

CLARKDIETRICH BUILDING SYSTEMS, LLC

ACOUSTICAL PERFORMANCE TEST REPORT

SCOPE OF WORK

ASTM E90 AND ASTM E492 TESTING ON CERAMIC TILE OVER NOBLESEAL CIS

SPECIMEN TYPE

Open Web Truss - 406 mm (16") - Direct Layer USG SHEETROCK® Brand FIRECODE® C Core - ClarkDietrich® Sound Clip - Two-Layers USG SHEETROCK® Brand FIRECODE® C

REPORT NUMBER

J4778.06-113-11-R1

TEST DATE

03/17/19

ISSUE DATE

REVISED DATE

04/15/19

05/20/19

RECORD RETENTION END

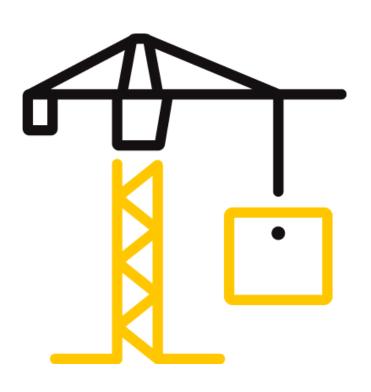
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PAGES

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DOCUMENT CONTROL

ATI 00629 (03/21/18) RTTDS-R-AMER-Test-2844 © 2017 INTERTEK





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TEST REPORT FOR CLARKDIETRICH BUILDING SYSTEMS, LLC

Report No.: J4778.06-113-11-R1

Date: 05/20/19

REPORT ISSUED TO

CLARKDIETRICH BUILDING SYSTEMS, LLC 9100 Centre Pointe Drive, Suite 210 West Chester, Ohio 45069

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by ClarkDietrich Building Systems, LLC to perform testing in accordance with ASTM E90 AND ASTM E492 on Ceramic Tile over NobleSeal CIS. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted in the VT test chambers at Intertek B&C located in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

| DATA FILE NO. | J4778.06 |
|---------------|---------------------------------|
| SERIES/MODEL: | Ceramic Tile over NobleSeal CIS |
| STC | 57 |
| IIC | 51 |

COMPLETED BY: Cody R. Snyder **COMPLETED BY:** Daniel B. Mohler Technician - Acoustical Project Lead - Acoustical TITLE: TITLE: **Testing** Testing **SIGNATURE: SIGNATURE: DATE:** 05/20/19 DATE: 05/20/19

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SECTION 3

TEST METHODS

The specimen was evaluated in accordance with the following:

ASTM E90-09 (2016), Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

ASTM E413-16, Classification for Rating Sound Insulation

ASTM E492-09(2016)e1, Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

ASTM E989-18, Classification for Determination of Impact Insulation Class (IIC)

ASTM E2235-04 (2012), Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods

SECTION 4

MATERIAL SOURCE/INSTALLATION

The full test specimen was assembled on the day of testing by B&C. All materials provided by the client were installed on an existing B&C assembly (Open Web Truss - 406 mm (16") - Direct Layer USG SHEETROCK® Brand FIRECODE® C Core - ClarkDietrich® Sound Clip - Two-Layers USG SHEETROCK® Brand FIRECODE® C Core) utilizing B&C-supplied materials. The assembly was installed in a steel test frame which was installed into the opening between the source and receive rooms in the test chamber. The test frame was isolated from the structure with dense neoprene gasket.

The total weight of the floor/ceiling assembly was 1425.2 kg / 3141.9 lbs. B&C will store samples of the test specimen for four years. Photographs of the test specimen are included in the report. The client did not supply drawings of the test specimen.

B&C will service this report for the entire test record retention period. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by B&C for the entire test record retention period.



