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Report Issued to:

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IAS Lab Certification Number: TL-299

Report No: TEL 04601909
Test Dates: September 26-28, 2017
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Project Summary: Testing Evaluation Laboratories, Inc. (TEL) was contracted by H.M. Surerock to perform tests on their Sure Jamb Composite Jambs at TEL's Plant City, FL test facility.

Test specimen descriptions and results are reported herein.

Test Specifications: The test specimens were evaluated in accordance with the following:

High Velocity Hurricane Zone Protocols TAS 202-94, TAS 201-94 and TAS 203-94

Test Specimen Description:

Series / Model:	Fiberglass Doors in Sure Jamb Composite Jambs
Type:	Outswing Fiberglass Door – X - Specimens 1, 1A, 1B, 1C Inswing Fiberglass Door – X - Specimens 2, 2A Outswing Fiberglass Doors – XX - Specimens 3, 3A, 3B, 3C Inswing Fiberglass Doors – XX - Specimens 4, 4A
Overall Size:	37.50" wide x 96.50" high – Specimens 1, 1A, 1B, 1C 37.50" wide x 97.50" high – Specimens 2, 2A 74.50" wide x 96.50" high – Specimens 3, 3A, 3B, 3C 74.50" wide x 97.50" high – Specimens 4, 4A
Frame Material:	Composite
Finish:	White

For Tested Elevation, Vertical Cross Sections, Horizontal Cross Sections, Components, Frame Anchoring and Bill of Materials See Attached Drawing #L-8048, L-8049, L-8050 and L-8051.

STRUCTURAL TESTS – TAS 202-94

Specimen 1 – 3'0 x 8'0 Impact Resistant Opaque Fiberglass Door in Composite Jamb (X) - Outswing

Design Pressure	Positive 70.0	Negative 70.0		
Air Infiltration (ASTM E283-04)		Pressure 1.57 PSF	SCFM/Ft ² 0.015	Result Pass

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)
Half Test Positive	30	35.00
Design Positive	30	70.00
Half Test Negative	30	35.00
Design Negative	30	70.00

Water Infiltration (ASTM E331-00)	Pressure	Time	Result
	7.50 PSF	15.0 Min.	Pass

Note #1: Water Infiltration performed after Positive and Negative half and design loads.

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)	Location	Deflection	Set	Allowable (Set)
Half Proof Positive	10	52.50				
Test Positive	30	105.00	1	0.072"	0.021"	0.217"
			2	0.015"	0.007"	0.142"
Half Proof Negative	10	52.50				
Test Negative	30	105.00	1	1.748"	0.061"	0.217"
			2	0.268"	0.011"	0.142"

*Note #2: Deflection (Location 1) Top of door panel at latch stile.
Deflection (Location 2) Bottom of door panel at latch stile.*

Forced Entry - 300 lbs. applied in direction away from stops on Active Door Panel:

Location 1 – Top Corner Door Panel Latch Stile	30 seconds	Pass
Location 2 – Center Door Panel Latch Stile	30 seconds	Pass
Location 3 – Bottom Corner Door Panel Latch Stile	30 seconds	Pass

Conclusion: TEL observed no signs of failure in any area of this test specimen during the Uniform Static Load Test. In addition, specimen met the permanent set requirements. Therefore, this specimen satisfies the uniform static load test requirements of TAS 202.

Christian Seifried, Test Technician

STRUCTURAL TESTS – TAS 202-94

Specimen 2 – 3’0 x 8’0 Impact Resistant Opaque Fiberglass Door in Composite Jamb (X) - Inswing

Design Pressure	Positive 70.0	Negative 70.0		
Air Infiltration (ASTM E283-04)		Pressure 1.57 PSF	SCFM/Ft ² 0.010	Result Pass

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)
Half Test Positive	30	35.00
Design Positive	30	70.00
Half Test Negative	30	35.00
Design Negative	30	70.00

Water Infiltration (ASTM E331-00)	Pressure 0.00 PSF	Time 15.0 Min.	Result Pass
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Note #1: Water Infiltration performed after Positive and Negative half and design loads.

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)	Location	Deflection	Set	Allowable (Set)
Half Proof Positive	10	52.50				
Test Positive	30	105.00	1	2.208"	0.054"	0.217"
			2	0.289"	0.014"	0.142"
Half Proof Negative	10	52.50				
Test Negative	30	105.00	1	0.005"	0.003"	0.217"
			2	0.016"	0.002"	0.142"

*Note #2: Deflection (Location 1) Top of door panel at latch stile.
Deflection (Location 2) Bottom of door panel at latch stile.*

Forced Entry - 300 lbs. applied in direction away from stops on Active Door Panel:

Location 1 – Top Corner Door Panel Latch Stile	30 seconds	Pass
Location 2 – Center Door Panel Latch Stile	30 seconds	Pass
Location 3 – Bottom Corner Door Panel Latch Stile	30 seconds	Pass

Conclusion: TEL observed no signs of failure in any area of this test specimen during the Uniform Static Load Test. In addition, specimen met the permanent set requirements. Therefore, this specimen satisfies the uniform static load test requirements of TAS 202.

Christian Seifried, Test Technician

STRUCTURAL TESTS – TAS 202-94

Specimen 3 – 6’0 x 8’0 Impact Resistant Opaque Fiberglass Doors in Composite Jamb (XX) - Outswing

Design Pressure	Positive 50.0	Negative 50.0		
Air Infiltration (ASTM E283-04)		Pressure	SCFM/Ft ²	Result
		1.57 PSF	0.087	Pass

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)
Half Test Positive	30	25.00
Design Positive	30	50.00
Half Test Negative	30	25.00
Design Negative	30	50.00

Water Infiltration (ASTM E331-00)	Pressure	Time	Result
	7.50 PSF	15.0 Min.	Pass

Note #1: Water Infiltration performed after Positive and Negative half and design loads.

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)	Location	Deflection	Set	Allowable (Set)
Half Proof Positive	10	37.50				
Test Positive	30	75.00	1	0.956"	0.027"	0.381"
Half Proof Negative	10	37.50				
Test Negative	30	75.00	1	1.983"	0.096"	0.381"
			2	1.794"	0.192"	0.381"

*Note #2: Deflection (Location 1) Center of astragal.
Deflection (Location 2) Top of active door panel at latch stile, negative direction.*

Forced Entry - 300 lbs. applied in direction away from stops on Active Door Panel:

Location 1 – Top Corner Door Panel Latch Stile	30 seconds	Pass
Location 2 – Center Door Panel Latch Stile	30 seconds	Pass
Location 3 – Bottom Corner Door Panel Latch Stile	30 seconds	Pass

Conclusion: TEL observed no signs of failure in any area of this test specimen during the Uniform Static Load Test. In addition, specimen met the permanent set requirements. Therefore, this specimen satisfies the uniform static load test requirements of TAS 202.

Christian Seifried, Test Technician

STRUCTURAL TESTS – TAS 202-94

Specimen 4 – 6’0 x 8’0 Impact Resistant Opaque Fiberglass Doors in Composite Jamb (XX) - Inswing

Design Pressure	Positive 45.0	Negative 50.0		
Air Infiltration (ASTM E283-04)		Pressure 1.57 PSF	SCFM/Ft ² 0.098	Result Pass

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)
Half Test Positive	30	22.50
Design Positive	30	45.00
Half Test Negative	30	25.00
Design Negative	30	50.00

Water Infiltration (ASTM E331-00)	Pressure 0.00 PSF	Time 15.0 Min.	Result Pass
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Note #1: Water Infiltration performed after Positive and Negative half and design loads.

Structural Loads (ASTM E330-02)

Range	Time (sec)	Load (psf)	Location	Deflection	Set	Allowable (Set)
Half Proof Positive	10	33.75				
Test Positive	30	67.50	1	1.789"	0.100"	0.381"
			2	3.460"	0.372"	0.381"
Half Proof Negative	10	37.50				
Test Negative	30	75.00	1	0.900"	0.014"	0.381"

*Note #2: Deflection (Location 1) Center of astragal.
Deflection (Location 2) Top of active door panel at latch stile, positive direction.*

Forced Entry - 300 lbs. applied in direction away from stops on Active Door Panel:

Location 1 – Top Corner Door Panel Latch Stile	30 seconds	Pass
Location 2 – Center Door Panel Latch Stile	30 seconds	Pass
Location 3 – Bottom Corner Door Panel Latch Stile	30 seconds	Pass

Conclusion: TEL observed no signs of failure in any area of this test specimen during the Uniform Static Load Test. In addition, specimen met the permanent set requirements. Therefore, this specimen satisfies the uniform static load test requirements of TAS 202.

Christian Seifried, Test Technician

IMPACT AND CYCLING TESTS

Specimen 1A – 3'0 x 8'0 Impact Resistant Opaque Fiberglass Door in Composite Jamb (X) - Outswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	17.00"	46.50"	50.1 fps
2	Pass	30.00"	7.00"	49.9 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +70.0 psf / -70.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	14.0 to 35.0	3500	1.40
0% to 60%	0.0 to 42.0	300	1.48
50% to 80%	35.0 to 56.0	600	1.20
30% to 100%*	21.0 to 70.0	100	1.90
0% to 130%**	0.0 to 91.0	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	21.0 to 70.0	50	2.18
50% to 80%	35.0 to 56.0	1050	1.30
0% to 60%	0.0 to 42.0	50	2.79
20% to 50%	14.0 to 35.0	3350	1.39
0% to 130%**	0.0 to 91.0	1	1.00
*Panel deflected 0.50" from original plane at 100% Positive load and 0.63" from original plane at 100% Negative load. **Panel deflected 0.63" from original plane at 130% Positive load and 1.00" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 1B – 3'0 x 8'0 Impact Resistant Opaque Fiberglass Door in Composite Jamb (X) - Outswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	18.00"	48.00"	49.8 fps
2	Pass	6.50"	6.00"	50.0 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +70.0 psf / -70.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	14.0 to 35.0	3500	1.91
0% to 60%	0.0 to 42.0	300	2.22
50% to 80%	35.0 to 56.0	600	1.44
30% to 100%*	21.0 to 70.0	100	2.21
0% to 130%**	0.0 to 91.0	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	21.0 to 70.0	50	2.43
50% to 80%	35.0 to 56.0	1050	2.25
0% to 60%	0.0 to 42.0	50	2.88
20% to 50%	14.0 to 35.0	3350	2.18
0% to 130%**	0.0 to 91.0	1	1.00
*Panel deflected 0.50" from original plane at 100% Positive load and 0.63" from original plane at 100% Negative load. **Panel deflected 0.63" from original plane at 130% Positive load and 1.00" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 1C – 3'0 x 8'0 Impact Resistant Opaque Fiberglass Door in Composite Jamb (X) - Outswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	18.50"	46.50"	50.1 fps
2	Pass	6.50"	90.00"	49.8 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +70.0 psf / -70.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	14.0 to 35.0	3500	1.28
0% to 60%	0.0 to 42.0	300	2.47
50% to 80%	35.0 to 56.0	600	1.13
30% to 100%*	21.0 to 70.0	100	1.86
0% to 130%**	0.0 to 91.0	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	21.0 to 70.0	50	1.89
50% to 80%	35.0 to 56.0	1050	1.30
0% to 60%	0.0 to 42.0	50	2.39
20% to 50%	14.0 to 35.0	3350	1.54
0% to 130%**	0.0 to 91.0	1	1.00
*Panel deflected 0.50" from original plane at 100% Positive load and 0.75" from original plane at 100% Negative load. **Panel deflected 0.63" from original plane at 130% Positive load and 1.13" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 2A – 3'0 x 8'0 Impact Resistant Opaque Fiberglass Door in Composite Jamb (X) - Inswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	19.25"	50.00"	50.2 fps
2	Pass	30.50"	7.75"	50.0 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +70.0 psf / -70.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	14.0 to 35.0	3500	1.70
0% to 60%	0.0 to 42.0	300	2.97
50% to 80%	35.0 to 56.0	600	1.61
30% to 100%*	21.0 to 70.0	100	2.69
0% to 130%**	0.0 to 91.0	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	21.0 to 70.0	50	2.19
50% to 80%	35.0 to 56.0	1050	1.43
0% to 60%	0.0 to 42.0	50	2.37
20% to 50%	14.0 to 35.0	3350	1.52
0% to 130%**	0.0 to 91.0	1	1.00
*Panel deflected 0.75" from original plane at 100% Positive load and 0.63" from original plane at 100% Negative load. **Panel deflected 0.88" from original plane at 130% Positive load and 0.75" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 3A – 6'0 x 8'0 Impact Resistant Opaque Fiberglass Doors in Composite Jamb (XX) - Outswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	19.00"	49.00"	49.8 fps
2	Pass	30.00"	8.00"	50.0 fps
3	Pass	37.00"	48.00"	49.9 fps
4	Pass	56.00"	5.00"	50.1 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +55.0 psf / -55.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	11.0 to 27.5	3500	1.32
0% to 60%	0.0 to 33.0	300	1.37
50% to 80%	27.5 to 44.0	600	1.20
30% to 100%*	16.5 to 55.0	100	1.39
0% to 130%**	0.0 to 71.5	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	16.5 to 55.0	50	1.73
50% to 80%	27.5 to 44.0	1050	1.35
0% to 60%	0.0 to 33.0	50	2.27
20% to 50%	11.0 to 27.5	3350	1.78
0% to 130%**	0.0 to 71.5	1	1.00
*Panel deflected 1.00" from original plane at 100% Positive load and 1.50" from original plane at 100% Negative load. **Panel deflected 1.50" from original plane at 130% Positive load and 1.75" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 3B – 6'0 x 8'0 Impact Resistant Opaque Fiberglass Doors in Composite Jamb (XX) - Outswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	55.00"	52.00"	49.9 fps
2	Pass	45.50"	5.00"	50.1 fps
3	Pass	37.50"	49.00"	50.1 fps
4	Pass	19.00"	4.00"	50.0 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +55.0 psf / -55.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	11.0 to 27.5	3500	1.97
0% to 60%	0.0 to 33.0	300	2.90
50% to 80%	27.5 to 44.0	600	1.68
30% to 100%*	16.5 to 55.0	100	2.60
0% to 130%**	0.0 to 71.5	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	16.5 to 55.0	50	2.98
50% to 80%	27.5 to 44.0	1050	1.78
0% to 60%	0.0 to 33.0	50	2.90
20% to 50%	11.0 to 27.5	3350	2.51
0% to 130%**	0.0 to 71.5	1	1.00
*Panel deflected 0.88" from original plane at 100% Positive load and 1.50" from original plane at 100% Negative load. **Panel deflected 1.13" from original plane at 130% Positive load and 1.75" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 3C – 6'0 x 8'0 Impact Resistant Opaque Fiberglass Doors in Composite Jamb (XX) - Outswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	18.75"	48.00"	49.8 fps
2	Pass	7.00"	90.00"	50.2 fps
3	Pass	37.00"	48.00"	49.9 fps
4	Pass	55.75"	4.50"	49.9 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +55.0 psf / -55.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	11.0 to 27.5	3500	2.56
0% to 60%	0.0 to 33.0	300	2.89
50% to 80%	27.5 to 44.0	600	2.30
30% to 100%*	16.5 to 55.0	100	2.78
0% to 130%**	0.0 to 71.5	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	16.5 to 55.0	50	2.99
50% to 80%	27.5 to 44.0	1050	2.42
0% to 60%	0.0 to 33.0	50	2.75
20% to 50%	11.0 to 27.5	3350	2.28
0% to 130%**	0.0 to 71.5	1	1.00
*Panel deflected 1.00" from original plane at 100% Positive load and 1.63" from original plane at 100% Negative load. **Panel deflected 1.38" from original plane at 130% Positive load and 2.00" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

