

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION
DR-648

Effective Date: November 1, 2013
Reevaluation Date: **April 2016**

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Fiberglass Inswing Hinged Glazed Doors with Sidelites, Impact Resistant, manufactured by

Nan Ya Plastics Corporation USA / Neuma Doors
8989 North Loop East
Houston, Texas 77029
Telephone: (713) 674-7822

General Description:

System	Description	Label Rating	Design Pressure Rating
1	Fiberglass Inswing Hinged Glazed Doors with Sidelites	R-PG50 144 x 83-SHD Missile Level D	+50/-50 psf

Product Dimensions:

System	Overall Size	Active/Passive Panel Size	Sidelite Panel Size	Glass Daylight Opening Size
1	143.25" x 82.50"	Two: 34.50" x 79.13"	Two: 34.50" x 79.13"	25.00" x 63.00"

Product Identification (Certification Agency Label on Door):

System	Certification Agency	NAMI
1	Manufacturer's Name or Code Name	Nan Ya Plastics USA
	Product Name	Inswing Hinged Fiberglass Glazed Double Door w/ or w/o Sidelites
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-08 AAMA 506-08; ASTM E 1886-05 ASTM E 1996-05; Missile Level D

Hardware:

- Hinges; Three required per door; Secured to the door panel with four (4) No. 10 x 2" screws. Secured to the door jamb with two (2) No. 10 x $\frac{7}{8}$ " screws and two (2) No. 10 x 2" screws.
- Surface mount 3-point locking system with lever type handle key operator; Located on the active door panel.

Hardware (continued):

- Surface mount 2-point locking system with lever type handle key operator; Located on the inactive panel.
- Strike plate; One (1) required; Located on the inactive panel lockstile; Secured with two (2) No. 10 x $\frac{7}{8}$ " screws and two (2) No. 10-32 x $\frac{5}{16}$ " screws.
- Strike plate; One (1) required; Located on the inactive panel lockstile; Secured with two (2) No. 10 x $\frac{7}{8}$ " screws.
- Strike plate – head; One (1) required; Located on the door frame head; Secured with two (2) No. 8 x 3" screws.
- Strike plate – sill; One (1) required; Secured to the sill with two (2) No. 8 x 3" screws .

Sill and Threshold:

- 2.00" high aluminum inswing sill

Impact Resistance:

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the Inland I and Seaward zone . The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

Qualified Configurations: O / X / OX / XO / OXO / XX / XXO / OXX / OXXO. Sidelites may be installed without doors.

Installation:

Design Drawings: The doors shall be installed in accordance with Drawing No. 08-01553, titled "Inswing Entrance Door w/ Sidelites," sheets 1 through 8 of 8, dated May 31, 2012, signed and sealed by Luis R. Lomas., P.E on October 7, 2013. The stated drawings will be referred to as the approved drawings in this evaluation report.

Wall Framing Construction: The doors may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

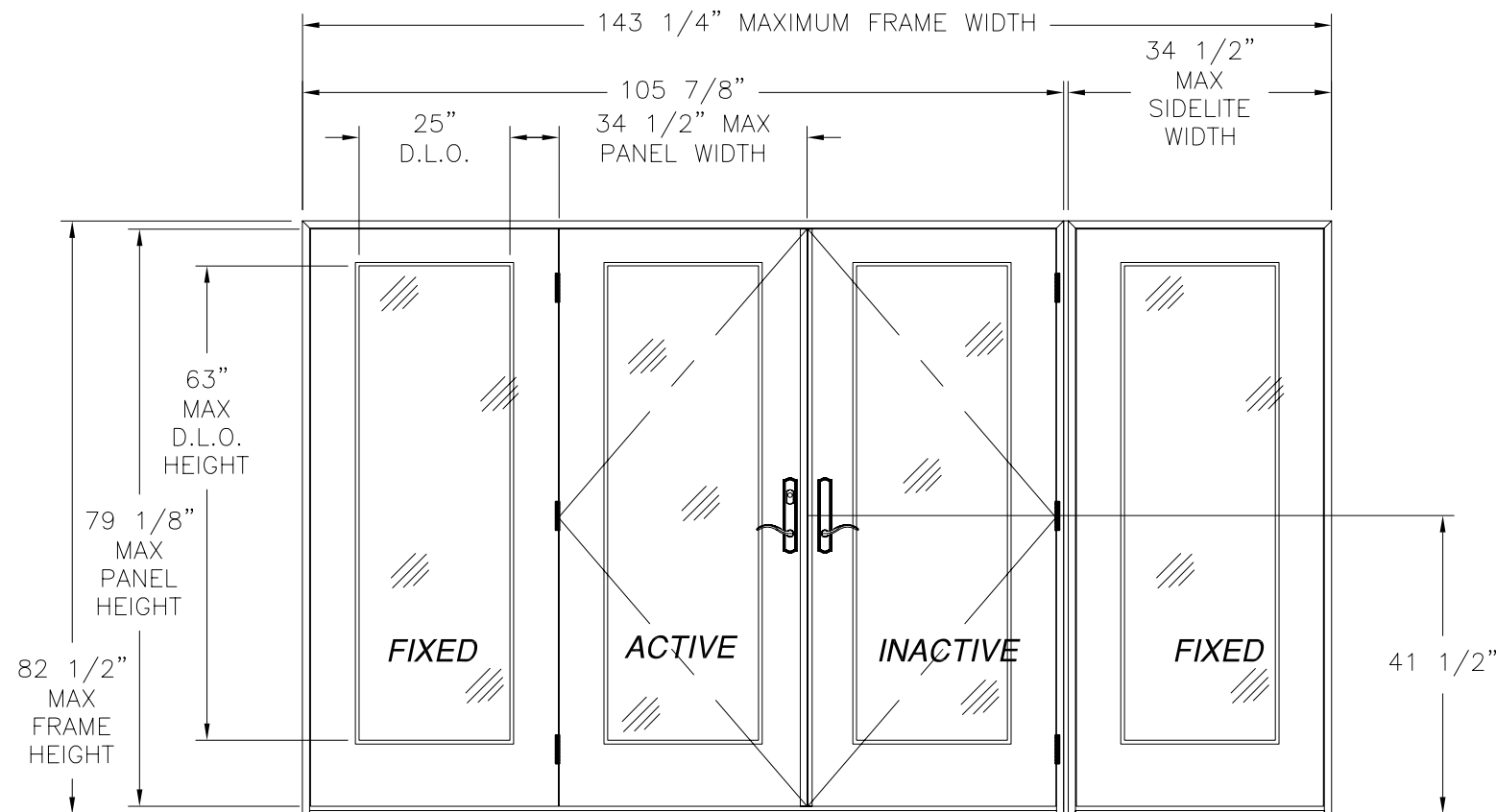
- Concrete (minimum compressive strength: 3,200 psi)
- Hollow concrete block; ASTM C-90, Grade N, Type 1 (or greater)
- Wood dimension lumber (minimum Spruce-Pine-Fir)

Installation:

- Refer to Sheet 1 of 8 of the approved drawings for the elevation and notes.
- Refer to Sheets 3 of 8 and 4 of 8 of the approved drawings for the anchor layout and notes.
- Refer to Sheets 5 of 8 through 8 of 8 of the approved drawings for installation details.
- The approved drawings indicate the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



- NOTES:
1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
 2. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
 3. 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
 4. UNITS MUST BE GLAZED PER ASTM E1300-04, SEE SHEET 5 FOR GLASS OPTIONS.
 5. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
 6. FRAME JAMB AND HEAD MATERIAL: CO-EXTRUDED PVC FOAM 1 1/2" THICK.
 7. FRAME SILL MATERIAL: CO-EXTRUDED PVC FOAM 2" THICK WITH ALUMINUM CLADDING .063" THICK.
 8. DOOR PANEL AND SIDELITE MATERIAL: .075" THICK FIBERGLASS SKIN WITH PVC FOAM TOP AND BOTTOM RAILS, AND PVC FOAM VERTICAL STILES WITH PINE REINFORCEMENTS AND POLYURETHANE FOAM CORE.
 9. APPROVED CONFIGURATIONS: O, X, OX, XO, XX, OXO, XXO, OXX AND OXXO. SEE SHEET 2.
 10. HINGES LOCATED AT 8 3/4", 39 1/2", AND 71 3/8" FROM TOP OF PANEL

IN-SWING ENTRANCE DOOR
DOUBLE DOOR W/ SIDELITES
 EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±50.0PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4

