

OPAQUE DOORS, INSWING
ELEVATION VIEWS
CONFIGURATIONS: x, xx
WOOD: Mahogany
VIEWED FROM THE INSIDE

DESIGN PRESSURE
Positive Pressure: +60 psf Negative Pressure: -70 psf
Note: All sizes noted are maximum sizes. Sizes smaller in width & height are permitted, complying w/ FBC requirements.

GENERAL NOTES:

- 1- THIS PRODUCT IS DESIGNED TO COMPLY WITH THE PROVISIONS OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OF THE 5TH EDITION (2014) FLORIDA BUILDING CODE.
- 2- THIS PRODUCT IS LARGE MISSILE IMPACT RESISTANT AND HAS BEEN TESTED IN ACCORDANCE WITH THE HIGH VELOCITY HURRICANE ZONE PROTOCOLS TAS201, 202 AND 203. NO SHUTTERS ARE REQUIRED.
- 3- WOOD BUCKS (BY OTHERS) AND OPENINGS MUST BE DESIGNED BY THE PROFESSIONAL OF RECORD TO PROPERLY TRANSFER WIND LOADS TO THE MAIN STRUCTURE.
- 4- SPECIFIED ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
- 5- IN ORDER TO VERIFY THAT ANCHORS FOR THIS PRODUCT WERE NOT OVERSTRESSED AS TESTED, A 33% ALLOWABLE STRESS INCREASE **WAS NOT** USED IN THEIR ANALYSIS. HOWEVER, A LOAD DURATION FACTOR OF Cd = 1.6 WAS USED TO VERIFY THEIR SPACING IN WOOD SUBSTRATES.

GLAZING TYPE TABLE
RAISED WOOD PANEL:
Max. DLO area: -MDF veneer covered: Max. 18.92 sqf. Min. specific gravity G= 0.75= 48 lb/ft3 (0.769 g/cm3).
NOTE: -Aspect Ratio (D.L.O. Height / D.L.O. Width) must be less than or equal to 5.0 for all door sizes. -See Glazing Details on sheet 6



1855 GRIFFIN ROAD,
SUITE A-271
DANIA, FL 33004

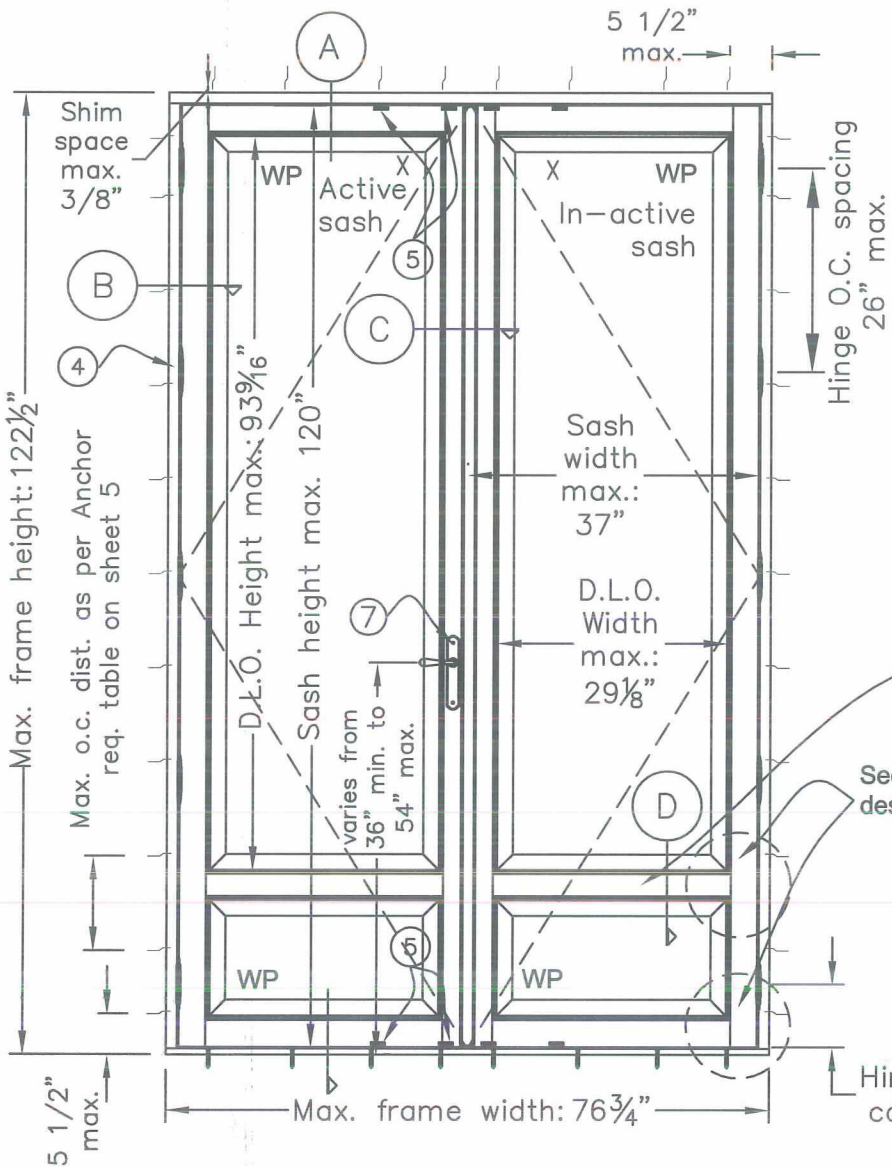
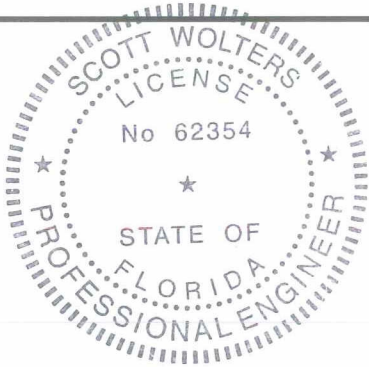
WINDOWS
OF EUROPE AND
THE AMERICAS

JS SERIES
WOOD OPAQUE DOORS
INSWING

Drawing no.: JS-OP-IN	Drawn by: S. Marcotte
Scale: NONE	Date revised: 6/22/15
Date drawn: 03/30/06	Page: 1 / 9
File: JS-OP-IN	

STRUCTURALLY REVIEWED BY:


SCOTT WOLTERS
FL PE# 62354
WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016



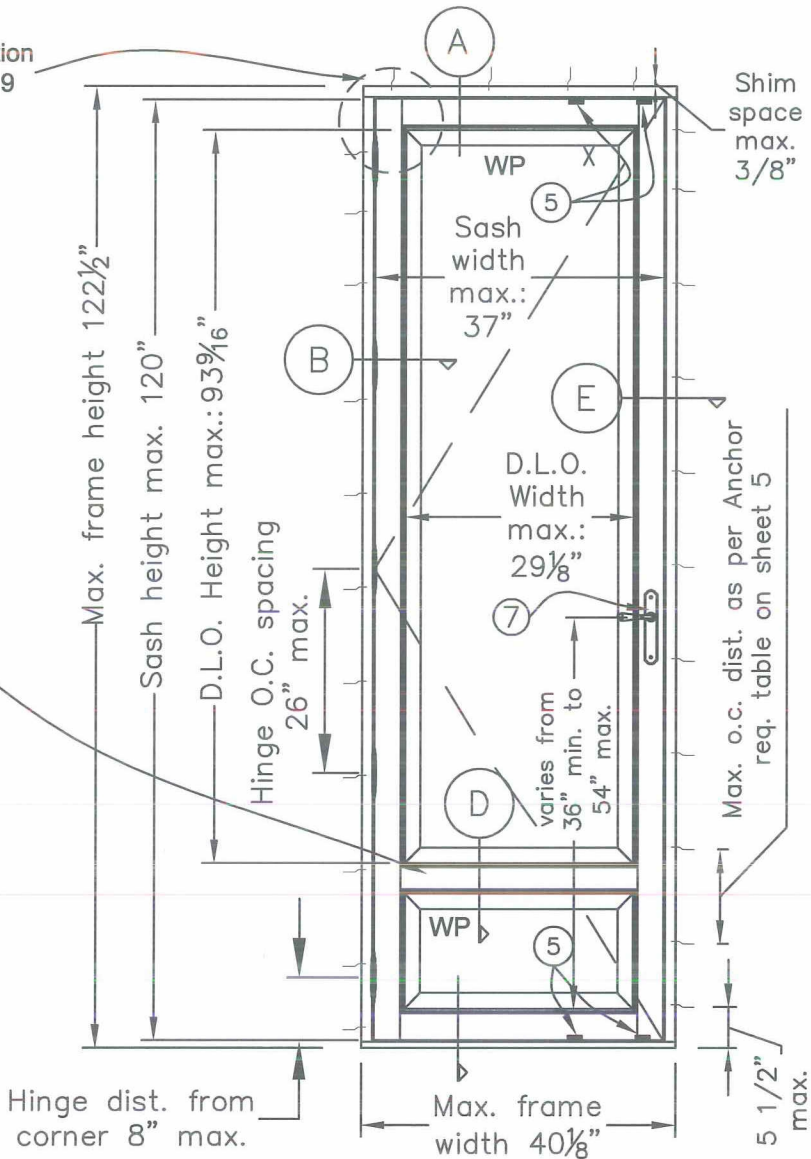
INTERIOR ELEVATION
DOUBLE RECTANGULAR OPAQUE DOOR UNIT
W/ HORIZONTAL SASH BAR (Not to scale)

See corner construction
description on sheet 9

Horizontal sash bar
applicable with all door
sashes (may use multiple
horizontal bars in one door
sash). Max d.l.o. length: 29 1/8"

See corner construction
description on sheet 9

NOTE: Numbers in
circle are referred to
the bill of materials
on sheet 8.



