

FLORIDA PRODUCT EVALUATION REPORT

PRODUCT: Fabricated door panels for use on Fidelity Manufacturing generator enclosures. Door panels are used in conjunction with various tested wall and roof panels to show the complete enclosure is acceptable and meets Florida Building Code requirements.

This report covers two configurations. A single door and a double door configuration consisting of an outer aluminum (5052-H32) sheathing, 0.125" thick, attached with 1" wide adhesive tape (VHB-CV62F) to an all-welded aluminum (6061-T6) frame. The frame consists of various sizes of aluminum tubes welded together. All aluminum welding uses MAXAL ER4043 weld filler. Doors are framed within a 6063-T5 custom extrusions, with stainless steel piano type hinges. Additional details are provided in the referenced technical documents below.

This report covers two different door panel configurations designed and tested to withstand 80 feet/second (fps) wind driven missiles.

MANUFACTURER: Fidelity Manufacturing (Main office and Fabrication facility)
1900 NE 25th Avenue
Ocala, Florida 34470

Note: Fidelity Manufacturing also may fabricate generator enclosures with associated door panels at another Fidelity located at:
1101 SW 37th Avenue
Ocala, Florida 34474

EVALUATION STATEMENT: The fabricated door panel (as described above and on attached technical documents) provides an overall structurally qualified door system for Fidelity fabricated generator enclosures. This evaluation uses both test results and engineering rational analysis to show the different door panel configurations meet the requirements of the Florida Building Code (2023, 8th Edition), Sections 1625/1626 with the limitations discussed below.

References 1 and 2 (Single door tested to 80-fps) documents the door panel is in compliance with the test procedures TAS-201, 202, and 203. Test reports indicate pressure and missile tests passed required test standards

Reference 3 (Double door tested to 80-fps) documents the door panels are in compliance with the test procedures TAS-201, 202, and 203. Test reports indicate pressure and missile tests passed required test standards

All the test references include mounting and latching hardware that is not specifically listed. The following provides a list of the hardware:

- Hinge: Spencer Products, Part #HINGE72SS, Stainless Steel, 72-in. long x 3-in. width, 0.325-in. Diameter Pin

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- Center Case Assembly: Eberhard Manufacturing Co., Part #5645-50XU.
- inside Release Handle: Eberhard Manufacturing Co., Part #5644-6, Hot-Rolled Steel.
- Exterior Handle: Industrial Hardware Distributors, Inc., Part #5655-SSX, Stainless Steel
- Offset Lock Rod: Eberhard Manufacturing, Co., Part #5658-2X, Hot-Rolled Steel
- Weather-Stripping: Trim-Lock, Inc. 100 Series, Pebble Texture, 1/8-in. Edge Thickness, 0.375-in. Bulb Size, 9/16-in. leg length
- Spring: Industrial Hardware Distributors, Inc. Part #89U140341JJ

These various test reports and rational analysis document the various door panel configurations are in compliance with the Florida Building Code. The door hardware has been evaluated along with the fabricated door panels. All hardware is considered acceptable by being part of successful tests.

TECHNICAL DOCUMENTS:

1. Fidelity Manufacturing fabrication drawing (Installation Instructions) for the two configurations of door panels (copy attached)
2. Certificate of Independence, C. Glenn Pugh, dated 02/15/2024 (copy attached).

REFERENCES:

1. Report, NTS (223-0071), dated 10/05/2023, "Impact Testing- Single Door," by Moisture Intrusion Solutions, Inc.
2. Report FIDM032917-9 (R0), dated 05/12/2017, by ICC-NTA.
3. Report, NTS (2574-00001-01), dated 04/14/2025, "Impact Testing- Double Door," by Moisture Intrusion Solutions, Inc.
4. Florida Building Code (FBC), 8th Edition, 2023.

LIMITATIONS:

The various door panels are approved for use in High Velocity Hurricane Zones as specified in FBC, Sections 1625/1626.

General door panel limitations are shown on the provided Fidelity Manufacturing drawing. The panel width, length, member sizes, and general orientation are considered the maximum allowable fabrication limits.

The referenced reports and calculations assume a design wind pressure of (+/-) 50 psf. These reports use required test pressure modifications and cycle limits as required to meet TAS 202/203.

Evaluation Prepared by:

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C. Glenn Pugh, PE
Signed: 06/30/2025
Florida PE #41451
Pugh Engineering Services, LLC
c.glennpugh@gmail.com