SIGNED: 04/11/2012

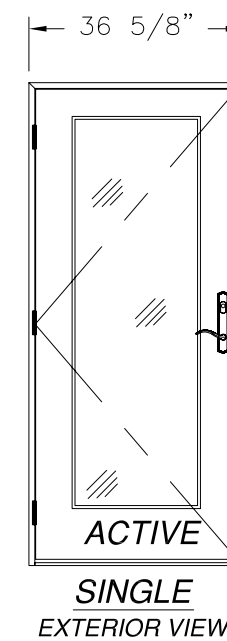
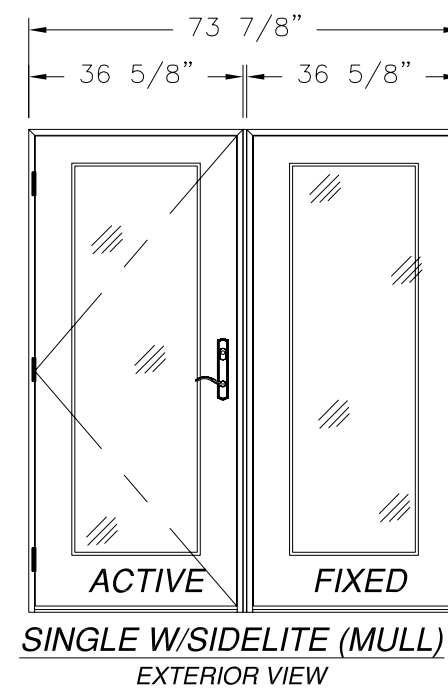
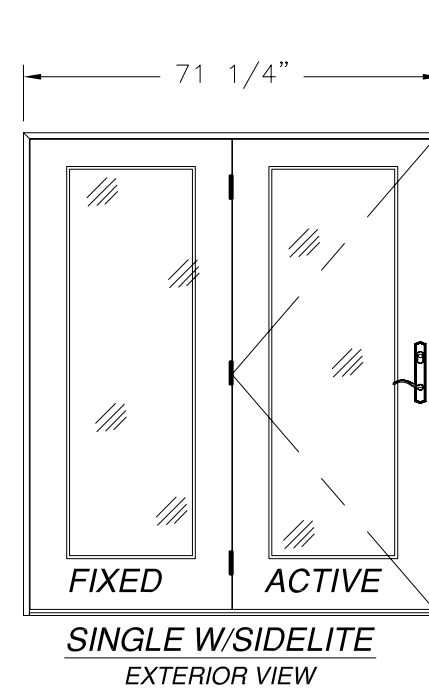
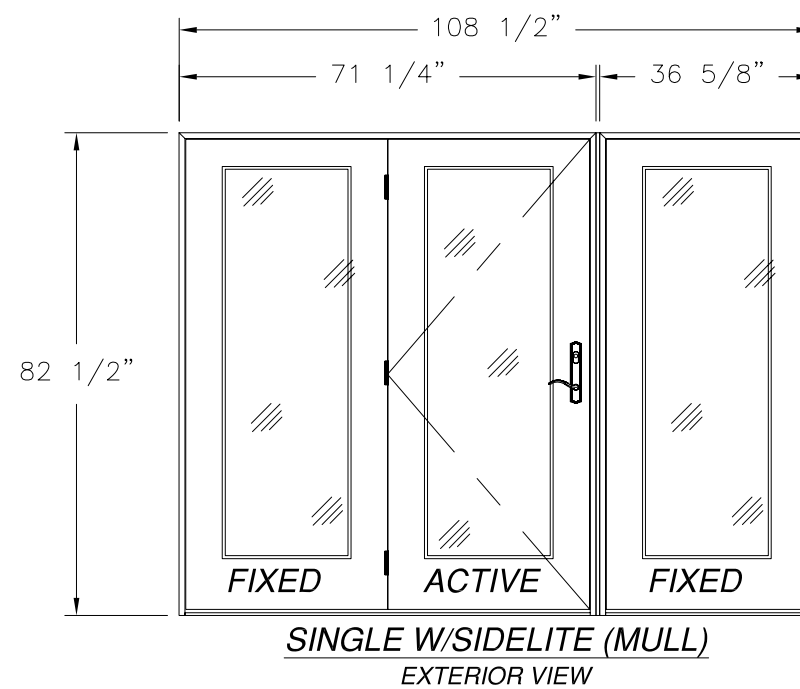
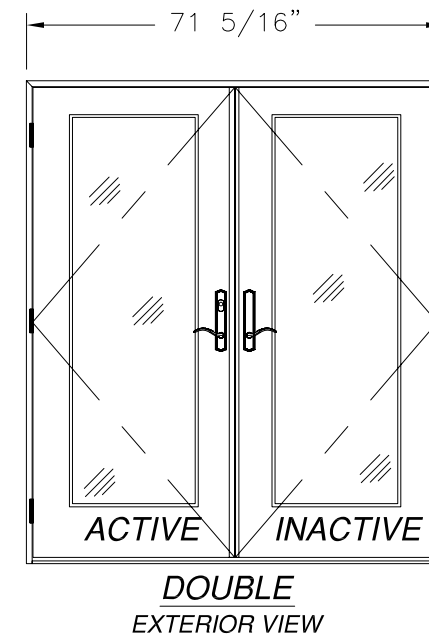
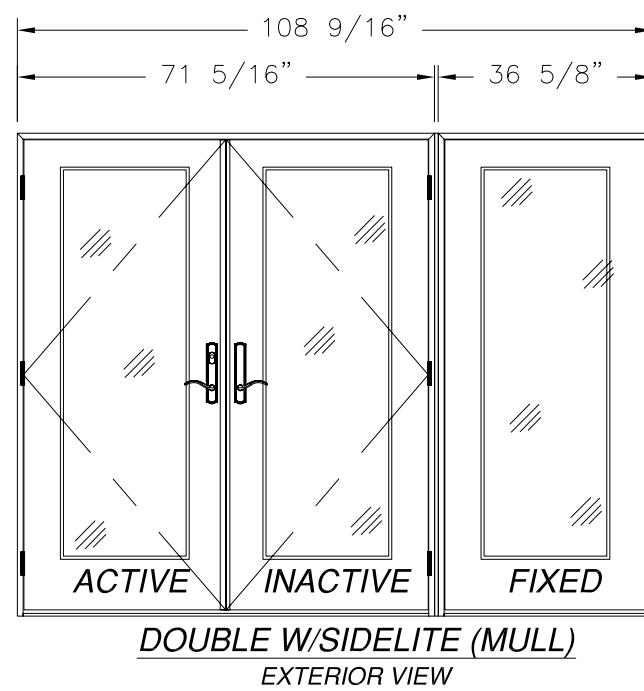
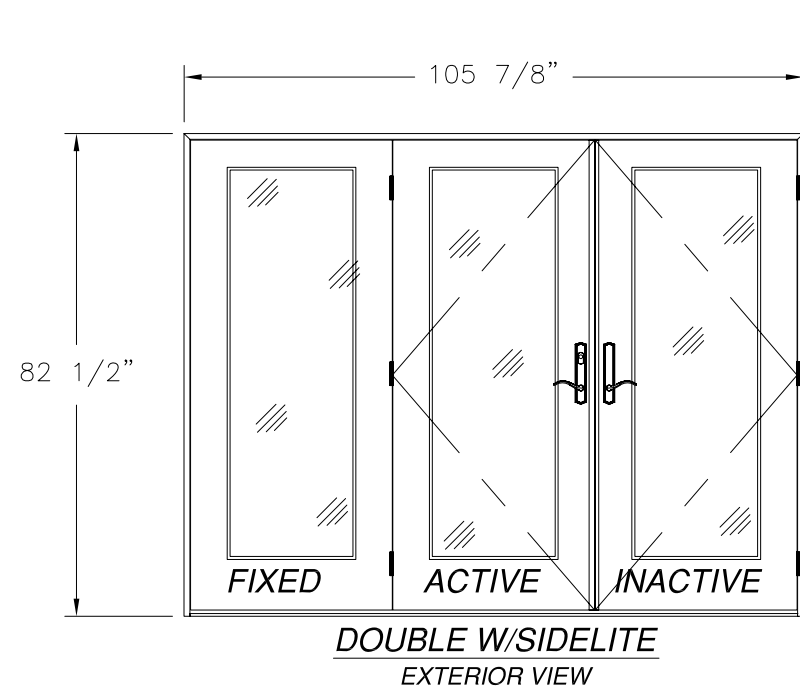
TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	ELEVATION AND NOTES
2	ADDITIONAL CONFIGURATIONS AND HARDWARE
3 - 4	ANCHORING LAYOUTS
5 - 8	INSTALLATION DETAILS

NAN YA PLASTICS CORP. USA 8989 NORTH LOOP EAST HOUSTON, TX 77029		
IN-SWING ENTRANCE DOOR W/ SIDELITES FIBERGLASS IMPACT GLAZED OXO ELEVATION AND NOTES		
DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 1 OF 8



Luis R. Lomas P.E.
Texas No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



HARDWARE SCHEDULE	
A.	2 POINT LOCK BY NINGBO MICOTA (INACTIVE PANEL)
B.	3 POINT LOCK BY NINGBO MICOTA (ACTIVE PANEL)
C.	(4) 4"x4" BUTT HINGES BY WENZHOU LONGTAI (PER PANEL)
D.	ALUMINUM & PVC FOAM ASTRAGAL BY NAN YA PLASTICS
E.	ALUMINUM & PVC FOAM MULLION BY NAN YA PLASTICS

NOTE:
ALL APPROVED CONFIGURATIONS ARE SHOWN AS LEFT HAND ACTIVE, RIGHT HAND ACTIVE IS ALSO APPROVED.

