



TEST REPORT

Report No.: E4545.04-801-44

Rendered to:

GLASSCRAFT DOOR COMPANY
Houston, Texas

PRODUCT TYPE: Inswing and Outswing 8'0" Triple Fiberglass Door Glazed
SERIES/MODEL: Inswing and Outswing 8'0" Triple Fiberglass Door Glazed
In-Swing (Specimen #1) Out-Swing (Specimen #2)

Title	Summary of Results	
	Test Specimen #1	Test Specimen #2
Design Pressure	± 2400 Pa (± 50.14 psf)	± 2400 Pa (± 50.14 psf)
Uniform Load Structural Test Pressure	± 3600 Pa (± 75.19 psf)	± 3600 Pa (± 75.19 psf)



Texas Firm F-11869

John H. Waskow P.E.
Digitally Signed by: John H. Waskow

2015.08.12 16:09:52 -05'00'



Tyler Westerling
Digitally Signed by: Tyler Westerling

2015.08.12 11:22:18 -07'00'

Reference must be made to Report No. E4545.04-801-44, dated 07/13/15 for complete test specimen description and detailed test results.

1.0 Report Issued To: Glasscraft Door Company
2002 Brittmoore Street
Houston, Texas 77043

2.0 Test Laboratory: Intertek-ATI
1909 10th Street
Plano, Texas 75074
(469) 814-0687

3.0 Project Summary:

- 3.1 Product Type:** Inswing and Outswing 8'0" Triple Fiberglass Door Glazed
- 3.2 Series/Model:** Inswing and Outswing 8'0" Triple Fiberglass Door Glazed (Inswing is specimen #1; Outswing is specimen #2).
- 3.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test method(s). Test specimen description and results are reported herein.
- 3.4 Test Dates:** 01/22/2015 - 01/23/2015
- 3.5 Test Record Retention End Date:** All test records for this report will be retained until January 23, 2019.
- 3.6 Test Location:** Architectural Testing, Inc. test facility in Southlake, Texas.
- 3.7 Test Sample Source:** The test specimens were provided by the client. Representative samples of the test specimens will be retained by Architectural Testing for a minimum of four years from the test completion date.
- 3.8 Drawing Reference:** The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix A. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Clint Barnett	Intertek-ATI

4.0 Test Method(s):

ASTM E 330-02, *Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

5.0 Test Specimen Description:

5.1 Product Sizes:

Test Specimens #1 and #2:

Overall Area: 8.2 m ² (87.80 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	3278	129	2489	98
Double Door	1892	74-1/2	2438	98
Double Door Unglazed Leaf	914	36	2438	96
Double Door Glazed Leaf	902	35-1/2	2438	96
Single Door With Sidelite	1353	53-1/4	2489	98
Single Door Glazed Leaf	914	36	2438	96
Single Door Side Lite	356	14	2438	96

The following descriptions apply to all specimens.

5.2 Frame Construction:

Frame Member	Material	Description
Head and jambs	Fiberglass	1-1/4" x 4-5/8" cross section
Threshold	Aluminum-clad vinyl composite with extruded vinyl trim	6" wide with slope towards exterior.

	Joinery Type	Detail
All corners	Screwed partial rabbet	Secured with four #9 x 3" wood screws

5.0 Test Specimen Description: (Continued)

5.3 Panel Construction:

Frame Member	Material	Description
All members	Fiberglass	Fiberglass panels filled with foam

	Joinery Type	Detail
All corners	Glued	Panels were backed with foam

5.4 Weatherstripping:

Description	Quantity	Location
U-shaped foam-filled vinyl gasket with kerf insert	1 Row	Shoulder of the jambs and header
Five fin rubber door sweep	1 Row	Threshold face of leaf

5.5 Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
1" IG	1/2" Aluminum box	1/8" Tempered	1/8" Tempered	Exterior wet glazed

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Glazed Doors	2	521 x 1600	20-1/2 x 63	0.50"
Side Lite	1	178 x 1600	7 x 63	0.50"

5.6 Drainage: Sloped threshold was utilized.

5.0 Test Specimen Description: (Continued)

5.7 Hardware:

Description	Quantity	Location
Door hinge	12	12" and 28" from bottom; 9" and 34-1/2" from top; attached with two #9 x 3" and two #9 x 1" wood screws
3 point lock set	2	Inserted into lock stile of operable leaf, secured with nine #8 x 3" wood screws at 7-3/8", 14-1/4", 17-9/16", 26-5/16", 45-13/16", 55-13/16", 62-3/16", 65-7/16" and 72-3/4" from bottom
Strike plate	12	On lock jamb in line with 3 point lock and dead bolt; secured with two #9 x 3" wood screws each
Flush Bolt	4	Top and bottom of each operable door leaf

5.8 Reinforcement: No reinforcement was utilized.

6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/2" shim space. A 2 x 10 was placed at the center of the buck to separate the double door from the single door with a sidelite.

Location	Anchor Description	Anchor Location
Jambs	#9 x 3" wood screws	12" from corners and center; through top and bottom mounting holes of hinges
Head and threshold	#9 x 3" wood screws	4" from corners, 12" on center thereafter

7.0 Test Results: The temperature during testing was 26.7°C (80°F). The results are tabulated as follows:

Test Specimen #1: Inswing

Title of Test	Results	Allowed	Note
Uniform Load Deflection, per ASTM E 330 taken at leaf lock edge +2400 Pa (+50.13 psf) -2400 Pa (-50.13 psf)	11 mm (0.42") 25 mm (1.00")	Report Only	1, 2
Uniform Load Structural, per ASTM E 330 taken at leaf lock edge +3600 Pa (+75.19 psf) -3600 Pa (-75.19 psf)	1 mm (0.04") 1 mm (0.03")	10 mm (0.38") max. 10 mm (0.38") max.	1, 2

Test Specimen #2: Outswing

Title of Test	Results	Allowed	Note
Uniform Load Deflection, per ASTM E 330 taken at leaf lock edge +2400 Pa (+50.13 psf) -2400 Pa (-50.13 psf)	13 mm (0.52") 11 mm (0.42")	Report Only	1, 2
Uniform Load Structural, per ASTM E 330 taken at leaf lock edge +3600 Pa (+75.19 psf) -3600 Pa (-75.19 psf)	1 mm (0.04") 2 mm (0.09")	10 mm (0.38") max. 10 mm (0.38") max.	1, 2

7.0 Test Results: (Continued)

General Note: All testing was performed in accordance with the referenced standard(s).

Note 1: Loads were held for 10 seconds.

Note 2: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

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

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.