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Double Door Configuration

DRAWING PACKAGE	
SHEET NUMBER	SHEET TITLE
1	NOTES
2	ASSEMBLY VIEW
3	FRAME
4	Z FRAME
5	SKIN
6	ANGLE

DRAWINGS PREPARED FOR:
MOISTURE INTRUSION SOLUTIONS, INC.
DOOR IMPACT TESTING AND FLORIDA PRODUCT APPROVAL

Fidelity
MANUFACTURING

1900 NE 25TH AVE, OCALA, FL 34470
PHONE (352) 414-4700 FAX (352) 414-4642

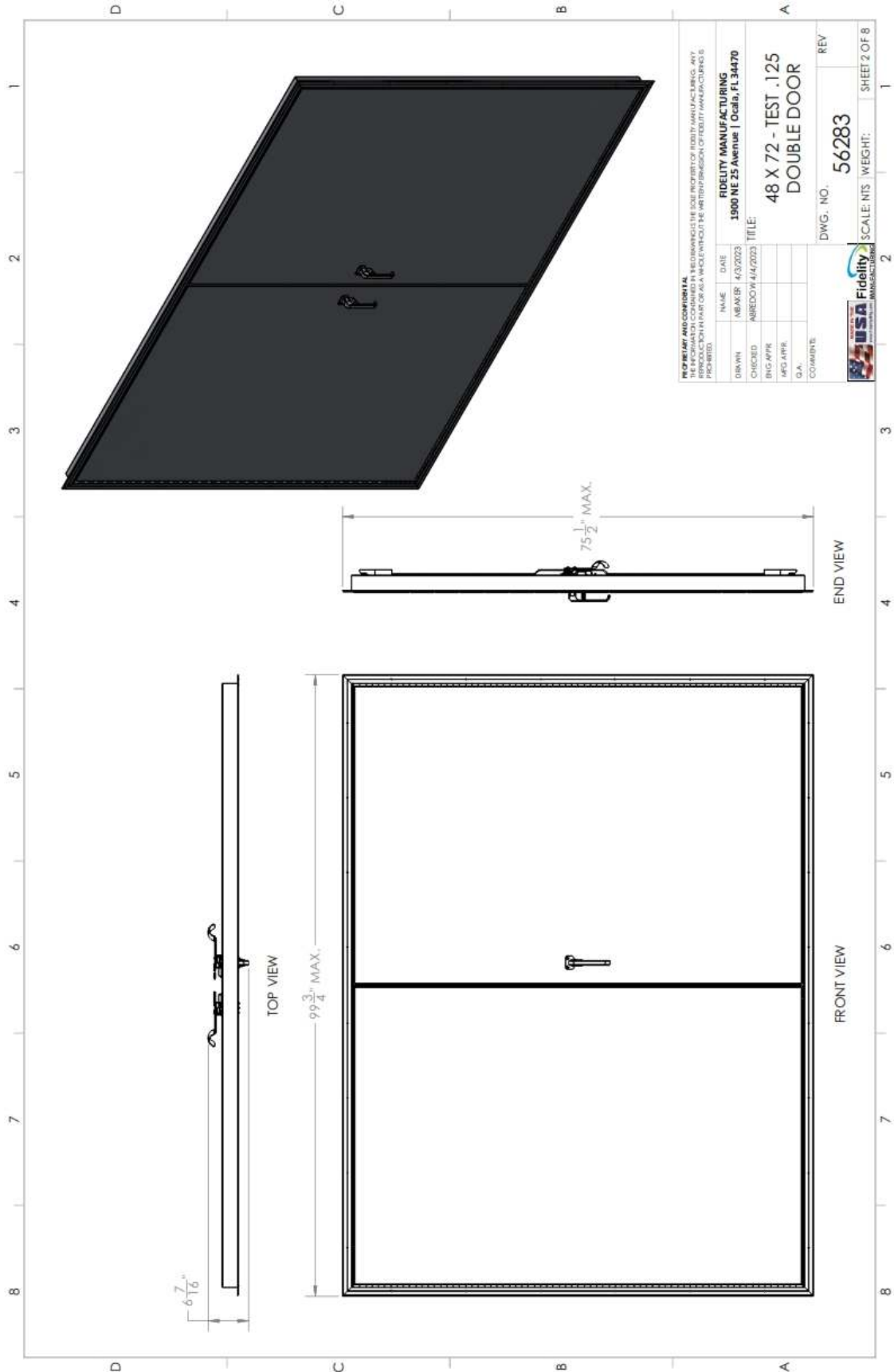
MATERIAL USED:
SHEATHING - 5052 ALUMINUM SHEET, 1/8" THICK, ATTACHED WITH 1" WIDE ADHESIVE TAPE (VHB TAPE OR APPROVED EQUAL)
Z TRIM - 6063-T5 ALUMINUM EXTRUSION, 1-1/2" X 2-5/8" X 1-1/2" Z TRIM, .125" THICK, ATTACHED WITH # 12 S.S. TEK SCREWS (MAX 12" O.C.)
FRAMING - 6061-T6 ALUMINUM EXTRUSION, .125" THICK, 2" X 2", 2" X 3"
WELDING - FILLER (MAXAL 4043), 1/4" FILLET WELD TYPICAL
STAINLESS STEEL PIANO HINGE WITH 1/8" PIN

PRODUCT DESCRIPTION:
1/8" 5052 SHEET ATTACHED TO 2" 6061-T6 STUDS WITH 1" WIDE ADHESIVE TAPE (FULL LENGTH OF STUD) - "Z" TRIM ATTACHED TO PIANO HINGE USING STAINLESS POP RIVETS. STUDS WELDED IN PLACE USING 1/4" FILLET WELD WITH MAXAL 4043 FILLER BOTH SIDES. DOOR FRAME ATTACHED TO "Z" FRAME USING STAINLESS POP RIVETS.

