plastpro

5200 W. CENTURY BLVD.
LOS ANGELES, CA 90045

Smooth / Wood Grain / White Wood Grain
Rustic / Mahogany
Series N Fiberglass Door
INSWING / OUTSWING
"NON-IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 7th Edition (2020) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product is required to be protected with an impact resistant covering that complies with Section 1626 of the FBC.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection, this product is required to be protected with an impact resistant covering that complies with FBC Sections 1609.1.2 & R301.2.1.2.
5. For 2x stud construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
7. Outswing configurations meet water infiltration requirements for "HVHZ".
8. Inswing configurations do not meet the water infiltration requirements for the "HVHZ". Inswing units shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.

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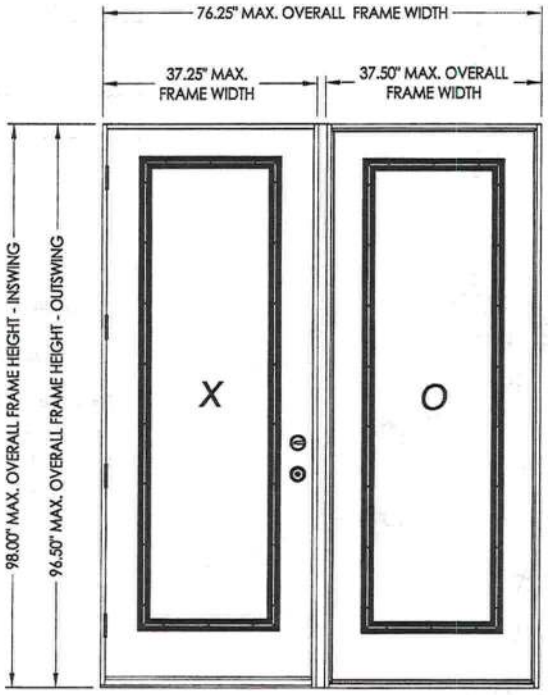


OVERALL FRAME DIMENSION	OVERALL D.L.O. DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF)	
			POSITIVE	NEGATIVE
76.25" X 98.0"	21.0" X 79.0"	G1	+47.0	-47.0

STATE OF FLORIDA PROFESSIONAL ENGINEER
LYNDON F. SCHMIDT LICENSE No. 43409
July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