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SECTION 5

EQUIPMENT

| INSTRUMENT | MANUFACTURER | MODEL | DESCRIPTION | ASSET # | CAL DAT | Έ |
|--|----------------------|----------|---|----------|---------|---|
| Data Acquisition Unit | National Instruments | PXI-4462 | Data Acquisition Card | INT00977 | 08/18 | * |
| Data Acquisition Unit | National Instruments | PXI-4462 | Data Acquisition Card | 65124 | 05/18 | * |
| Data Acquisition Unit | National Instruments | PXI-4462 | Data Acquisition Card | 63763-1 | 06/18 | * |
| Microphone Calibrator | Norsonic | Nor1251 | Acoustical Calibrator | 65105 | 06/18 | |
| Receive Room Microphone | PCB Piezotronics | 378C20 | Microphone and Preamplifier | 65617 | 06/18 | |
| Receive Room Microphone | PCB Piezotronics | 378B20 | Microphone and Preamplifier | 64340 | 09/18 | |
| Receive Room Microphone | PCB Piezotronics | 378B20 | Microphone and Preamplifier | 63745 | 06/18 | |
| Receive Room Microphone | PCB Piezotronics | 378B20 | Microphone and Preamplifier | 63746 | 09/18 | |
| Receive Room Microphone | PCB Piezotronics | 378B20 | Microphone and Preamplifier | 63747 | 07/18 | |
| Receive Room Environmental | Comet | T7510 | Temperature and Humidity | 63810 | 10/18 | |
| Indicator | Comet | 17510 | Transmitter | 63811 | 10/18 | |
| Source Room Microphone | PCB Piezotronics | 378C20 | Microphone and Preamplifier | 63744 | 04/18 | |
| Source Room Microphone | PCB Piezotronics | 378C20 | Microphone and Preamplifier | 63739 | 04/18 | |
| Source Room Microphone | PCB Piezotronics | 378C20 | Microphone and Preamplifier | 63740 | 04/18 | |
| Source Room Microphone | PCB Piezotronics | 378C20 | Microphone and Preamplifier | INT00653 | 01/19 | |
| Source Room Microphone | PCB Electronics | 378C20 | Microphone and Preamplifier | 63741 | 04/18 | |
| Source Room Environmental Indicator | Comet | T7510 | Temperature and Humidity Transmitter | 63812 | 10/18 | |
| Tapping Machine | Norsonic | Nor277 | Tapping Machine | INT00936 | 12/18 | |

^{*} The calibration frequency for this equipment is every two years per the manufacturer's recommendation.

| VT RECEIVE ROOM VOLUME | 156.28 m³ (5519.06 ft³) |
|------------------------|-------------------------|
| VT SOURCE ROOM VOLUME | 190 m³ (6709.79 ft³) |

SECTION 6

LIST OF OFFICIAL OBSERVERS

| NAME | COMPANY |
|-------------------|--------------|
| Michael K. Daniel | Intertek B&C |
| Daniel B. Mohler | Intertek B&C |

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SECTION 7

TEST PROCEDURE

The microphones were calibrated before conducting the tests. The air temperature and relative humidity conditions were monitored and recorded during all measurements. The average temperature and humidity of both the source and received rooms are listed in Sections 10 and 11. The maximum and minimum temperatures and humidities of the receive room from the duration of the test are listed in Sections 12 and 13.

The airborne transmission loss test was conducted in accordance with the ASTM E90 test method using the single direction method. Two background noise sound pressure level and five sound absorption measurements were conducted at each of five microphone positions. Two sound pressure level measurements were made simultaneously in both rooms, at each of five microphone positions.

The impact sound transmission test was conducted in accordance with the ASTM E492 test method. Two background noise sound pressure level, two sound pressure level measurements with the tapping machine operating at each position specified by ASTM E492, and five sound absorption measurements were conducted at each of five microphone positions.

Detailed test procedures, data for flanking limit tests, repeatability measurements, and reference specimen tests are available upon request.

SECTION 8

TEST CALCULATIONS

The STC (Sound Transmission Class) and IIC (Impact Insulation Class) ratings were calculated in accordance with ASTM E413 and ASTM E989, respectively.