IMPACT AND CYCLING TESTS

Specimen 4A – 6'0 x 8'0 Impact Resistant Opaque Fiberglass Doors in Composite Jamb (XX) - Inswing

TAS 201-94 – Large Missile Impact (2 x 4 Southern Yellow Pine)

Cond. Temp Of Specimen	Missile Level	Missile Weight	Missile Length	Muzzle Distance From Specimen
77°F	D	9.0 lbs, 2 oz.	7'-11"	17' 2"
Impact Location	Results	X - Measurement	Y - Measurement	Speed
1	Pass	55.00"	50.00"	50.1 fps
2	Pass	43.50"	8.00"	49.8 fps
3	Pass	37.00"	49.00"	49.9 fps
4	Pass	19.00"	6.00"	49.8 fps
Orientation of Missile at Impact was within +/-5° of horizontal. None of the impacts penetrated the specimens. "X" measurement is from the left edge of test specimen. "Y" measurement is from the bottom edge of test specimen.				

TAS 203-94 – Fatigue Load Cycling Design Pressure +45.0 psf / -50.0 psf

Positive % of Test Load	Positive Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
20% to 50%	9.0 to 22.5	3500	2.58
0% to 60%	0.0 to 27.0	300	2.82
50% to 80%	22.5 to 36.0	600	2.46
30% to 100%*	13.5 to 45.0	100	2.99
0% to 130%**	0.0 to 58.5	1	1.00
Negative % of Test Load	Negative Pressure Range (psf)	Number Of Cycles	Average Cycle Time (Sec)
30% to 100%*	15.0 to 50.0	50	2.58
50% to 80%	25.0 to 40.0	1050	1.97
0% to 60%	0.0 to 30.0	50	2.81
20% to 50%	10.0 to 25.0	3350	2.39
0% to 130%**	0.0 to 65.0	1	1.00
*Panel deflected 1.25" from original plane at 100% Positive load and 1.00" from original plane at 100% Negative load. **Panel deflected 2.00" from original plane at 130% Positive load and 1.50" from original plane at 130% Negative load. (Note: Deflection measured at center of door panel). At the completion of cycles the specimen was intact.			

Christian Seifried, Test Technician

Conclusion: The large missile impacted the intended targets. Careful inspection revealed no signs of through penetration at the impact sites. After 9,002 cycles the specimen showed no resultant failure or duress and no failure of fasteners. Therefore, this specimen satisfies the large missile requirements of TAS 201 and TAS 203

Conditions, Terms, and General Notes Regarding These Tests

The product tested **Has Been** compared to the detailed drawing, bill of materials and fabrication information supplied by the client so named herein. Our analysis, which includes dimensional and component description comparisons, indicate the tested product and engineering information supplied by the client **"Are Equivalent"**. The report and representative samples will be retained for four years from the date of initial test.

These test results were obtained by employing all requirements of the designated test methods with no Deviations unless explicitly noted in test report. The test results and specimen supplied for testing are in compliance with the reference.

The test results are specific to the product tested by this laboratory and of the sample supplied by the client named herein, and they relate to no other product either manufactured by the client, a fabricator of the client or of the client or of installed field performance.

This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.


Testing Evaluation Laboratories, Inc. makes no opinions or endorsements regarding this product and its performance. This report may not be reproduced or quoted in partial form without the expressed written approval of Testing Evaluation Laboratories, Inc.

Testing Evaluation Laboratories, Inc.'s letter, reports, its name or insignia or mark are for the exclusive use of the client so named herein and any other use is strictly prohibited. The report, letters and the name of Testing Evaluation Laboratories, Inc., its seal or mark shall not be used in any circumstance to the general public or in any advertising.

Limitation of liability: Due diligence was used in performing the tests and reporting the results. By acceptance of this report, this client agrees to hold harmless and indemnify Testing Evaluation Laboratories, Inc., its employees, subcontractors and officers and owners against all claims and demands of any kind whatsoever, which arise out of or in any manner connected with the performance of work referred to herein.

Testing Evaluation Laboratories, Inc.


Vivian K. Wright
President


Lyndon F. Schmidt, P. E.
Florida P. E. No. 43409

Revision Log

<u>Rev Number</u>	<u>Date</u>	<u>Pages</u>	<u>Revision(s)</u>
0	10/7/2017	NA	Original Report Issue

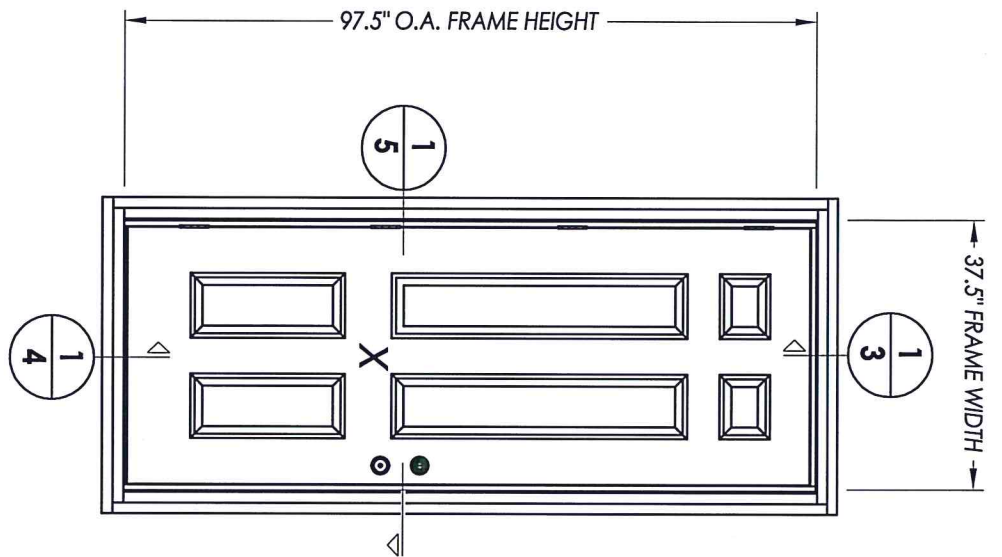


TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Table of contents and test elevation
2	Door panel details
3	Vertical cross section
4	Horizontal cross section
5	Frame anchoring
6	Bill of materials & components
7	

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by 

PRODUCT:

HM Sure Rock
(INSWING)

PART OR ASSEMBLY:

TABLE OF CONTENTS
& TEST ELEVATION

NO.	DATE	REVISIONS	BY



R.W. BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/04/17

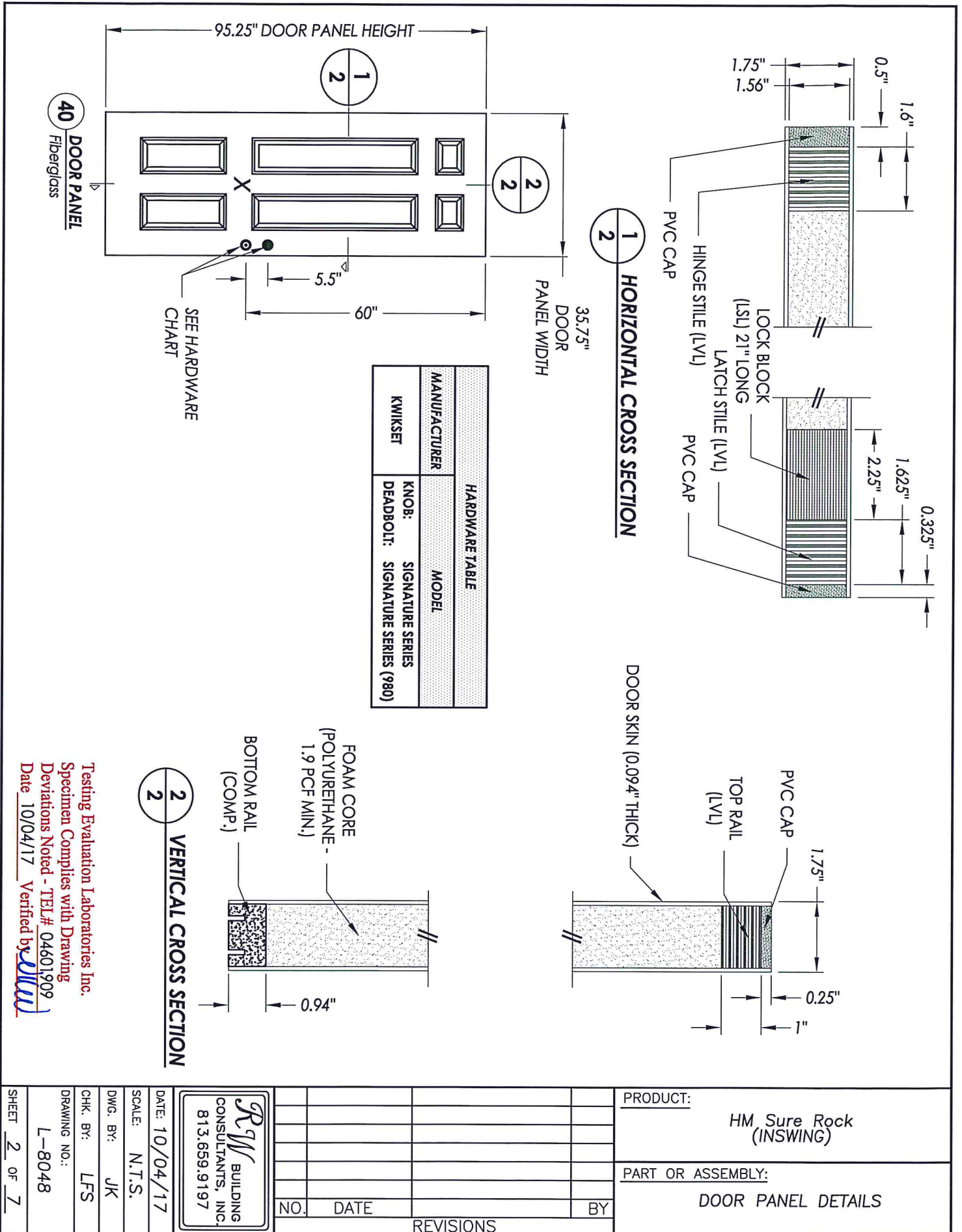
SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.: L-8048