Digitally Signed by: Clint Barnett

Clint Barnett
Technician



Digitally Signed by: John H. Waskow

John H. Waskow, P.E.
Director – Regional Operations



Digitally Signed by: Tyler Westerling

Tyler Westerling, P.E.
Senior Project Engineer

CB : dc

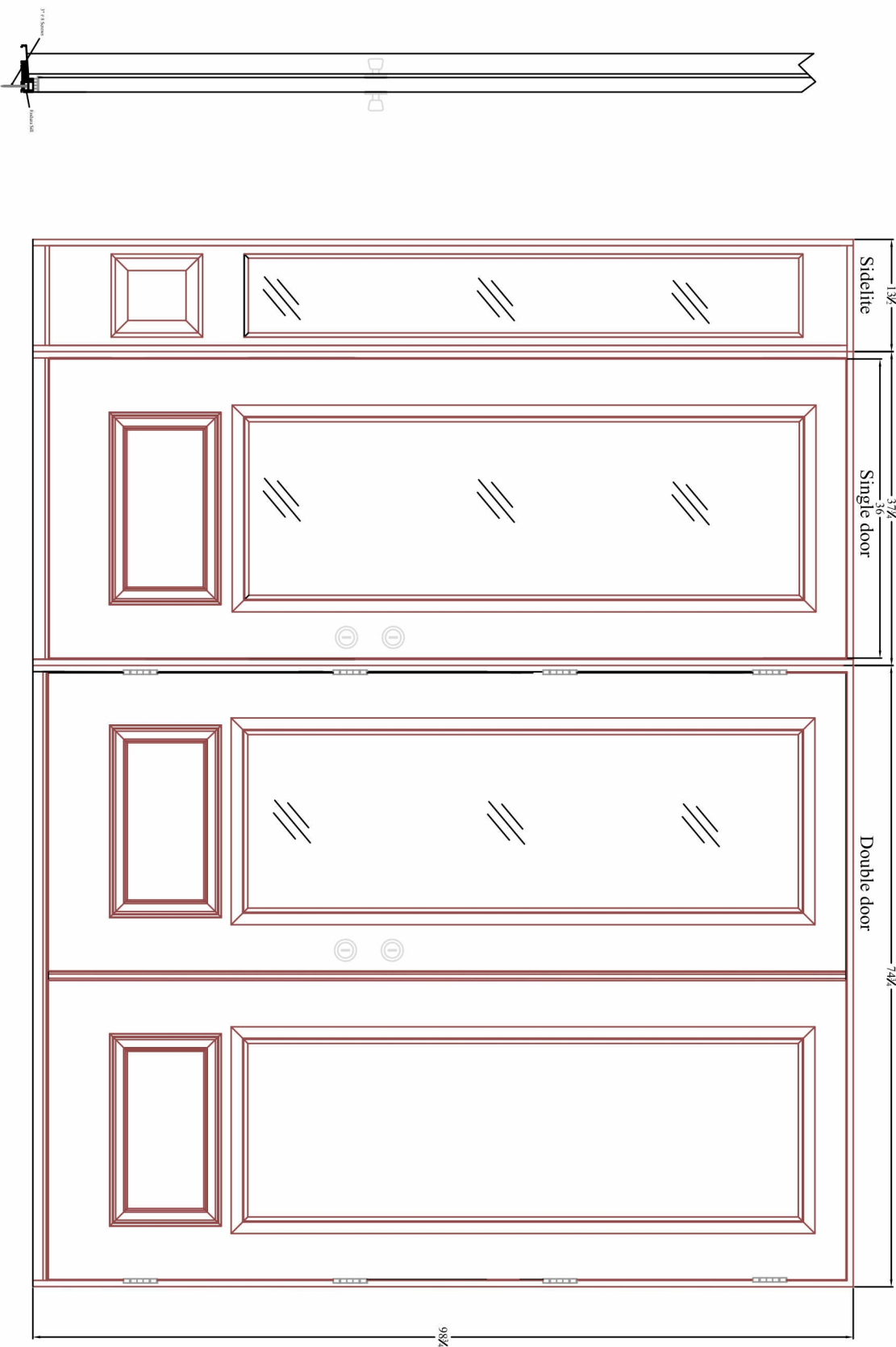
Attachments (pages): This report is complete only when all attachments listed are included.
Appendix-A: Drawings (22)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
1	08/10/15	Cover Page	Changed California P.E. Seal to Florida.
1	08/10/15	Cover Page	Added Texas P.E. Seal
1	08/10/15	6	Added a third signature.

Appendix A

Drawings



In Swing
ELEVATION

Fiberglass Glazed Doors
Glass*Craft

Penrond 4"x4" 5/8" Radius Hinge

Install (2) 3" #8 Wood
Screws Per Hinge.



Architectural Testing, Inc
Test sample complies with
details shown herein. Any
deviations are noted in the
test report or drawings.

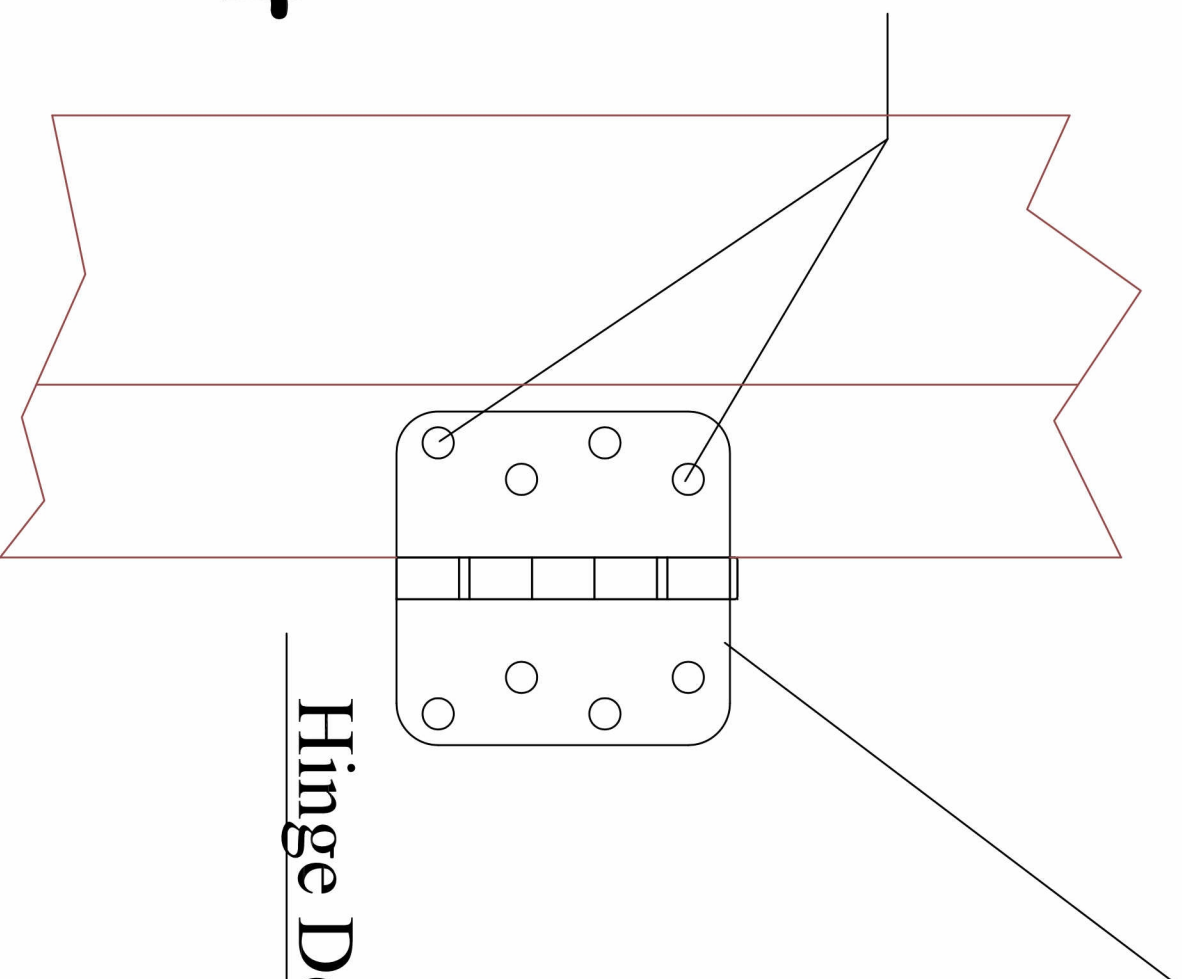
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Date: 07/15/15

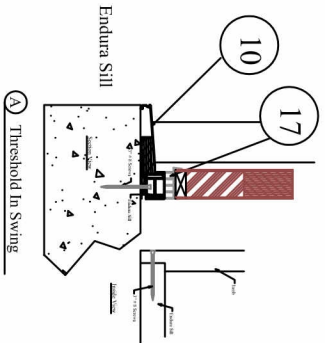
By: CB

Glass*Craft

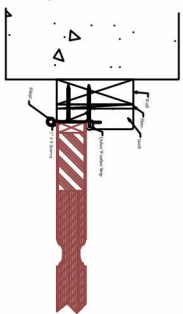
Fiberglass Glazed Doors



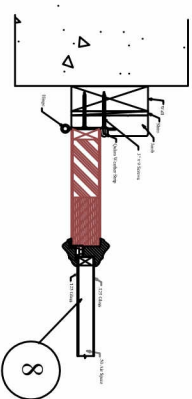
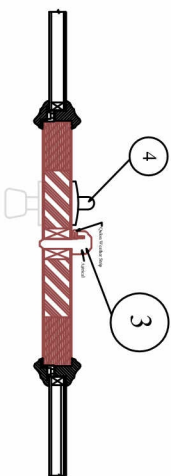
Hinge Detail



A Threshold In Swing

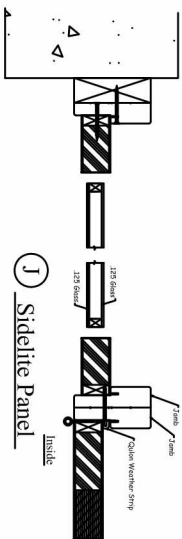


B Panel



D Door Hinge

C Frame & Glass



J Sidelite Panel



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In Swing

Glass*Craft

Fiberglass Glazed Doors

Glass*Craft
Single Door with Sidelite Using

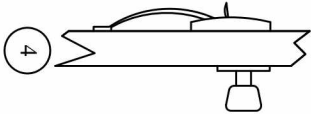
List of Material

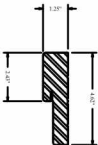
Item #	Description	Material
1	Masonry	CONC.
2	2x Buck	Wood
3	Astrical	Composite
4	Handal set	Metal
5	Imperial USA Ltd.	Metal
7	Penrond 4"x4" 5/8" Radius Hinge	Metal
8	Glass	Glass
10	Endura Sill ZAIL 5866 / I/S	Alum.
11	3" #9 Wood screw	Metal
12	#9x1" PFH Wood Screw	Metal
13	1/4 Round Trim	Composite
16	Door Jam	Composite
17	Bottom Door sweep	Rubber
18	10-32 Sex Bolt	Metal
20	weather strip	Foam
21	Endura Sill ZAIL 5866 / O/S	Alum.