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SECTION 9

TEST SPECIMEN DESCRIPTION

| MATERIAL | Dimensions | Thickness | MANUFACTURER AND | QUANTITY | AVERAGE | | | |
|-----------------------------|---|------------------------|---|--|---------------------------------------|--|--|--|
| IVIATERIAL | (mm/inch) | (mm/inch) | SERIES | QUANTITY | WEIGHT | | | |
| | 304.8 by 304.8 12 by 12 | 8 / 0.31 | Daltile® | 10.98 m ² 118.19 ft ² | 15.87 kg/m² 3.25 lb/ft² | | | |
| Ceramic Tile | clean. The ceramic ti | le was placed onto a b | ed into the 6.35 mm (0.25") joints bed of Laticrete Platinum 254 mort e grout and mortar were allowed t | tar. The mortar was s | et using a 6.35 m | | | |
| | 3023 by 1219.2 119 by 48 | 0.8 / 0.03 | NobleSeal® CIS | 10.98 m ² 118.19 ft ² | 0.9 kg/m² 0.18 lb/ft² | | | |
| Sound Reduction Membrane | The underlayment w | as adhered to the she | was adhered to the subfloor topp eting with NobleBond 21 adhesive /16") trowel. Adhesive was allowe | e, which was spread u | ising a 1.59 mm b | | | |
| | 3022.6 by 3632.2 119 by 143 | 25.4 / 1 | USG Levelrock® Brand 2500 | 10.98 m ² 118.19 ft ² | 49.8 kg/m² 10.2 lb/ft² | | | |
| Floor Underlayment | | - | nderlayment, cured a minimum of le shrinkage or cracking was visible | | panel had a clos | | | |
| Sound Attenuation | 3023 by 1003.3 119 by 39.5 | 6.4 / 0.25 | USG Levelrock® Brand SAM- N25™ | 10.98 m ² 118.19 ft ² | 0.49 kg/m² 0.1 lb/ft² | | | |
| Mat | Note: Loose laid with | seams overlapping a | nd taped | | · · · · · · · · · · · · · · · · · · · | | | |
| Oriented Strand | 1219 by 2438 48 by 96 | 18.8 / 0.74 | N/A | 10.98 m ² 118.19 ft ² | 13.82 kg/m² 2.83 lb/ft² | | | |
| | Note: Fastened to trusses with 76 mm (3") by 3 mm (0.12") framing nails on 203 mm (8") centers along perimeter and 305 mm (12") centers in the field. | | | | | | | |
| Fiberglass Insulation | 520.7 by 3023 20.5 by 119 | 88.9 / 3.5 | Johns Manville Unfaced R-13 | 10.98 m ² 118.19 ft ² | 1.32 kg/m² 0.27 lb/ft² | | | |
| | Note: Installed into the cavities between the trusses, stapled flush to the subfloor. | | | | | | | |
| Open Web Truss | 88.9 by 2933.7 3.5 by 115.5 | 406.4 / 16 | York PB Truss L/360 | 7 trusses | 16.93 kg/truss 37.32 lb/truss | | | |
| | Note: Installed on 610 mm (24") centers using JUS414 hanger brackets. | | | | | | | |
| | 1219 by 3023 48 by 119 | 15.9 / 0.63 | USG SHEETROCK® Brand FIRECODE® C Core | 10.98 m ² 118.19 ft ² | 11.9 kg/m² 2.44 lb/ft² | | | |
| Gypsum Panel | | | 203 mm (8") centers with 41.3 mm with Pecora AC-20 FTR caulk and co | | | | | |
| Resilient Sound | 76.2 by 36.5 3 by 1.4 | 31.8 / 1.25 | ClarkDietrich® Sound Clip | 24 clips | 0.06 kg/clip 0.14 lb/clip | | | |
| Isolation Clip | Note: Installed in a 6 | 10 mm by 1219 mm (2 | 24" by 48") grid pattern. | | | | | |
| Furring/Hat Channel | 3657.6 by 76.2 144 by 3 | 22.3 / 0.88 | ClarkDietrich® 087F125-18 | 21.95 lin m 72 lin ft | 0.48 kg/m 0.32 lb/ft | | | |
| Furring/Hat Channel | Note: Installed on 61 mm (0.03"). | 0 mm (24") centers p | erpendicular to the trusses. The m | leasured thickness of | the metal was 0 | | | |
| Gyncum Bonol | 1219 by 3023 48 by 119 | 15.9 / 0.63 | USG SHEETROCK® Brand FIRECODE® C Core | 10.98 m ² 118.19 ft ² | 11.9 kg/m² 2.44 lb/ft² | | | |
| Gypsum Panel | | | n (12") centers with 25.4 mm (1") $^{\circ}$ ra AC-20 FTR caulk and covered wi | | | | | |
| | 1219 by 3023 48 by 119 | 15.9 / 0.63 | USG SHEETROCK® Brand FIRECODE® C Core | 10.98 m ² 118.19 ft ² | 11.9 kg/m² 2.44 lb/ft² | | | |
| Gypsum Panel | | | n (8") centers with 41.3 mm (1-5/8 cora AC-20 FTR caulk and covered | , ,, | | | | |