SHEET 1 OF 7

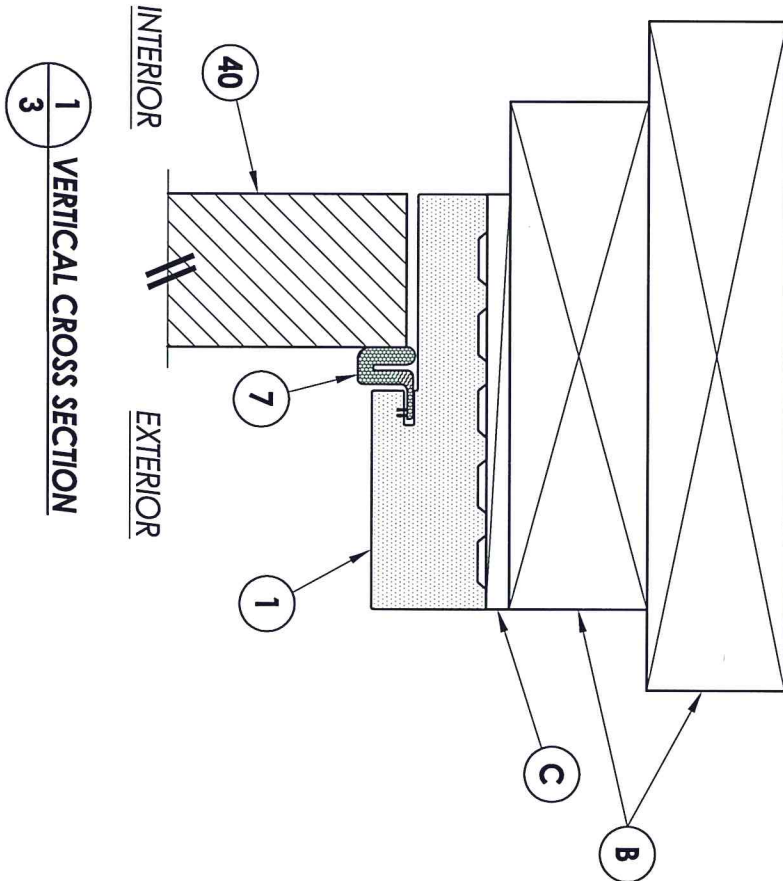


NO.	DATE	REVISIONS	BY

PRODUCT:	HM Sure Rock (INSWING)
PART OR ASSEMBLY:	DOOR PANEL DETAILS

R^W BUILDING CONSULTANTS, INC.
813.659.9197

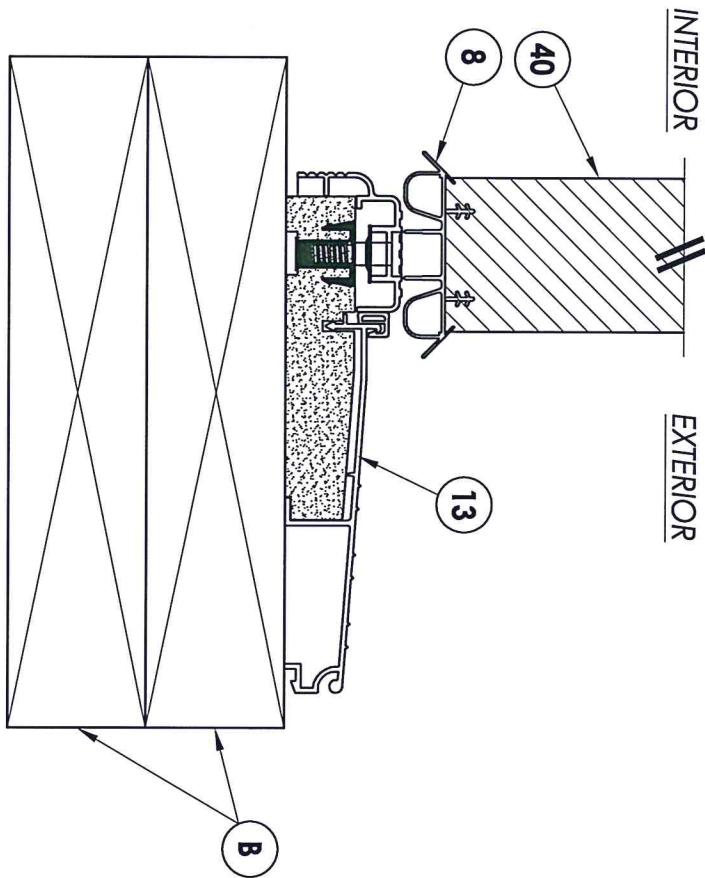
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SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	L-8048
SHEET	2 OF 7



1
3 VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 046019091
 Date 10/04/17 Verified by *[Signature]*

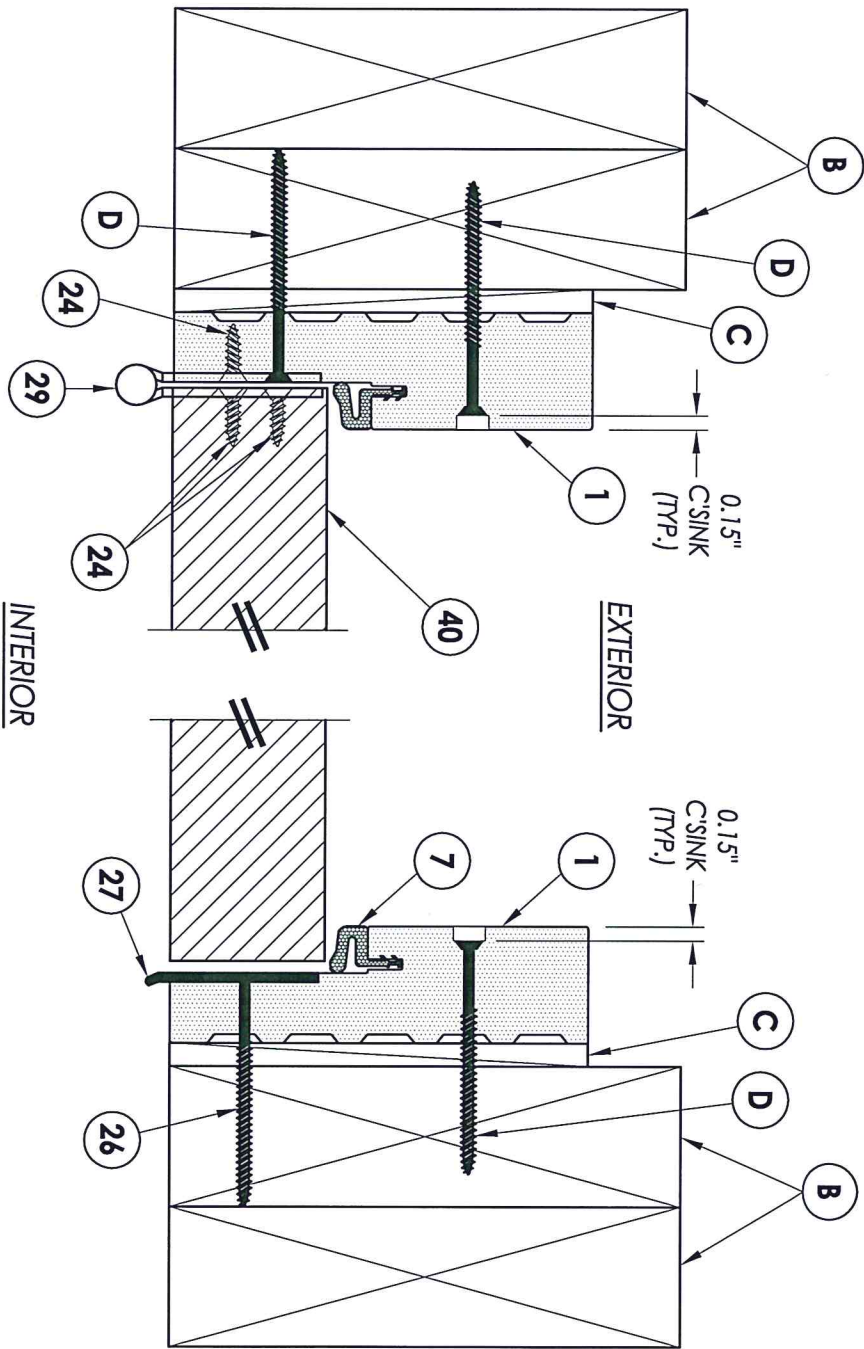
DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8048 SHEET 3 OF 7		PRODUCT: HM Sure Rock (INSWING)	
REVISIONS		PART OR ASSEMBLY: VERTICAL CROSS SECTION	
NO.	DATE	BY	



1 VERTICAL CROSS SECTION
4 Inswing Threshold

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by


 BUILDING CONSULTANTS, INC. 813.659.9197		PRODUCT: HM Sure Rock (INSWING)
DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8048 SHEET 4 OF 7		PART OR ASSEMBLY: VERTICAL CROSS SECTION
NO.	DATE	BY
REVISIONS		

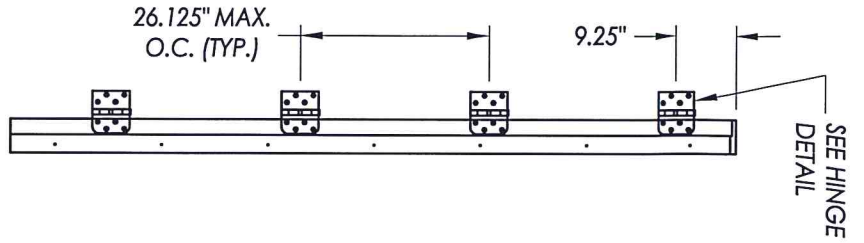


1
5 HORIZONTAL CROSS SECTION

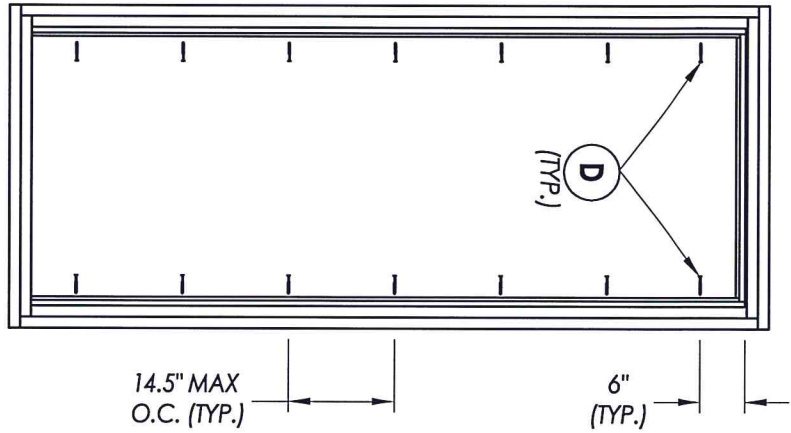
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by

PRODUCT: HM Sure Rock (INSWING)		
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS		
NO.	DATE	BY
REVISIONS		
R ⁹ W BUILDING CONSULTANTS, INC. 813.659.9197		
DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8048 SHEET 5 OF 7		

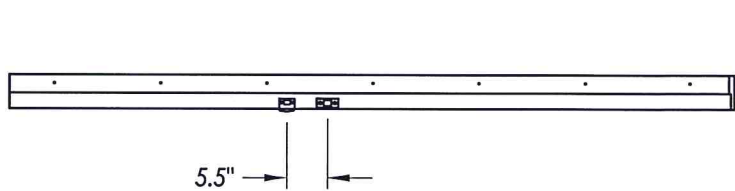
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 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by 



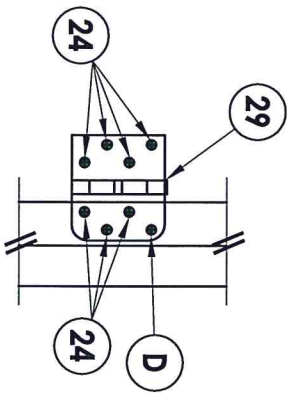
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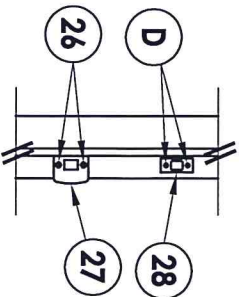
FRAME ANCHORING



STRIKE JAMB



HINGE DETAIL



LATCH AND DEADBOLT DETAIL

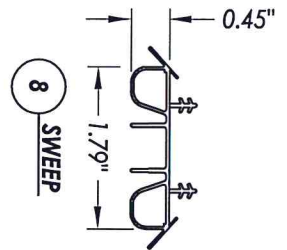
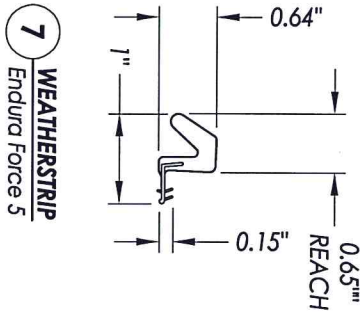
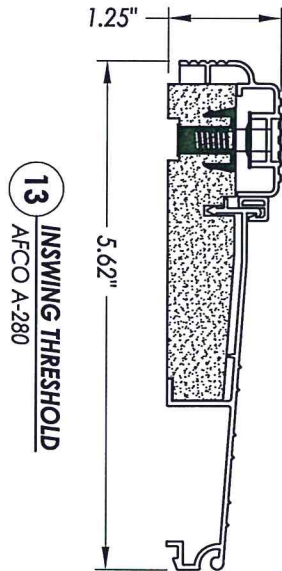
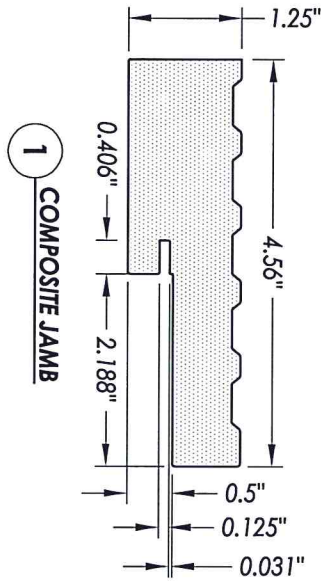
NO.	DATE	REVISIONS	BY

PRODUCT:	HM Sure Rock (INSWING)
PART OR ASSEMBLY:	FRAME ANCHORING



DATE:	10/04/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	L-8048
SHEET	6 OF 7

BILL OF MATERIALS		MATERIAL
ITEM #	DESCRIPTION	
B	2X BUCK SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
D	#10 X 2-1/2" PFH WOOD SCREW	STEEL
1	COMPOSITE JAMB	COMP
7	WEATHERSTRIP	FOAM
8	SWEEP	VINYL
13	INSWING THRESHOLD	ALUM/COMP
23	#8 X 1-1/2" PPH SMS	STEEL
24	#9 X 3/4" PFH WOOD SCREW	STEEL
26	#8 X 2-1/2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4 X 4 HINGE	STEEL
40	DOOR PANEL	-



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

 R.W. BUILDING CONSULTANTS, INC. 813.659.9197	DATE: 10/04/17	SCALE: N.T.S.	DWG. BY: JK	CHK. BY: LFS	DRAWING NO.: L-8048	SHEET 7 OF 7
	PRODUCT: HM Sure Rock (INSWING)		PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS		REVISIONS	
NO.	DATE	BY				