REVISIONS

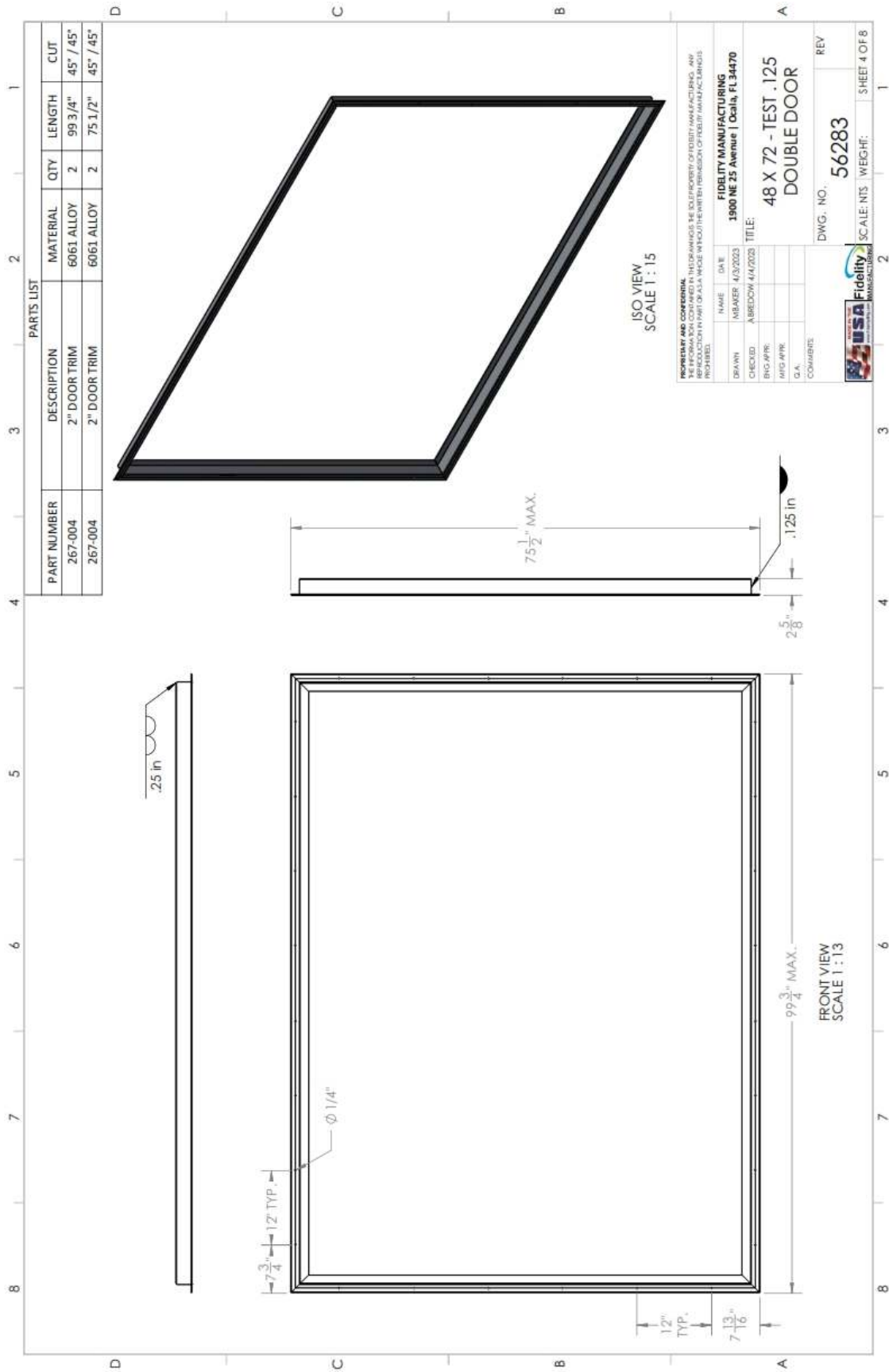
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00	INITIAL RELEASE		MIB	4/3/2023
01	ADDED NOTES FOR ASSEMBLY	8	AJB	1/7/2025
02				
03				
04				

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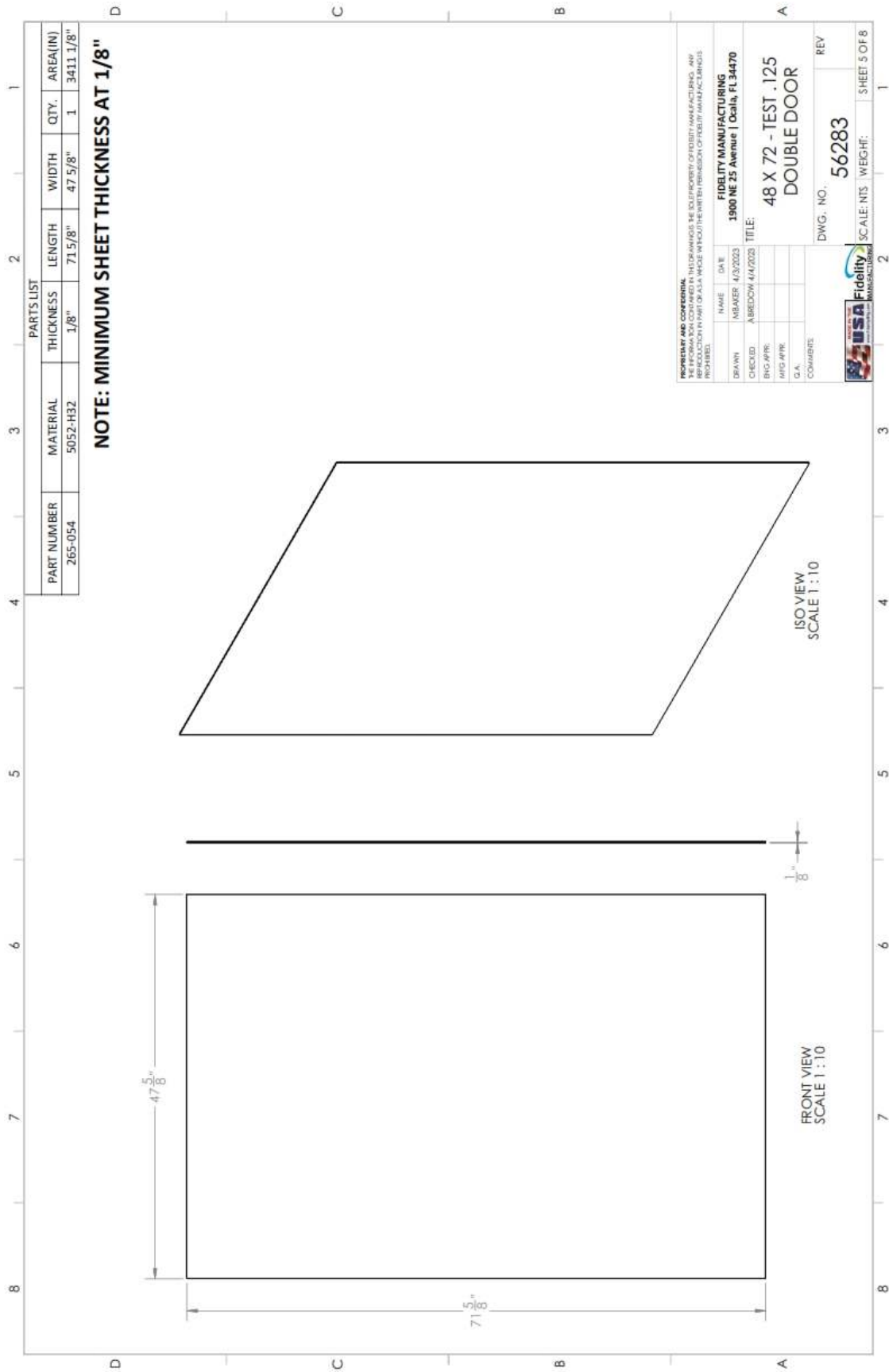