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Date: 05/20/19

SECTION 10

TEST RESULTS - AIRBORNE SOUND TRANSMISSION LOSS

| TEST DATE DATA FILE NO. CLIENT | 3/17/2019 J4778.06 ClarkDietrich Bu | • | | | | |
|----------------------------------|---|--|-----------------|-----------------|-----------------|--|
| DESCRIPTION | 8 mm (0.31") Daltile® Cera 2500 Floor Underlayment, Board Sheathing, 88.9 mm Truss, 15.9 mm (0.63") US Sound Isolation Clip, 22.3 i | Testing Laboratory mm (0.31") Daltile® Ceramic Tile, 0.8 mm (0.03") NobleSeal® CIS Sound Reduction Membrane, 25.4 mm (1") USG Levelrock® Brand 00 Floor Underlayment, 6.4 mm (0.25") USG Levelrock® Brand SAM-N25™ Sound Attenuation Mat, 18.8 mm (0.74") Oriented Strand ard Sheathing, 88.9 mm (3.5") Johns Manville Unfaced R-13 Fiberglass Insulation, 406.4 mm (16") York PB Truss L/360 Open Web und Isolation Clip, 22.3 mm (0.68") ClarkDietrich® 087F125-18 Furring/Hat Channel, 15.9 mm (0.63") USG SHEETROCK® Brand RECODE® C Core Gypsum Panel, 15.9 mm (0.63") USG SHEETROCK® Brand RECODE® C Core Gypsum Panel (0.63") USG SHEETROCK® Brand | | | | |
| SPECIMEN AREA | 10.98 m² | Receive Temp. | 18.6°C (65.5°F) | Source Temp. | 19.2°C (66.5°F) | |
| TECHNICIAN | MKD | Receive Humidity | 44% | Source Humidity | 44% | |

| EDEO | BACKGROUND | ABSORPTION | SOURCE | RECEIVE | SPECIMEN | 95% | NUMBER |
|-----------|------------|----------------|--------------|---------|----------|----------------|--------------|
| FREQ | SPL | ABSURPTION | SPL | SPL | TL | CONFIDENCE | OF |
| (Hz) | (dB) | m² | (dB) | (dB) | (dB) | LIMIT | DEFICIENCIES |
| 50 | 32.8 | 25.4 | 100 | 65 | 33 | 3.8 | - |
| 63 | 33.2 | 32.6 | 100 | 59 | 37 | 2.5 | - |
| 80 | 35.1 | 16.6 | 108 | 69 | 39 | 4.0 | - |
| 100 | 24.6 | 11.0 | 106 | 67 | 40 | 2.0 | - |
| 125 | 25.3 | 10.5 | 103 | 66 | 38 | 1.1 | 3 |
| 160 | 23.8 | 10.0 | 103 | 66 | 39 | 1.1 | 5 |
| 200 | 19.2 | 10.4 | 101 | 58 | 44 | 2.0 | 3 |
| 250 | 14.7 | 10.3 | 99 | 56 | 44 | 0.9 | 6 |
| 315 | 16.9 | 10.0 | 102 | 55 | 49 | 0.6 | 4 |
| 400 | 11.1 | 8.7 | 101 | 50 | 53 | 0.7 | 3 |
| 500 | 11.8 | 7.5 | 101 | 49 | 55 | 0.5 | 2 |
| 630 | 15.1 | 7.6 | 103 | 46 | 59 | 0.4 | 0 |
| 800 | 18.2 | 7.8 | 102 | 41 | 64 | 0.7 | 0 |
| 1000 | 14.9 | 7.7 | 101 | 39 | 65 | 0.4 | 0 |
| 1250 | 9.7 | 7.9 | 102 | 37 | 67 | 0.5 | 0 |
| 1600 | 6.0 | 8.1 | 102 | 36 | 68 | 0.4 | 0 |
| 2000 | 5.3 | 9.0 | 101 | 36 | 68 | 0.5 | 0 |
| 2500 | 4.3 | 10.2 | 100 | 32 | 69 | 0.5 | 0 |
| 3150 | 4.1 | 11.4 | 101 | 28 | 73 | 0.5 | 0 |
| 4000 | 4.7 | 13.2 | 102 | 27 | 75 | 0.6 | 0 |
| 5000 | 5.4 | 16.1 | 101 | 23 | 77 | 0.5 | - |
| 6300 | 6.0 | 20.1 | 95 | 14 | 80 | 0.9 | - |
| 8000 | 6.6 | 26.8 | 95 | 10 | 82 | 0.9 | - |
| 10000 | 6.7 | 26.8 | 89 | 6 | 81 | 0.7 | - |
| STC Ratin | 57 | (Sound Transmi | ssion Class) | | Sum o | f Deficiencies | 26 |