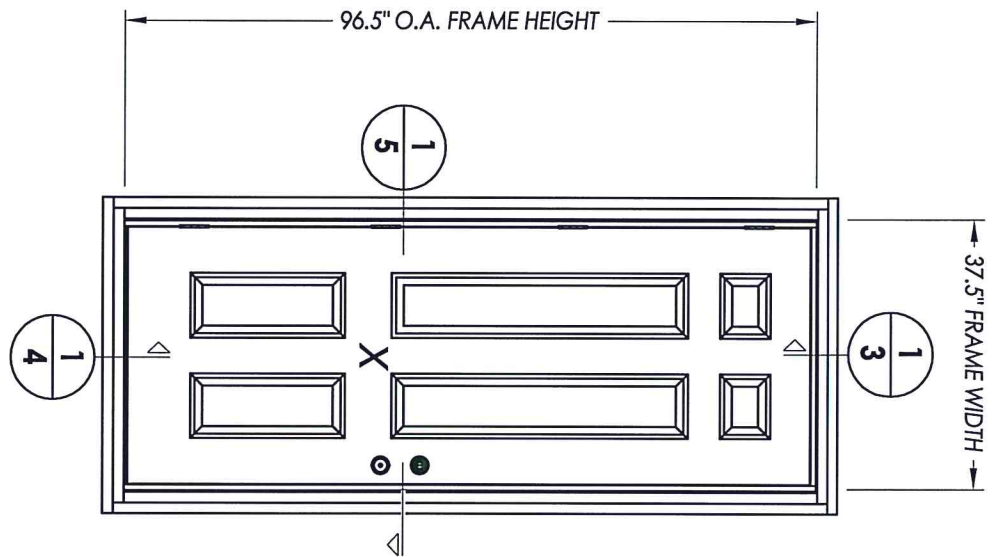


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1	Table of contents and test elevation
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3	Vertical cross section
4	Horizontal cross section
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6	Bill of materials & components
7	

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL # 04601909
 Date 10/04/17 Verified by *[Signature]*

PRODUCT:

HM Sure Rock
(OUTSWING)

PART OR ASSEMBLY:

TABLE OF CONTENTS
& TEST ELEVATION

NO.	DATE	REVISIONS	BY

RW BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/04/17

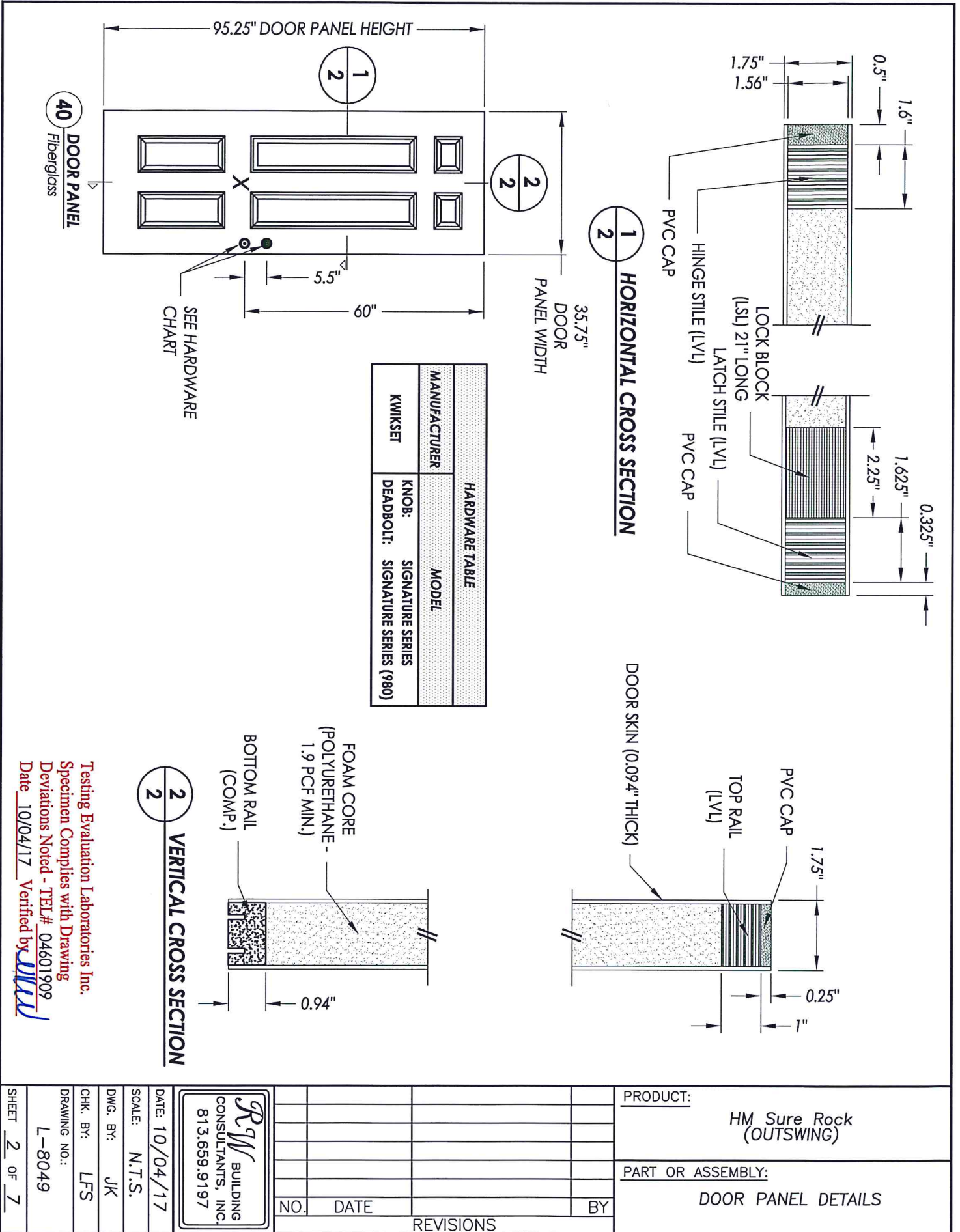
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CHK. BY: LFS

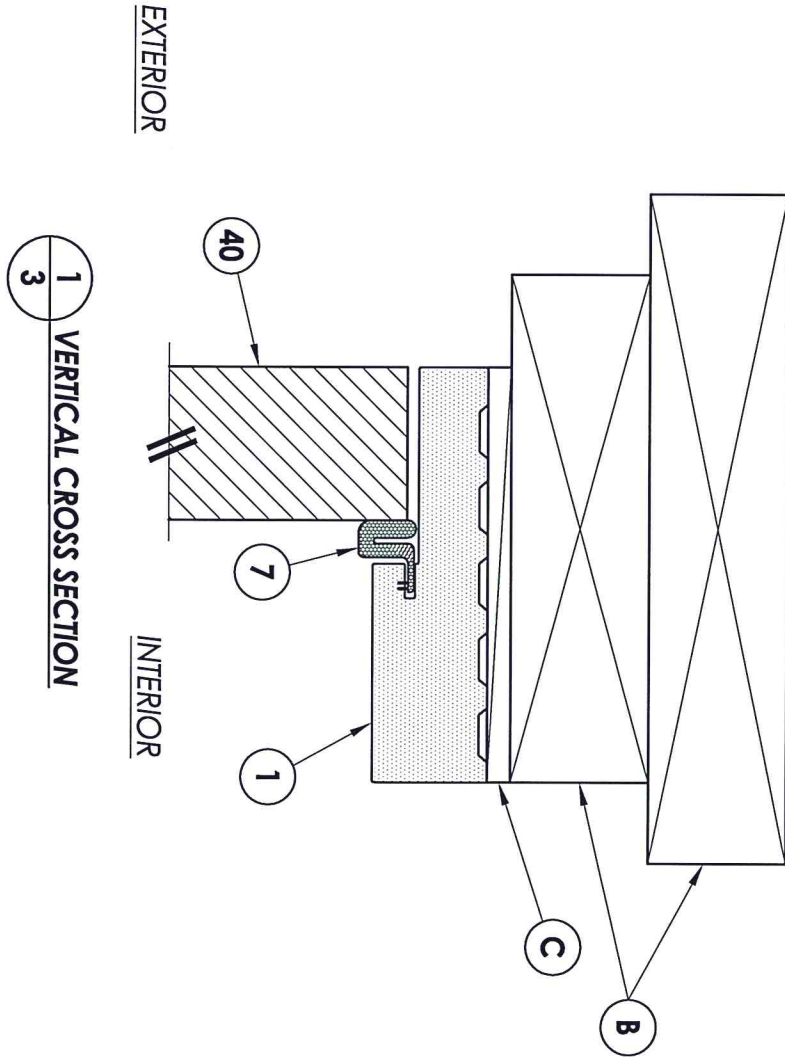
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SHEET 1 OF 7



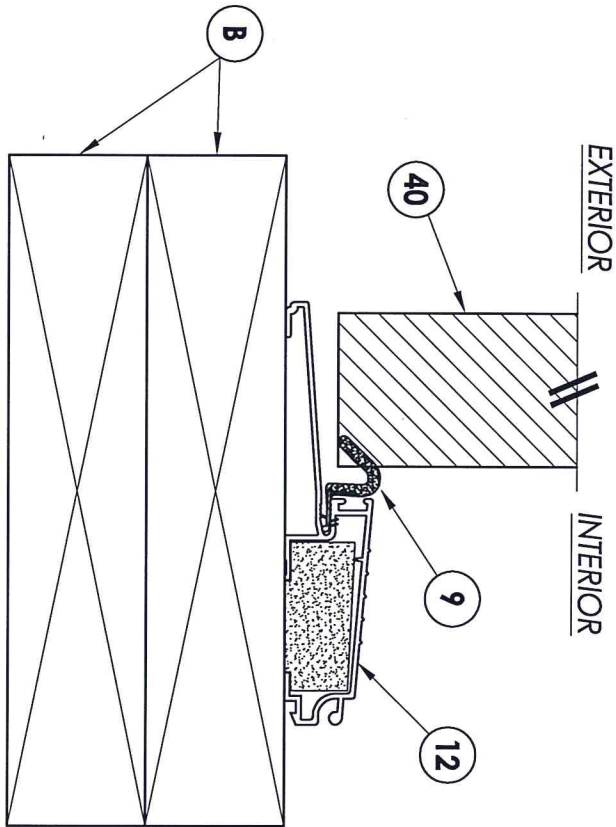
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Specimen Complies with Drawing
Deviations Noted - TEL# 04601909
Date 10/04/17 Verified by *[Signature]*

DATE: 10/04/17		SCALE: N.T.S.		DWG. BY: JK		CHK. BY: LFS		DRAWING NO.: L-8049		SHEET 2 OF 7	
						PRODUCT: HM Sure Rock (OUTSWING) PART OR ASSEMBLY: DOOR PANEL DETAILS					
NO.		DATE		REVISIONS		BY					



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by

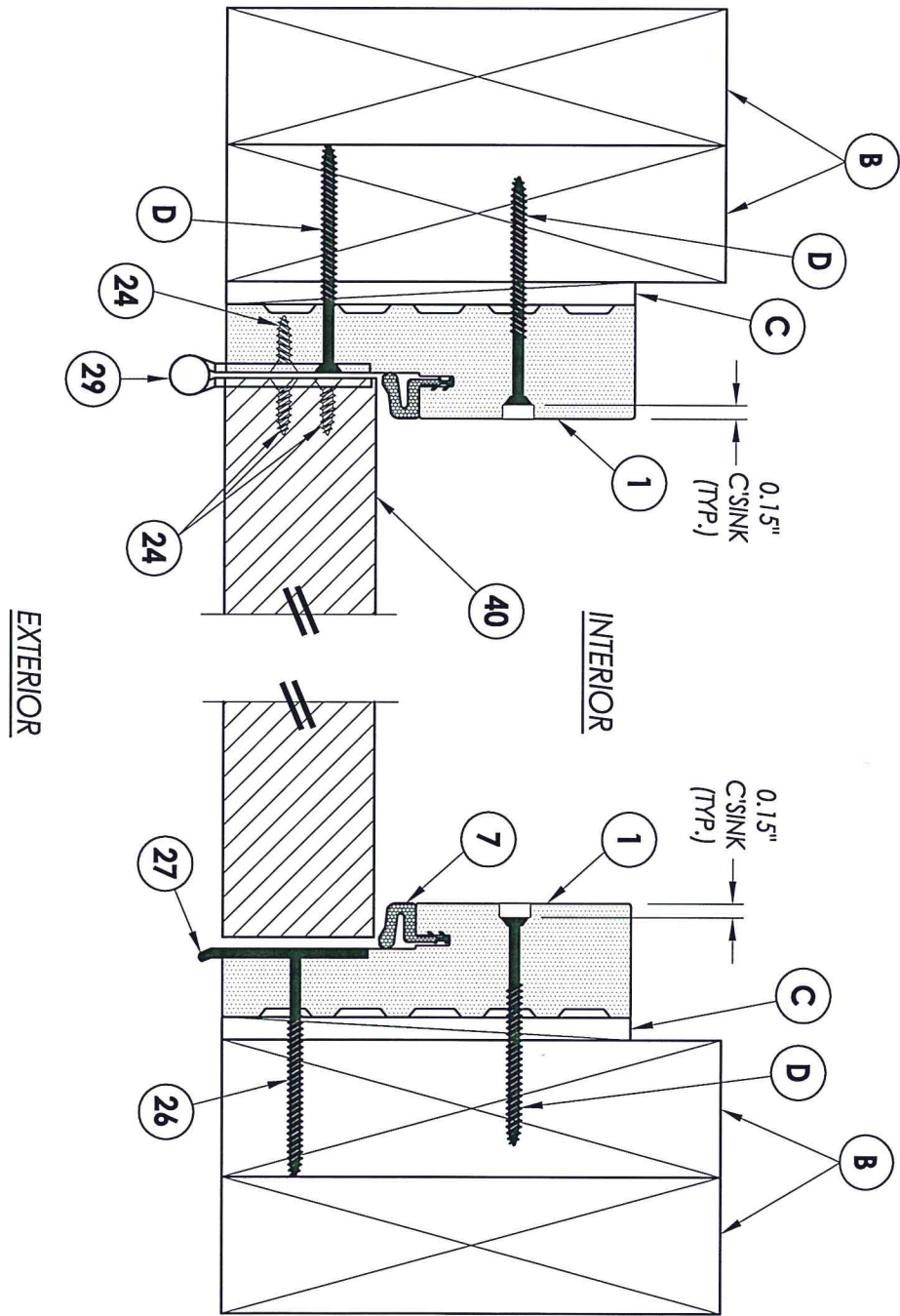
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PART OR ASSEMBLY: VERTICAL CROSS SECTION																
DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8049 SHEET 3 OF 7	<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">REVISIONS</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY	REVISIONS											
NO.	DATE	BY														
REVISIONS																