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Endura Sill
ZAIL 5866 / I/S
10

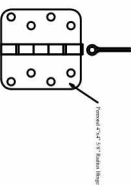



Door Jam 16


Astrical 3

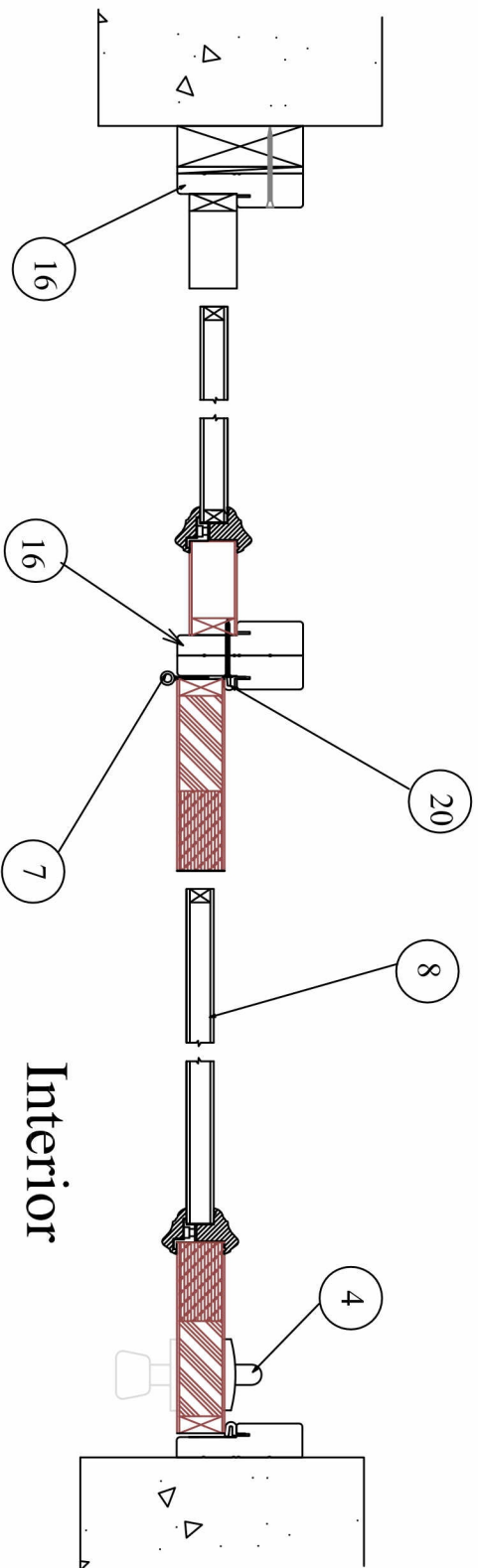

weather strip 20


Glass 8


Penrond 4"x4" 5/8" Radius Hinge 7


Bottom Door sweep 17

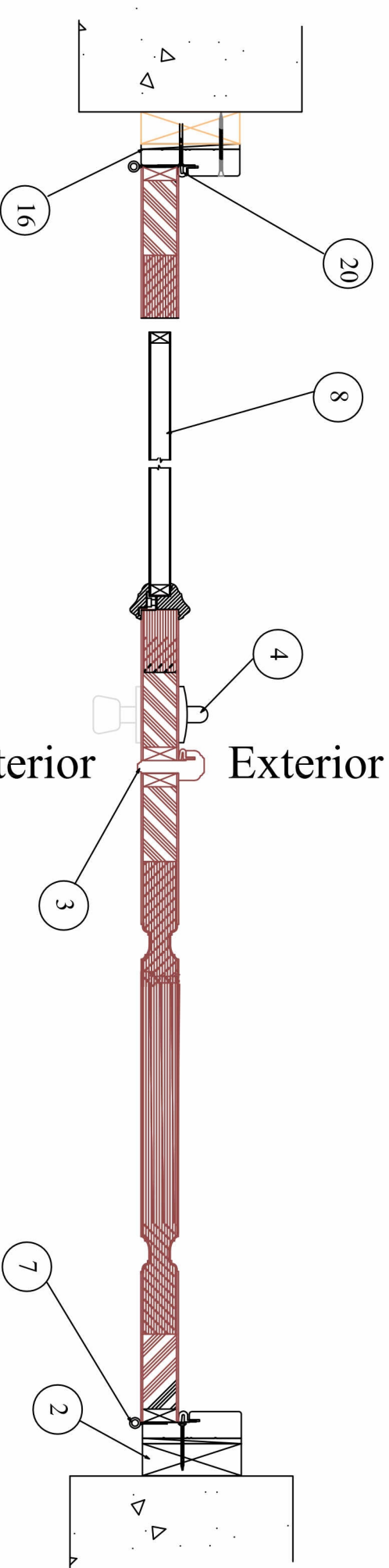
Glass*Craft
Fiberglass Glazed Doors



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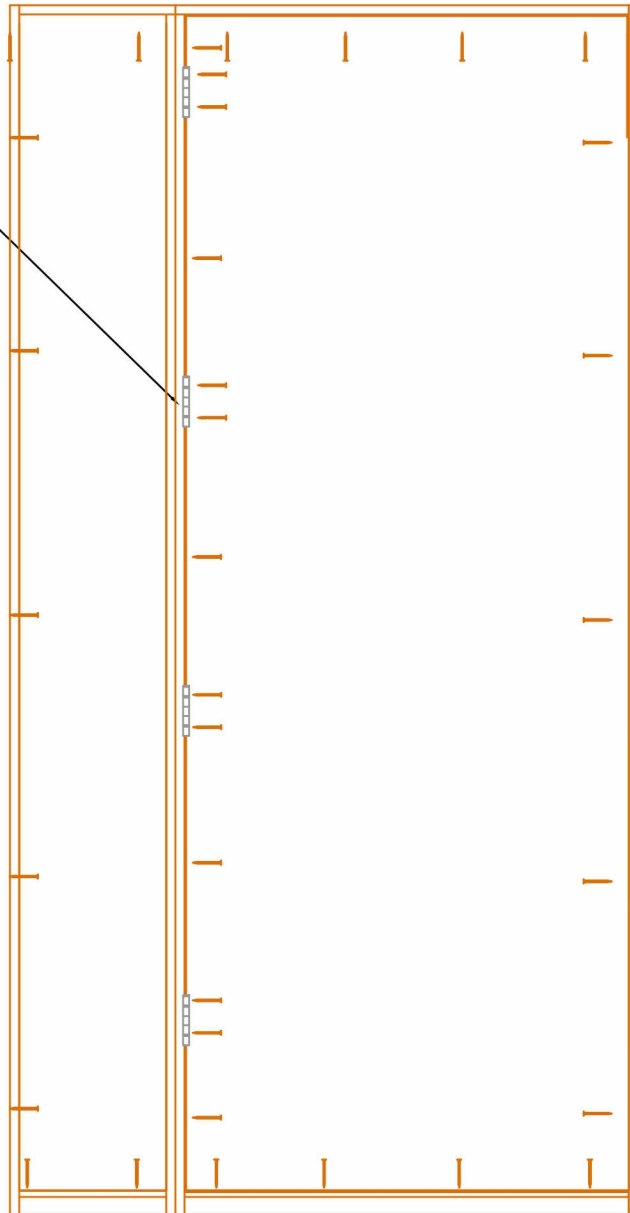
Glass*Craft