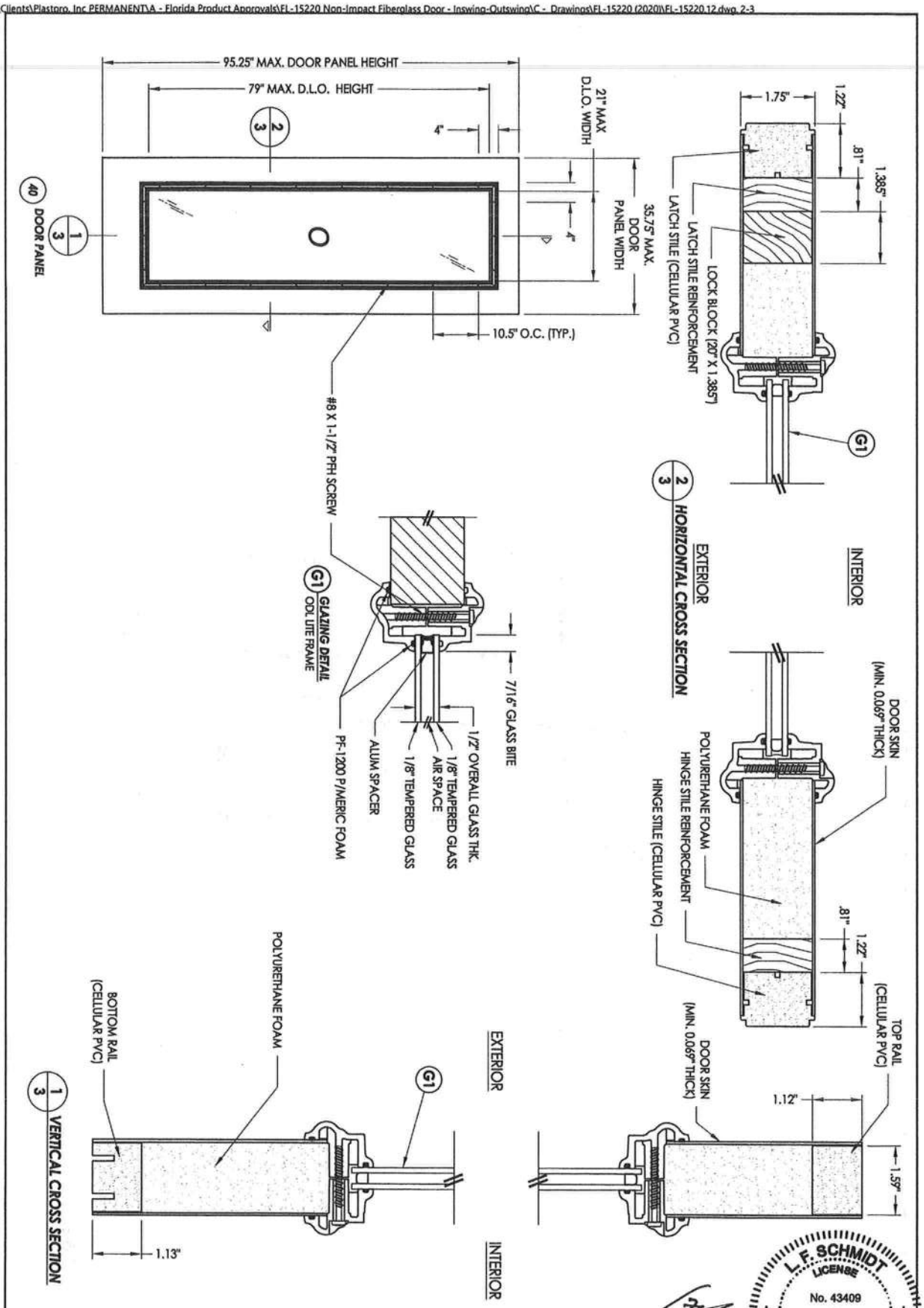
PRODUCT: PLASTPRO INC. FIBERGLASS DOOR
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

NO	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

DATE: 02/20/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.12
SHEET 1 OF 11

R:\Clients\Plastpro, Inc PERMANENTVA - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.12.dwg, FL-15220.12

R:\Clients\Plastpro, Inc PERMANENT\A - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.12.dwg, 2-3



July 27, 2020

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

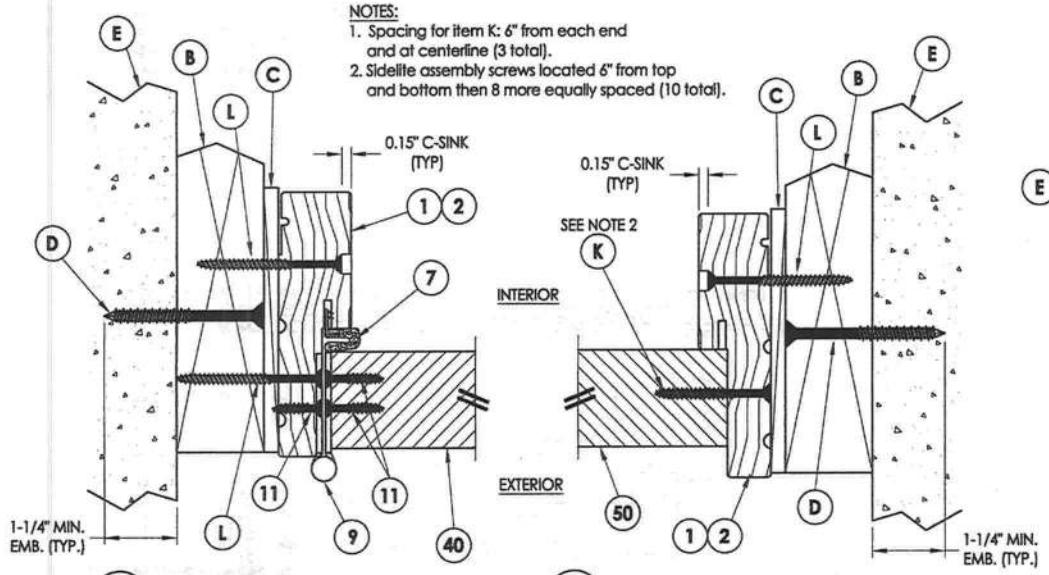
DATE: 02/20/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.12
SHEET 3 OF 11