1 VERTICAL CROSS SECTION
4 Outswing Threshold

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 04601909
Date 10/04/17 Verified by *[Signature]*


DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8049 SHEET 4 OF 7		PRODUCT: HM Sure Rock (OUTSWING)	
PART OR ASSEMBLY: VERTICAL CROSS SECTION		REVISIONS	
NO.	DATE	BY	

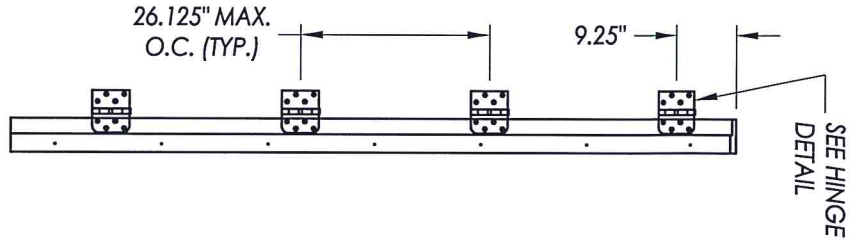


1
5
HORIZONTAL CROSS SECTION

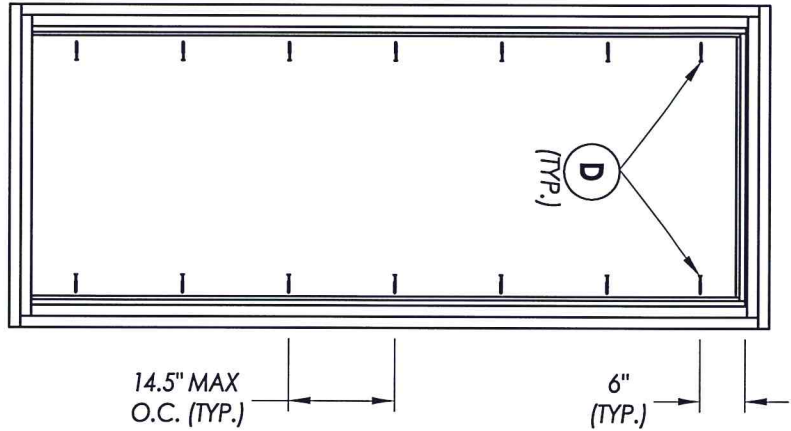
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

PRODUCT: HM Sure Rock (OUTSWING)		
PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS		
NO.	DATE	BY
REVISIONS		
R ⁹ W BUILDING CONSULTANTS, INC. 813.659.9197		
DATE: 10/04/17		
SCALE: N.T.S.		
DWG. BY: JK		
CHK. BY: LFS		
DRAWING NO.: L-8049		
SHEET 5 OF 7		

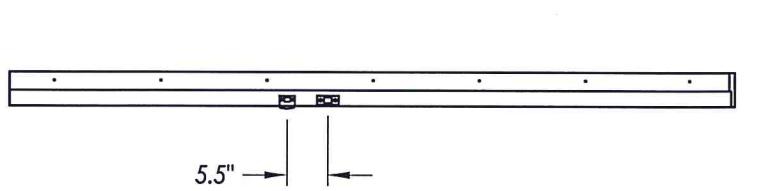
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by 



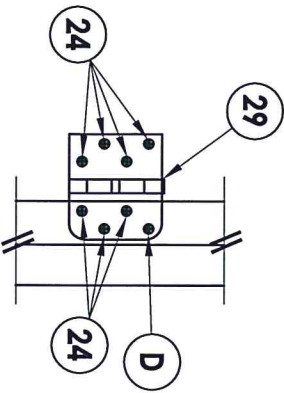
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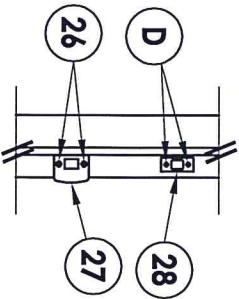
FRAME ANCHORING



STRIKE JAMB



HINGE DETAIL



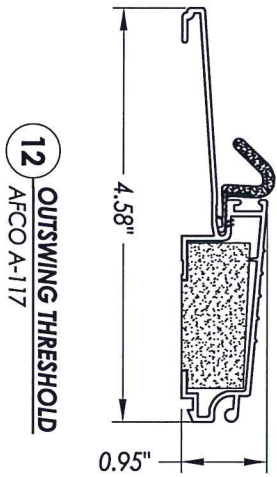
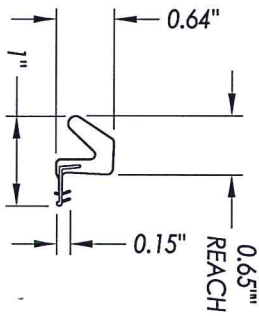
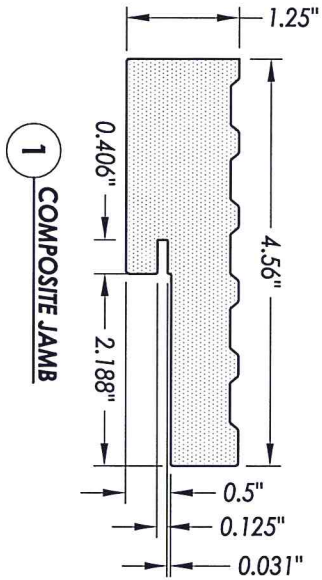
LATCH AND DEADBOLT DETAIL


PRODUCT:		HM Sure Rock (OUTSWING)
PART OR ASSEMBLY:		FRAME ANCHORING
NO.	DATE	BY
REVISIONS		



 BUILDING
 CONSULTANTS, INC.
 813.659.9197

DATE:	10/04/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	L-8049
SHEET	6 OF 7

BILL OF MATERIALS		MATERIAL
ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
D	#10 X 2-1/2" PFH WOOD SCREW	STEEL
1	COMPOSITE JAMB	COMP
7	WEATHERSTRIP	FOAM
12	OUTSWING THRESHOLD	ALUM/COMP
23	#8 X 1-1/2" PPH SMS	STEEL
24	#9 X 3/4" PFH WOOD SCREW	STEEL
26	#8 X 2-1/2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4 X 4 HINGE	STEEL
40	DOOR PANEL	-



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by 

PRODUCT: HM Sure Rock (OUTSWING)			
PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS			
NO.	DATE	REVISIONS	BY
DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8049 SHEET 7 OF 7			
 BUILDING CONSULTANTS, INC. 813.659.9197			

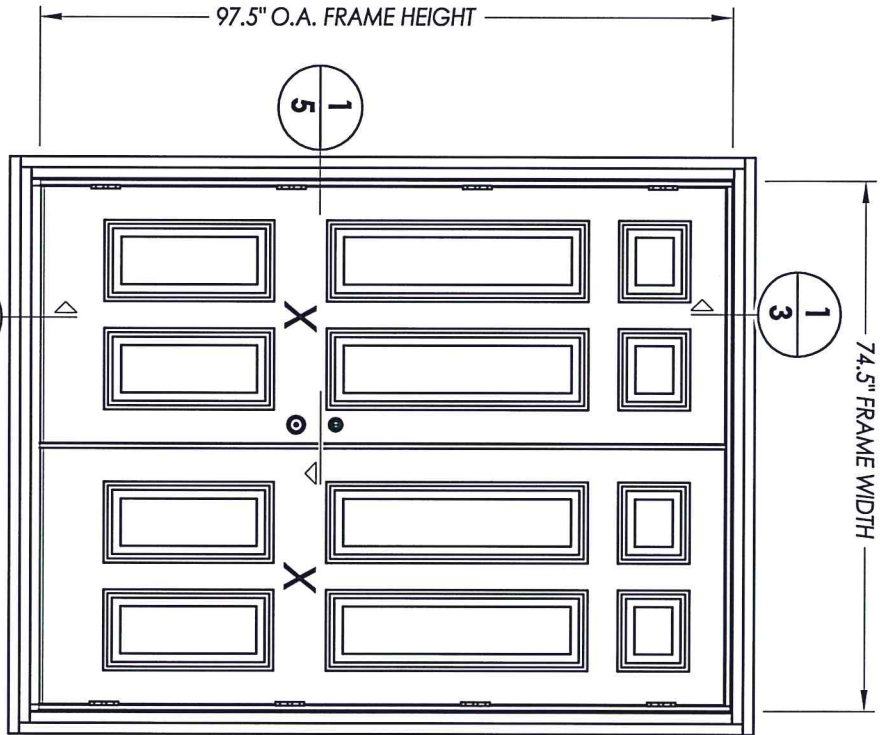


TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Table of contents and test elevation
2	Door panel details
3	Vertical cross section
4	Vertical cross section
5	Horizontal cross sections
6	Frame anchoring
7	Bill of materials & components

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by

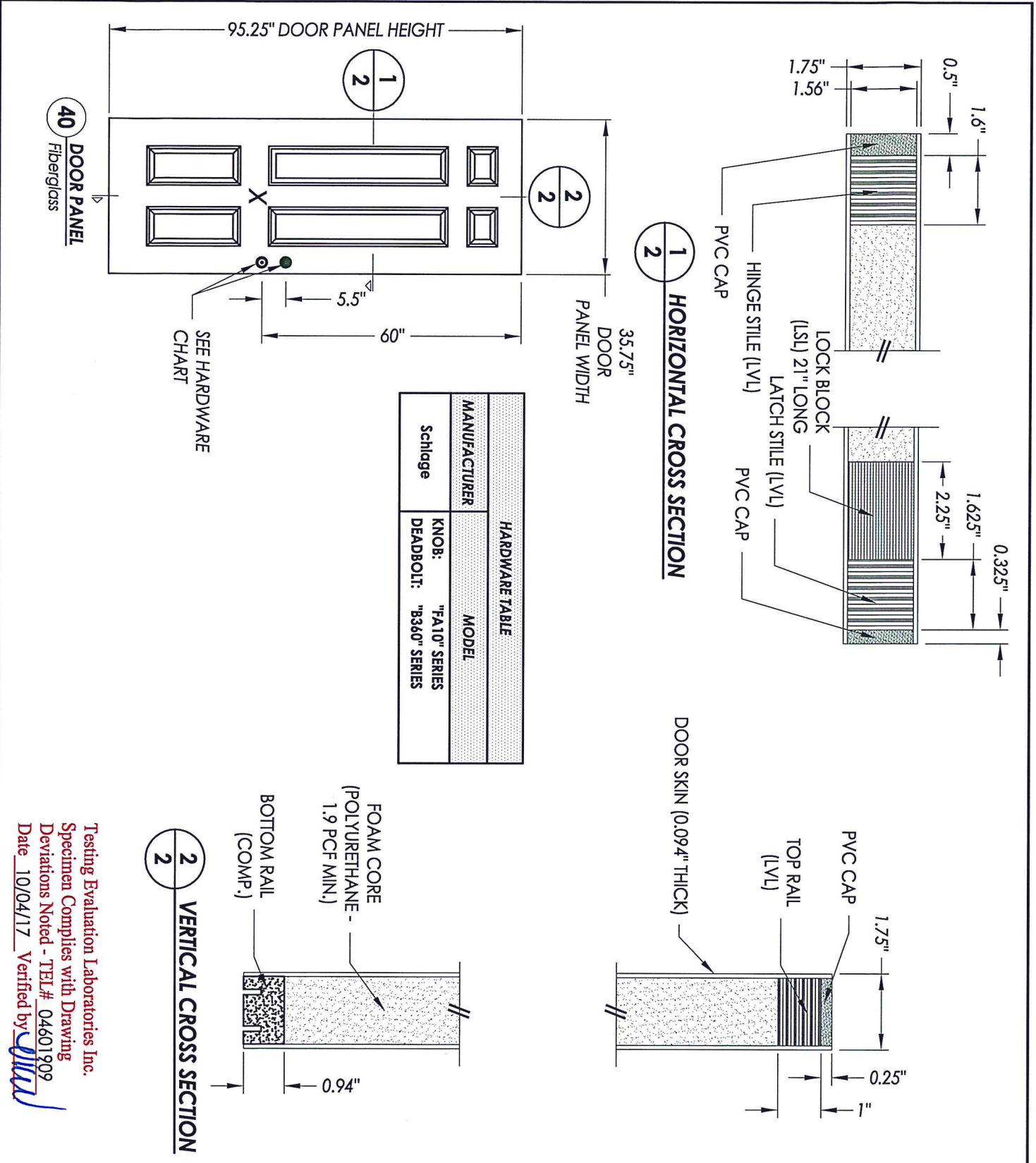
PRODUCT:	HM Sure Rock (INSWING)
PART OR ASSEMBLY:	TABLE OF CONTENTS & TEST ELEVATION