NAN YA PLASTICS CORP. USA
8989 NORTH LOOP EAST
HOUSTON, TX 77029

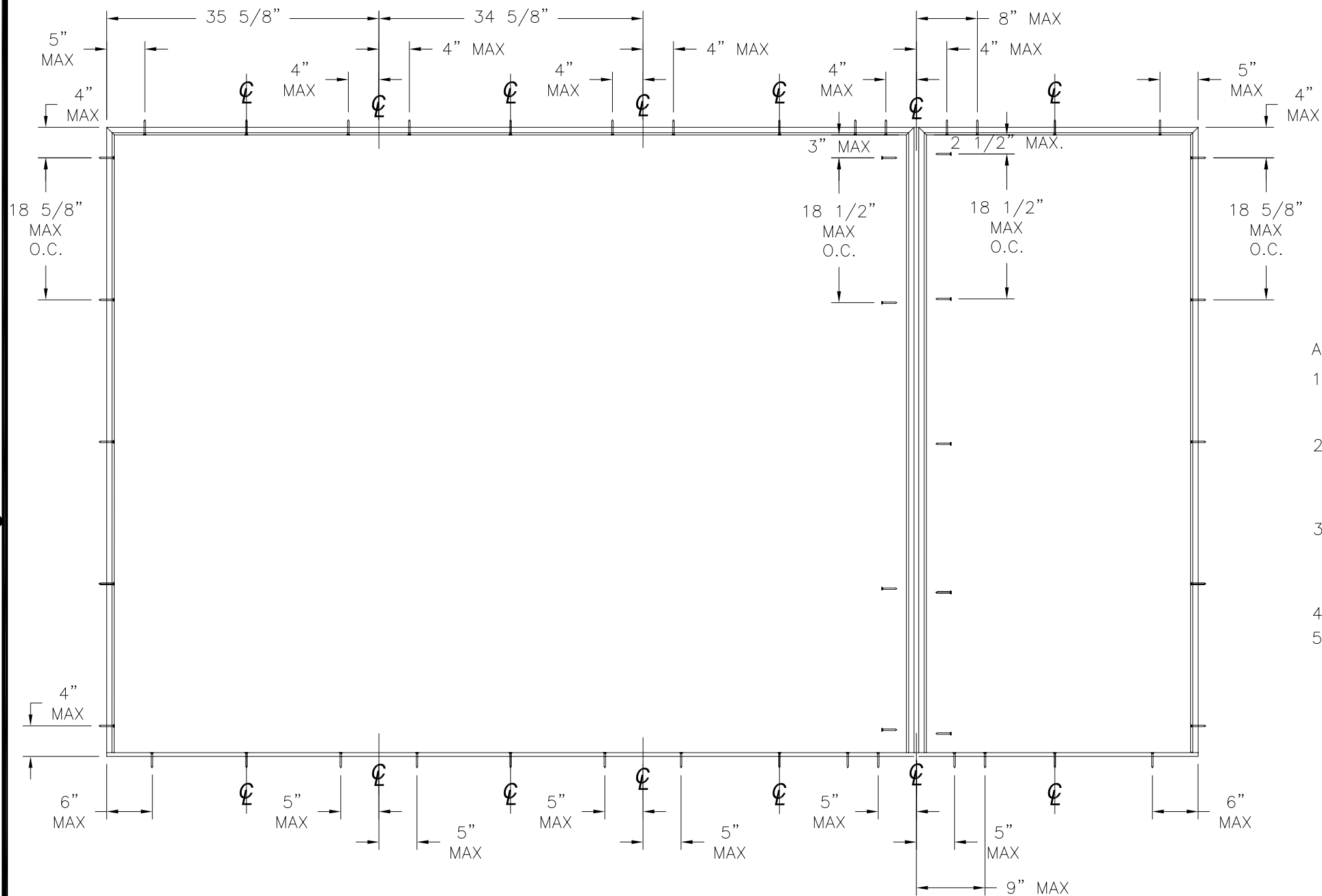
IN-SWING ENTRANCE DOOR W/ SIDELITES
FIBERGLASS IMPACT GLAZED
ADDITIONAL CONFIGURATIONS AND HARDWARE

DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 2 OF 8



Luis R. Lomas P.E.
Texas No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



ANCHORING LAYOUT

ANCHORING NOTES:

- 1) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
- 2) FOR ANCHORING INTO MASONRY/CONCRETE USE 3/16" TAPCON OF SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ANCHORING LAYOUT AND INSTALLATION DETAILS.
- 3) FOR ANCHORING INTO 2X BUCK OR WOOD FRAMING USE #10 WOOD SCREW OF SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ANCHORING LAYOUT AND INSTALLATION DETAILS.
- 4) ALL FASTENERS TO BE CORROSION RESISTANT.
- 5) INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - A. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,200 PSI.
 - C. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).

NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

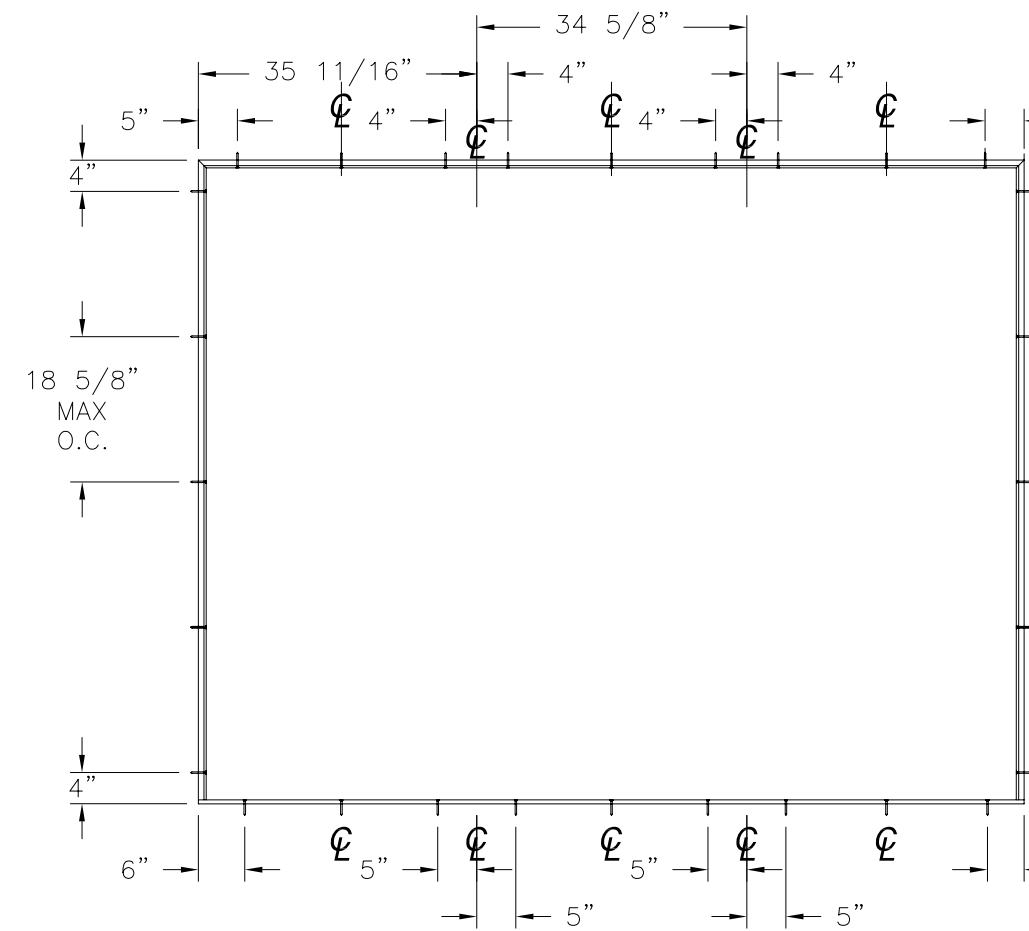
IN-SWING ENTRANCE DOOR W/ SIDELITES
 FIBERGLASS IMPACT GLAZED
 ANCHORING LAYOUTS

DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 3 OF 8

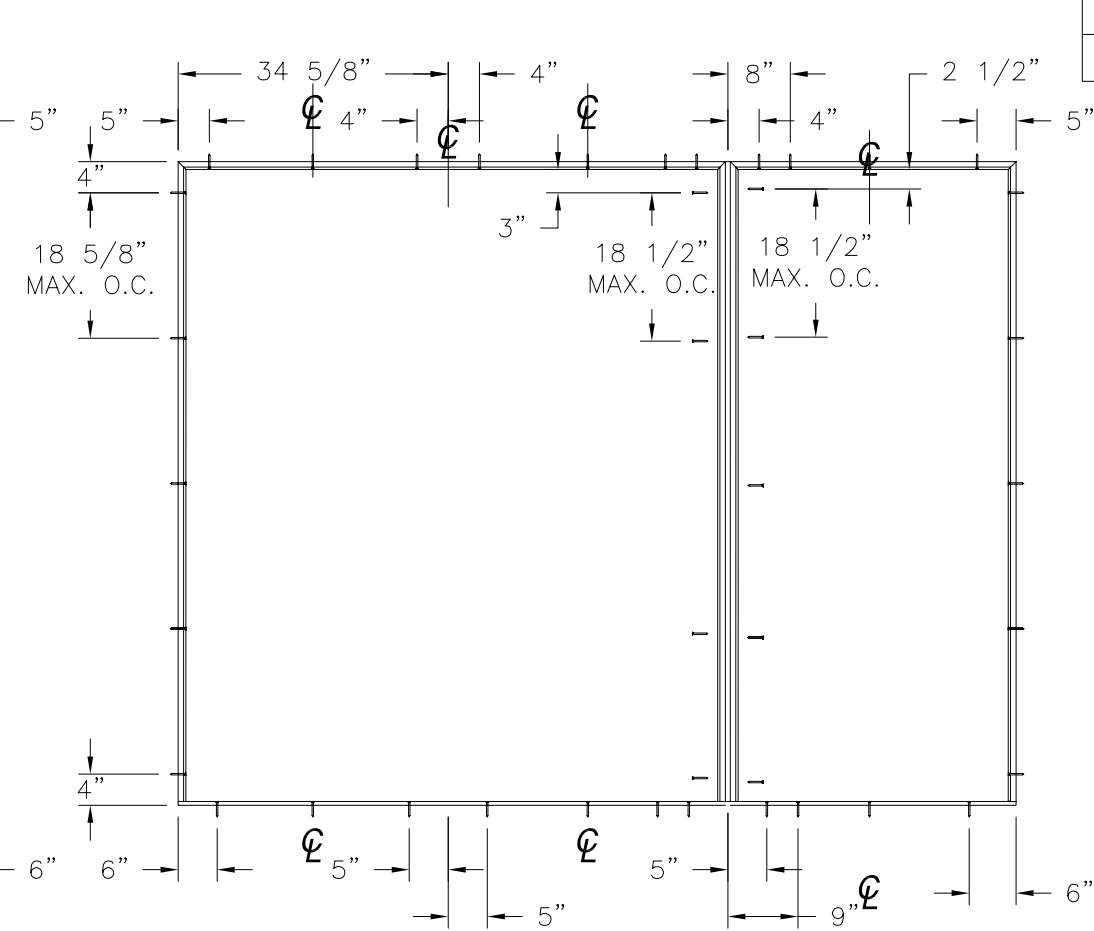


Luis R. Lomas P.E.
 Texas No. 101889

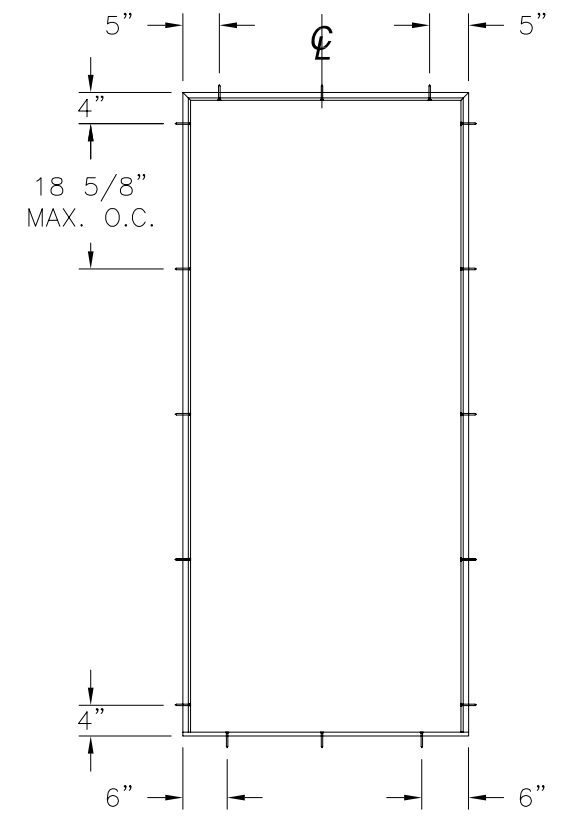
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



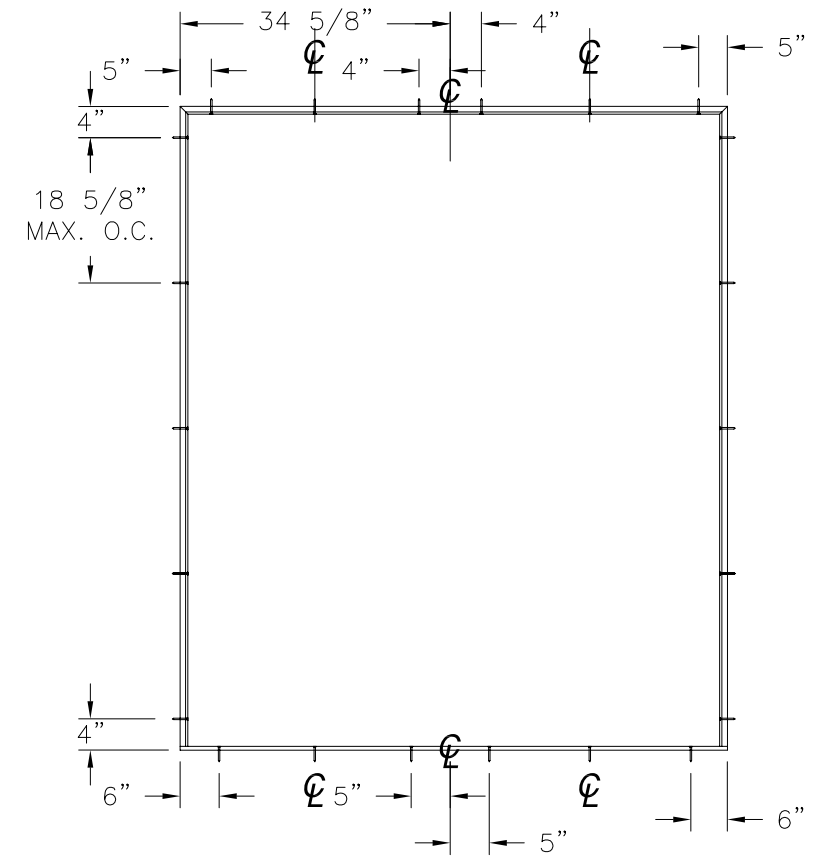
ANCHORING LAYOUT FOR OXO, XXO AND OXX



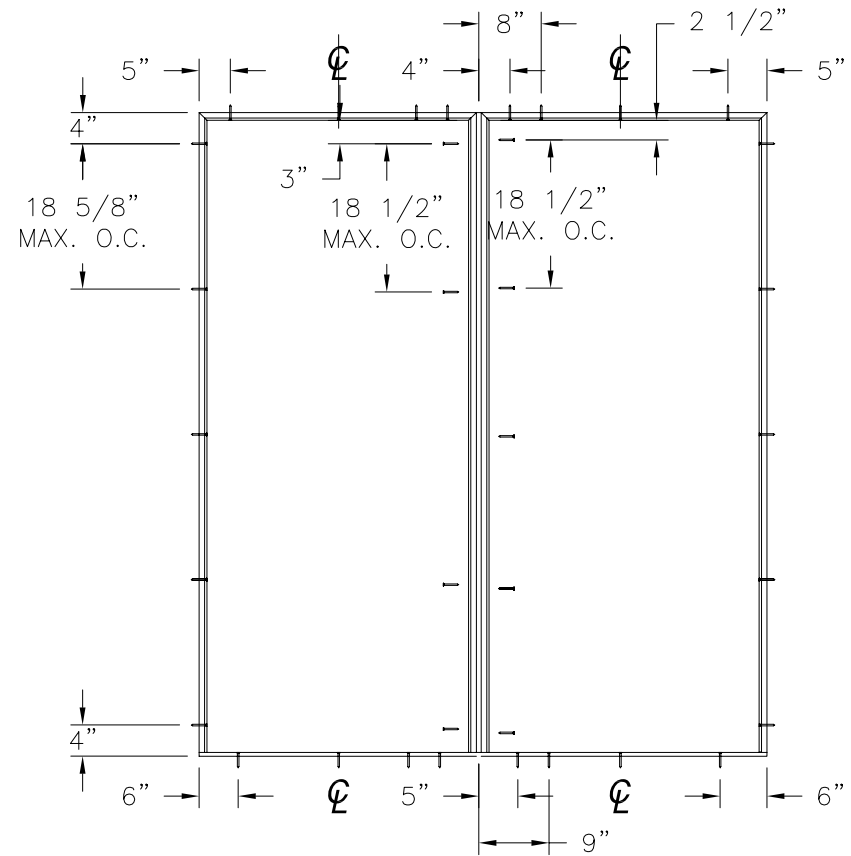
ANCHORING LAYOUT FOR OXO, XXO AND OXX (MULL)



ANCHORING LAYOUT FOR X



ANCHORING LAYOUT FOR XX, OX AND XO



ANCHORING LAYOUT FOR OX AND XO (MULL)

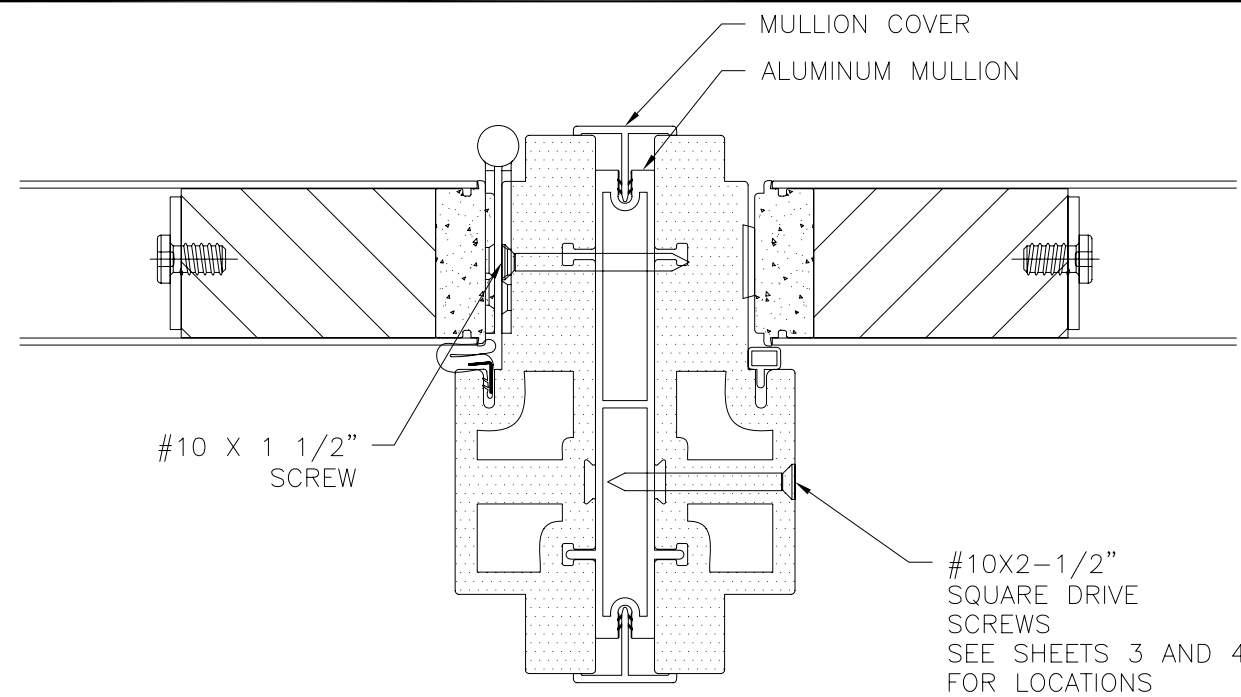
NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

