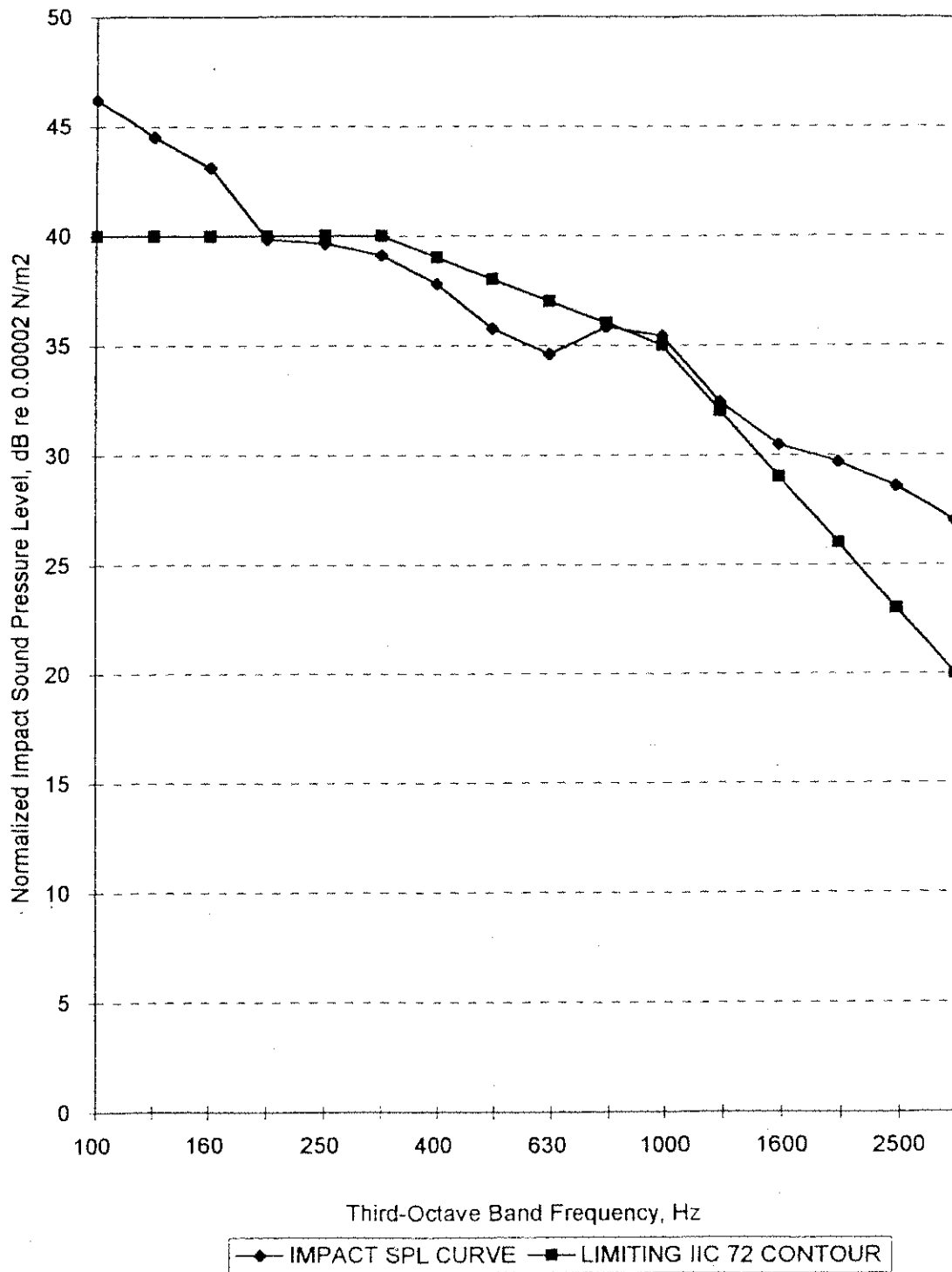
Procedures outlined within ASTM E1007-97 were followed to obtain the transmitted sound pressure level produced by the tapping machine (located in the source room) as measured in the receiver room located beneath the floor being tested. Measurements were normalized to account for sound absorption within the receiver room.

MEASUREMENT RESULTS

To derive a performance rating for Impact Insulation Class, four individual measurements of four different tapping machine positions have been averaged. The averaged values are listed and displayed graphically on the next page. Based on these values the performance of this assembly can be characterized as a Field Impact Insulation Class (FIIIC) 72 according to the procedures of ASTM E1007-97.

DISCLAIMER

BRC Acoustics has no financial or managerial interests vested in the clients named in this report nor do the clients have any vested interests in the operation or finances of BRC Acoustics.



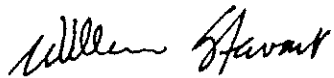
The IIC value was determined by applying the Averaged Sound Pressure Levels (SPL) values to the IIC reference contour of ASTM E1007-97, Field Measurement of Tapping

Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures.

Freq (Hz)	SPL Avg. (dB)	IIC Contour	Def (dB)	Freq (Hz)	SPL Avg. (dB)	IIC Contour	Def (dB)
100	46.6	40	6	630	36.5	37	0
125	46.4	40	5	800	37.4	36	0
160	44.7	40	3	1000	37.3	35	0
200	42	40	0	1250	34.3	32	0
250	41.8	40	0	1600	32.6	29	1
315	40.7	40	0	2000	31.9	26	4
400	39.7	39	0	2500	30.8	23	6
500	37.3	38	0	3150	29.2	20	7

NR Averaged Sound Pressure Level (dB)
 IIC Contour Limiting IIC Contour
 Def Deficiencies, values below IIC contour (dB)

BRUCK RICHARDS CHAUDIERE INC.



**William Stewart
 Senior Consultant**