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: SIDELITE PANEL DETAILS AND GLAZING DETAIL

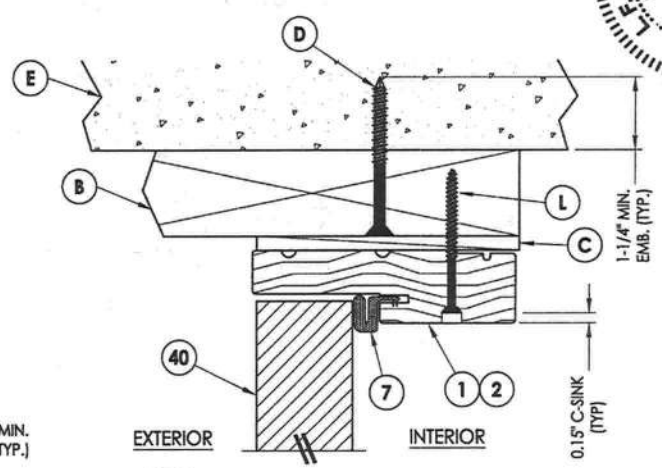
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

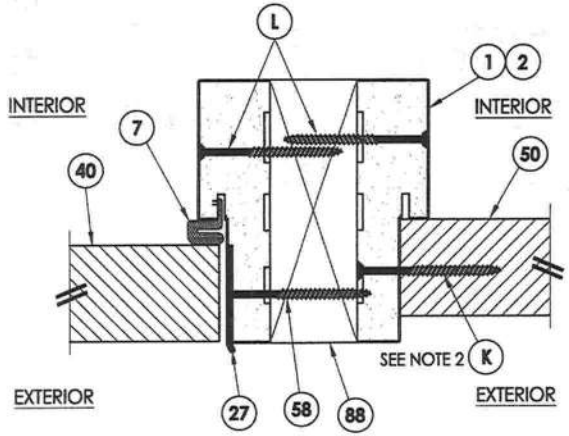


1/5 **HORIZONTAL CROSS SECTION**
Outswing shown (Inswing similar)

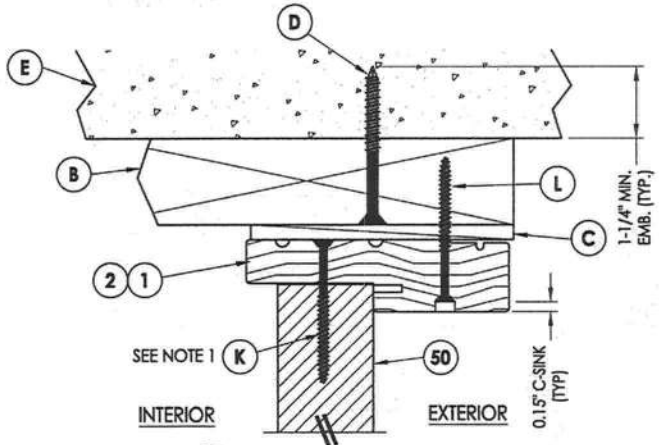
2/5 **HORIZONTAL CROSS SECTION**
Outswing shown (Inswing similar)



3/5 **VERTICAL CROSS SECTION**
Outswing shown (Inswing similar)



5/5 **HORIZONTAL CROSS SECTION**
Outswing shown (Inswing similar)



4/5 **VERTICAL CROSS SECTION**
Outswing shown (Inswing similar)

LF SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

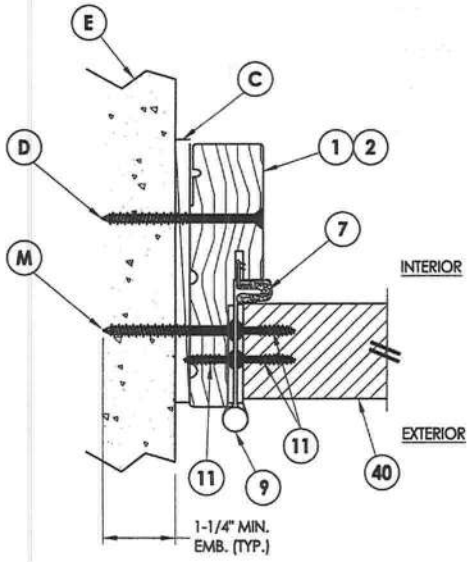
R|W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