Horizontal Cross Section

Glass*Craft
Fiberglass Glazed Doors

See Hinge Detail



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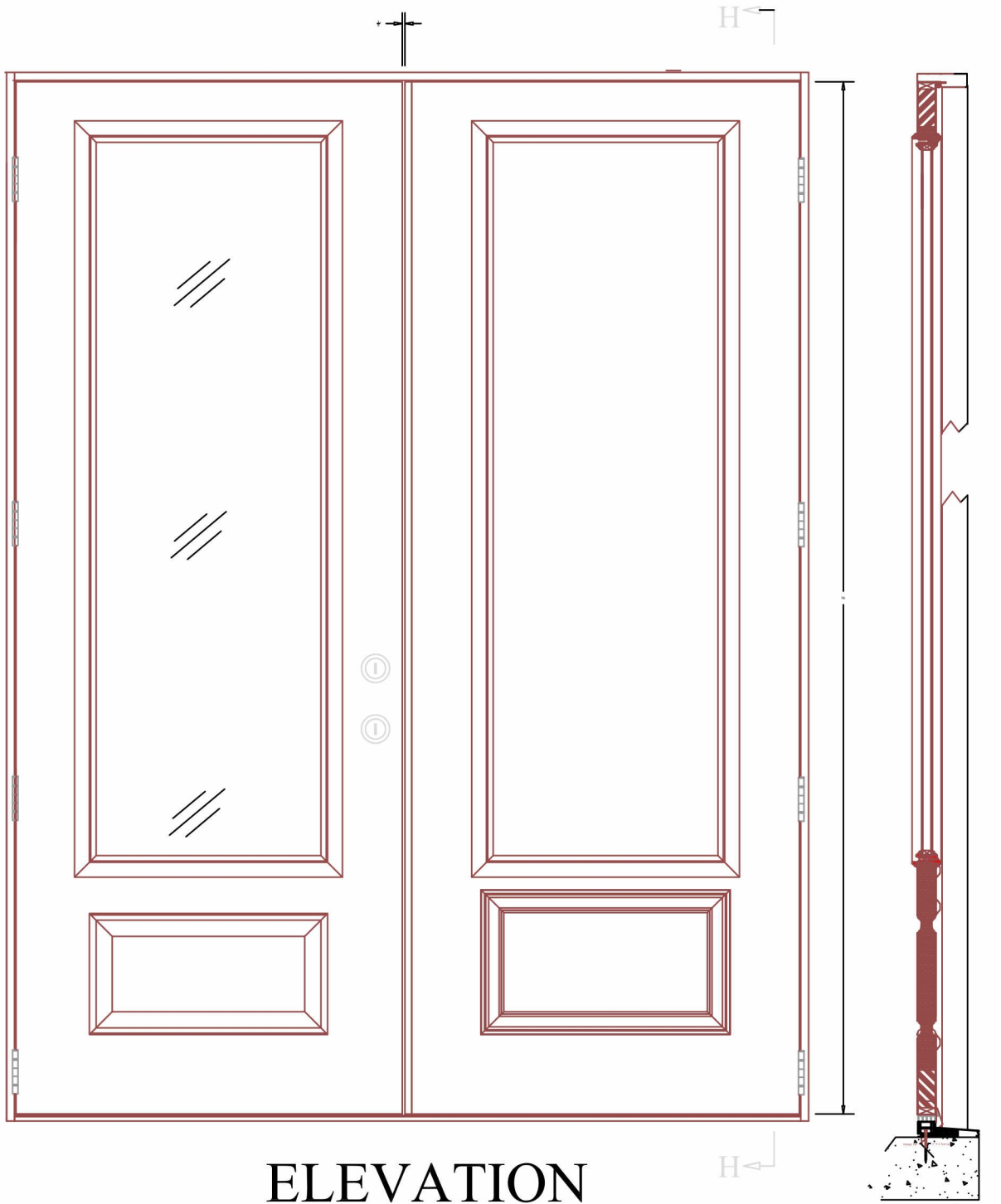
By: CB

ANCHORING LOCATION

Fiberglass Glazed Doors

Single Door with Sidelites I/Sing

Glass*Craft



ELEVATION

Section
H-H



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Glass*Craft
Fiberglass Glazed Doors

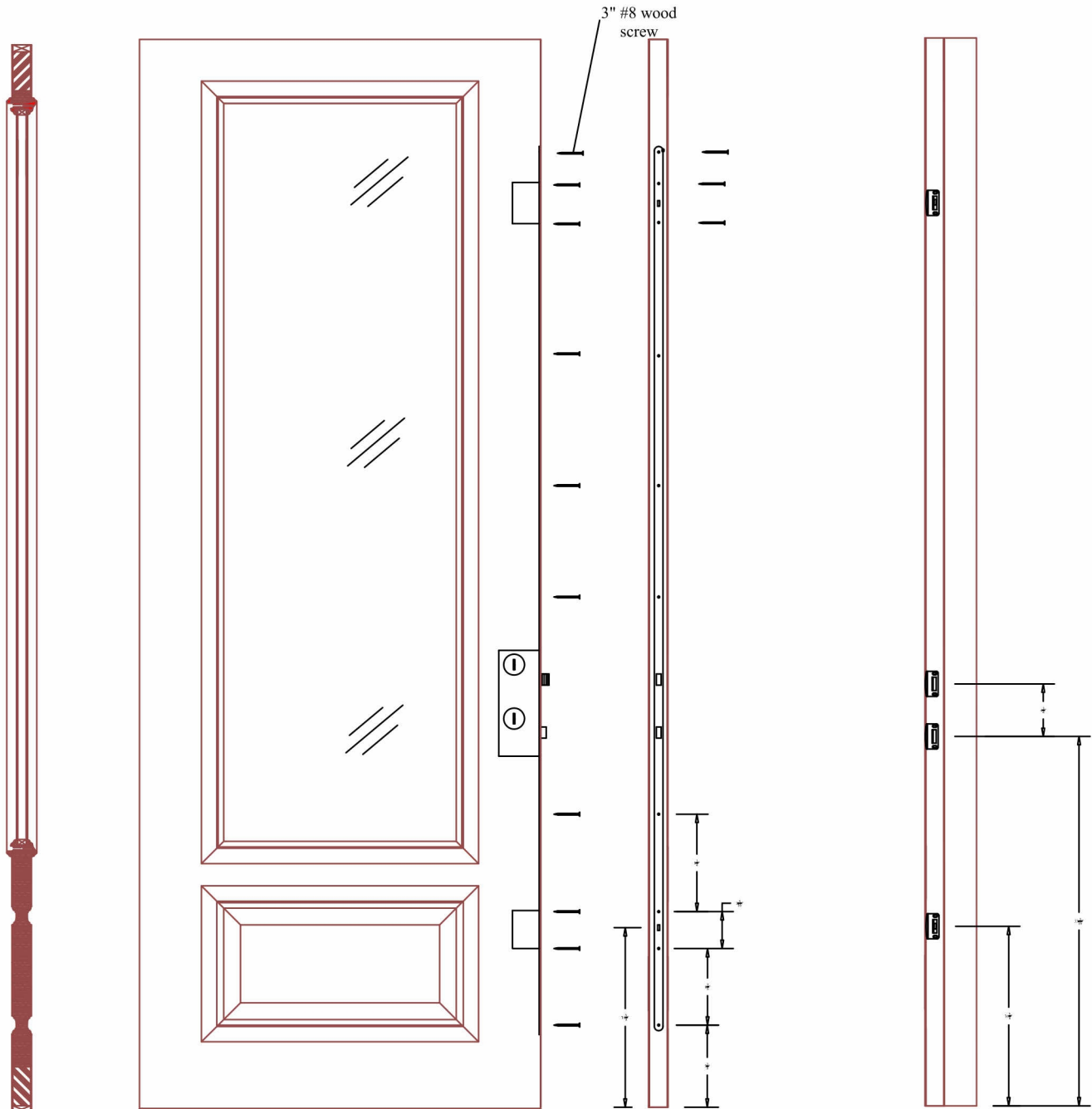


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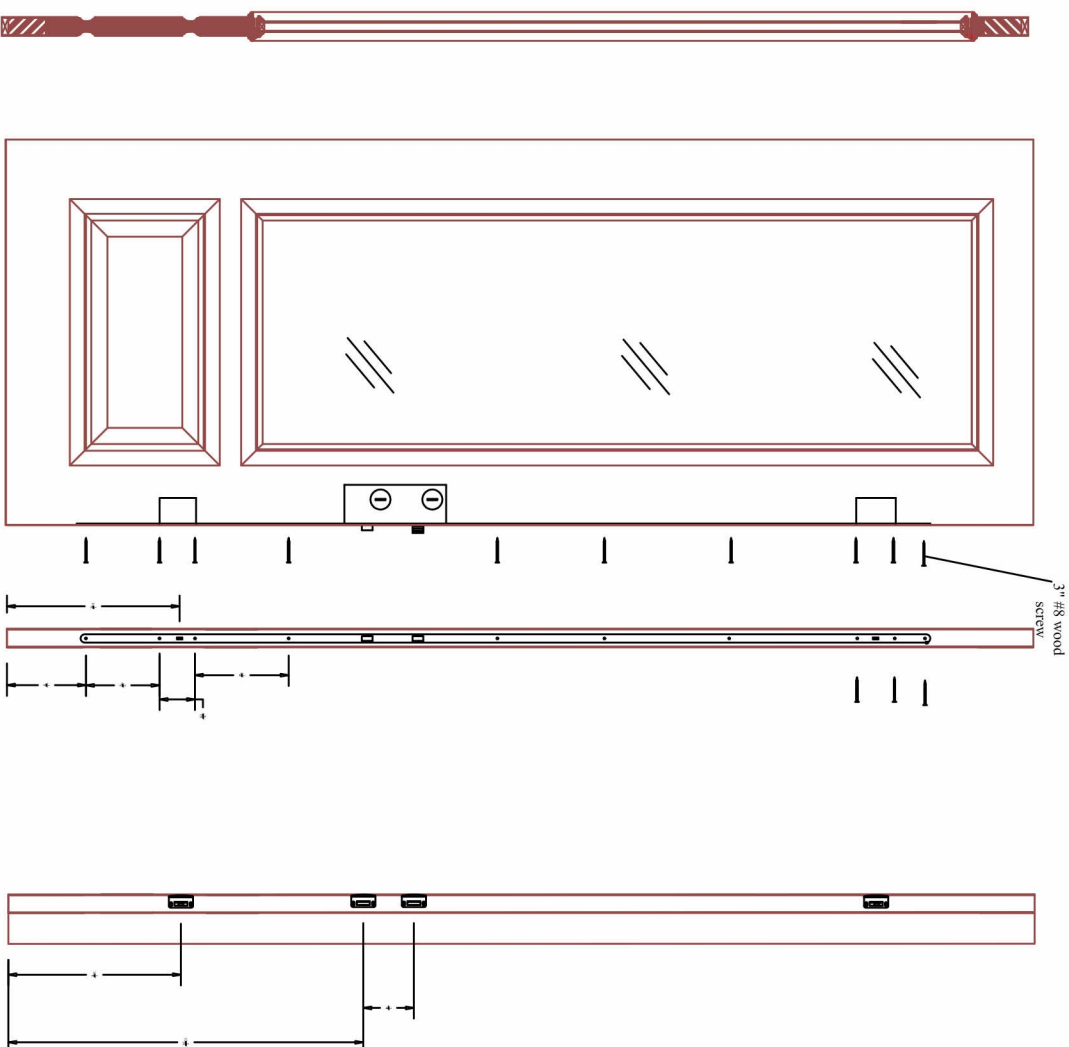
Date: 07/15/15