IN-SWING ENTRANCE DOOR W/ SIDELITES
 FIBERGLASS IMPACT GLAZED
 ANCHORING LAYOUTS

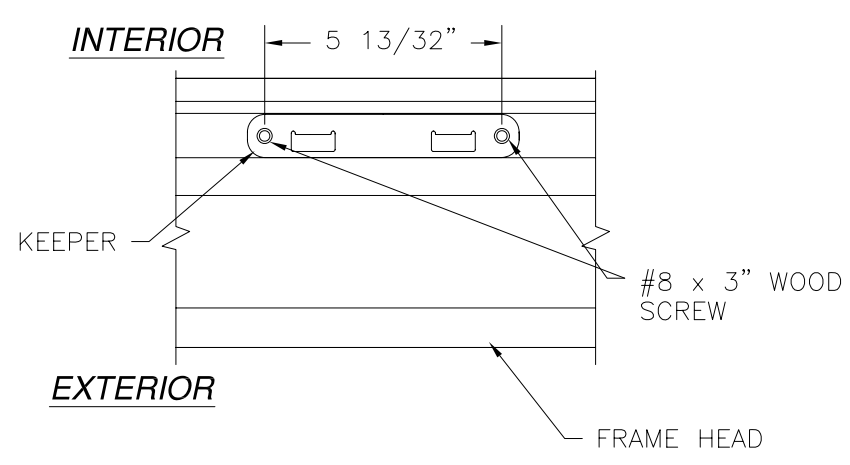
DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 4 OF 8

Luis R. Lomas P.E.
 Texas No. 101889

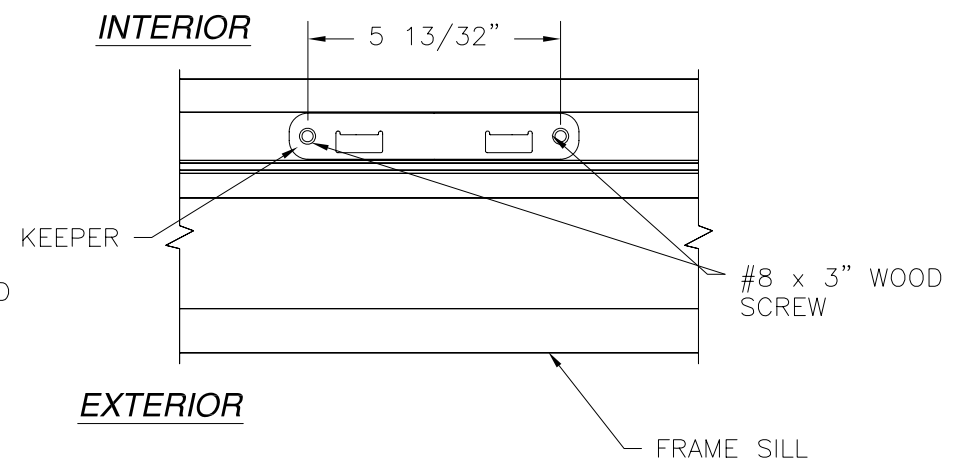
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