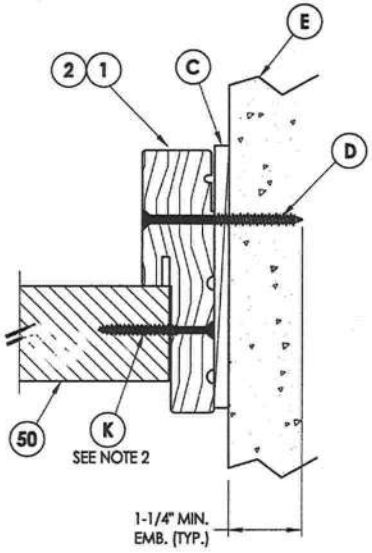
PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (2X BUCK)

NO	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

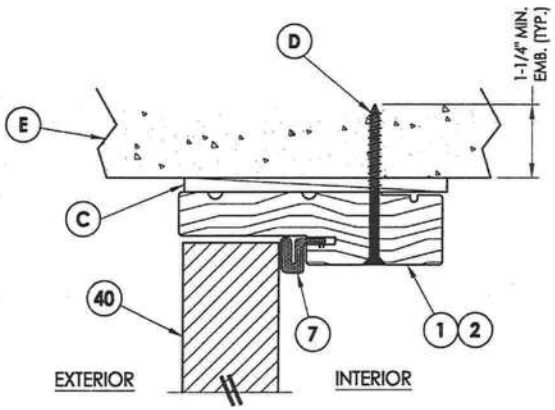
DATE: 02/20/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.12
SHEET 5 OF 11



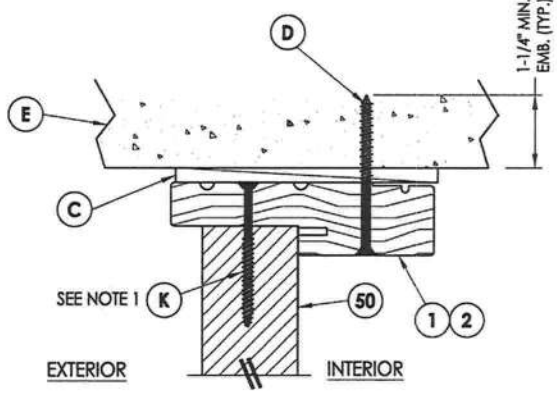
1/7 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing shown (Inswing similar)



2/7 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing shown (Inswing similar)



3/7 VERTICAL CROSS SECTION
Shown Direct to Masonry
Outswing shown (Inswing similar)



4/7 VERTICAL CROSS SECTION
Shown Direct to Masonry
Outswing shown (Inswing similar)

NOTES:
1. Spacing for item K: 6" from each end and at centerline (3 total).
2. Sidelite assembly screws located 6" from top and bottom then 8 more equally spaced (10 total).

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

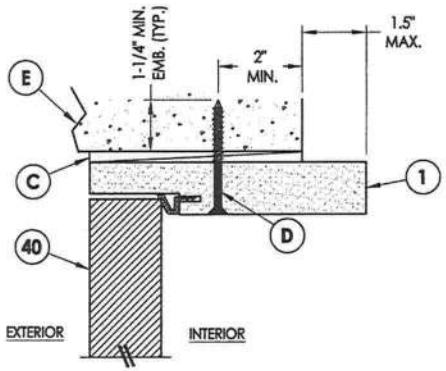
PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (DIRECT TO MASONRY)

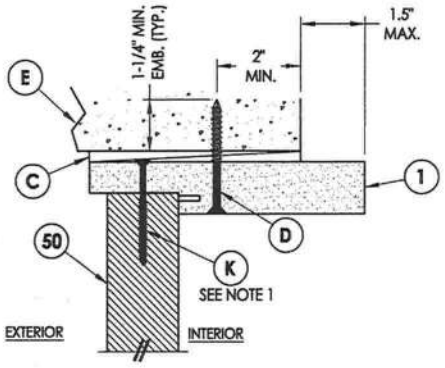
NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

DATE: 02/20/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.12
SHEET 7 OF 11