INTERIOR ELEVATION
SINGLE RECTANGULAR OPAQUE DOOR UNIT
W/ HORIZONTAL SASH BAR (Not to scale)

OPAQUE DOORS, INSWING
ELEVATION VIEWS
CONFIGURATIONS: x, xx
WOOD: Mahogany
VIEWED FROM THE INSIDE

DESIGN PRESSURE APPLYING TO THIS PAGE
Acting inward: +60 psf Acting outward: -70 psf
Note: All sizes noted are maximum sizes. Sizes smaller in width & height are permitted, complying w/ FBC requirements.

GLAZING TYPE TABLE
RAISED WOOD PANEL:
Max. DLO area: -MDF veneer covered: Max. 18.92 sqf. Min. specific gravity G= 0.75= 48 lb/ft3 (0.769 g/cm3).
NOTE: -Aspect Ratio (D.L.O. Height / D.L.O. Width) must be less than or equal to 5.0 for all door sizes. -See Glazing Details on sheet 6

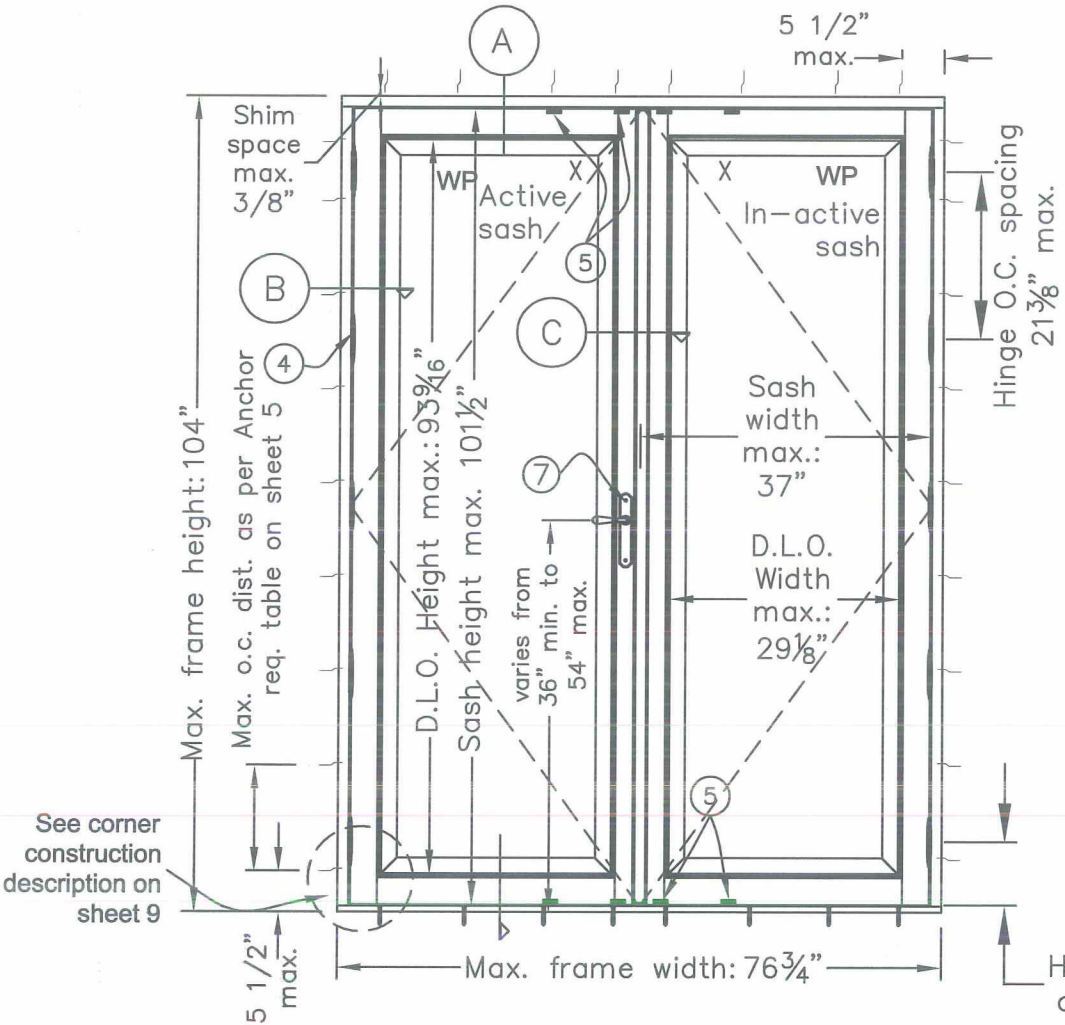
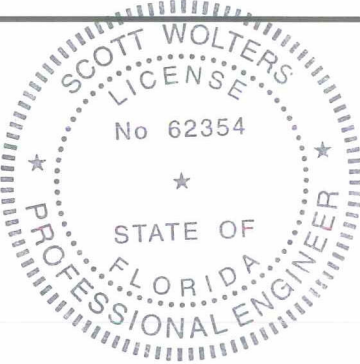
JS SERIES
WOOD OPAQUE DOORS
INSWING

Drawing no.: JS-OP-IN

Scale: NONE	Drawn by: S. Marcotte
Date drawn: 03/30/06	Date revised: 01/17/11
File: JS-OP-IN	Page: 2 / 9

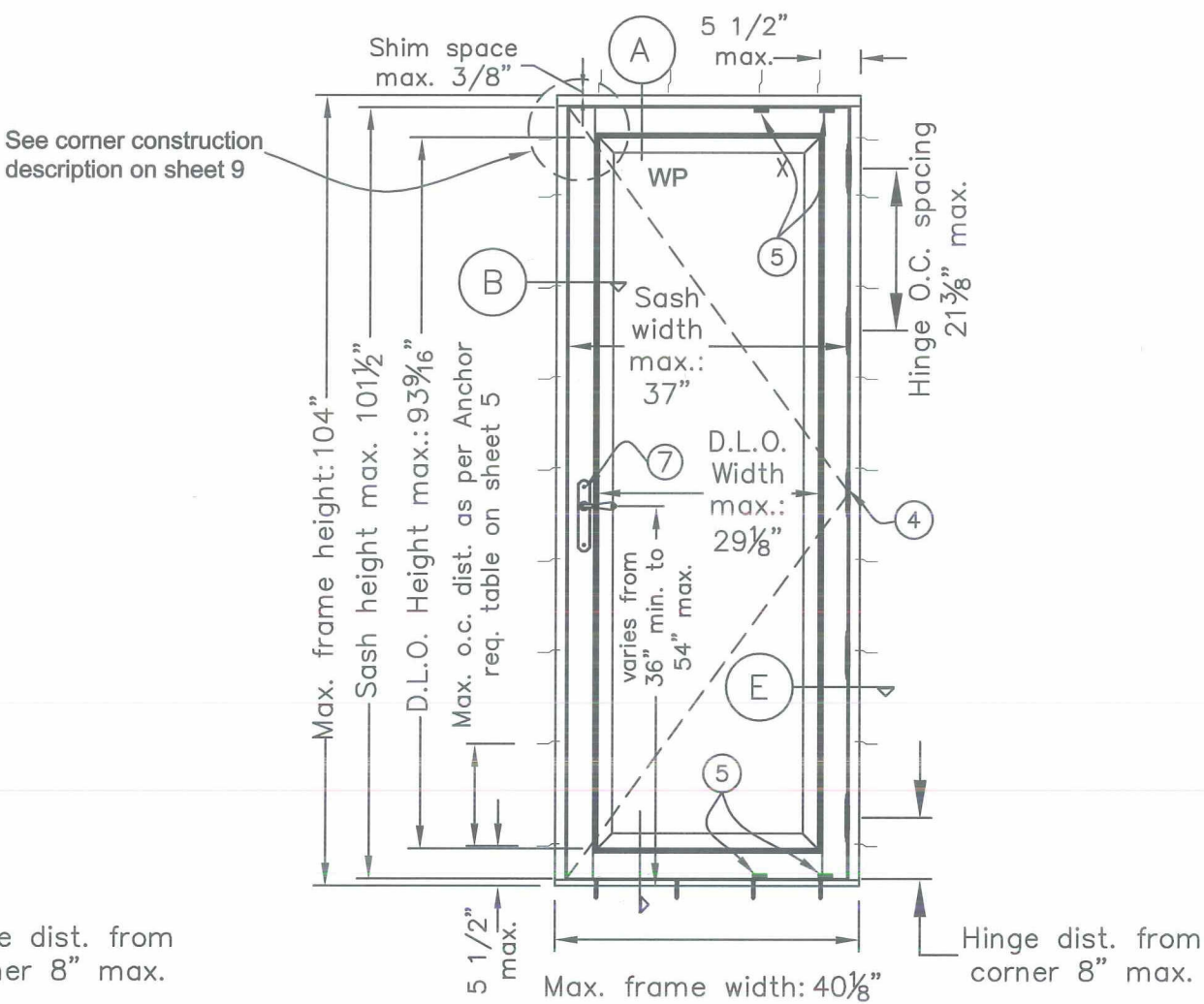
STRUCTURALLY REVIEWED BY:

Scott Wolters
SCOTT WOLTERS
FL PE# 62354
WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016