By: CB



Three point lock set screw
location and strike plate

Glass*Craft
Fiberglass Glazed Doors



Three point lock set screw
location and strike plate

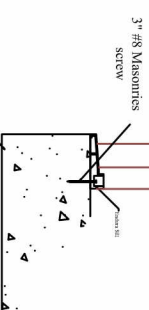
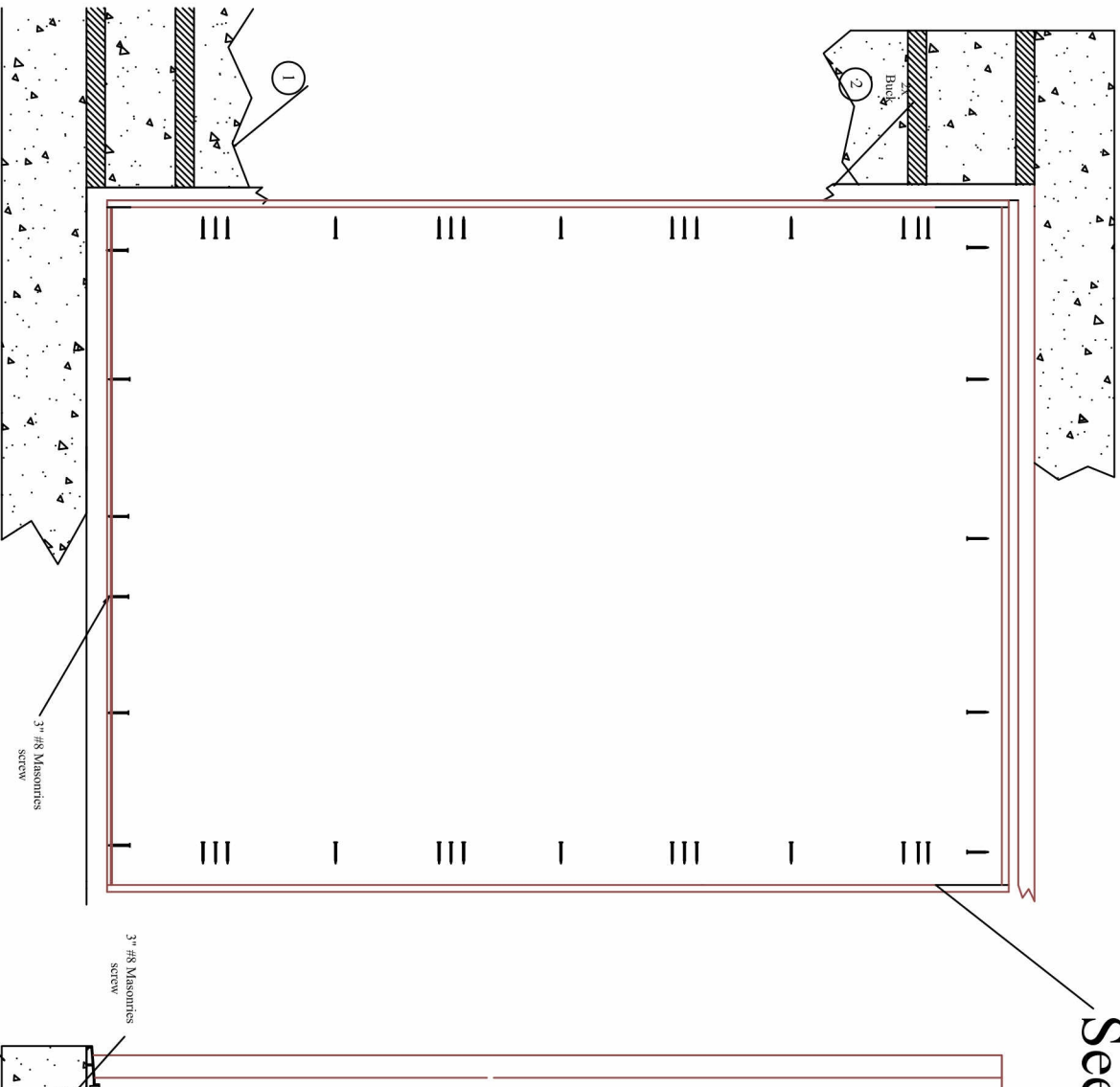
Glass*Craft

Fiberglass Glazed Doors

Glass*Craft

Fiberglass Glazed Doors

See Hinge Detail



ANCHORING LAYOUT

Set frame sill

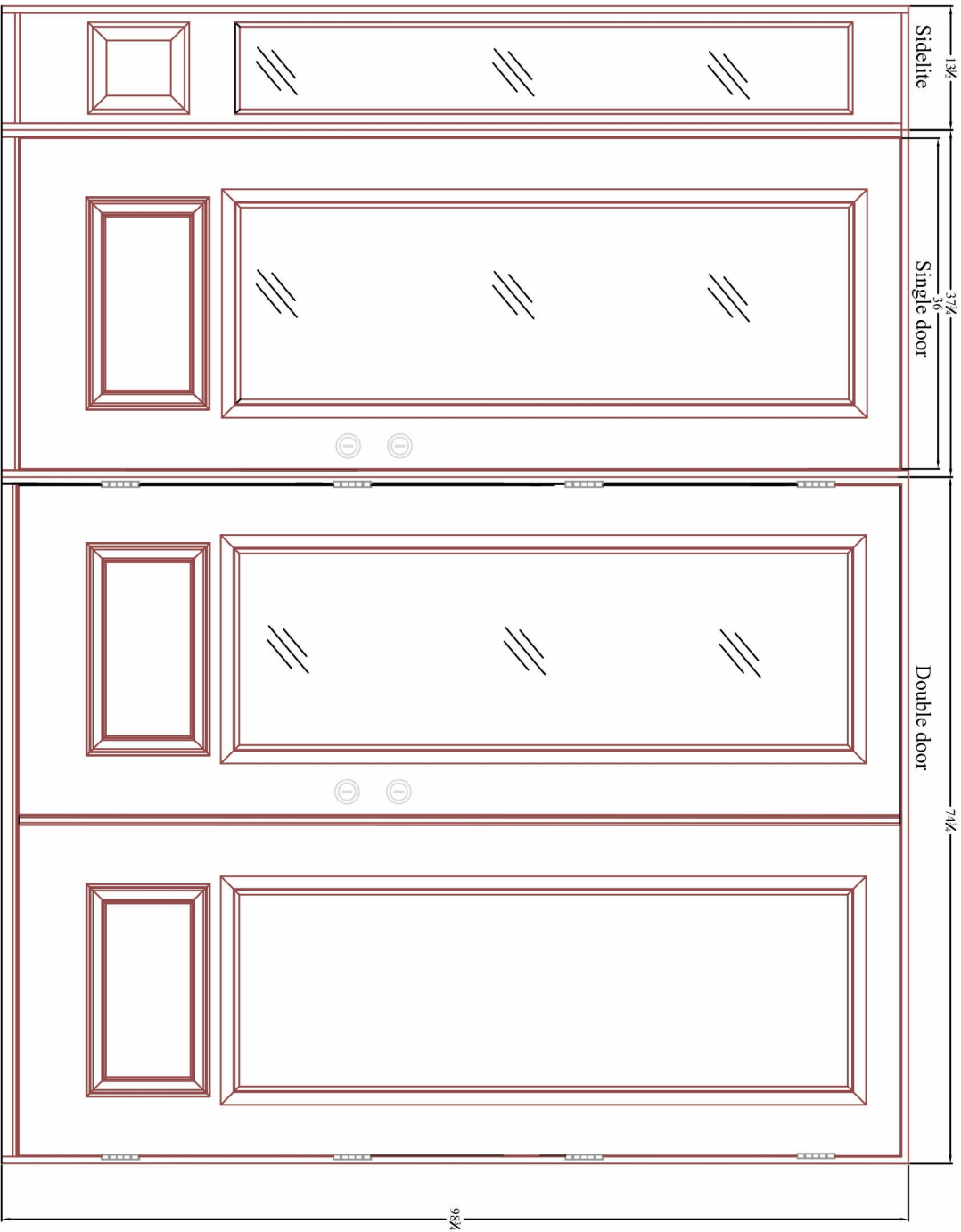


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Out Swing

ELEVATION

Fiberglass Glazed Doors

Glass*Craft

Install (2) 3" #8 Wood
Screws Per Hinge.