R:\Clients\Plastpro, Inc PERMANENTYA - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.12.dwg, 2-7

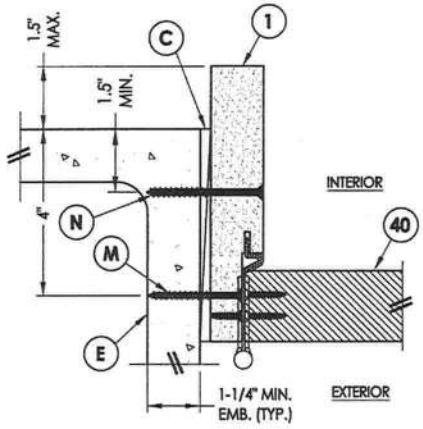


3/9 VERTICAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

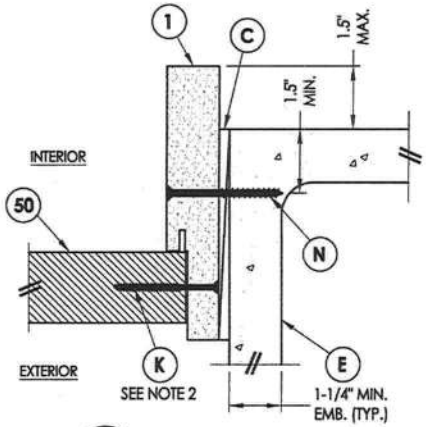


4/9 VERTICAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

NOTES:
1. Spacing for item K: 6" from each end and at centerline (3 total).
2. Sidelite assembly screws located 6" from top and bottom then 8 more equally spaced (10 total).



1/9 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb



2/9 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Reglstry No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL SECTIONS (DIRECT TO MASONRY)

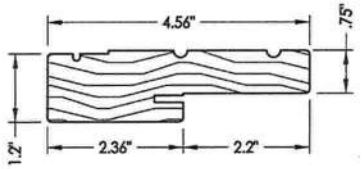
NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

DATE: 02/20/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.12
SHEET 9 OF 11

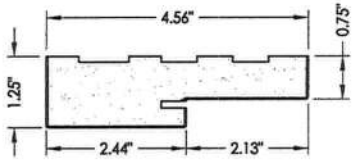
R:\Clients\Plastpro, Inc PERMANENTYA - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.12.dwg, 2-9

BILL OF MATERIALS

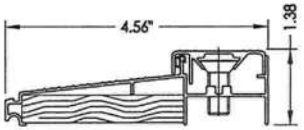
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK SG >= 0.55	WOOD
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	3/16" x 3-1/4" PFH ITW CONCRETE SCREW	STEEL
H	1/4" X 3-1/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
I	1/4" X 1-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
J	1/4" X 3-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
K	#7 X 2" PFH DRYWALL SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
M	3/16" X 2-1/4" ITW CONCRETE SCREW	STEEL
N	3/16" X 2-3/4" ITW CONCRETE SCREW	STEEL
1	POLY FIBER JAMB	COMP. / VINYL
2	FINGER JOINTED PINE FRAME	WOOD
7	WEATHERSTRIP	FOAM
8	DOOR BOTTOM SWEEP	VINYL
9	4" X 4" BUTT HINGE	STEEL
11	#9 X 3/4" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
29	OUTSWING THRESHOLD BY DLP	ALUM/WOOD
30	INSWING VINYL DOOR BOTTOM SWEEP	VINYL
31	OUTSWING THRESHOLD BY DLP	ALUM/WOOD
33	INSWING ADJUSTABLE ALUMINUM THRESHOLD BY DLP	ALUM/WOOD
34	INSWING SIDELITE ALUMINUM THRESHOLD BY DLP	ALUM/WOOD
35	SIDELITE SPACER	PVC
40	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
58	#8 X 2" PFH WOOD SCREW	STEEL
60	SIDELITE PANEL - SEE SIDELITE PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
88	2X REINFORCEMENT (CLEAR PINE) SG >= 0.49	WOOD