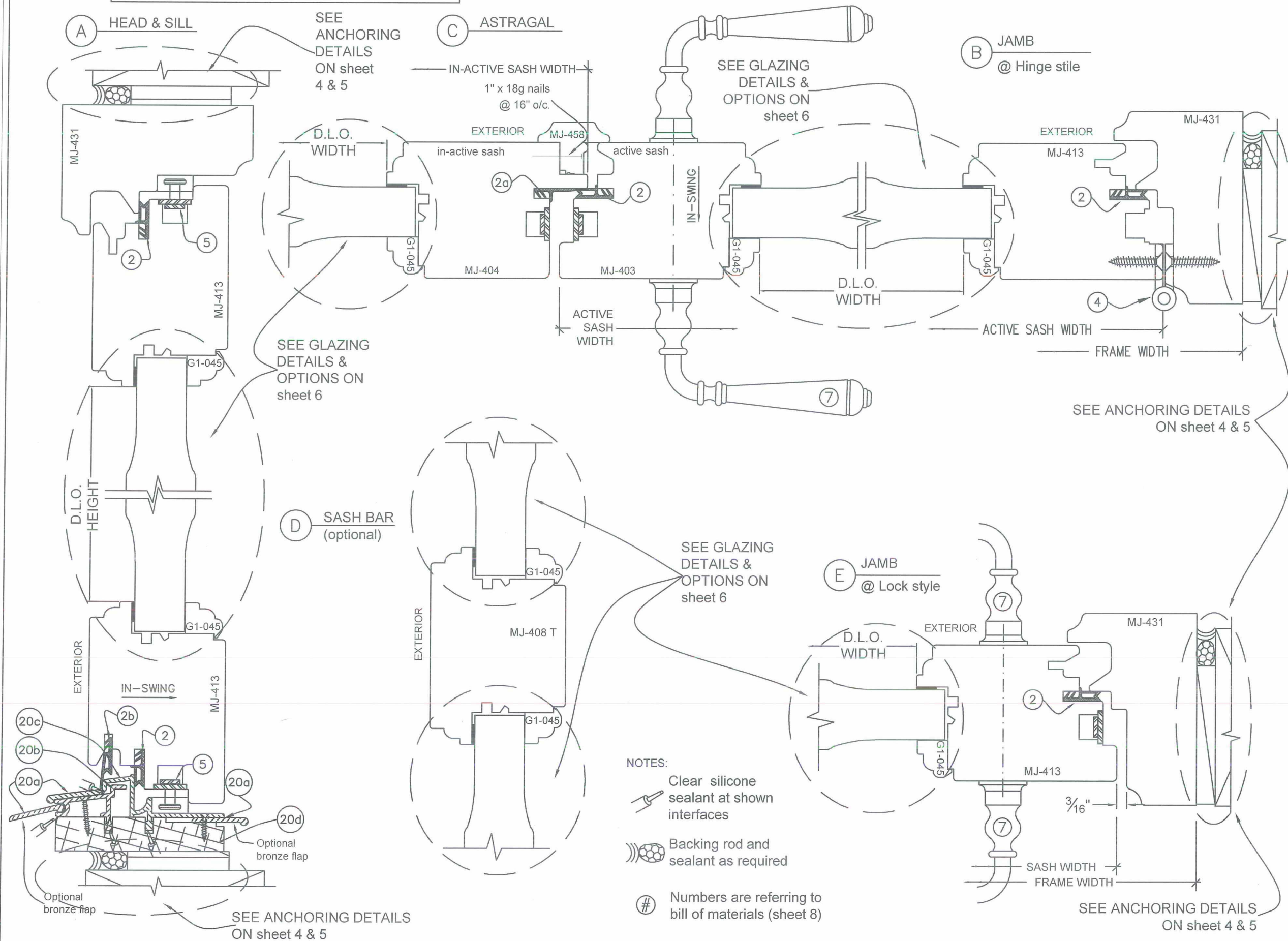
INTERIOR ELEVATION
DOUBLE RECTANGULAR OPAQUE DOOR UNIT
WITHOUT SASH BAR (Not to scale)

NOTE: Numbers in
circle are referred to
the bill of materials
on sheet 8.



INTERIOR ELEVATION
SINGLE RECTANGULAR OPAQUE DOOR UNIT
WITHOUT SASH BAR (Not to scale)

CROSS SECTION VIEWS



JS SERIES WOOD OPAQUE DOORS INSWING

Drawing no.: JS-OP-IN

Scale: NONE
Drawn by: S. Marcotte

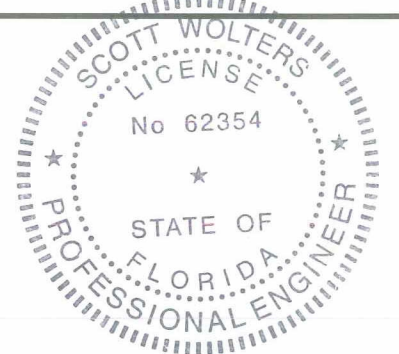
Date drawn: 03/30/06
Date revised:

File: JS-OP-IN
Page: 3/ 9

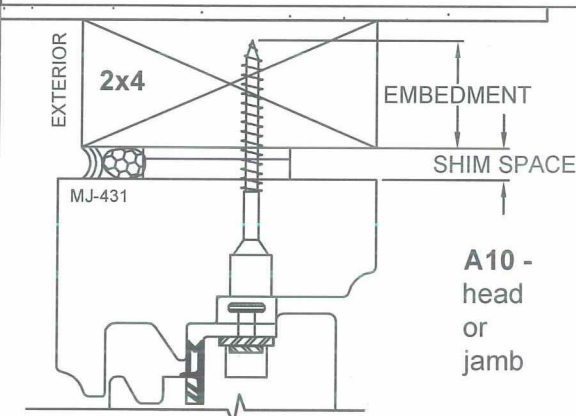
STRUCTURALLY REVIEWED BY:

Scott Wolters
SCOTT WOLTERS
FL PE# 62354

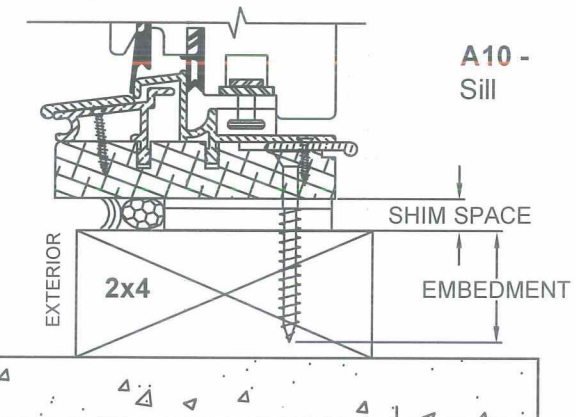
WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016



A10 - Typical direct anchor on 2x wood buck using wood screws. Size and spacing as per ANCHOR REQUIREMENTS TABLE on sheet 5.

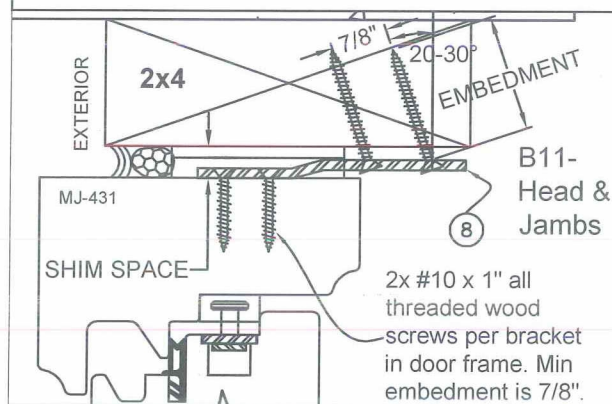


A10 - head or jamb

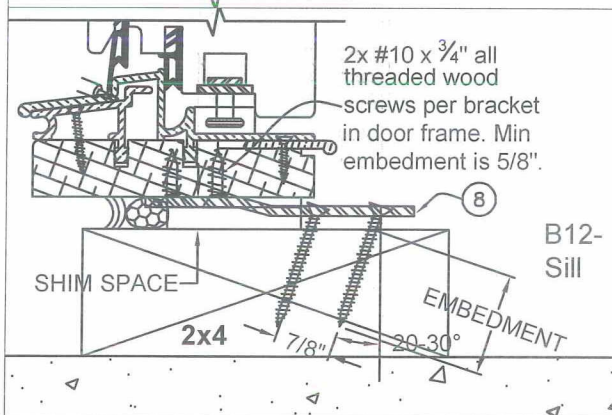


A10 - Sill

B11, B12 - Typical anchor using Installation Bracket on 2x wood buck using wood screws as per ANCHOR REQUIREMENTS TABLE on sheet 5.

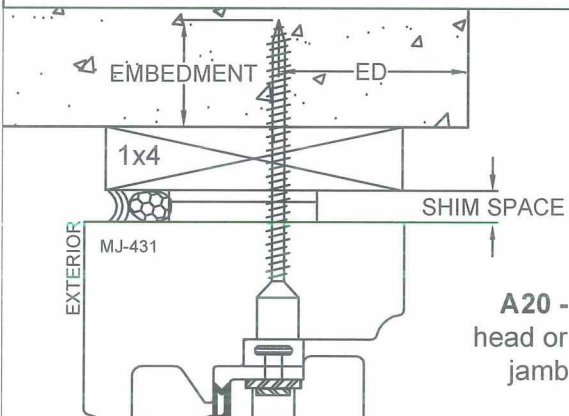


B11- Head & Jamb

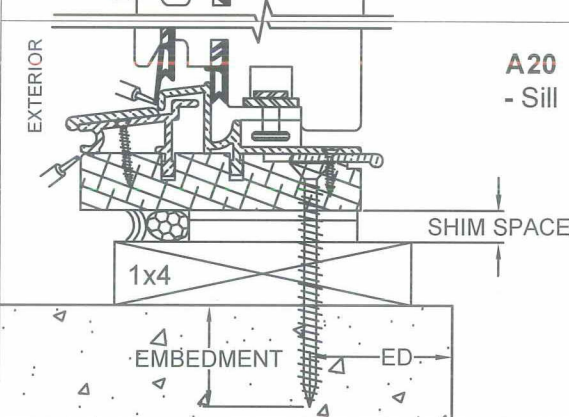


B12- Sill

A20 - Typical direct anchor through 1x wood buck into masonry using Tapcon screws. Size and spacing as per ANCHOR REQUIREMENTS TABLE on sheet 5.