Pugh Engineering Services, LLC

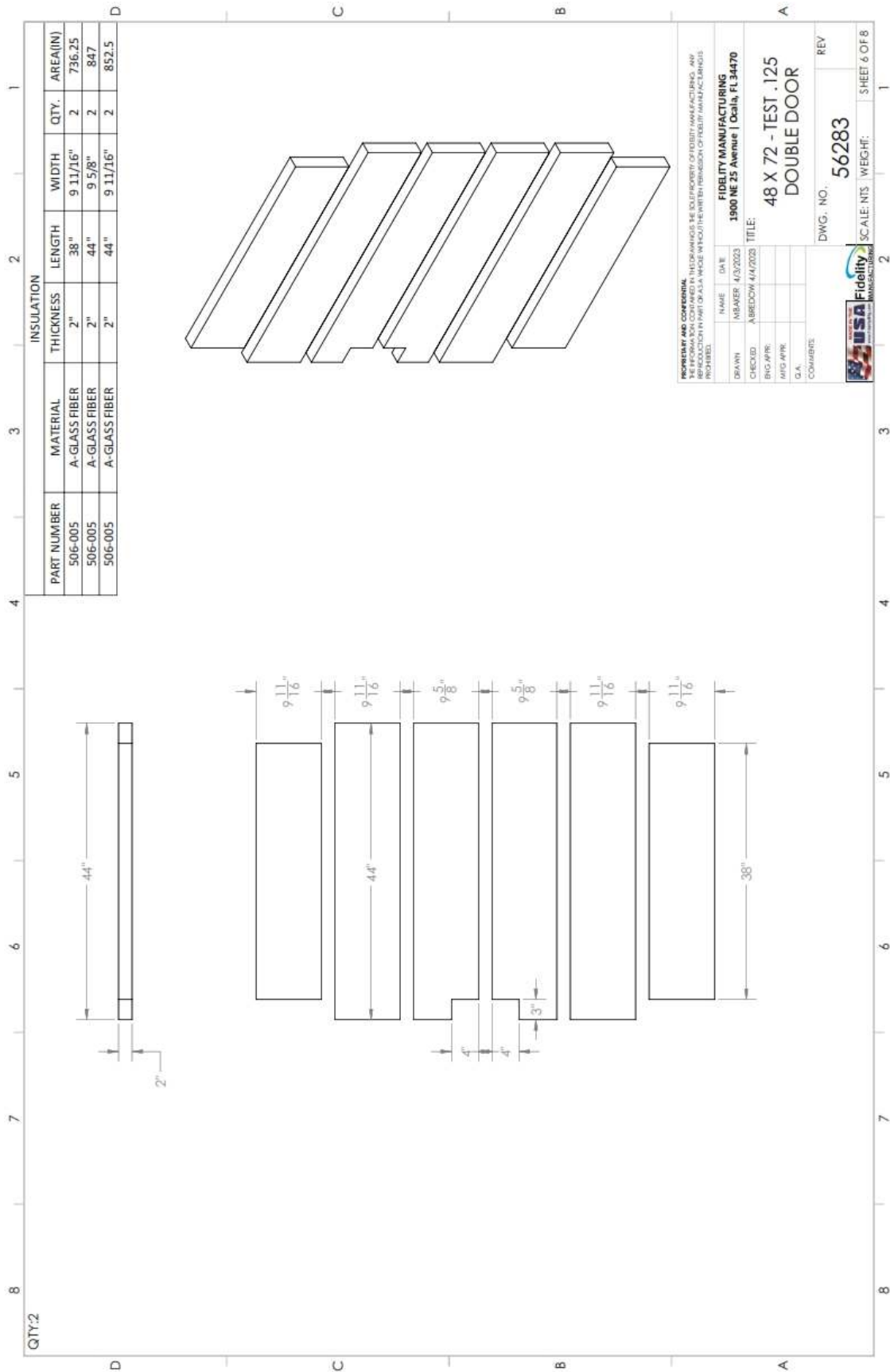
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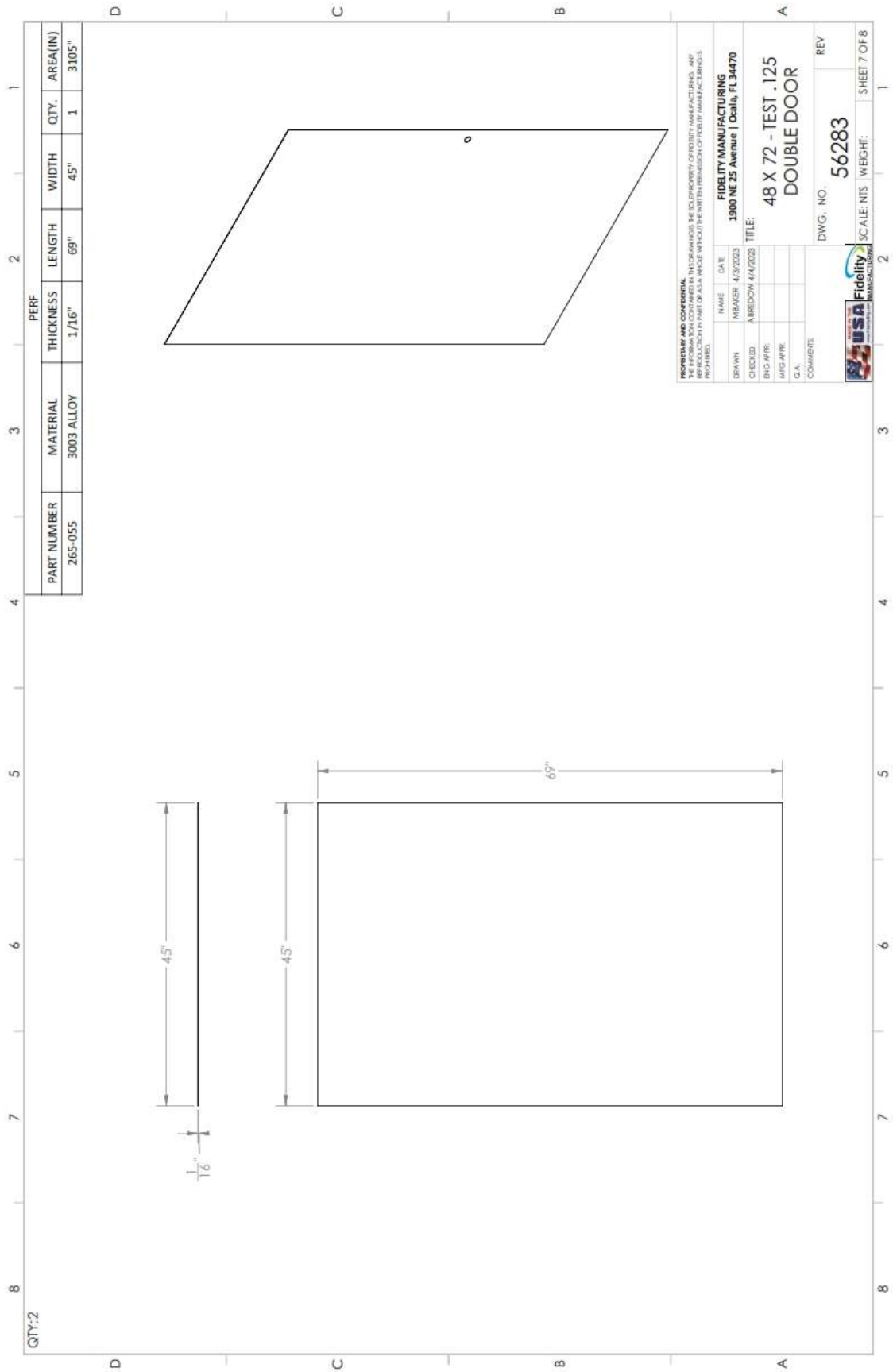