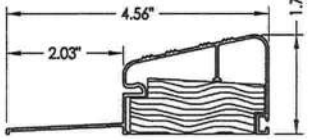
1 **HEAD & SIDE**
Jamb



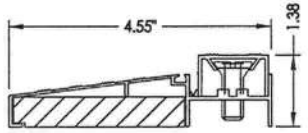
2 **HEAD & SIDE**
Poly fiber jamb



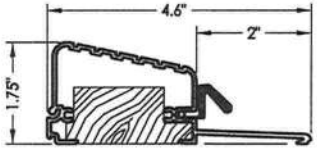
33 **ADJUSTABLE INSWING THRESHOLD**



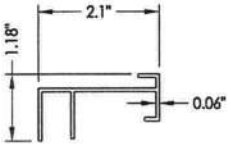
29 **OUTSWING THRESHOLD BY DLP**



34 **SIDELITE INSWING THRESHOLD**



31 **OUTSWING THRESHOLD**
Columbia High Dam (581)



35 **SIDELITE SPACER**

T. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R|W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

NO	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

DATE: 02/20/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.12
SHEET 11 OF 11

plastpro

5200 W. CENTURY BLVD.
LOS ANGELES, CA 90045

Smooth / Wood Grain / White Wood Grain
Rustic / Mahogany
Series N Fiberglass Door
INSWING / OUTSWING
"NON-IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 7th Edition (2020) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product is required to be protected with an impact resistant covering that complies with Section 1626 of the FBC.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection, this product is required to be protected with an impact resistant covering that complies with FBC Sections 1609.1.2 & R301.2.1.2.
5. For 2x stud construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
7. Outswing configurations meet water infiltration requirements for "HVHZ".
8. Inswing configurations do not meet the water infiltration requirements for the "HVHZ". Inswing units shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.

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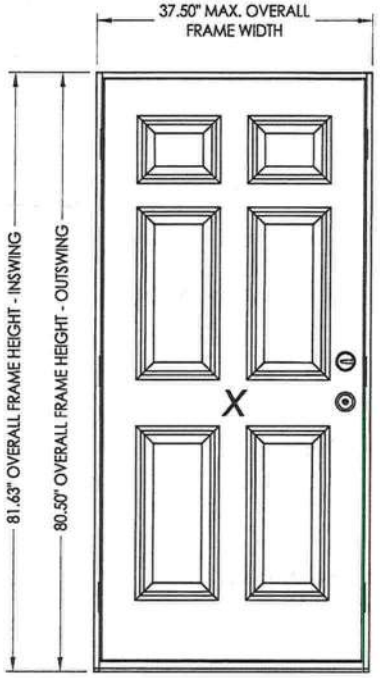


SWING	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF)	
		POSITIVE	NEGATIVE
INSWING	37.50" x 81.63"	+50.0	-50.0
OUTSWING	37.50" x 80.50"	+50.0	-50.0