Notes:

- 1) Receive Room levels less than 5 dB above the Background levels are highlighted in yellow.
- 2) Specimen TL levels listed in $\ensuremath{\textit{red}}$ are potentially limited by the laboratory flanking limit.
- 3) Specimen TL levels listed in <u>blue</u> indicate the lower limit of the transmission loss.
- 4) Specimen TL levels listed in green indicate that there has been a filler wall correction applied



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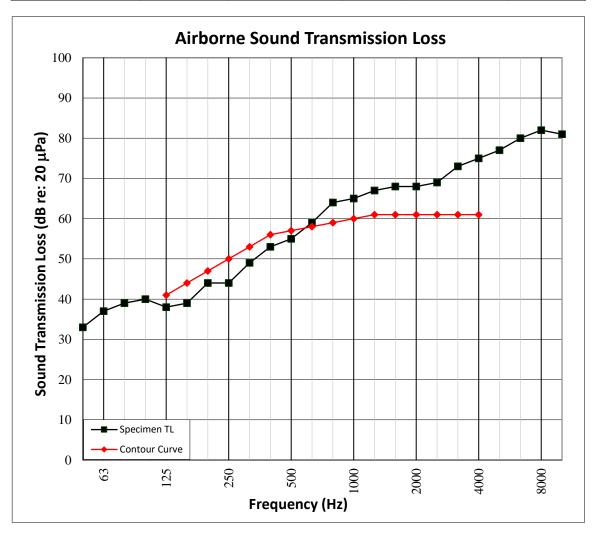
Report No.: J4778.06-113-11-R1

Date: 05/20/19

SECTION 11

TEST RESULTS - AIRBORNE SOUND TRANSMISSION LOSS GRAPH

| TEST DATE DATA FILE NO. CLIENT DESCRIPTION | | | | | | |
|--|--|--|-----------------|------------------------|-----------------|--|
| DESCRIPTION | 2500 Floor Underlayment, Board Sheathing, 88.9 mm Truss, 15.9 mm (0.63") US0 Sound Isolation Clip, 22.3 r | mm (0.31") Daltile® Ceramic Tile, 0.8 mm (0.03") NobleSeal® CIS Sound Reduction Membrane, 25.4 mm (1") USG Levelrock® Brand 5000 Floor Underlayment, 6.4 mm (0.25") USG Stevelrock® Brand SAM-N25™ Sound Attenuation Mat, 18.8 mm (0.74") Oriented Strand oard Sheathing, 88.9 mm (3.5") Johns Manville Unfaced R-13 Fiberglass Insulation, 406.4 mm (16") York PB Truss L/360 Open Web russ, 15.9 mm (0.63") USG SHEETROCK® Brand FIRECODE® C Core Gypsum Panel, 31.75 mm (1.25") ClarkDietrich® Sound Clip Resilient pund Isolation Clip, 22.3 mm (0.88") ClarkDietrich® 087F125-18 Furring/Hat Channel, 15.9 mm (0.63") USG SHEETROCK® Brand IRECODE® C Core Gypsum Panel, 15.9 mm (0.63") USG SHEETROCK® Brand FIRECODE® C Core Gypsum Panel | | | | |
| SPECIMEN AREA | 10.98 m² | Receive Temp. | 18.6°C (65.5°F) | Source Temp. | 19.2°C (66.5°F) | |
| TECHNICIAN | MKD | Receive Humidity | 44% | Source Humidity | 44% | |