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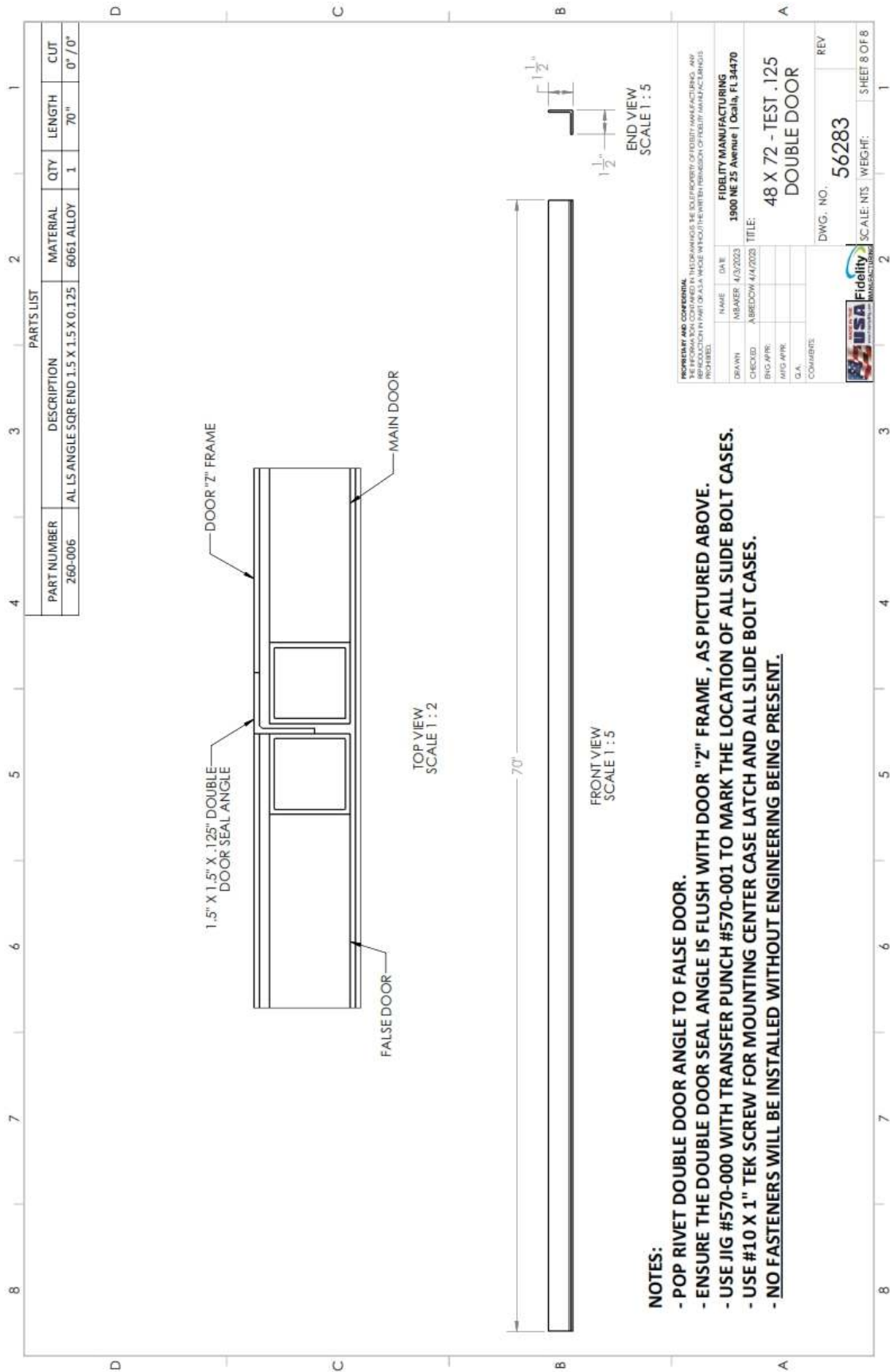
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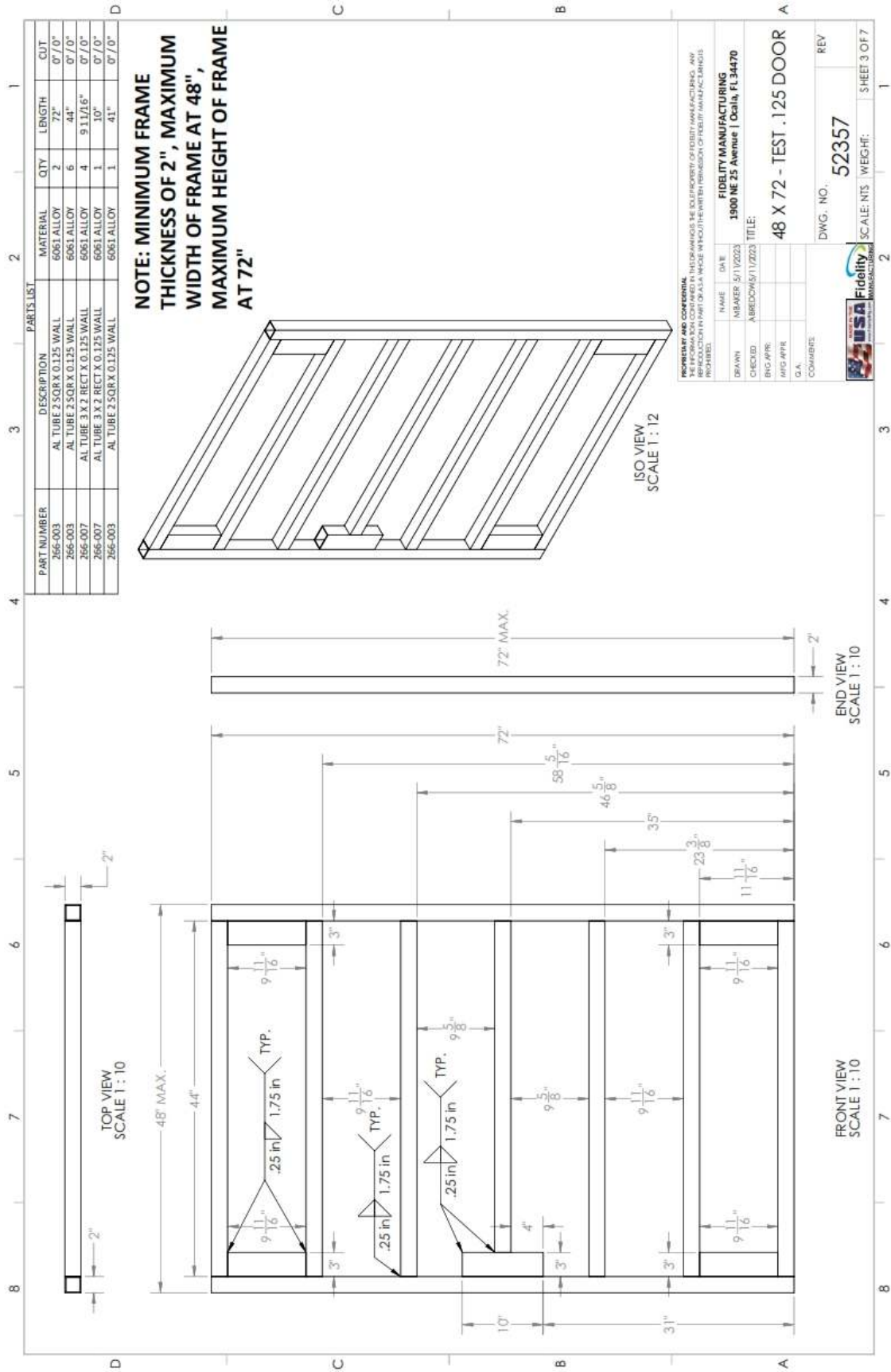
Single Door Configuration:

DRAWINGS PREPARED FOR:				
MOISTURE INTRUSION SOLUTIONS, INC.				
DOOR IMPACT TESTING AND FLORIDA PRODUCT APPROVAL				
				
1900 NE 25TH AVE, OCALA, FL 34470 PHONE (352) 414-4700 FAX (352) 414-4642				
MATERIAL USED: SHEATHING - 5052 ALUMINUM SHEET, 1/8" THICK, ATTACHED WITH 1" WIDE ADHESIVE TAPE (VHB TAPE OR APPROVED EQUAL) Z TRIM - 6063-T5 ALUMINUM EXTRUSION, 1-1/2" X 2-5/8" X 1-1/2" "Z" TRIM, .125" THICK, ATTACHED WITH # 12 S.S. TEK SCREWS (MAX 12" O.C.) FRAMING - 6061-T6 ALUMINUM EXTRUSION, .125" THICK, 2" X 2", 2" X 3" WELDING - FILLER (MAXAL 4043), 1/4" FILLET WELD TYPICAL STAINLESS STEEL PIANO HINGE WITH 1/8" PIN				
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DRAWING PACKAGE				
SHEET NUMBER	SHEET TITLE			
1	NOTES			
2	ASSEMBLY VIEW			
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4	Z-FRAME			
5	SKIN			
REVISIONS				
REVISION LEVEL	REVISION DESCRIPTION	SHEET OF CHANGE(S)	ENGINEER	DATE
00	INITIAL RELEASE		MIB	5/11/2023
01				
02				
03				
04				