NO.	DATE	BY

REVISIONS

R.W. BUILDING CONSULTANTS, INC.
 813.659.9197

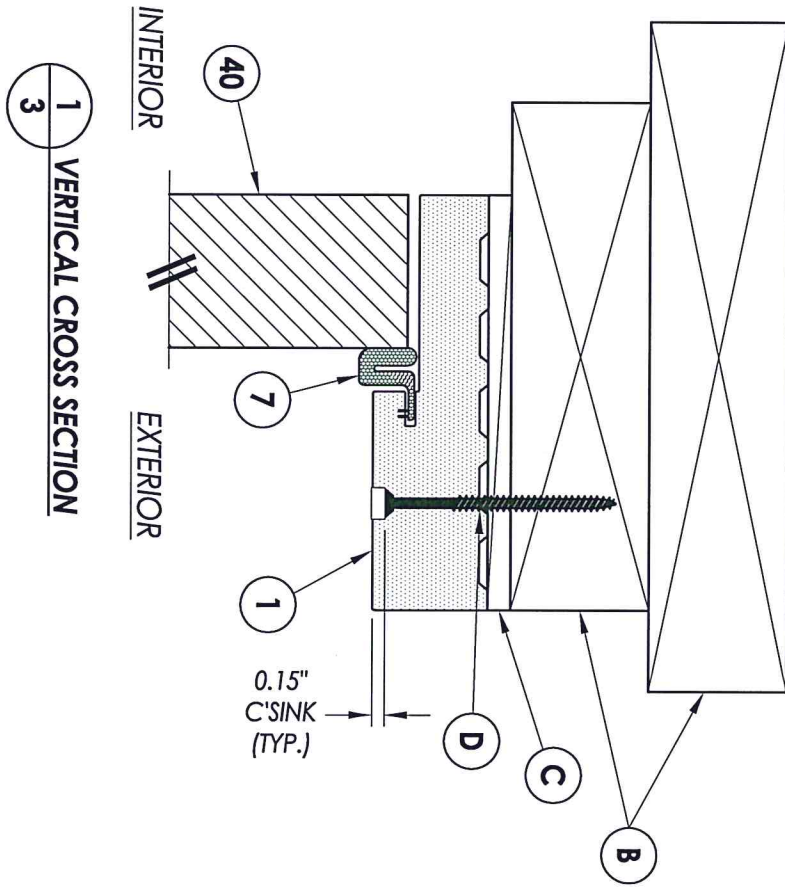
DATE:	10/04/17
SCALE:	N.T.S.
DWG. BY:	JK
CHK. BY:	LFS
DRAWING NO.:	L-8050
SHEET	1 OF 7



HARDWARE TABLE	
MANUFACTURER	MODEL
Schlage	"FA10" SERIES DEADBOLT: "B360" SERIES

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

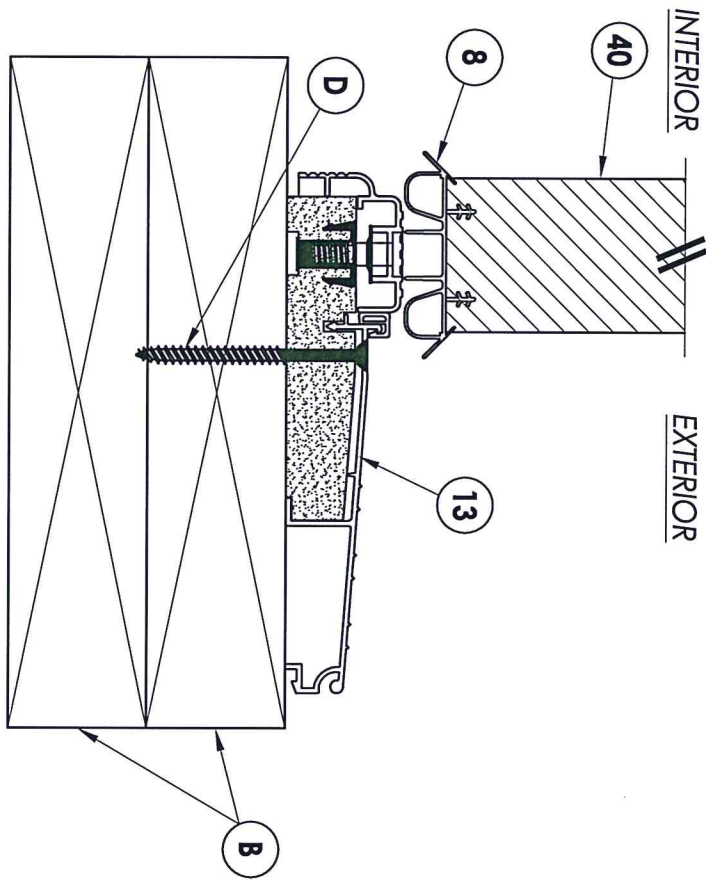
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SCALE: N.T.S.		PART OR ASSEMBLY: DOOR PANEL DETAILS	
DWG. BY: JK		NO. DATE REVISIONS BY	
CHK. BY: LFS			
DRAWING NO.: L-8050			
SHEET 2 OF 7			




1
3 VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEI# 04601909
 Date 10/04/17 Verified by *[Signature]*

DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8050 SHEET 3 OF 7		PRODUCT: HM Sure Rock (INSWING)	
REVISIONS NO. DATE BY		PART OR ASSEMBLY: VERTICAL CROSS SECTION	



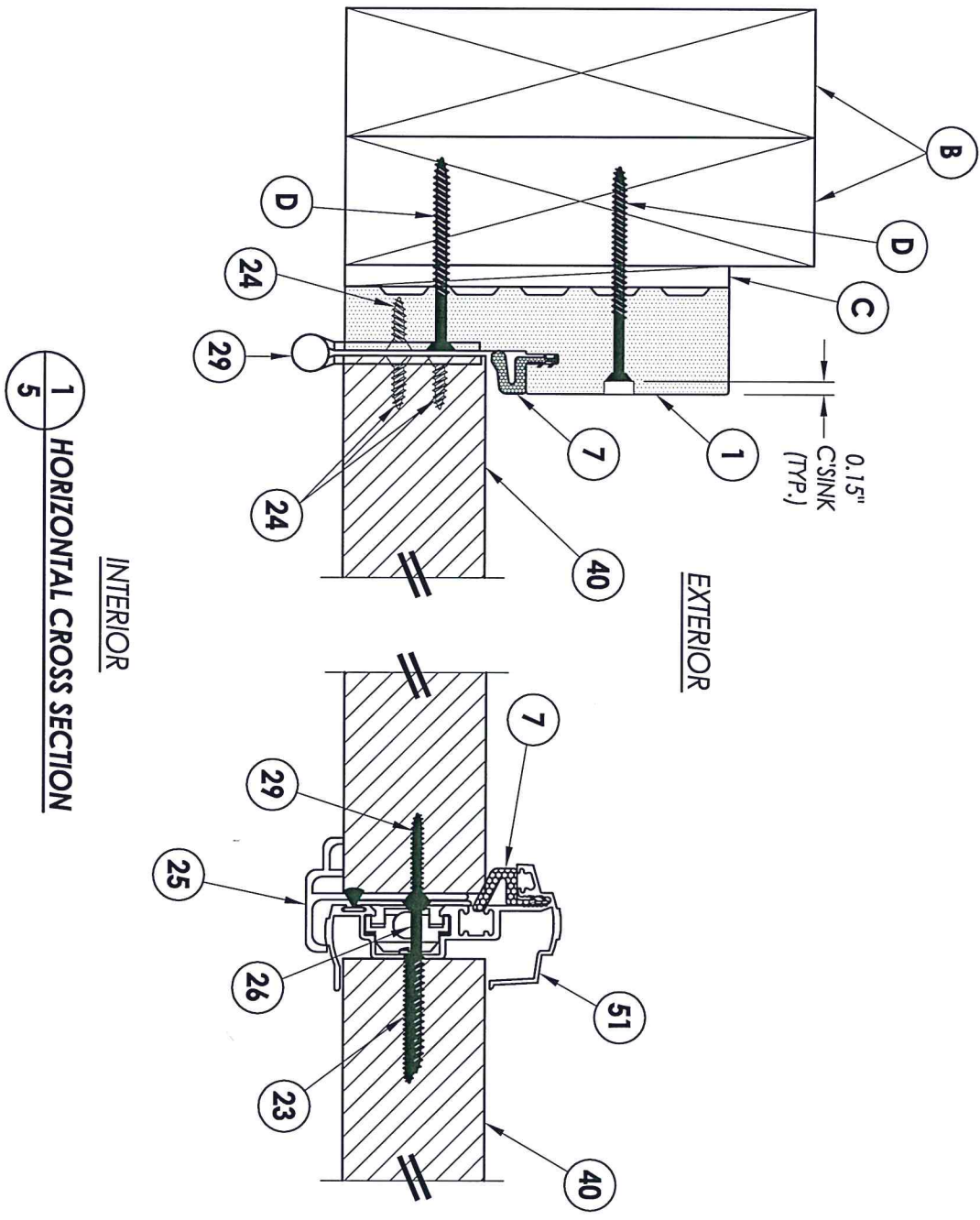
1 VERTICAL CROSS SECTION
4 Inswing Threshold

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by 

PRODUCT: HM Sure Rock (INSWING)		
PART OR ASSEMBLY: VERTICAL CROSS SECTION		
NO.	DATE	BY
REVISIONS		

RW BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/04/17
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: L-8050
 SHEET 4 OF 7

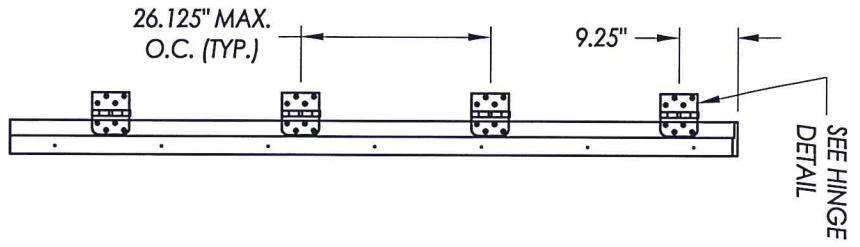


1 HORIZONTAL CROSS SECTION
5

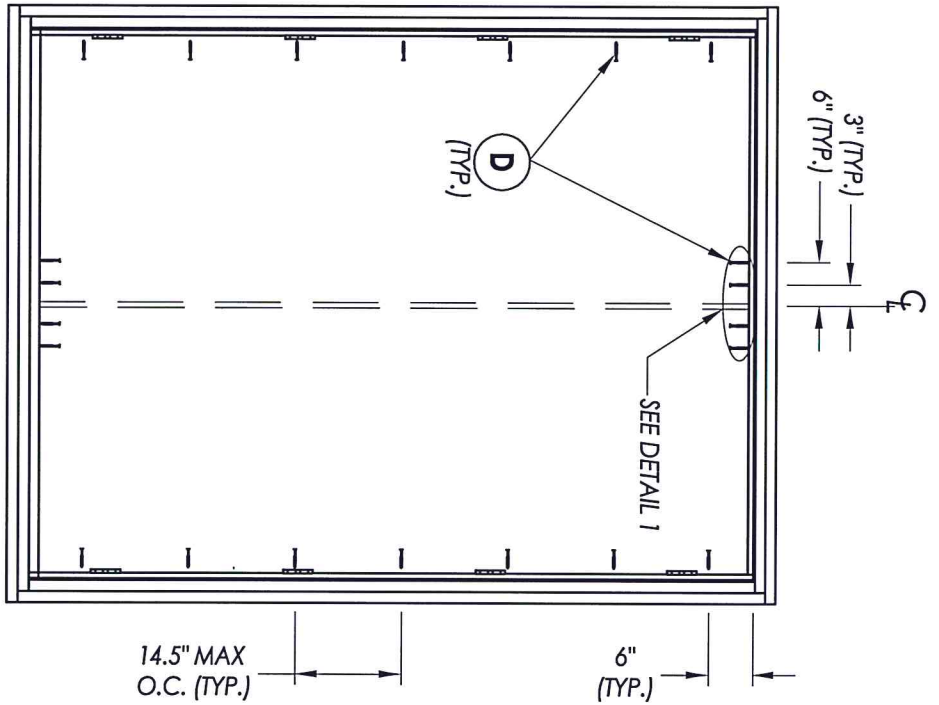
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

DATE: 10/04/17		PRODUCT: HM Sure Rock (INSWING)	
SCALE: N.T.S.		PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	
DWG. BY: JK		NO. DATE BY	
CHK. BY: LFS		REVISIONS	
DRAWING NO.: L-8050			
SHEET 5 OF 7			





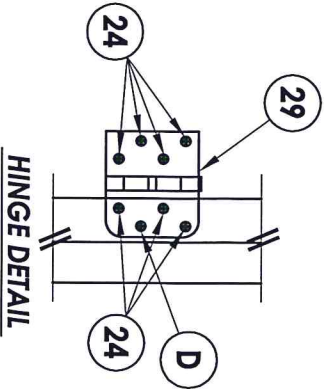
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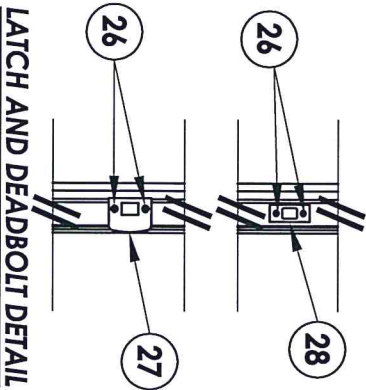
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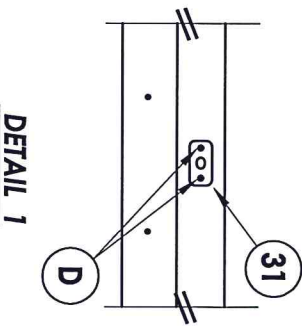
ASTRAGAL STRIKE