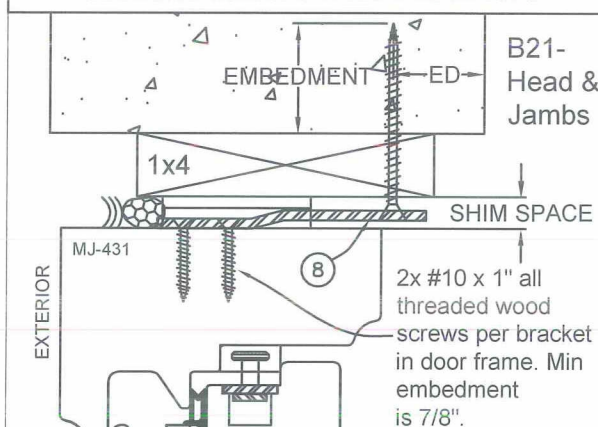


A20 - head or jamb

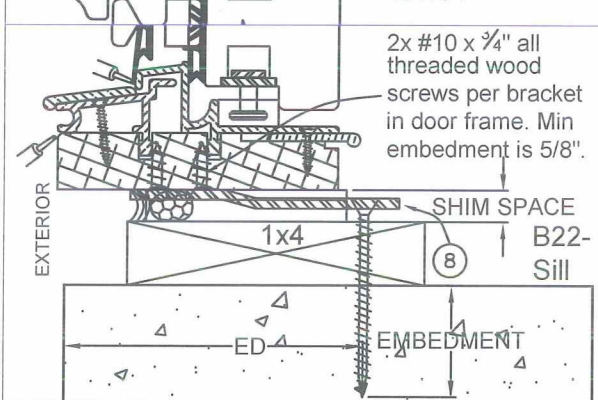


A20 - Sill

B21, B22 - Typical anchor w/ Installation Bracket (8) using Tapcon screws through 1x wood buck into masonry as per ANCHOR REQUIREMENTS TABLE on sheet 5.

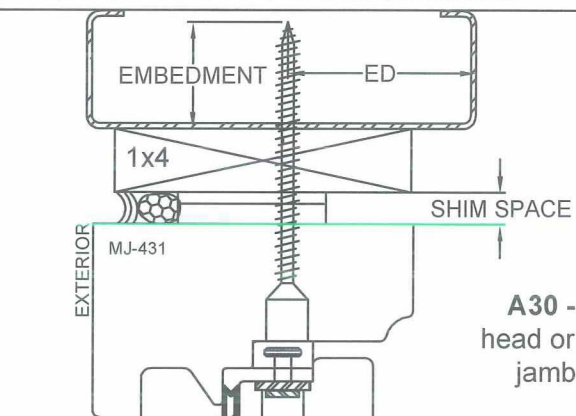


B21- Head & Jamb

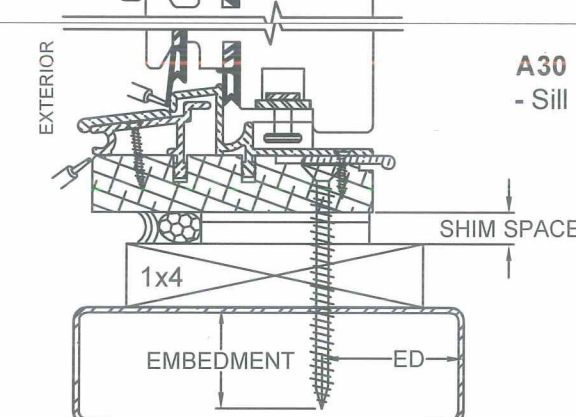


B22- Sill

A30 - Typical direct anchor through 1x wood buck into steel or aluminum using Teks type screws. Size and spacing as per ANCHOR REQUIREMENTS TABLE on sheet 5.

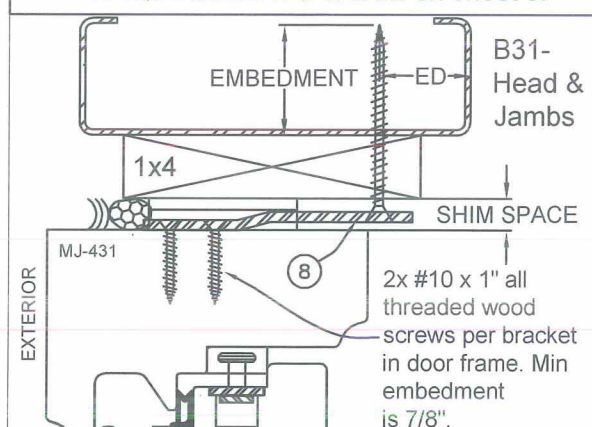


A30 - head or jamb

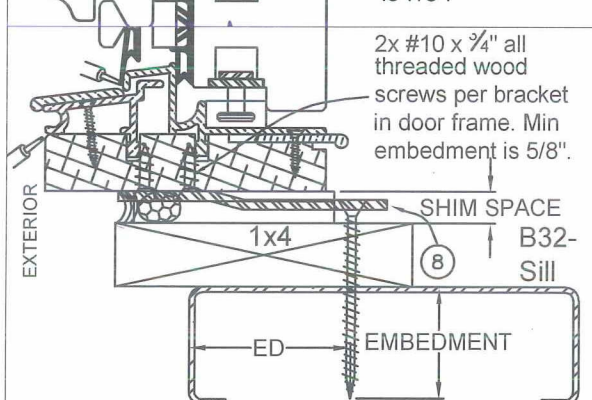


A30 - Sill

B31, B32 - Typical anchor w/ Installation Bracket (8) using Teks type screws through 1x wood buck into steel or aluminum as per ANCHOR REQUIREMENTS TABLE on sheet 5.



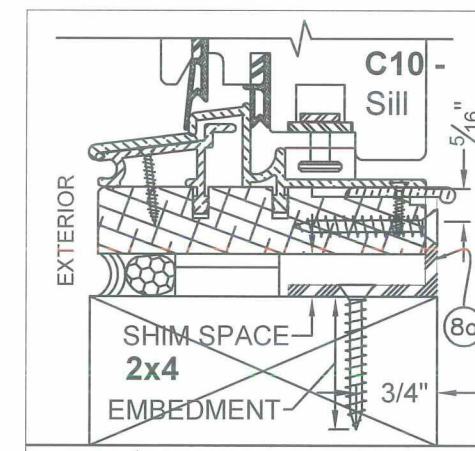
B31- Head & Jamb



B32- Sill

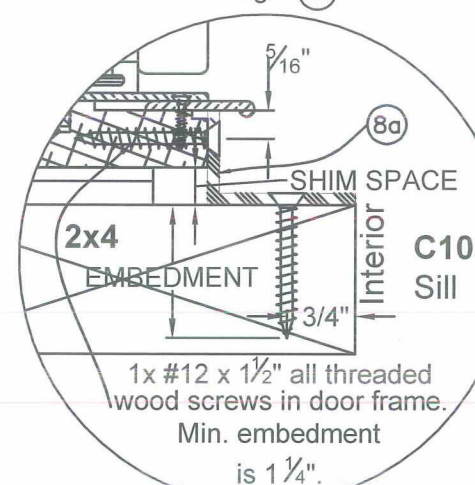
ANCHORING DETAILS

C10 - Typical anchor (@ sill only) w/ Continuous Aluminum Angle (8a) using wood screws in 2x wood buck and door frame. Size and spacing as per ANCHOR REQUIREMENTS TABLE on sheet 5.



Frame's leg up on the edge of the sill, buck's leg in on the face.

Alternate typical anchor location for the continuous aluminum Angle (8a)



Frame's leg up on the edge of the sill, buck's leg out on the face.