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

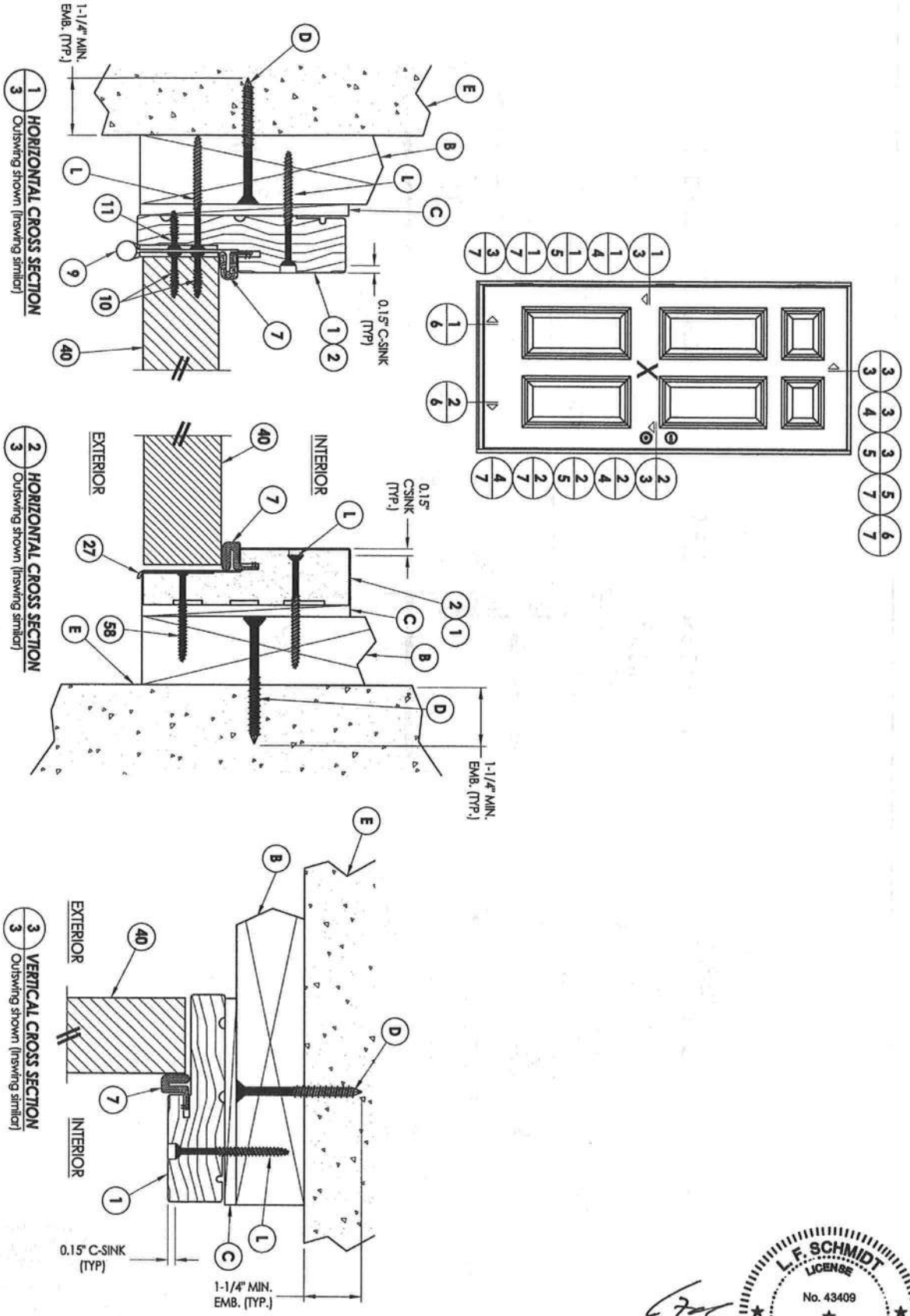
REVISIONS

NO.	DATE		BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

DATE: 02/20/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.6
SHEET 1 OF 9

R:\Clients\Plastpro, Inc PERMANENTA - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.6.dwg, FL-15220.6

R:\Clients\Plastpro, Inc PERMANENT\A - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.6.dwg, 1-3



1/3 HORIZONTAL CROSS SECTION
Outswing shown (Inswing similar)

2/3 HORIZONTAL CROSS SECTION
Outswing shown (Inswing similar)

3/3 VERTICAL CROSS SECTION
Outswing shown (Inswing similar)

July 27, 2020

L.F. SCHMIDT LICENSE No. 43409 ★ PROFESSIONAL ENGINEER ★ STATE OF FLORIDA

NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

DATE: 02/20/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.6
SHEET 3 OF 9

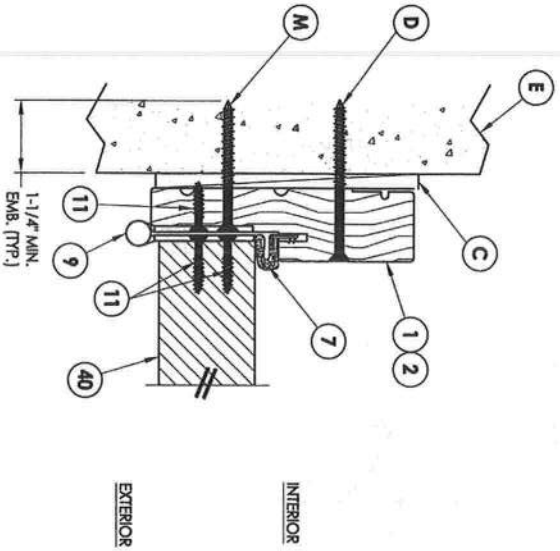
PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (2X BUCK)