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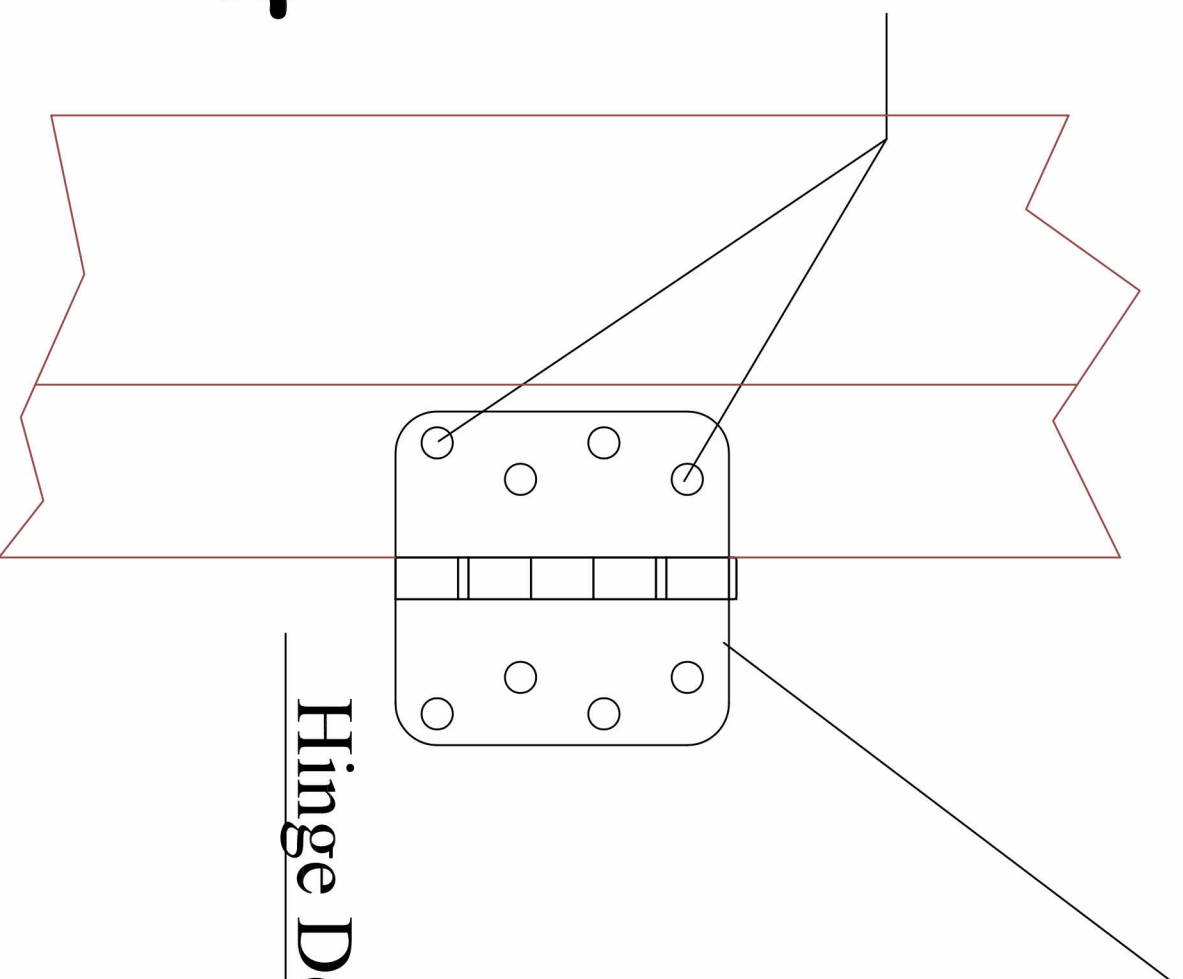
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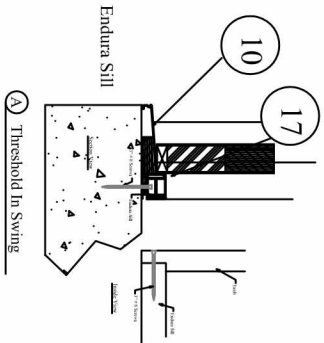
Glass*Craft

Fiberglass Glazed Doors

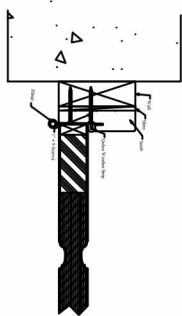
Penrond 4"x4" 5/8" Radius Hinge



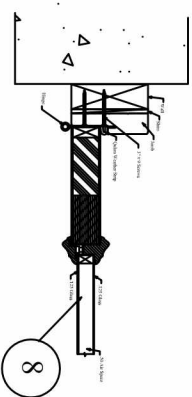
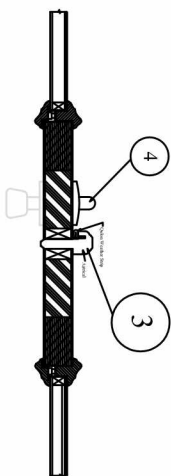
Hinge Detail



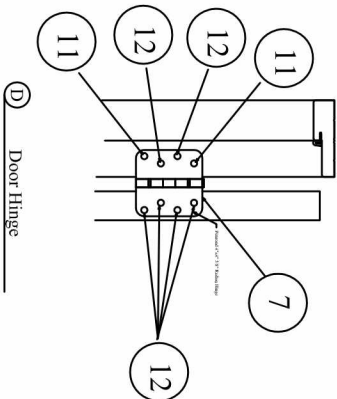
A) Threshold In Swing



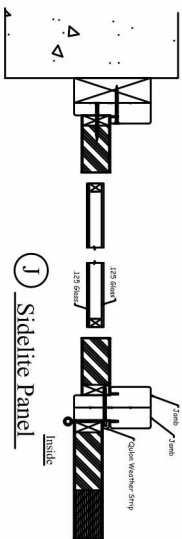
B) Panel



C) Frame & Glass



D) Door Hinge



F) Sidelite Panel

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Out Swing

Glass*Craft

Fiberglass Glazed Doors

Glass*Craft

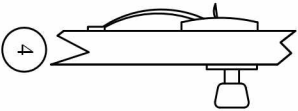
Single Door with Sidelite Using

List of Material

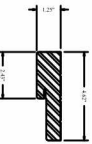
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20	weather strip	Foam
21	Endura Sill ZAIL 5866 / O/S	Alum.



Endura Sill
ZAIL 5866 / I/S 10



4



Door Jam 16



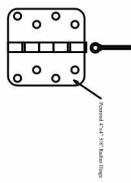
Astrical 3



weather strip 20



Glass 8



Pentron 4"x4" 5/8" Radius Hinge 7



Bottom Door sweep 17



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Glass*Craft
Fiberglass Glazed Doors