1855 GRIFFIN ROAD,
SUITE A-271
DANIA, FL 33004

JS SERIES WOOD OPAQUE DOORS INSWING

Drawing no.: JS-OP-IN

Scale: NONE Drawn by: S. Marcotte

Date drawn: 03/30/06 Date revised: 01/17/11

File: JS-OP-IN Page: 4 / 9

STRUCTURALLY REVIEWED BY:

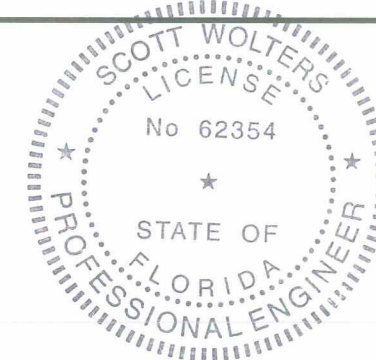
Scott Wolters

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING, INC.
(COA# 27194)

15211 97TH ROAD N
WEST PALM BEACH, FL 33412

JUN 15 2016



ANCHOR REQUIREMENTS TABLE

Anchoring method	Substrate	Inst. Ref. No.	Fasteners type, size & embedment	Spacing		Min. dist. from wood buck edge	Min. dist. from substr. edge (ED)	Min. dist. from unit frame edge	Min. embedment	
				From corner	On center				Into buck/ concrete/stud	Into unit frame
Direct anchor (shear screws)	2x_ wood buck	A10 4 sides	Through the unit frame into the wood buck (S.G.=0.5 min): (1) #14 x 2 3/4" wood screw.	5 1/2"	4 1/2"	7/8"	-----	7/8"	1 1/4"	-----
	1x_ wood buck	A20 4 sides	Through the buck frame into concrete (f'c=2846 psi min) or cmu (ASTM C90 min): (1) 1/4" x 2 3/4" Elco Ultracon or ITW Tapcon screw.	5 1/2"	5 1/2"	1"	2 1/2"	1"	1 1/4"	-----
		A30 4 sides	Through the buck frame into steel (18 ga, 45 ksi min) or alum. (1/8", 6063-T6 min): (1) 1/4" x 2 3/4" Elco Dril-flex or ITW Teks screw.	5 1/2"	5 1/2"	1"	1"	1"	Full*	-----
PDF-FS-05/D Installation bracket	2x_ wood buck	B11 head/ jamb	To the wood buck (S.G.=0.5 min): (2) #12 X 1 1/2" (a.T.) wood screws. Into the unit frame: (2) # 10 x 1" a.T. wood screws.	5 1/2"	11"	7/8"	-----	3/4"	1 1/4"	7/8"
	1x_ wood buck	B12 sill	To the wood buck (S.G.=0.5 min): (2) #12 X 1 1/2" (a.T.) wood screws. Into the unit frame: (2) # 10 x 1" a.T. wood screws.	5 1/2"	6 1/2"	7/8"	-----	7/8"	1 1/4"	7/8"
		B21 head/ jambs	Through the buck frame into concrete (f'c=2846 psi min) or cmu (ASTM C90 min): (1) 1/4" x 2 3/4" Elco Ultracon or ITW Tapcon screw. Into the unit frame: (2) #10 x 1" a.T. wood screws.	5 1/2"	10 1/2"	1"	2 1/2"	3/4"	1 1/4"	7/8"
		B22 sill	Through the buck frame into concrete (f'c=2846 psi min) or cmu (ASTM C90 min): (1) 1/4" x 2 3/4" Elco Ultracon or ITW Tapcon screw. Into the unit frame: (2) #10 x 1" a.T. wood screws.	5 1/2"	6 1/2"	1"	1"	3/4"	1 1/4"	7/8"
		B31 head/ jambs	Through the buck frame into steel (18 ga, 45 ksi min) or alum. (1/8", 6063-T6 min): (1) 1/4" x 2 3/4" Elco Dril-flex or ITW Teks screw. Into the unit frame: (2) #10 x 1" a.T. wood screws.	5 1/2"	10 1/2"	1"	1"	7/8"	Full*	7/8"
		B32 sill	Through the buck frame into steel (18 ga, 45 ksi min) or alum. (1/8", 6063-T6 min): (1) 1/4" x 2 3/4" Elco Dril-flex or ITW Teks screw. Into the unit frame: (2) #10 x 1" a.T. wood screws.	5 1/2"	6 1/2"	1"	2 1/2"	3/4"	Full*	7/8"
Continuous aluminum angle (At sill only)	2x_ wood buck	C10 sill	To the unit sill and to the wood buck (S.G.=0.5 min): (1) #12 x1 1/2" a. T. wood screw.	5 1/2"	10"	3/4"	-----	3/4"	1 1/4"	1 1/4"
	1x_ wood buck	C20 sill	Through the buck into concrete (f'c= 2826 psi min) or cmu (ASTM C90 min): 1/4" x 2 3/4" Elco Ultracon or ITW Tapcon. Into the unit sill: (1) #12 x1 1/2" a.T. wood screw.	5 1/2"	7"	1"	2 1/2"	3/4"	1 1/4"	1 1/4"
		C30 sill	Through the buck into steel (18 ga, 45 ksi min) or alum. (1/8", 6063-T6 min): (1) 1/4" x 2 3/4" Elco Dril-flex or ITW Teks screw. Into the unit sill: (1) #12 x 1 1/2" a.T. wood screws.	5 1/2"	10"	1"	1"	3/4"	Full*	1 1/4"

* At metal studs, fastener threads must be fully engaged, with three threads minimum beyond the stud wall, for full embedment.

NOTES:

-All shim spaces between door frame and wood buck max. 3/8" @ head, jambs and sill. Use std wood or plastic shims.

-Jambs anchoring identical to head anchoring shown

-Wood bucks (by others) and openings must be designed by the professional of record to properly transfer wind loads to the main structure.

-Installation brackets (8) and aluminum angles (8a) may be positioned at the interior or exterior side of the door.

-Materials, but not limited to steel & steel screws that come in contact with other dissimilar materials shall meet with chapters 20 and 23 of the Florida Building Code.

Backings rod and sealant as required

Numbers in circle are referring to bill of materials (sheet 8)

JS SERIES
WOOD OPAQUE DOORS
INSWING

Drawing no.: JS-OP-IN

Scale: NONE
Drawn by: S. Marcotte

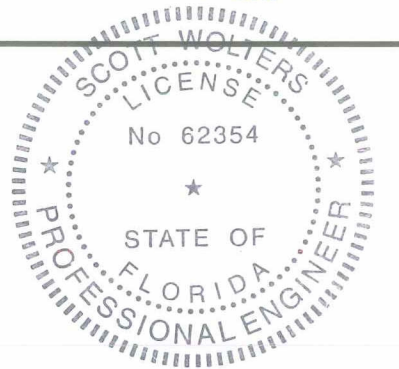
Date drawn: 03/30/06
Date revised:

File: JS-OP-IN
Page: 5 / 9

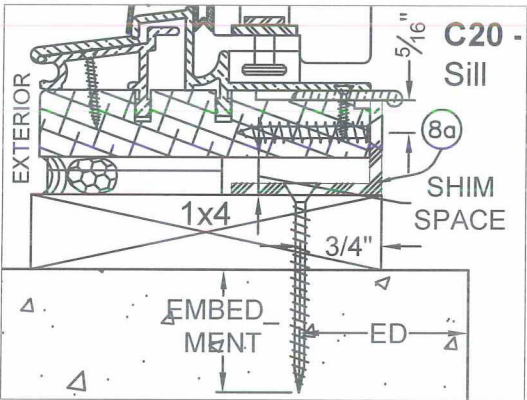
STRUCTURALLY REVIEWED BY:

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016

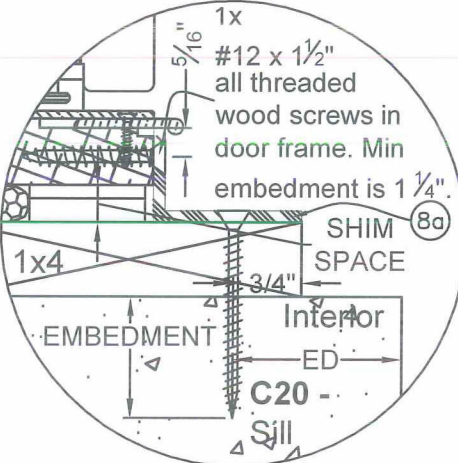


C20 - Typical anchor w/ Continuous Aluminum Angle (8a) using Tapcon screws through 1x wood buck into masonry and wood screw into door frame. Size and spacing as per ANCHOR REQUIREMENTS TABLE on this sheet.



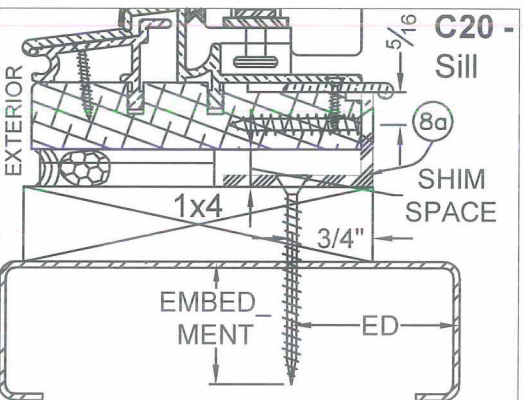
Frame's leg up on the edge of the sill, buck's leg in on the face.

Alternate typical anchor location for the continuous aluminum Angle (8a)



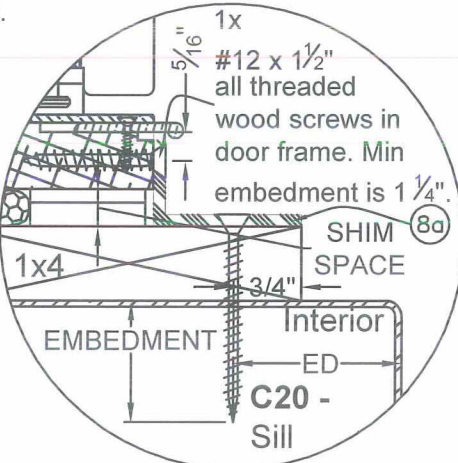
Frame's leg up on the edge of the sill, buck's leg out on the face.

C30 - Typical anchor w/ Continuous Aluminum Angle (8a) using Teks type screws through 1x wood buck into metal and wood screws into door frame. Size and spacing as per ANCHOR REQUIREMENTS TABLE on this sheet.



Frame's leg up on the edge of the sill, buck's leg in on the face.