HINGE DETAIL



LATCH AND DEADBOLT DETAIL

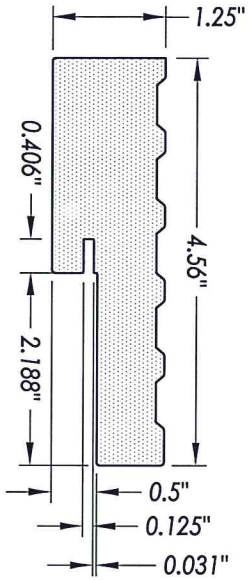


DETAIL 1

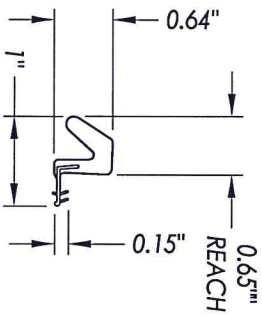
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8050 SHEET 6 OF 7		PRODUCT: HM Sure Rock (INSWING)	
NO. DATE BY		PART OR ASSEMBLY: FRAME ANCHORING	
REVISIONS			

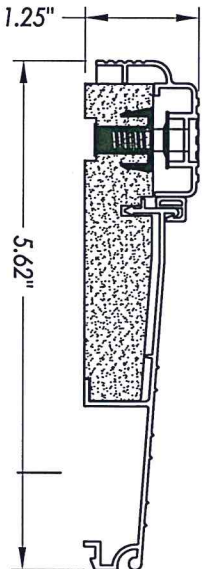
BILL OF MATERIALS		MATERIAL
ITEM #	DESCRIPTION	MATERIAL
B	2X BUCK SG >= 0.42	WOOD
C	1/4" MAX. SHIM SPACE	-
D	#10 X 2-1/2" PFH WOOD SCREW	STEEL
1	POLY FIBER JAMB	COMP
7	WEATHERSTRIP	FOAM
8	SWEEP	VINYL
13	INSWING THRESHOLD	ALUM/COMP
23	#8 X 1-1/2" PPH SMS	STEEL
24	#9 X 3/4" PFH WOOD SCREW	STEEL
25	ASTRAGAL COVER (AFCO)	STEEL
26	#8 x 2" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	4 X 4 HINGE	STEEL
31	ASTRAGAL STRIKE PLATE	STEEL
40	DOOR PANEL	-
56	ASTRAGAL (AFCO)	ALUM



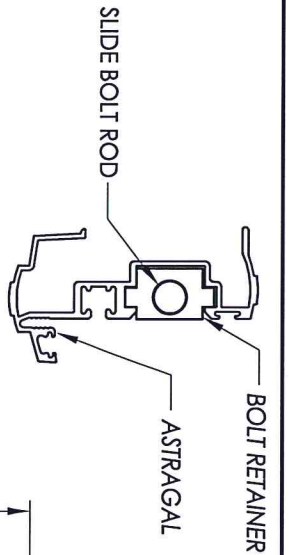
1 POLY FIBER JAMB
4 EVER JAMB



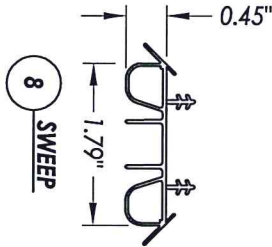
7 WEATHERSTRIP
Endura Force 5



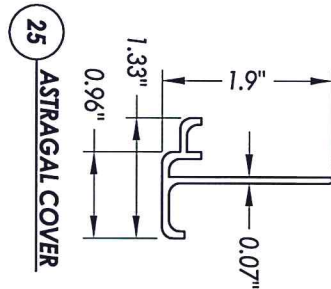
13 INSWING THRESHOLD
AFCO A-280



56 ASTRAGAL



8 SWEEP



25 ASTRAGAL COVER

PRODUCT:

HM Sure Rock
(INSWING)

PART OR ASSEMBLY:

BILL OF MATERIALS
& COMPONENTS

NO.	DATE	REVISIONS	BY

R^W BUILDING CONSULTANTS, INC.
813.659.9197

DATE: 10/04/17

SCALE: N.T.S.

DWG. BY: JK

CHK. BY: LFS

DRAWING NO.:

L-8050

SHEET 7 OF 7

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 04601909
Date 10/04/17 Verified by

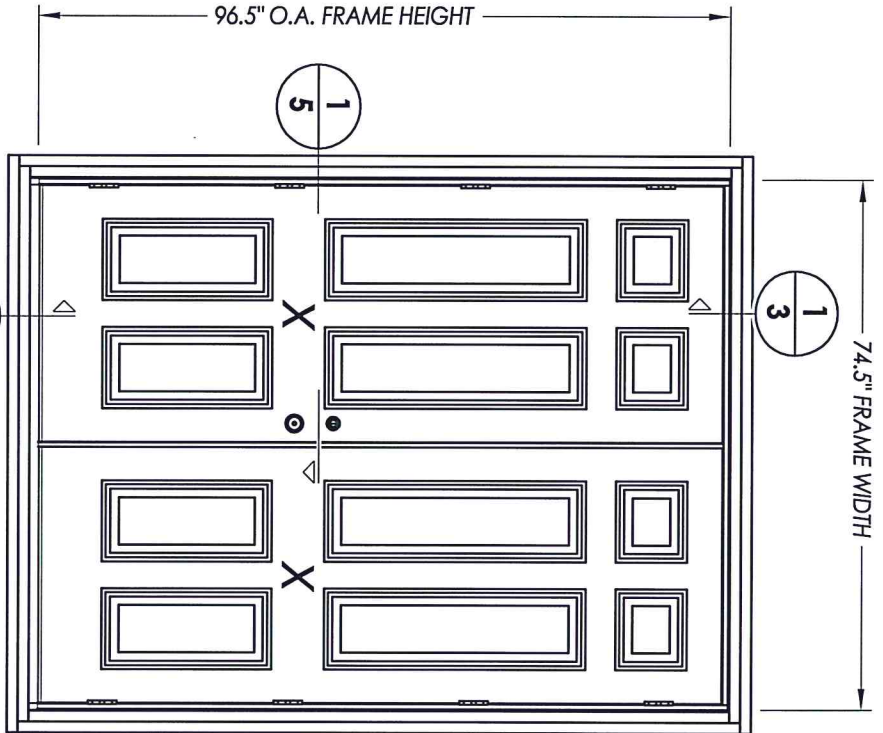



TABLE OF CONTENTS

SHEET #	DESCRIPTION
1	Table of contents and test elevation
2	Door panel details
3	Vertical cross section
4	Vertical cross section
5	Horizontal cross sections
6	Frame anchoring
7	Bill of materials & components

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by 

PRODUCT:

HM Sure Rock
(OUTSWING)

PART OR ASSEMBLY:

TABLE OF CONTENTS
& TEST ELEVATION

NO.	DATE	REVISIONS	BY



DATE: 10/04/17

SCALE: N.T.S.

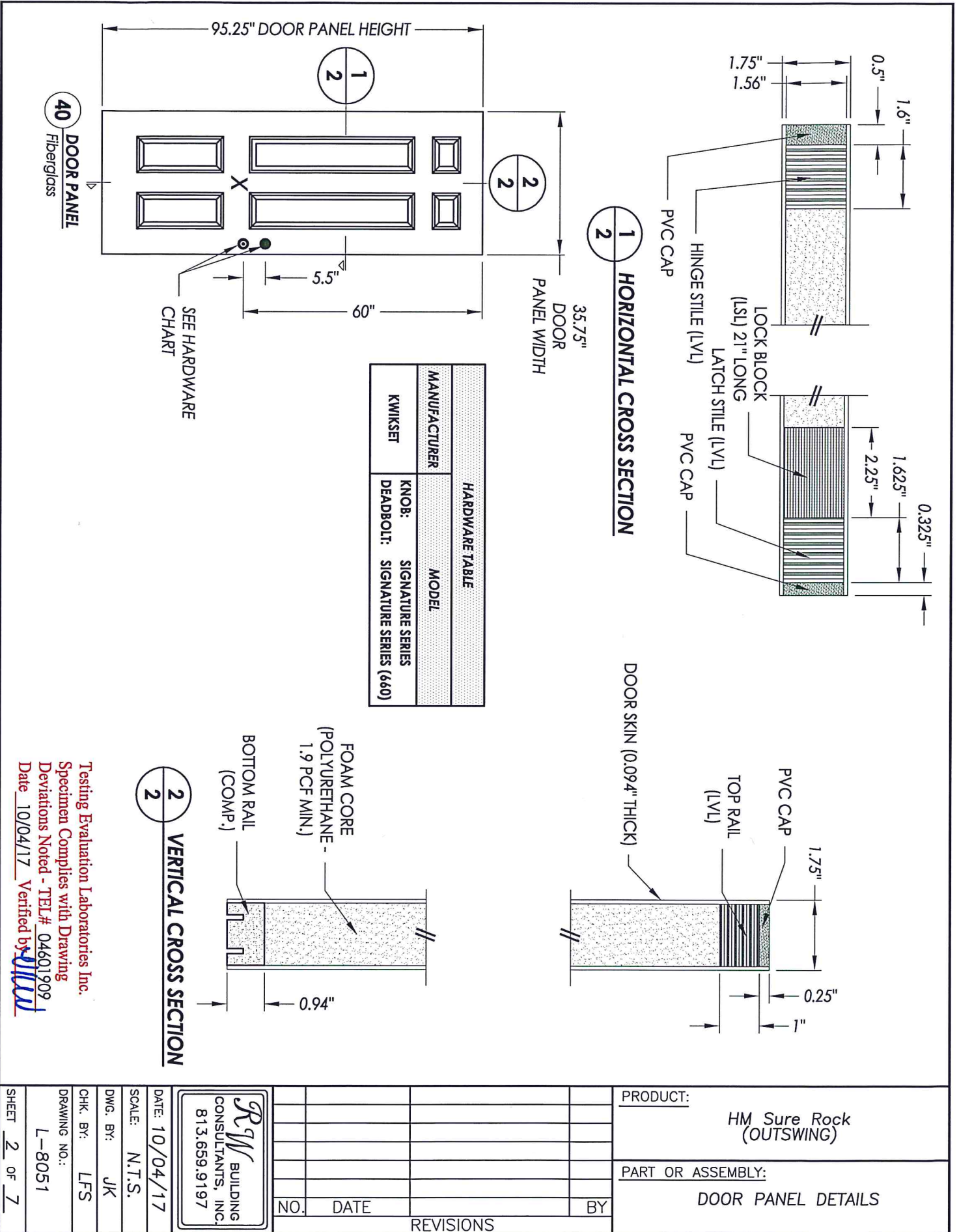
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CHK. BY: LFS

DRAWING NO.:

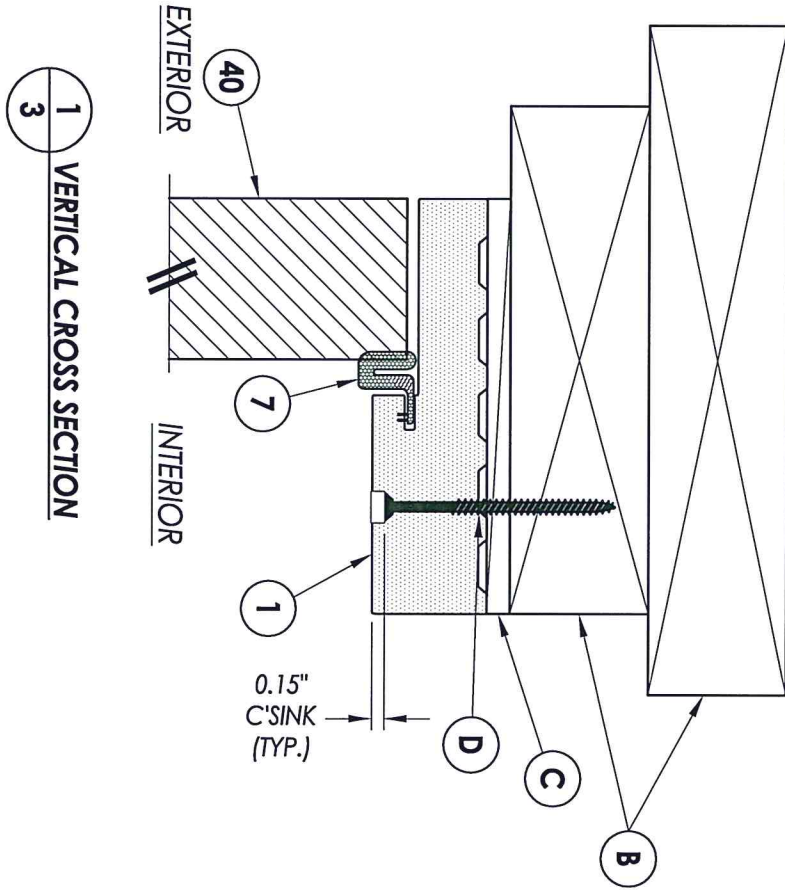
L-8051

SHEET 1 OF 7



Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 04601909
Date 10/04/17 Verified by

DATE: 10/04/17		SCALE: N.T.S.		 BUILDING CONSULTANTS, INC. 813.659.9197	PRODUCT:	HM Sure Rock (OUTSWING)
CHK. BY: JK	DWG. BY: JK	DRAWING NO.: L-8051	SHEET 2 OF 7		PART OR ASSEMBLY:	DOOR PANEL DETAILS
REVISIONS				NO.	DATE	BY