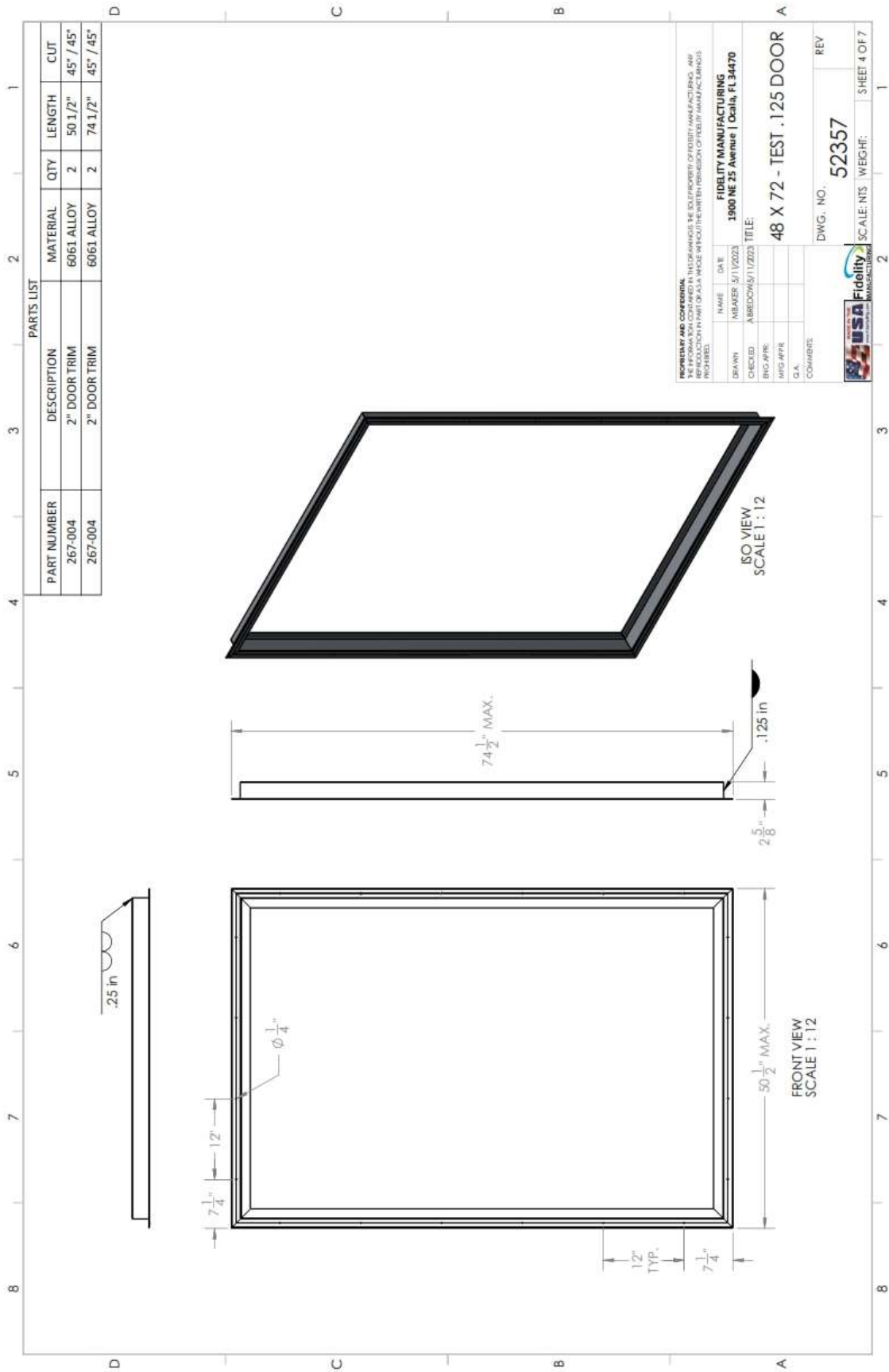
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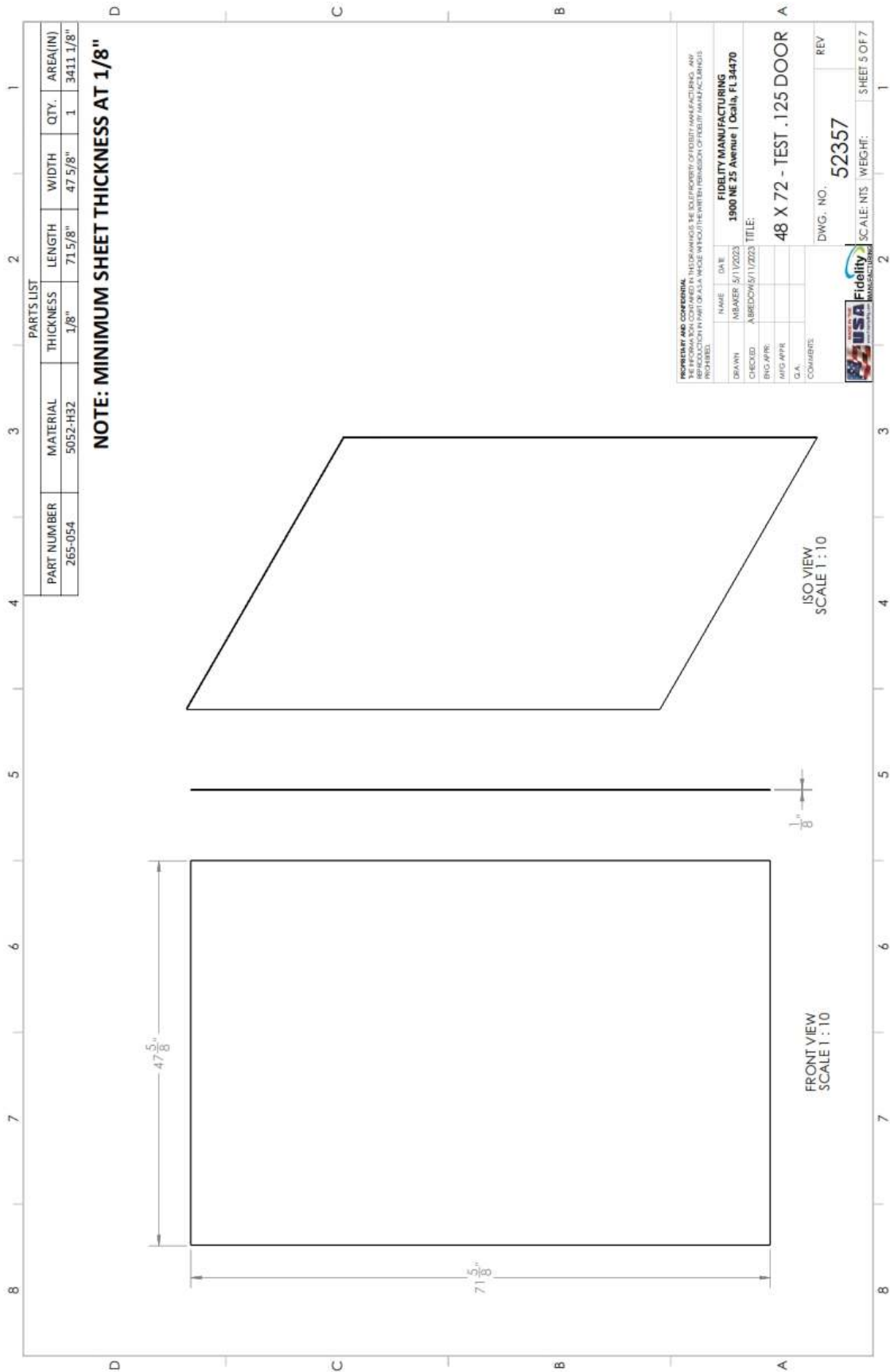
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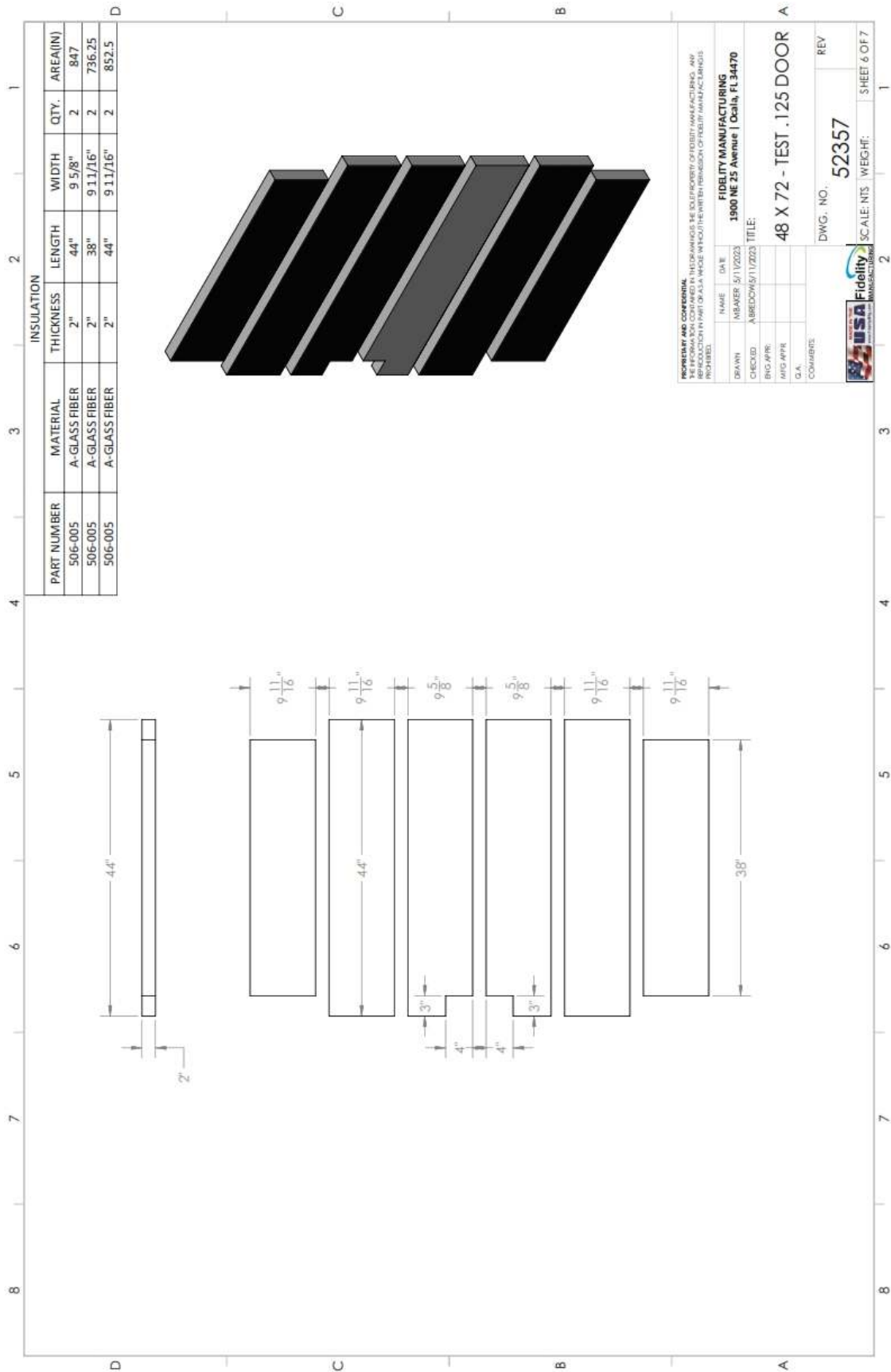
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Pugh Engineering Services, LLC

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February 15, 2024

Florida Building Commission
1940 North Monroe Street
Tallahassee, FL 32399

Reference: Fidelity Manufacturing
1900 NE 25th Avenue
Ocala, FL 34470

To Whom it May Concern,

This letter is to provide a Certificate of Independence as outlined in Florida Administrative Code 61G20-3.009 and to affirm that I do not have any financial interest in Fidelity Manufacturing (Manufacturer). I also affirm that I do not have any financial interest in any testing laboratory, or other agency involved with the approval of Fidelity Manufacturing products.

Please let me know if any additional information is needed.

Sincerely,



C. Glenn Pugh, PE
Signed, 02/15/2024

Florida PE 41451
Pugh Engineering Services, LLC
c.glennpugh@gmail.com