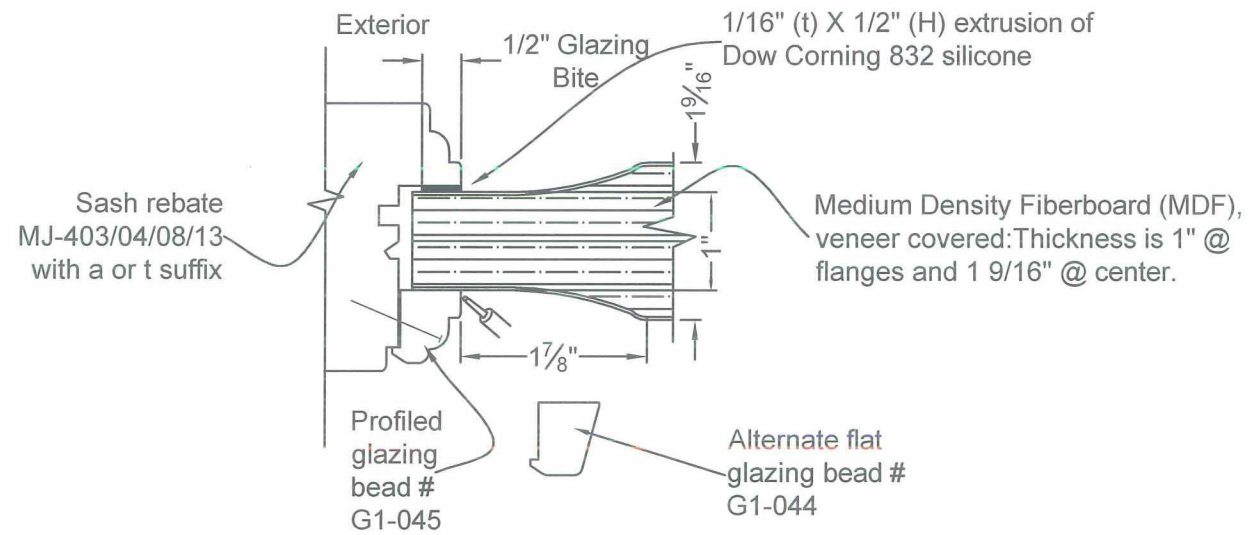
Alternate typical anchor location for the continuous aluminum Angle (8a)



Frame's leg up on the edge of the sill, buck's leg out on the face.

GLAZING DETAILS

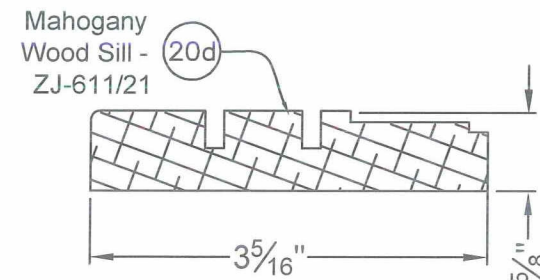
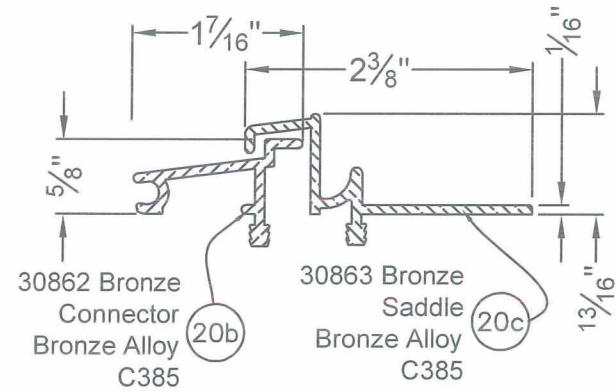
Typ. glazing w/ MDF raised wood panel



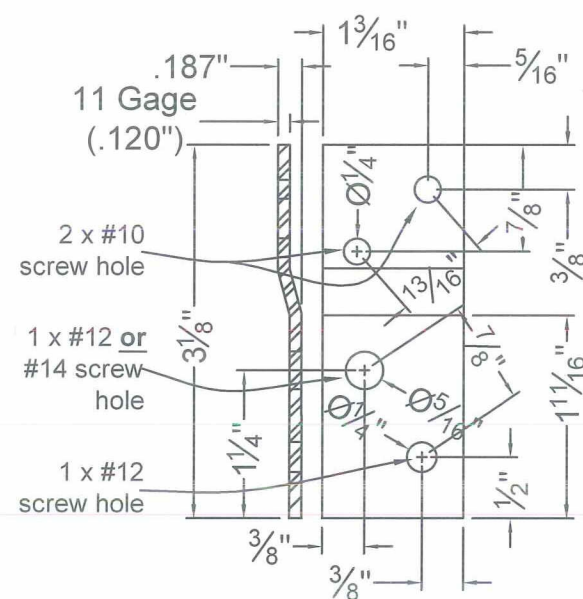
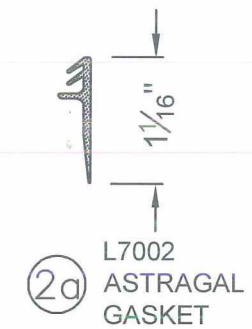
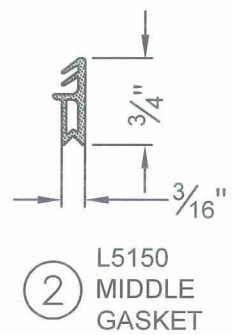
NOTE: All glazing beads fixed at the MDF panel perimeter w/ #18 gauge x 1" long finishing nails spaced 2" from the corners and 10" o/c.

 Clear silicone sealant at shown interface

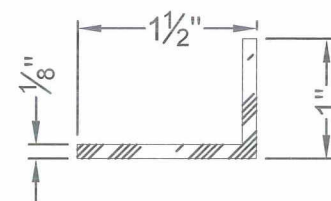
ACCESSORIES



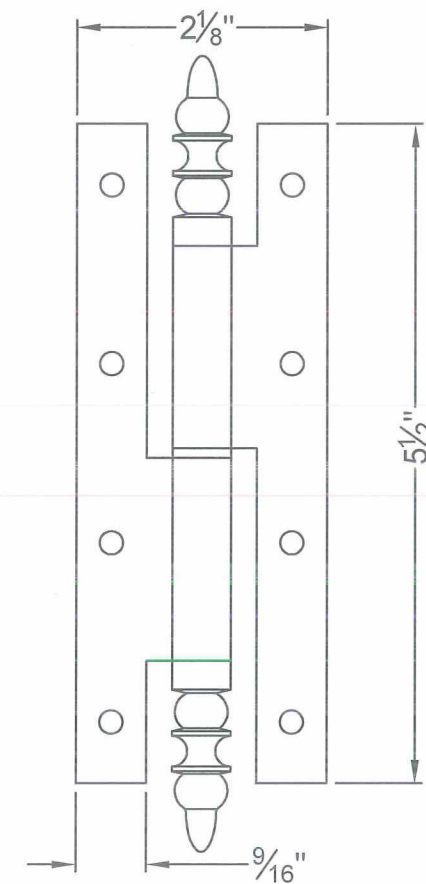
20 BRONZE SADDLE
OVER WOOD SILL



8 PDF-FS-05/D INSTALLATION BRACKET



8a ALUMINUM SILL
INSTALLATION ANGLE



④ 1488-03
HINGE (180° opening shown)



JS SERIES
WOOD OPAQUE DOORS
INSWING

Drawing no.: JS-OP-IN

Scale: NONE	Drawn by: S. Marcotte
----------------	--------------------------

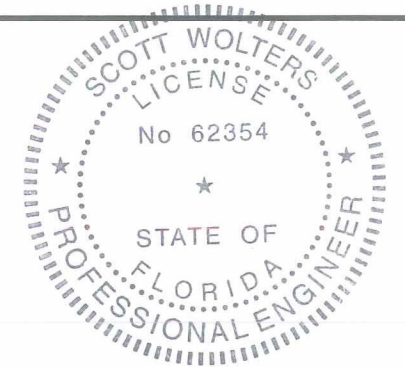
Date drawn: 03/30/06	Date revised: 01/17/11
-------------------------	---------------------------

File: JS-OP-IN	Page: 6 / 9
-------------------	-------------

STRUCTURALLY REVIEWED BY:

SCOTT WOLTERS
FL PE# 62354

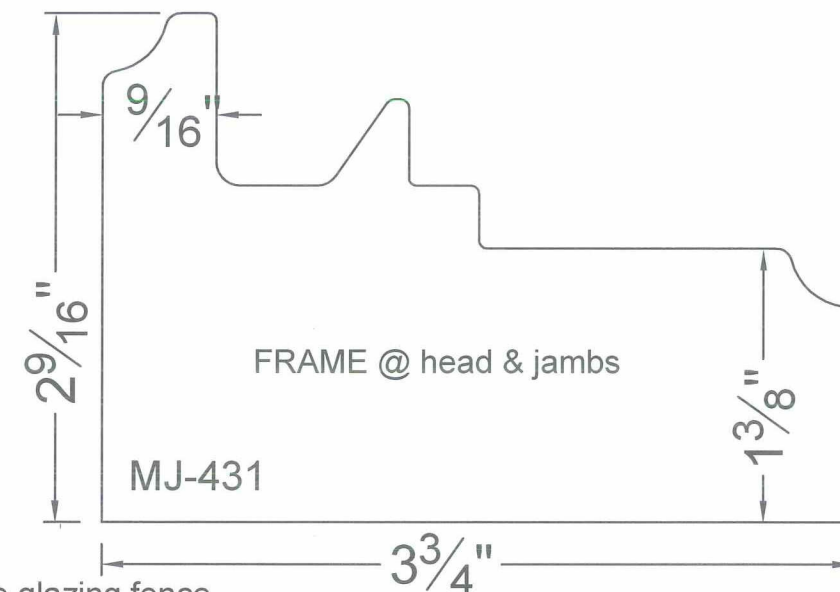
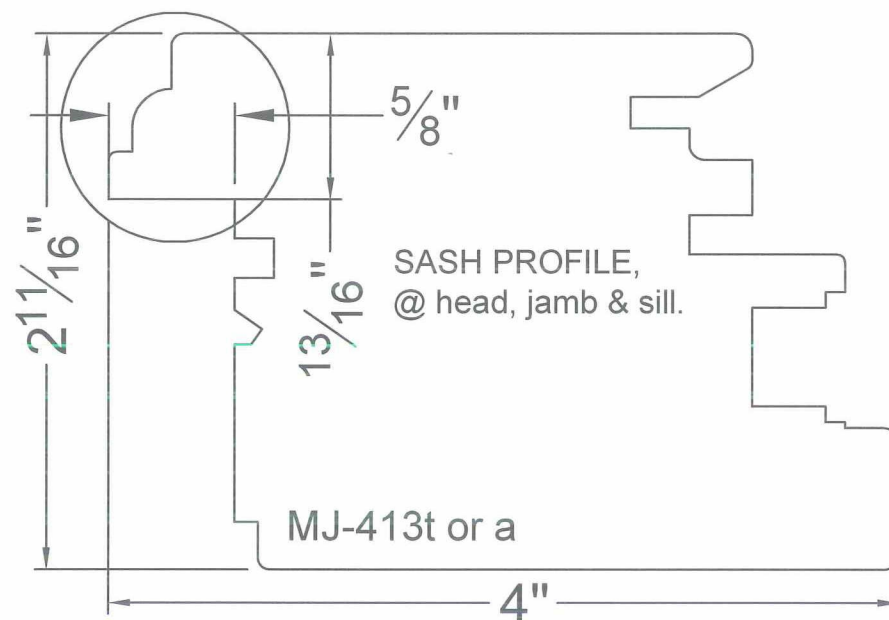
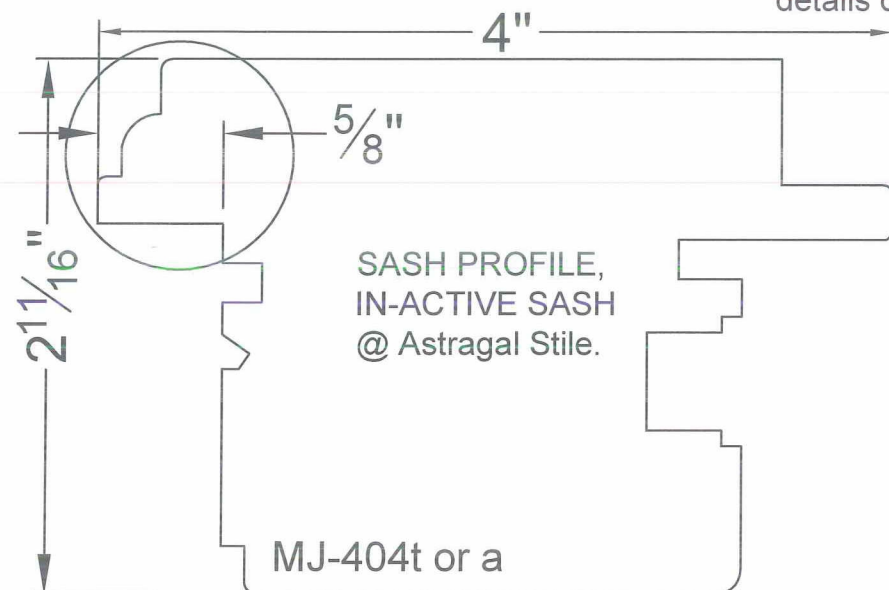
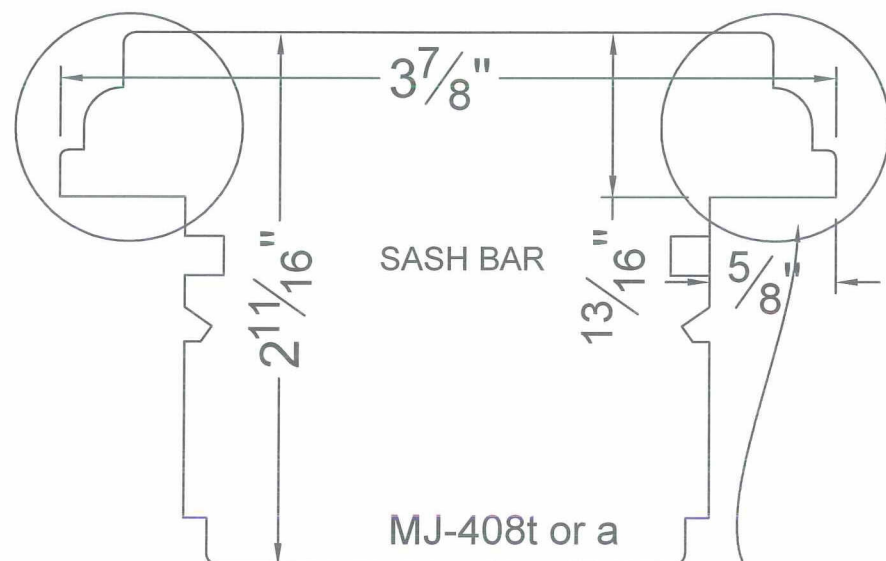
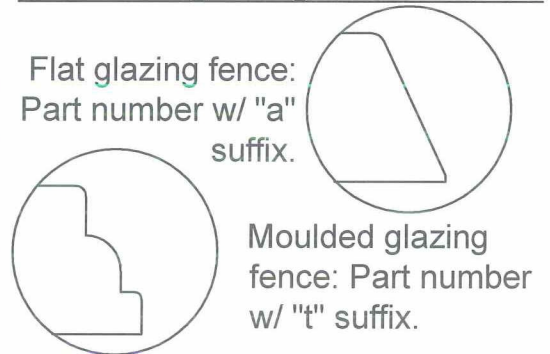
WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016



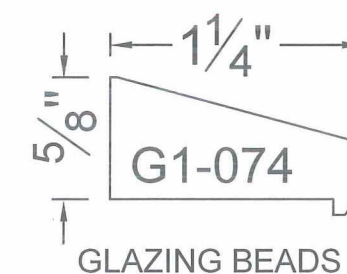
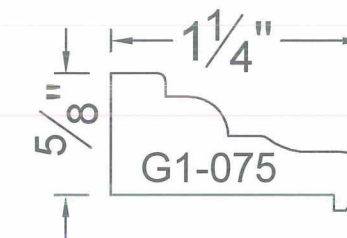
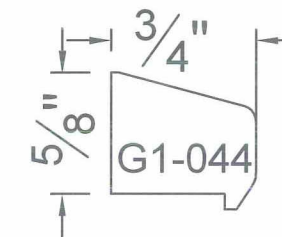
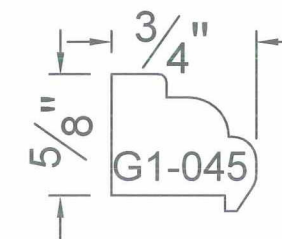
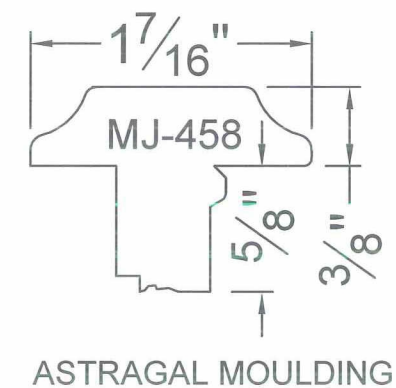
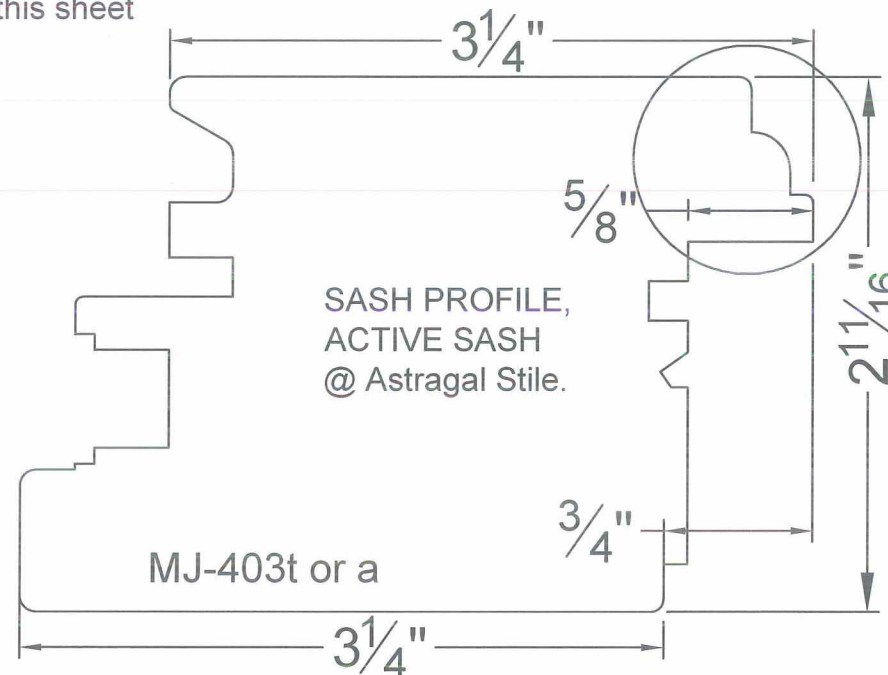
WOOD PROFILES

NOTE: All profiles dimensions shown are minimum dimensions.
 NOTE: All profiles are Honduran Mahogany, with S.G=0.45 (min) and E=1.4x10⁶ psi (min).