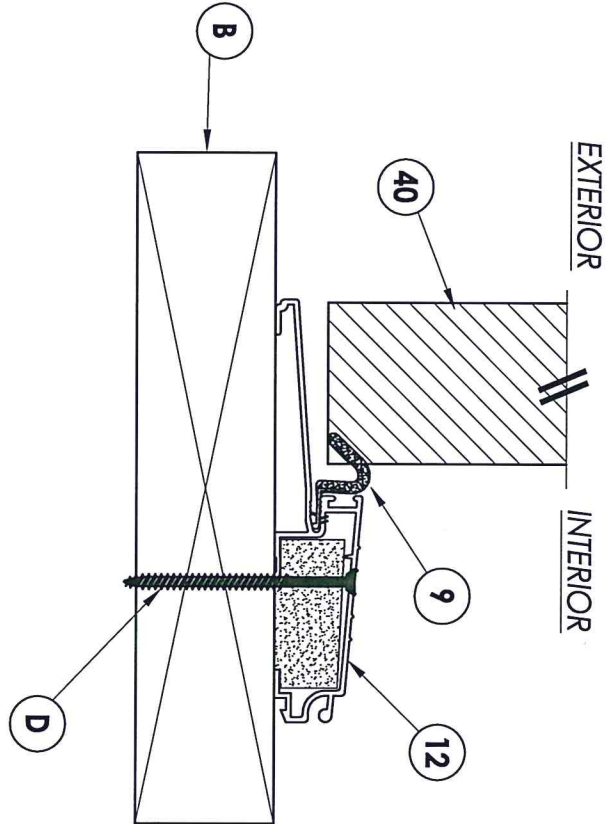
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

PRODUCT:		HM Sure Rock (OUTSWING)
PART OR ASSEMBLY:		VERTICAL CROSS SECTION

NO.	DATE	BY

R^W BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/04/17
 SCALE: N.T.S.
 DWG. BY: JK
 CHK. BY: LFS
 DRAWING NO.: L-8051
 SHEET 3 OF 7

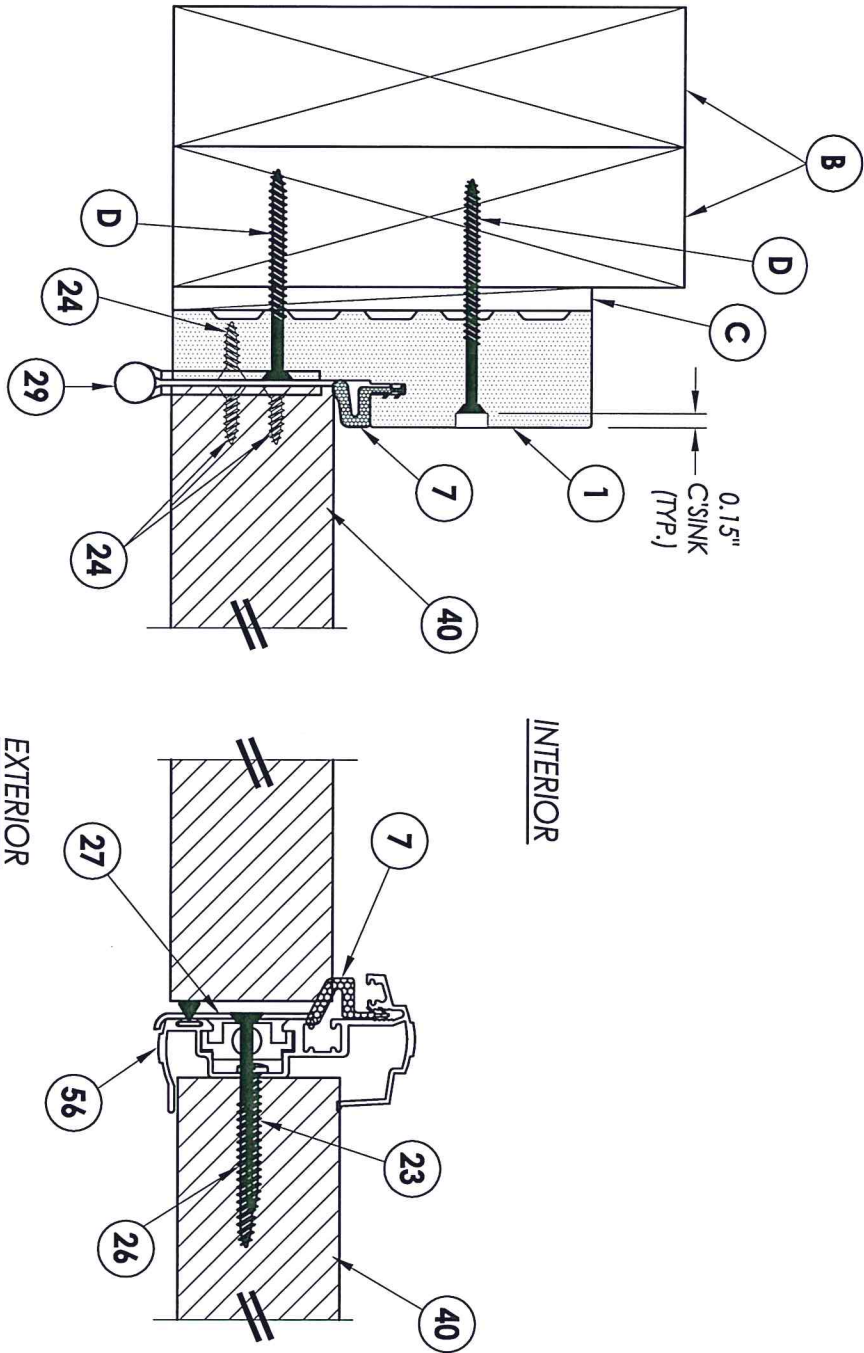


1 VERTICAL CROSS SECTION
4 Outswing Threshold


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 04601909
 Date 10/04/17 Verified by *[Signature]*

DATE: 10/04/17		PRODUCT: HM Sure Rock (OUTSWING)	
SCALE: N.T.S.		PART OR ASSEMBLY: VERTICAL CROSS SECTION	
DWG. BY: JK		NO. DATE BY	
CHK. BY: LFS		REVISIONS	
DRAWING NO.: L-8051			
SHEET 4 OF 7			

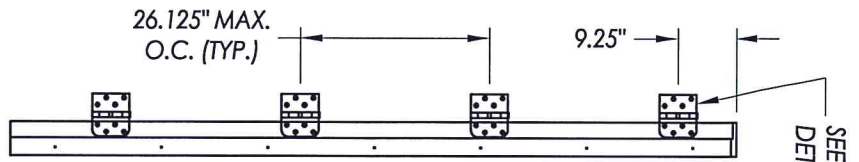
RW BUILDING CONSULTANTS, INC.
 813.659.9197



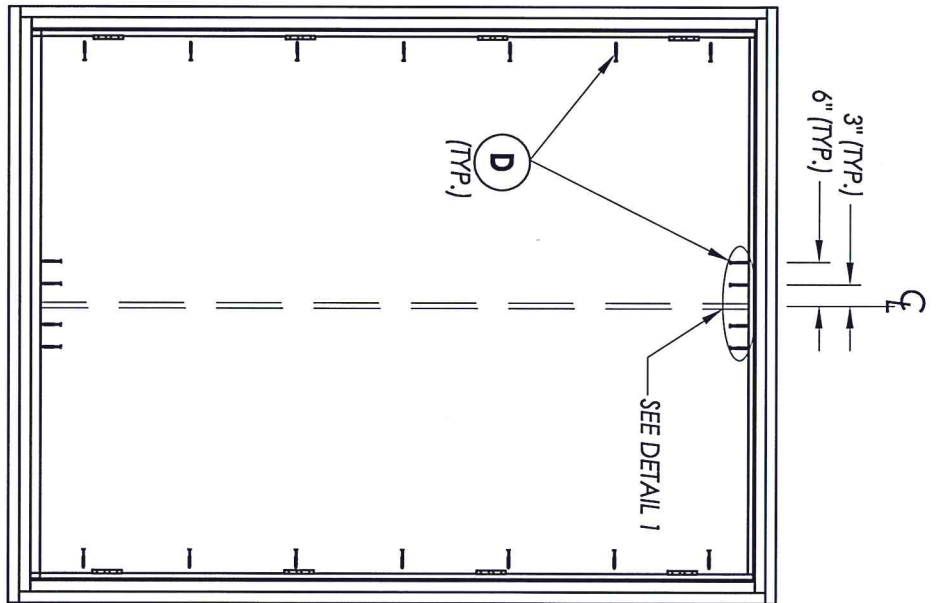
1 HORIZONTAL CROSS SECTION
5

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEI# 04601909
Date 10/04/17 Verified by 

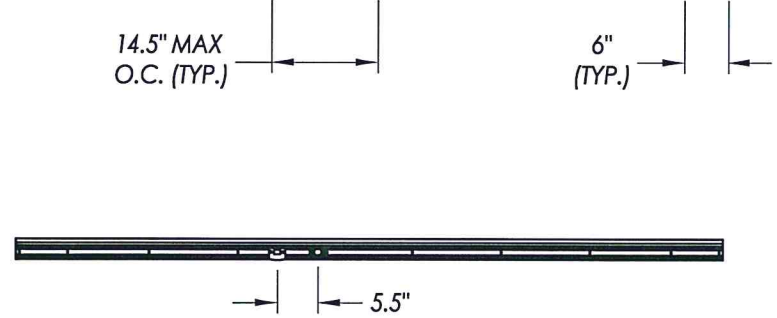
<p>DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8051 SHEET 5 OF 7</p>		<p>PRODUCT: HM Sure Rock (OUTSWING) PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS</p>	
NO.	DATE	REVISIONS	BY



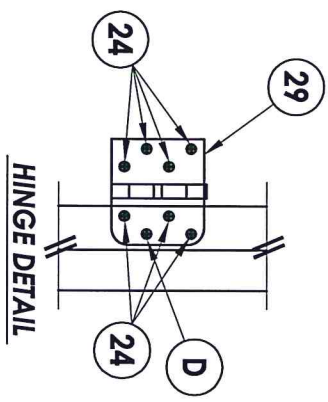
HINGE JAMB



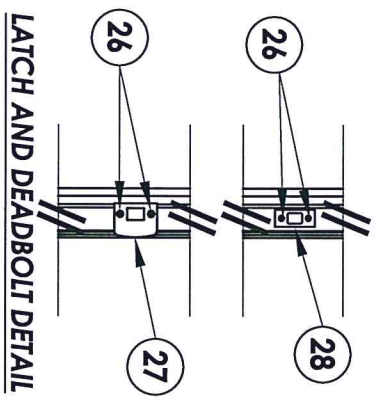
FRAME ANCHORING



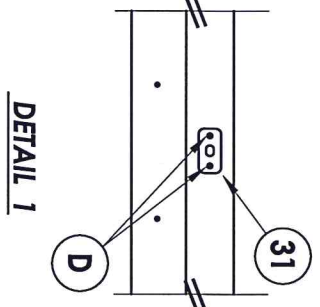
ASTRAGAL STRIKE



HINGE DETAIL



LATCH AND DEADBOLT DETAIL

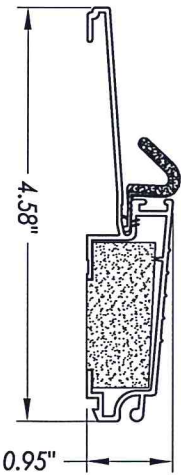
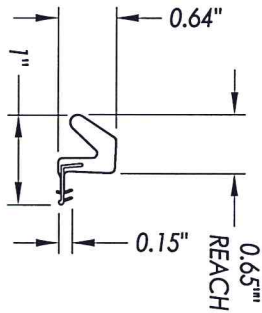
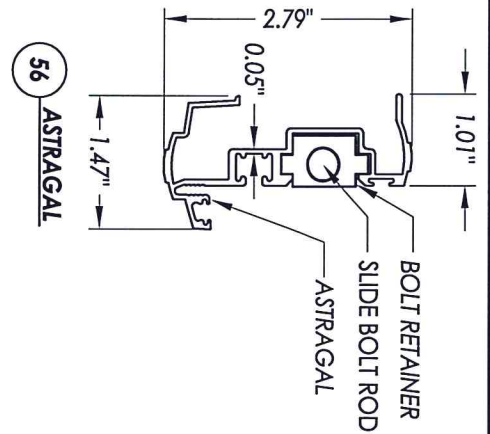
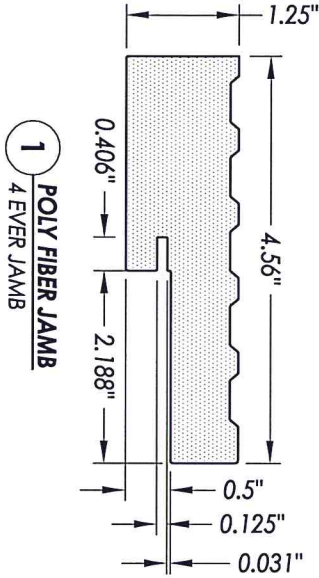


DETAIL 1

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL # 04601909
 Date 10/04/17 Verified by

DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8051		PRODUCT: HM Sure Rock (OUTSWING)	
SHEET 6 OF 7		PART OR ASSEMBLY: FRAME ANCHORING	
NO.	DATE	REVISIONS	BY

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
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31	ASTRAGAL STRIKE PLATE	STEEL
40	DOOR PANEL	-
56	ASTRAGAL (AFCO)	ALUM



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
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PRODUCT: HM Sure Rock (OUTSWING)	
PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS	
DATE: 10/04/17 SCALE: N.T.S. DWG. BY: JK CHK. BY: LFS DRAWING NO.: L-8051 SHEET 7 OF 7	R ^W BUILDING CONSULTANTS, INC. 813.659.9197
NO. DATE REVISIONS	BY