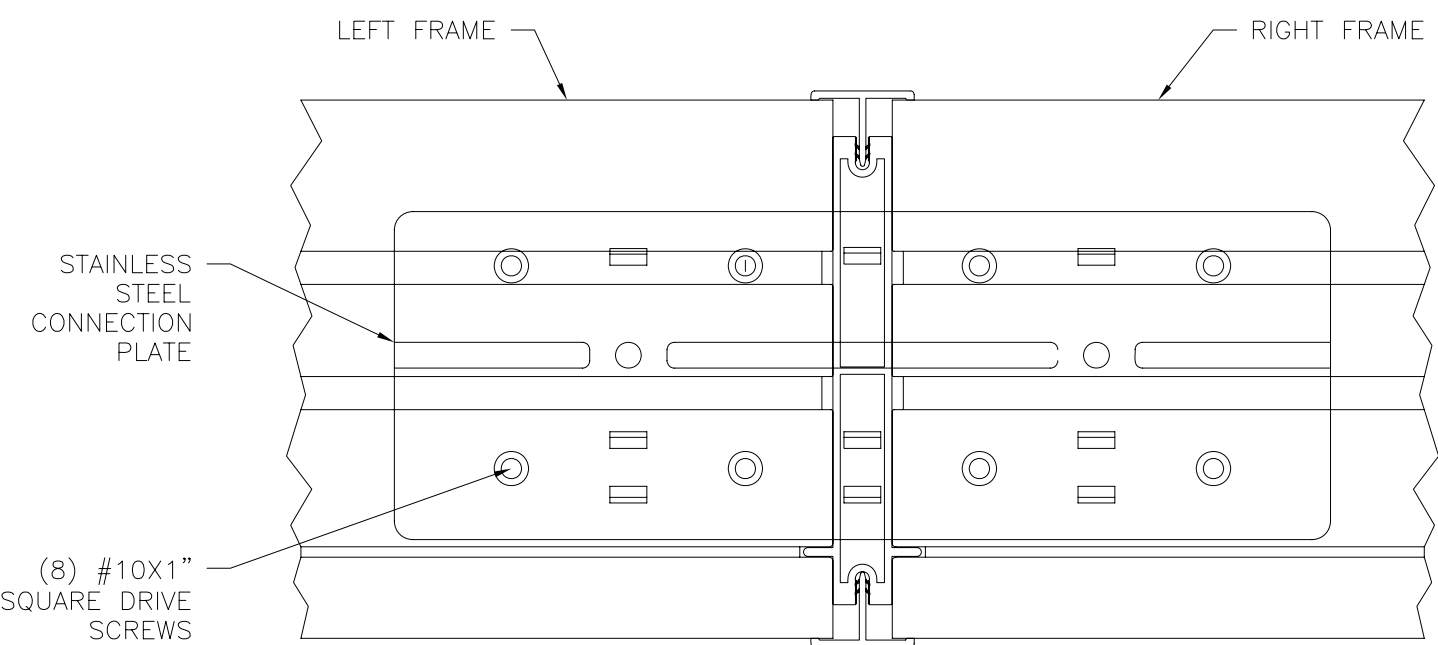
MULLION DETAIL



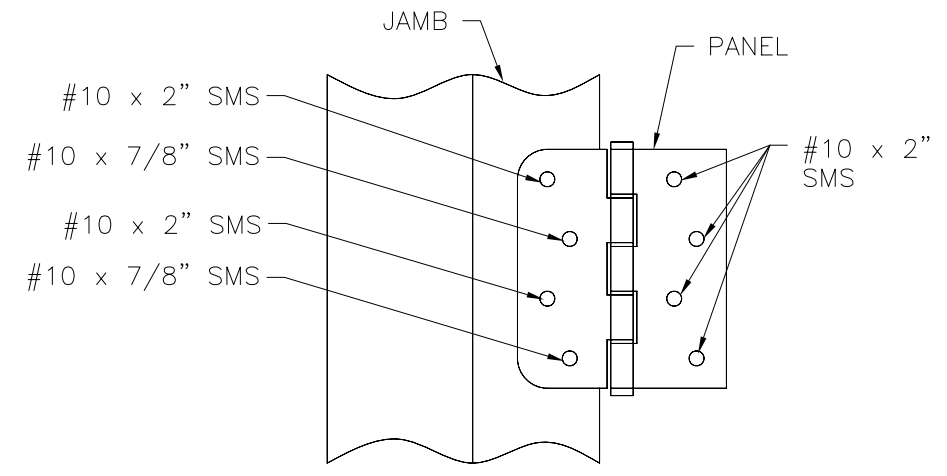
HEAD KEEPER DETAIL



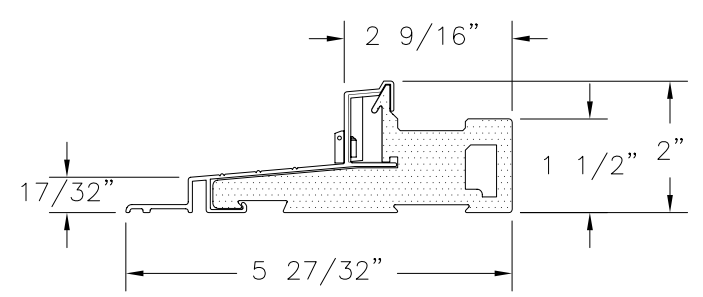
SILL KEEPER DETAIL



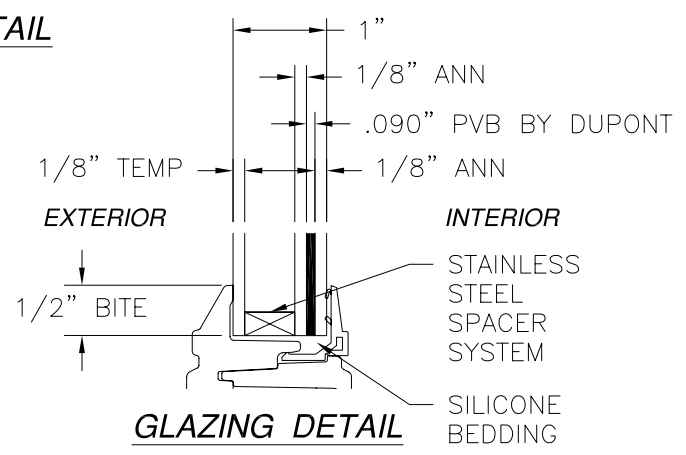
FRAME CONNECTION DETAIL



HINGE INSTALLATION DETAIL



DOOR SILL



GLAZING DETAIL

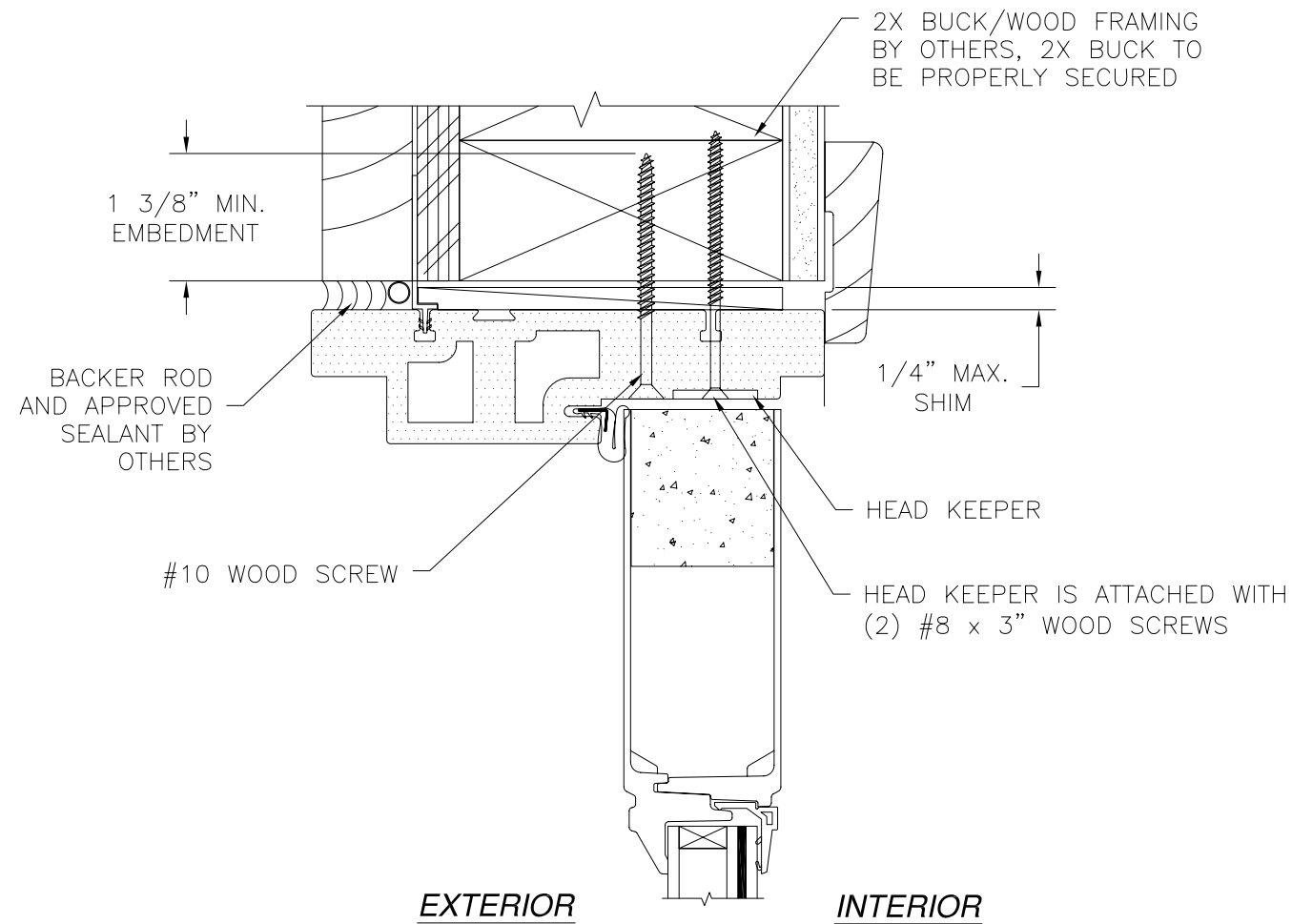
NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

**IN-SWING ENTRANCE DOOR W/ SIDELITES
 FIBERGLASS IMPACT GLAZED
 INSTALLATION DETAILS**

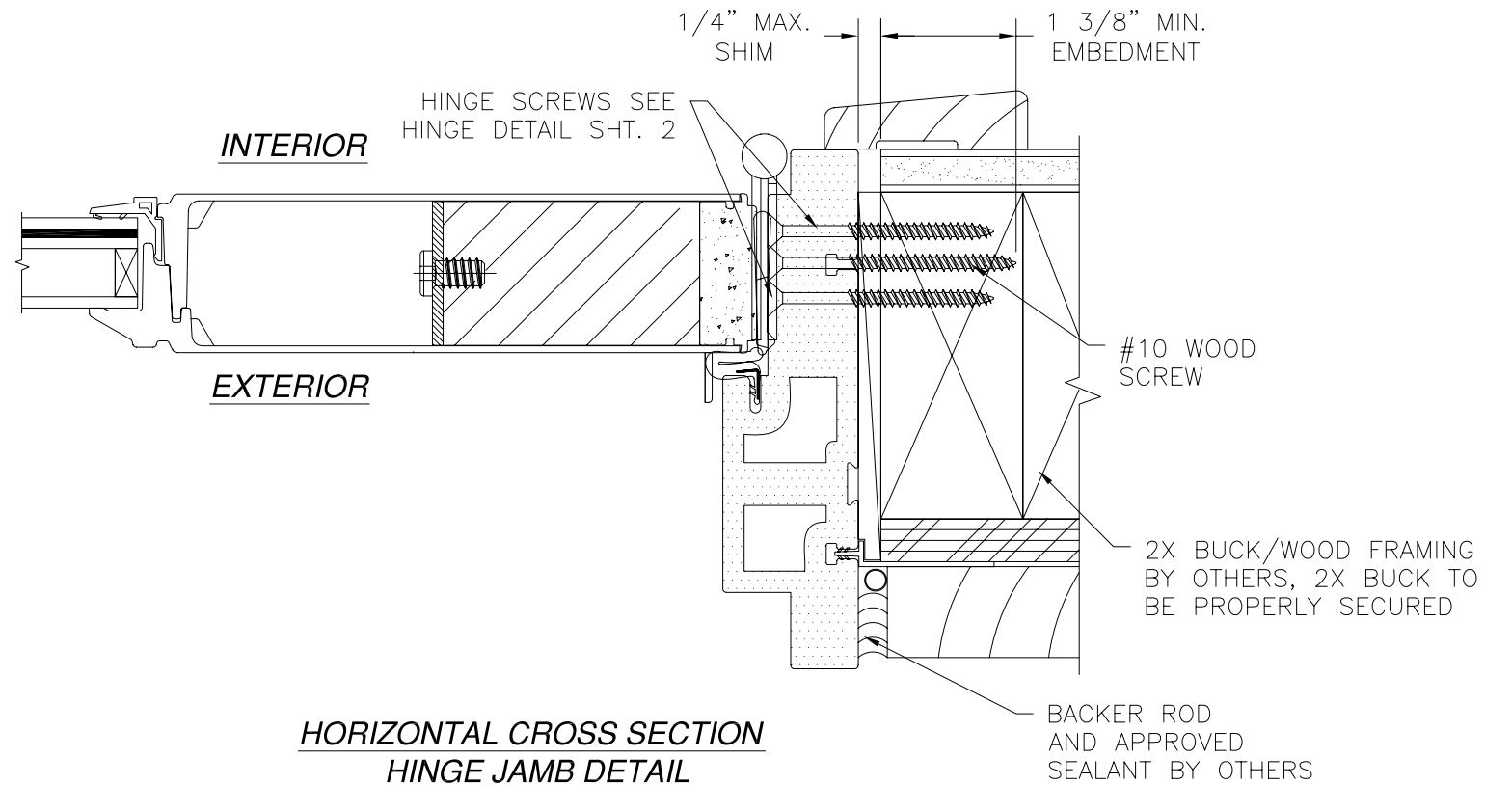
DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 5 OF 8