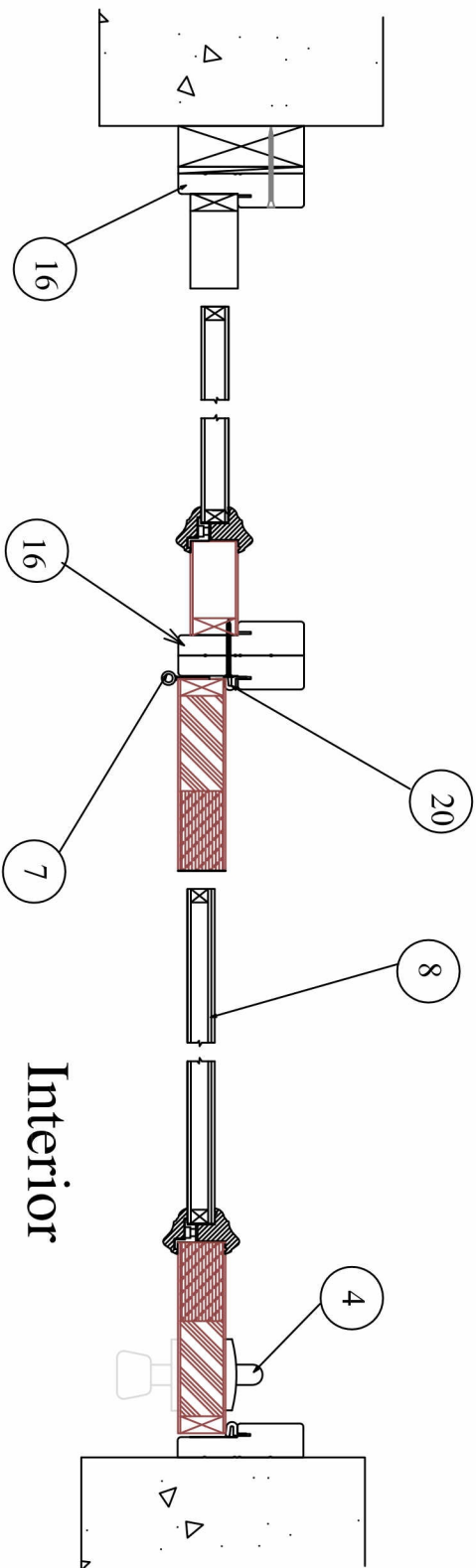
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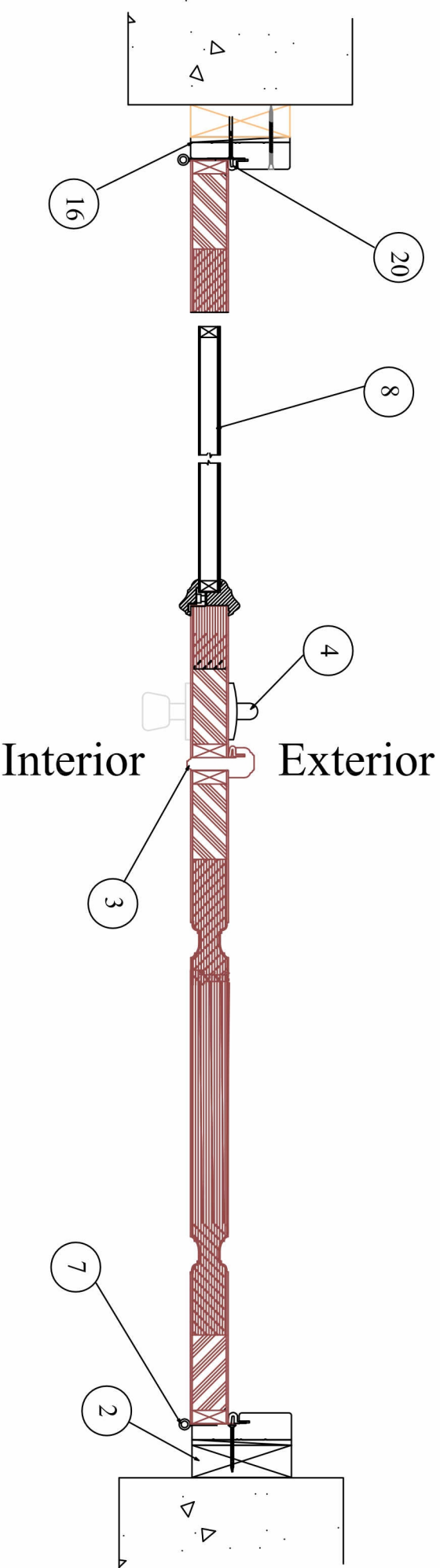
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Glass*Craft



Horizontal Cross Section



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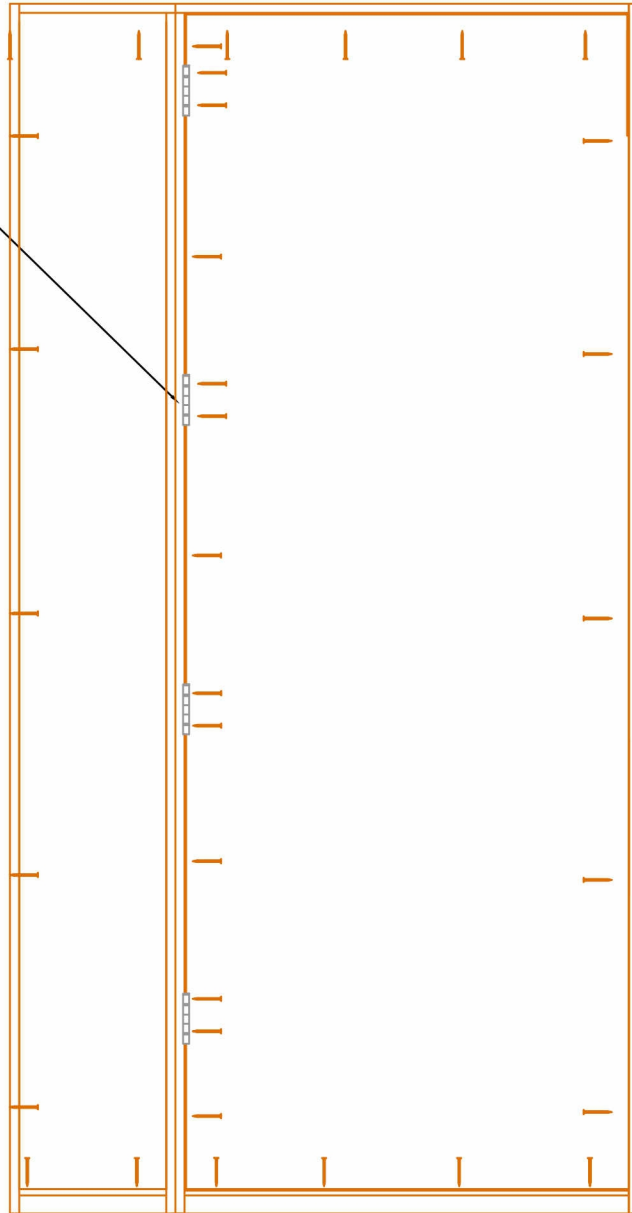
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Glass*Craft
Fiberglass Glazed Doors

See Hinge Detail



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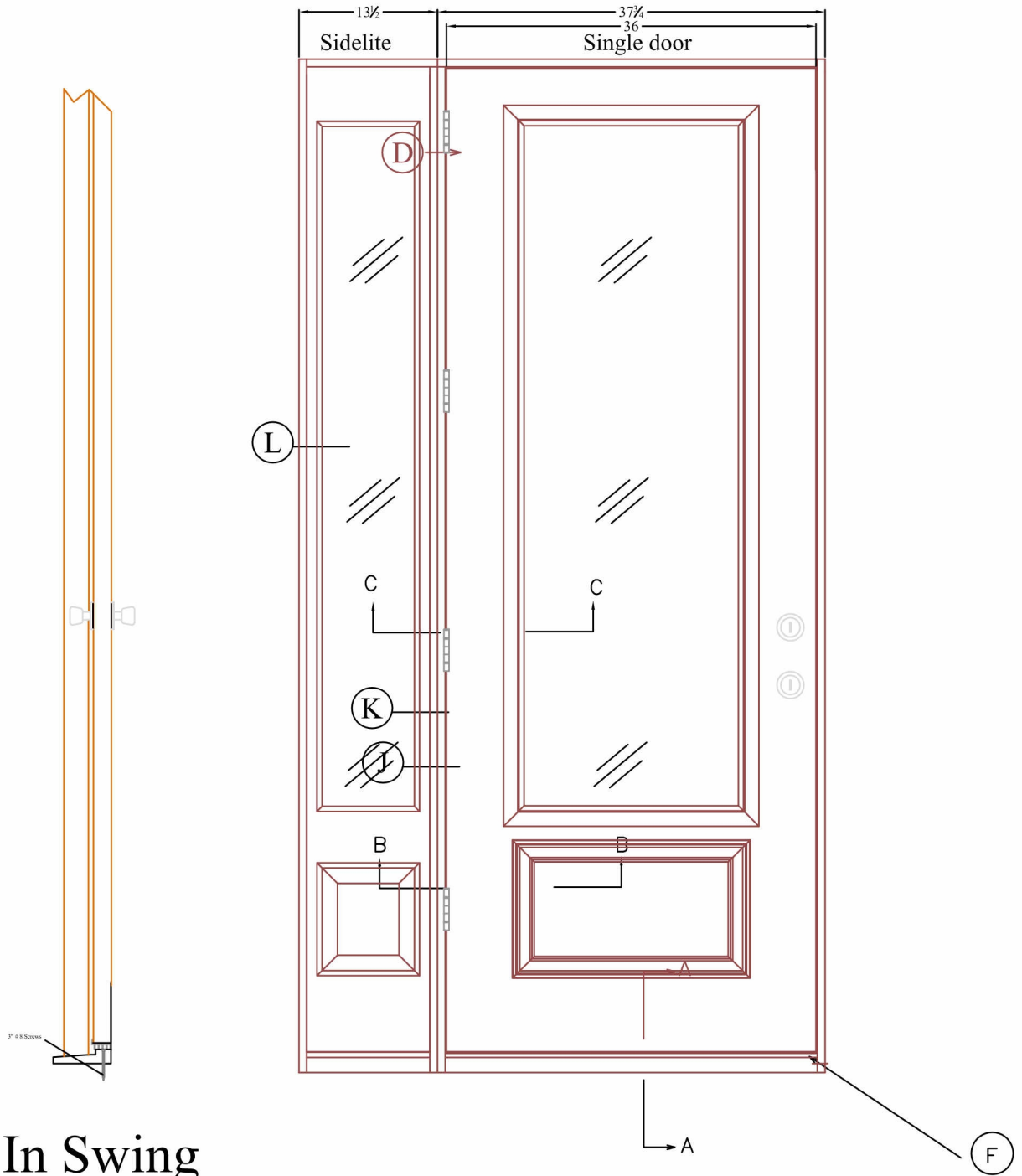
By: CB