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Date: 05/20/19

SECTION 12

TEST RESULTS - IMPACT SOUND TRANSMISSION

| TEST DATE DATA FILE NO. CLIENT | 3/17/2019 J4778.06 ClarkDietrich Bu | · | | | | |
|--------------------------------|---|---|-----------------|---------------|-----------------|--|
| DESCRIPTION | 2500 Floor Underlayment, Board Sheathing, 88.9 mm Truss, 15.9 mm (0.63") US Sound Isolation Clip, 22.3 r | Testing Laboratory nm (0.31") Daltile® Ceramic Tile, 0.8 mm (0.03") NobleSeal® CIS Sound Reduction Membrane, 25.4 mm (1") USG Levelrock® Brand D0 Floor Underlayment, 6.4 mm (0.25") USG Levelrock® Brand SAM-N25™ Sound Attenuation Mat, 18.8 mm (0.74") Oriented Strand ard Sheathing, 88.9 mm (3.5") Johns Manville Unfaced R-13 Fiberglass Insulation, 40.6.4 mm (16") York PB Truss L/360 Open Web uss, 15.9 mm (0.63") USG SHEETROCK® Brand FIRECODE® C Core Gypsum Panel, 31.75 mm (1.25") ClarkDietrich® Sound Clip Resilient und Isolation Clip, 22.3 mm (0.88") ClarkDietrich® 087F125-18 Furring/Hat Channel, 15.9 mm (0.63") USG SHEETROCK® Brand IECODE® C Core Gypsum Panel, 15.9 mm (0.63") USG SHEETROCK® Brand FIRECODE® C Core Gypsum Panel | | | | |
| SPECIMEN AREA | 10.98 m² | Maximum Temp. | 18.6°C (65.5°F) | Minimum Temp. | 18.6°C (65.4°F) | |
| TECHNICIAN | MKD | Max. Humidity | 44% | Min. Humidity | 44% | |

| FREQ | BACKGROUND SPL | ABSORPTION | NORMALIZED IMPACT SP | 95% CONFIDENCE | NUMBER OF |
|------------------|-------------------|-----------------|----------------------|---------------------|--------------|
| (Hz) | (dB) | m² | (dB) | LIMIT | DEFICIENCIES |
| 50 | 34.1 | 24.9 | 64 | 1.3 | - |
| 63 | 34.0 | 29.0 | 61 | 2.4 | - |
| 80 | 31.2 | 16.7 | 69 | 3.5 | - |
| 100 | 24.7 | 11.9 | 64 | 1.0 | 3 |
| 125 | 25.8 | 10.4 | 67 | 1.0 | 6 |
| 160 | 21.3 | 9.9 | 67 | 0.4 | 6 |
| 200 | 18.0 | 10.5 | 69 | 0.9 | 8 |
| 250 | 14.8 | 10.5 | 68 | 0.7 | 7 |
| 315 | 15.5 | 9.5 | 63 | 0.5 | 2 |
| 400 | 9.6 | 8.5 | 60 | 0.2 | 0 |
| 500 | 11.9 | 7.5 | 58 | 0.3 | 0 |
| 630 | 15.6 | 7.5 | 55 | 0.3 | 0 |
| 800 | 18.6 | 7.8 | 51 | 0.4 | 0 |
| 1000 | 15.5 | 7.6 | 44 | 0.2 | 0 |
| 1250 | 11.2 | 7.8 | 37 | 0.1 | 0 |
| 1600 | 9.4 | 8.1 | 35 | 0.2 | 0 |
| 2000 | 9.1 | 9.0 | 33 | 0.2 | 0 |
| 2500 | 5.7 | 10.2 | 24 | 0.1 | 0 |
| 3150 | 5.8 | 11.4 | 14 | 0.4 | 0 |
| 4000 | 6.2 | 13.4 | 10 | 1.0 | - |
| 5000 | 6.7 | 16.0 | 9 | 0.9 | - |
| 6300 | 8.0 | 20.2 | 9 | 0.9 | - |
| 8000 | 9.2 | 26.5 | 12 | 1.3 | - |
| 10000 | 8.2 | 26.5 | 12 | 1.3 | - |
| IIC Ratin | g 51 | (Impact Insulat | ion Class) | Sum of Deficiencies | 32 |

Notes: Receive Room levels less than 5 dB above the Background levels are highlighted in yellow.