Luis R. Lomas P.E.
 Texas No. 101889

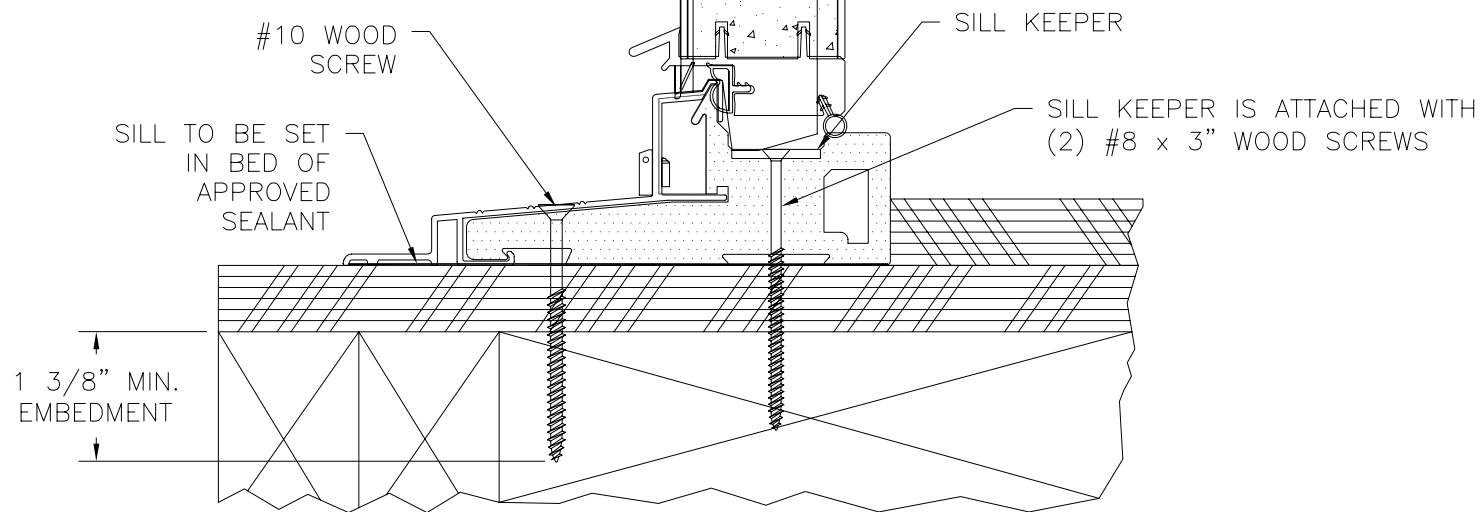
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



EXTERIOR **INTERIOR**



**HORIZONTAL CROSS SECTION
HINGE JAMB DETAIL
2X BUCK/WOOD FRAMING INSTALLATION**



**VERTICAL CROSS SECTION
DOOR SHOWN, SIDELITE SIMILAR
2X BUCK/WOOD FRAMING INSTALLATION**

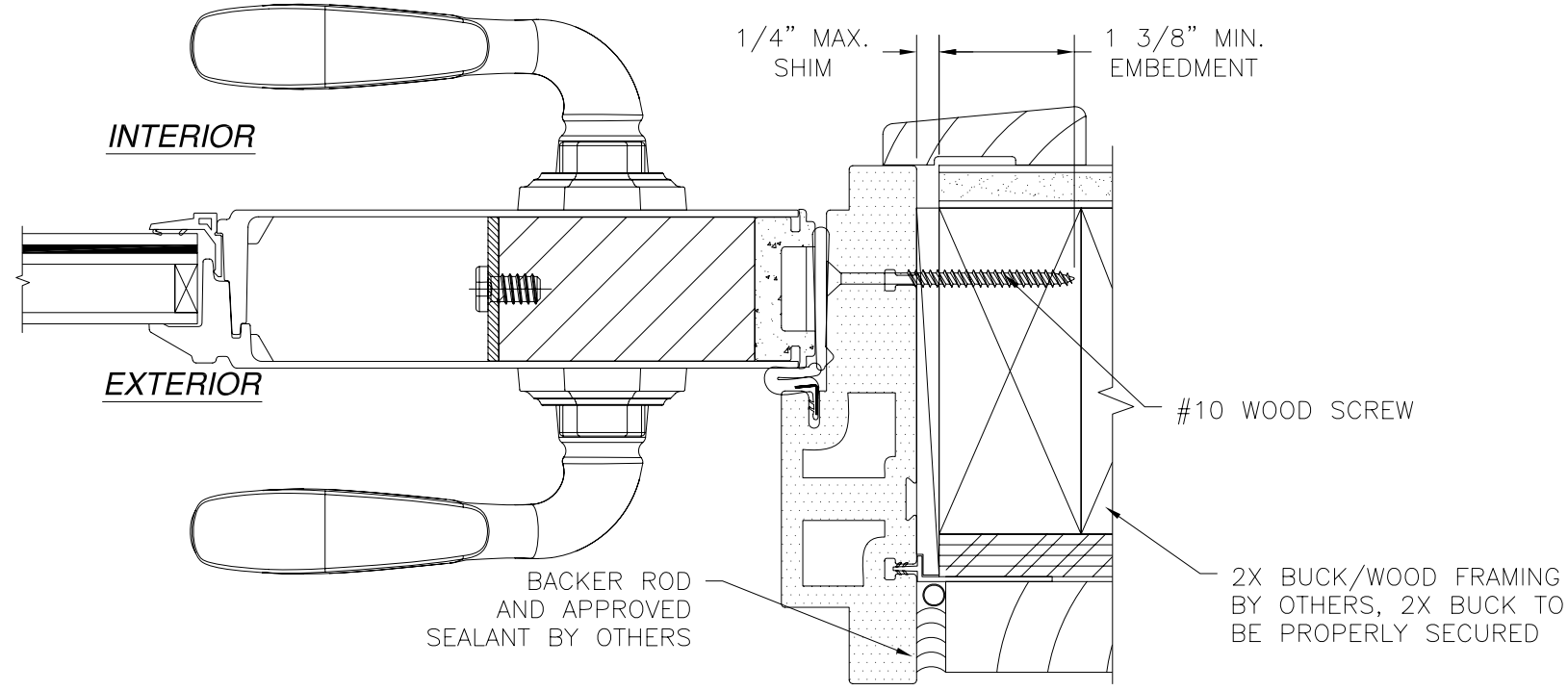
NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

**IN-SWING ENTRANCE DOOR W/ SIDELITES
 FIBERGLASS IMPACT GLAZED
 INSTALLATION DETAILS**

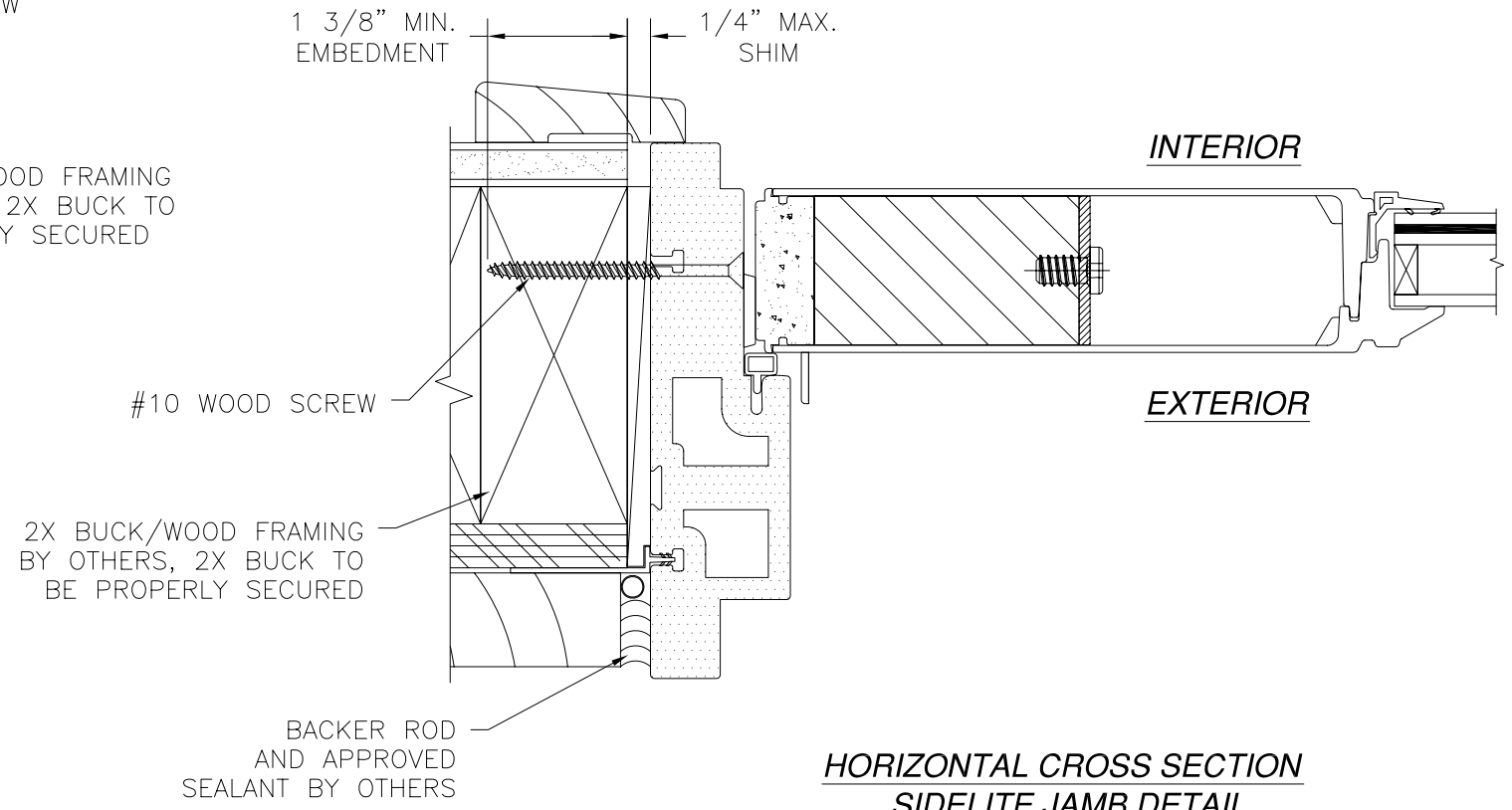
DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 6 OF 8

Luis R. Lomas P.E.
 Texas No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