ANCHORING LOCATION

Fiberglass Glazed Doors

Single Door with Sidelites O/Sing

Glass*Craft



ELEVATION



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Glass*Craft

Htybrid Glazed Doors



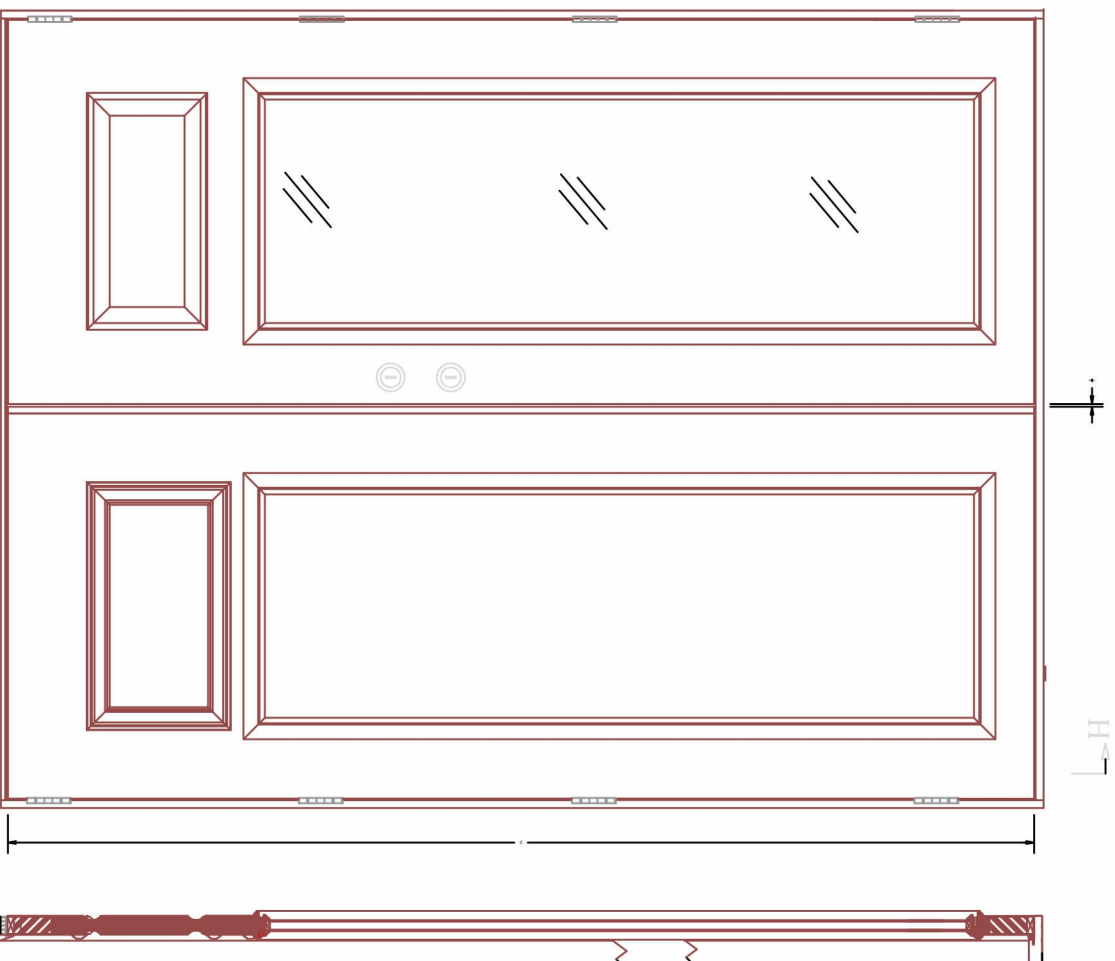
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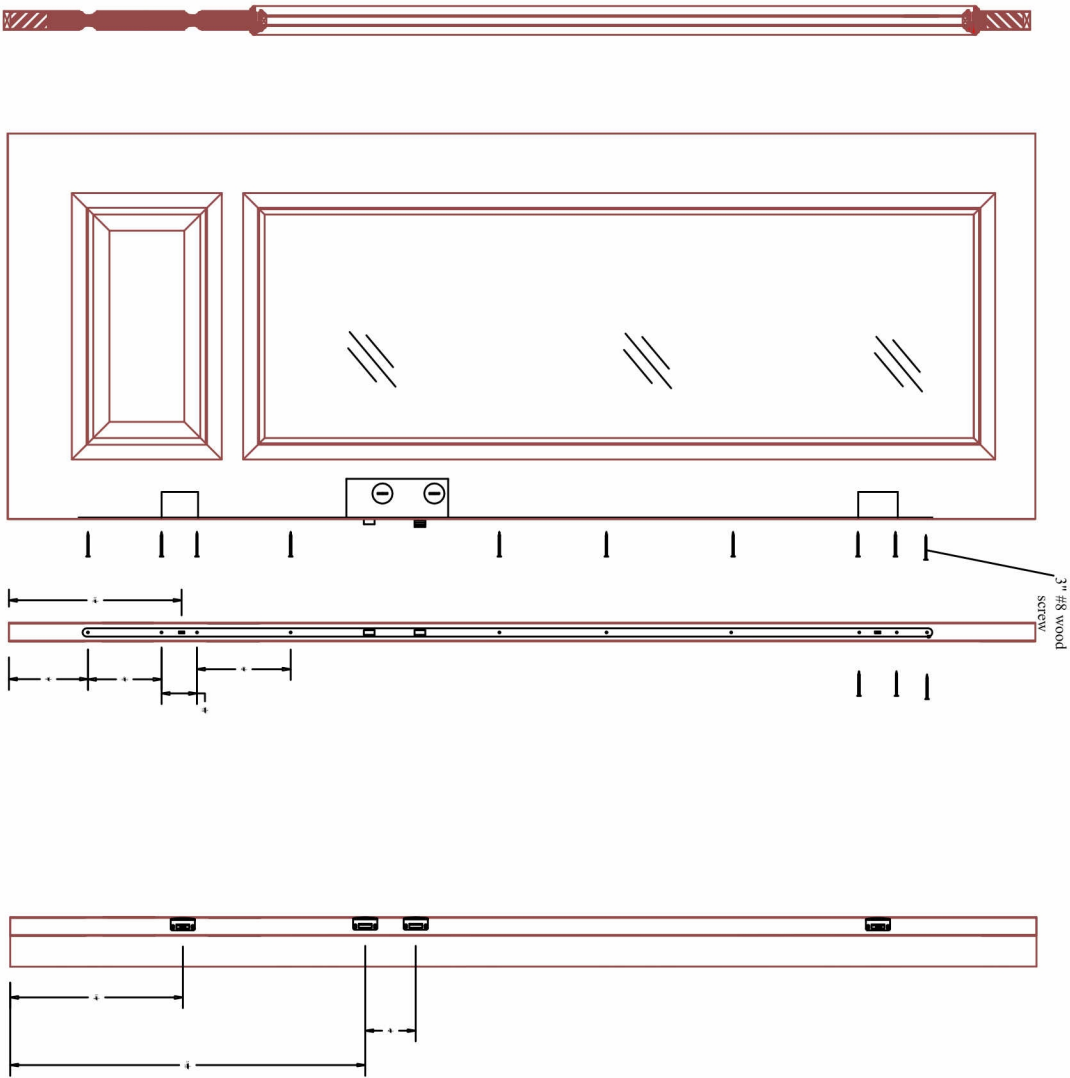


ELEVATION

Section

H-H

Glass*Craft
Fiberglass Glazed Doors



Three point lock set screw
location and strike plate

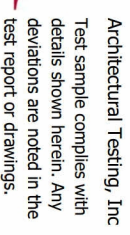
Glass*Craft

Fiberglass Glazed Doors

Fiberglass Glazed Doors



Set frame sill



04

By: CBBy: CB