Alternate glazing fence details



See Alternate glazing fence details on this sheet



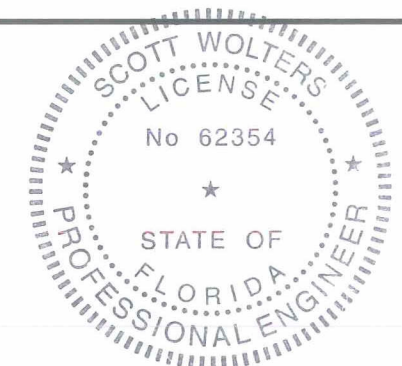
JS SERIES WOOD OPAQUE DOORS INSWING

Drawing no.: JS-OP-IN	
Scale: NONE	Drawn by: S. Marcotte
Date drawn: 03/30/06	Date revised:
File: JS-OP-IN	Page: 7 / 9

STRUCTURALLY REVIEWED BY:

Scott Wolters
 SCOTT WOLTERS
 FL PE# 62354

WOLTERS ENGINEERING, INC.
 (COA# 27194)
 15211 97TH ROAD N
 WEST PALM BEACH, FL 33412
 JUN 15 2016



BILL OF MATERIALS

(see also related cross sections details)

Ref.	ITEM DESCRIPTION	MANUFACTURER / NOTES
②	Brügman L5150, Push-in EPDM middle gasket	Push-in gasket, in a continuous groove around the sash.
2a	Brügman L7002, Push-in EPDM In-active astragal meeting stile middle gasket	Push-in gasket in a continuous groove. Ends @ sash's head & sill glued to the L5150 gasket
2b	Brügman L5004, Push-in EPDM sill gasket	Push-in gasket, in a continuous groove at sash sill.
④	Jardinier Massard S.A. 1488-03 painted steel hinges	5 per hinged stile of sashes, 8" from corners; see elevations for max. o/c spacing. 4 x #7 x 1" flat head screws on sash and frame for each hinge.
⑤	Ferco multi-point lock system.	Ferco G-20755 corner gear Ferco 6-26295 steel intermediate arm Ferco 6-25485 steel mechanism Ferco 6-26076 steel lever. Bronze cast alloy keeper, #833856.
⑦	Lock handle	As required to operate lock.
⑧	PDF-FS-05/D Installation bracket Gage 11 ASTM A653 SQ 33 G90 galvanized steel	To door frame: 2x #10 x 1" a.t. wood screws. Min.embedment is 3/4". To door sill frame: 2 x #10 x 3/4" a.t. wood screws. Min embedment is 5/8". To structure as per ANCHOR REQUIREMENTS TABLE on sheet 5.
8a	Installation Aluminum angle (Alloy 6063-T5)	Screwed to wood sill and to structure as per ANCHOR REQUIREMENTS TABLE on sheet 5.
20a	30861 1" Bronze extension (Alloy C385)	Brass #7 x (1/2" for 30863, 3/4" for 30862) FH screws @ 16" o/c & continuous line of silicone behind; When 30861 is used to hide screw holes, use with 3M double face acrylic tape. It may be used as an optional in or out extension to link with floor finishing material.
20b	30862 Bronze connector (Alloy C385)	
20c	30863 Bronze saddle (Alloy C385)	
20d	ZJ-611/21 Mahogany wood sill	Square cut @ ea end. Screwed with 2x # 12 x 3" wood Screws to the frame jambs. See sheet 9.

REF. NUMBERS ARE RELATED TO THOSE USED ON CROSS SECTIONS DRAWINGS

JS SERIES WOOD OPAQUE DOORS INSWING

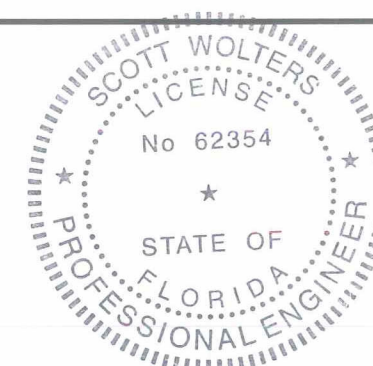
Drawing no.: JS-OP-IN

Scale: NONE	Drawn by: S. Marcotte
Date drawn: 03/30/06	Date revised: 01/17/11
File: JS-OP-IN	Page: 8 / 9

STRUCTURALLY REVIEWED BY:


SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016



JS SERIES

WOOD OPAQUE DOORS

INSWING

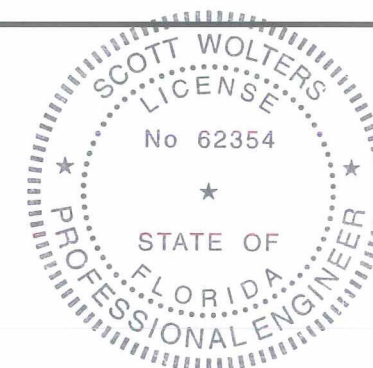
Drawing no.: JS-OP-IN	
Scale: NONE	Drawn by: S. Marcotte
Date drawn: 03/30/06	Date revised:
File: JS-OP-IN	Page: 9 / 9

STRUCTURALLY REVIEWED BY:



SCOTT WOLTERS
FL PE# 62354

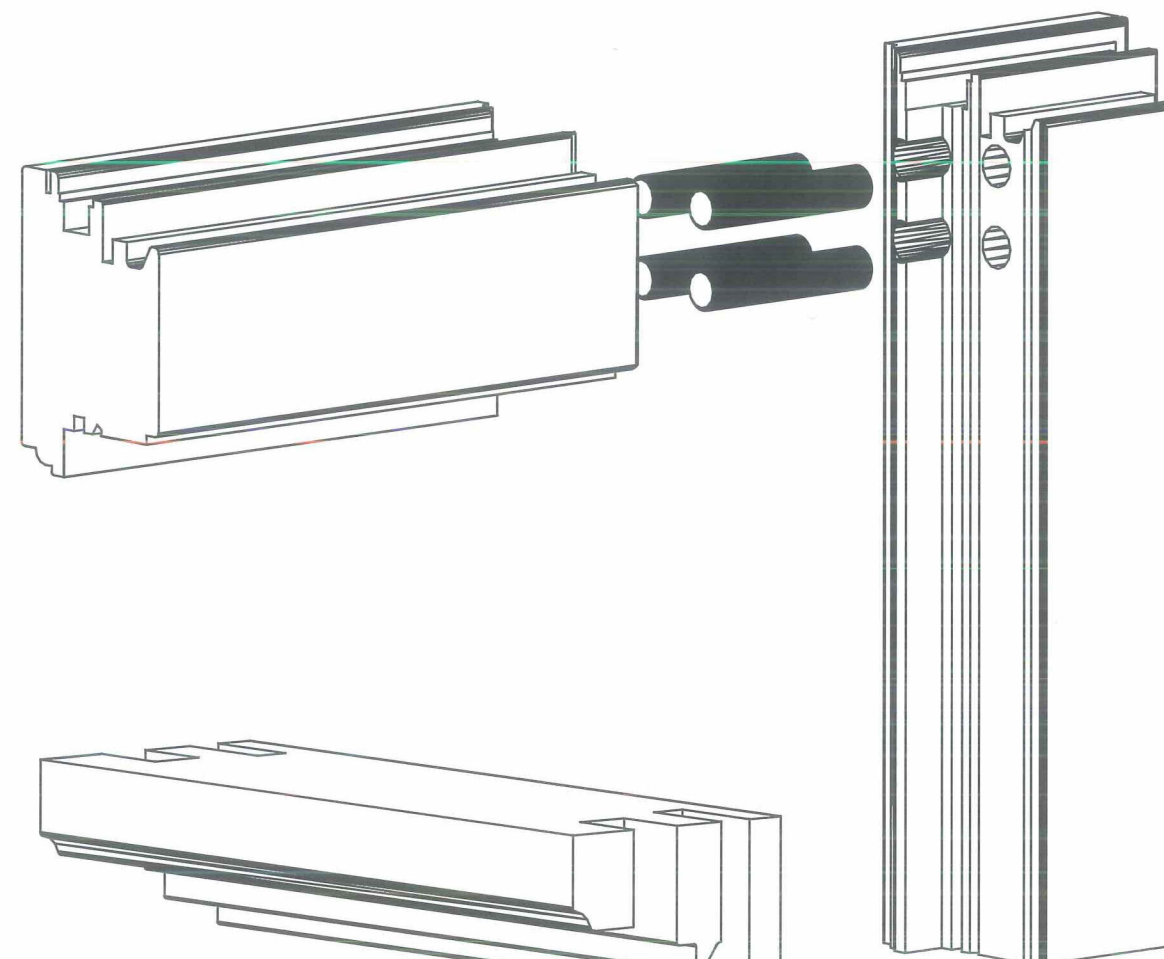
WOLTERS ENGINEERING, INC.
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
JUN 15 2016



Sash rails and sash bar to sash stiles: 4x 7/16" x 2 3/4" wood dowels, w/ 1 3/8" embedment to each profile
 Glue: Rhenocoll 3W-4B type 1 exterior glue for wood.

CORNER ASSEMBLY

3D VIEW DETAILS



Frame head to frame jambs: multifork.
 Glue: Rhenocoll 3W-4B type 1 exterior glue for wood.

Frame sill to frame Jambs: Screwed w/ 2x #12 x 3" FH screws.