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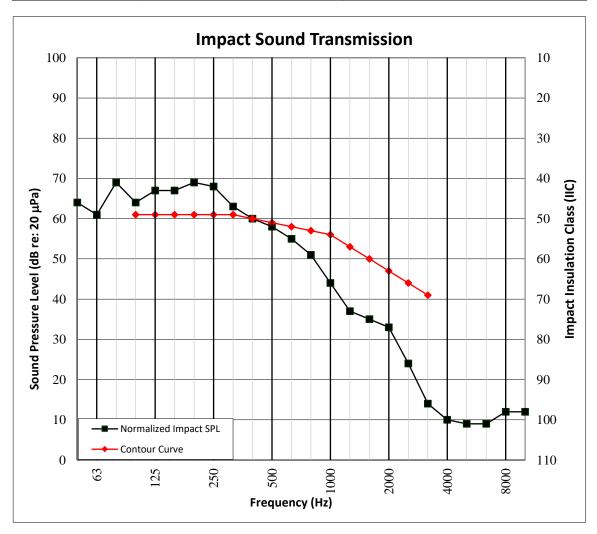
Report No.: J4778.06-113-11-R1

Date: 05/20/19

SECTION 13

TEST RESULTS - IMPACT SOUND TRANSMISSION GRAPH

| TEST DATE | 3/17/2019 | • | | | | |
|---------------|---|---|-----------------|---------------|-----------------|--|
| CLIENT | J4778.06 ClarkDietrich Bu | larkDietrich Building Systems, LLC | | | | |
| DESCRIPTION | 2500 Floor Underlayment, Board Sheathing, 88.9 mm Truss, 15.9 mm (0.63") US Sound Isolation Clip, 22.3 i | Testing Laboratory mm (0.31") Daltile* Ceramic Tile, 0.8 mm (0.03") NobleSeal* CIS Sound Reduction Membrane, 25.4 mm (1") USG Levelrock® Brand 500 Floor Underlayment, 6.4 mm (0.25") USG Levelrock® Brand SAM-N25™ Sound Attenuation Mat, 18.8 mm (0.74") Oriented Strand board Sheathing, 88.9 mm (3.5") Johns Manville Unfaced R-13 Fiberglass Insulation, 406.4 mm (16") York PB Truss 1/360 Open Web "USG SHEETROCK® Brand FIRECODE® C Core Gypsum Panel, 31.75 mm (1.25") ClarkDietrich® Sound Clip Resilient bound Isolation Clip, 22.3 mm (0.88") ClarkDietrich® 087F125-18 Furring/Hat Channel, 15.9 mm (0.63") USG SHEETROCK® Brand RECODE® C Core Gypsum Panel, 15.9 mm (0.63") USG SHEETROCK® Brand RECODE® C Core Gypsum Panel, 15.9 mm (0.63") | | | | |
| SPECIMEN AREA | 10.98 m² | Maximum Temp. | 18.6°C (65.5°F) | Minimum Temp. | 18.6°C (65.4°F) | |
| TECHNICIAN | MKD | Max. Humidity | 44% | Min. Humidity | 44% | |





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SECTION 14

PHOTOGRAPHS



Photo No. 1 Source Room View of Test Specimen Installation



Photo No. 2
Receive Room View of Test Specimen Installation



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TEST REPORT FOR CLARKDIETRICH BUILDING SYSTEMS, LLC

Report No.: J4778.06-113-11-R1

Date: 05/20/19

SECTION 15

REVISION LOG

| REVISION # | DATE | PAGES | DESCRIPTION |
|-------------------|----------|-------|---------------------------|
| R0 | 04/15/19 | N/A | Original Report Issue |
| R1 | 05/20/19 | All | Sound clip name corrected |