**HORIZONTAL CROSS SECTION
STRIKE JAMB DETAIL**
2X BUCK/WOOD FRAMING INSTALLATION



**HORIZONTAL CROSS SECTION
SIDELITE JAMB DETAIL**
2X BUCK/WOOD FRAMING INSTALLATION

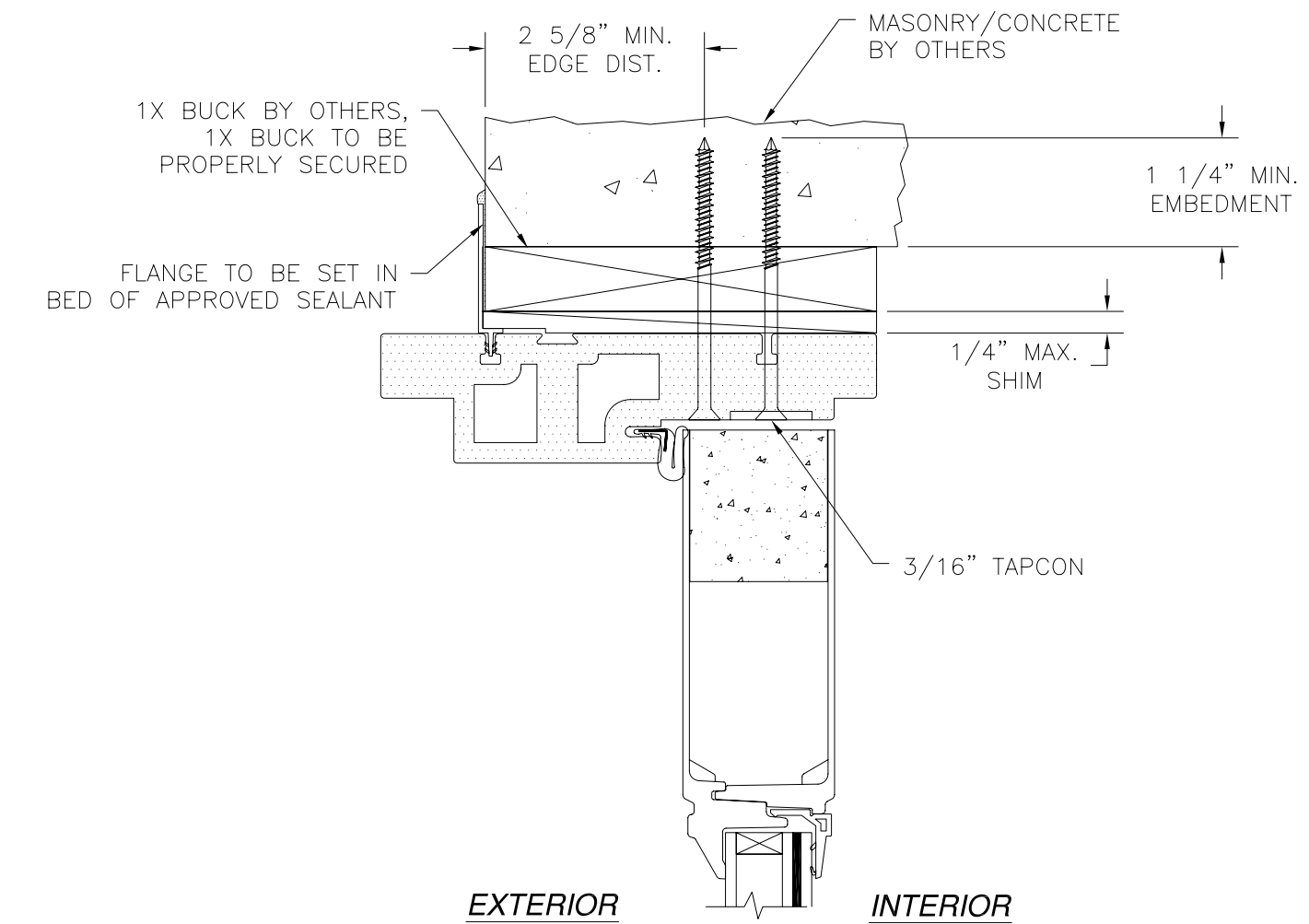
NAN YA PLASTICS CORP. USA
8989 NORTH LOOP EAST
HOUSTON, TX 77029

IN-SWING ENTRANCE DOOR W/ SIDELITES
FIBERGLASS IMPACT GLAZED
INSTALLATION DETAILS

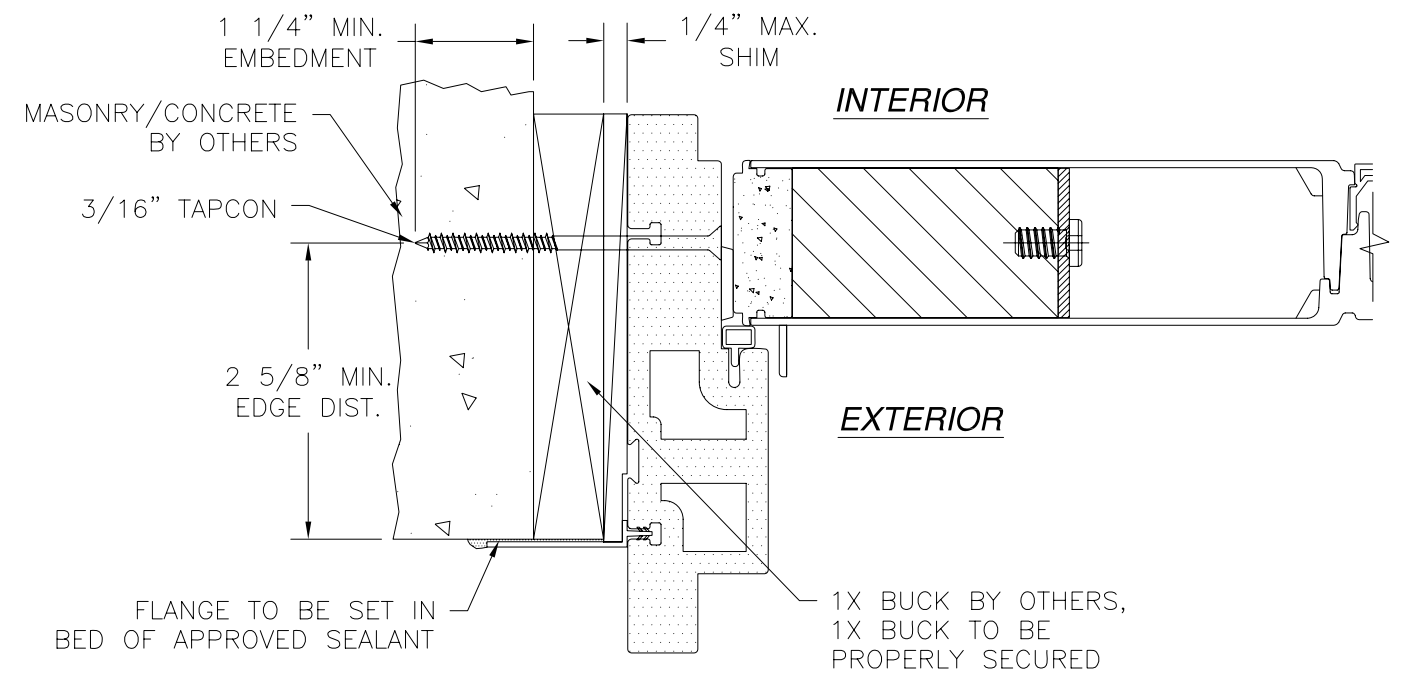
DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 7 OF 8

Luis R. Lomas P.E.
Texas No. 101889

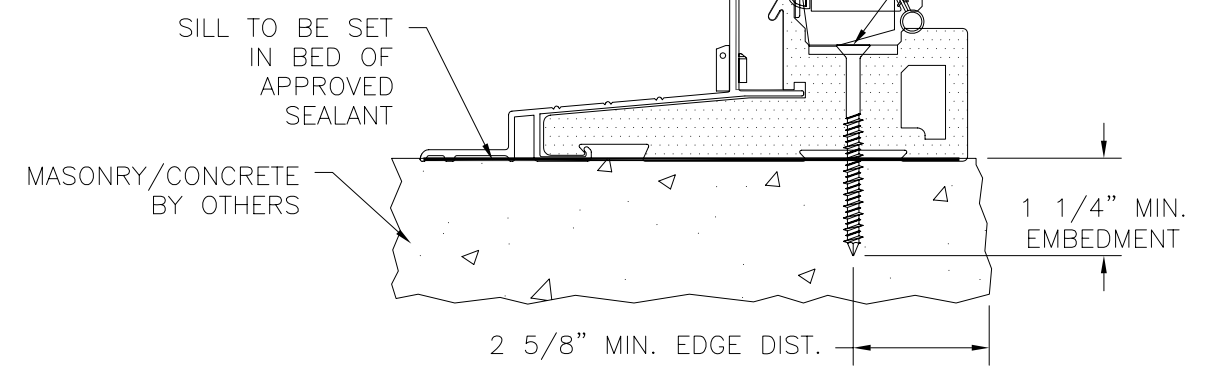
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



MASONRY/CONCRETE INSTALLATION
DOOR SHOWN SIDELITE SIMILAR



MASONRY/CONCRETE INSTALLATION
DOOR JAMB SHOWN, SIDELITE JAMB SIMILAR



NAN YA PLASTICS CORP. USA
8989 NORTH LOOP EAST
HOUSTON, TX 77029

IN-SWING ENTRANCE DOOR W/ SIDELITES
FIBERGLASS IMPACT GLAZED
INSTALLATION DETAILS

DRAWN: V.L.	DWG NO. 08-01553	REV -
SCALE NTS	DATE 05/31/12	SHEET 8 OF 8

Luis R. Lomas P.E.
Texas No. 101889