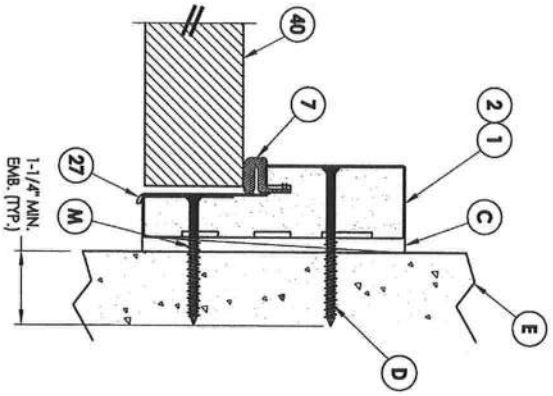
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

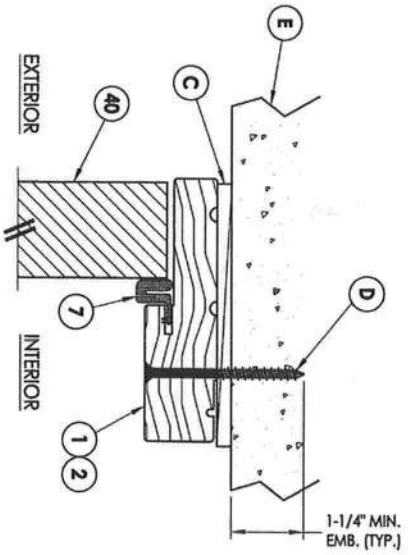
1/5 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing shown (Inswing similar)



2/5 **HORIZONTAL CROSS SECTION**
Shown Direct to Masonry
Outswing shown (Inswing similar)



3/5 **VERTICAL CROSS SECTION**
Shown Direct to Masonry
Outswing shown (Inswing similar)



July 27, 2020

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

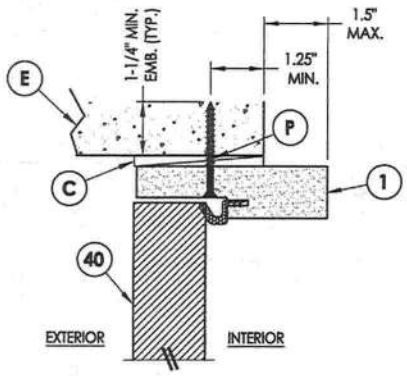
PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL & VERTICAL CROSS SECTIONS (DIRECT TO MASONRY)

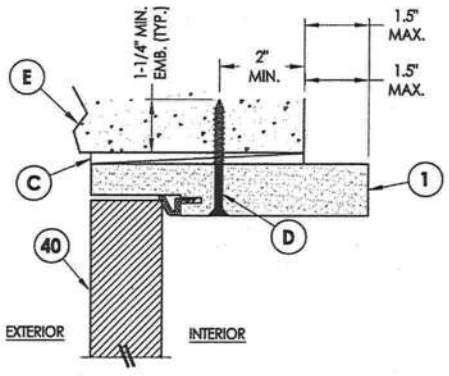
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

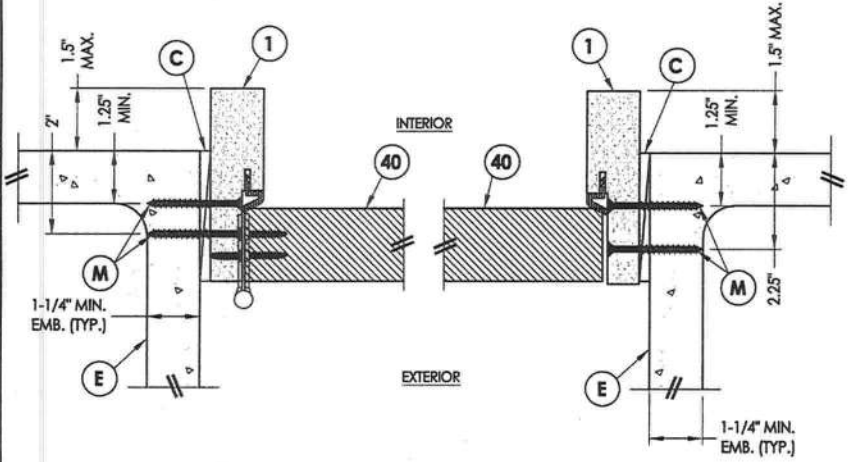
DATE: 02/20/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.6
SHEET 5 OF 9



5/7 VERTICAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb

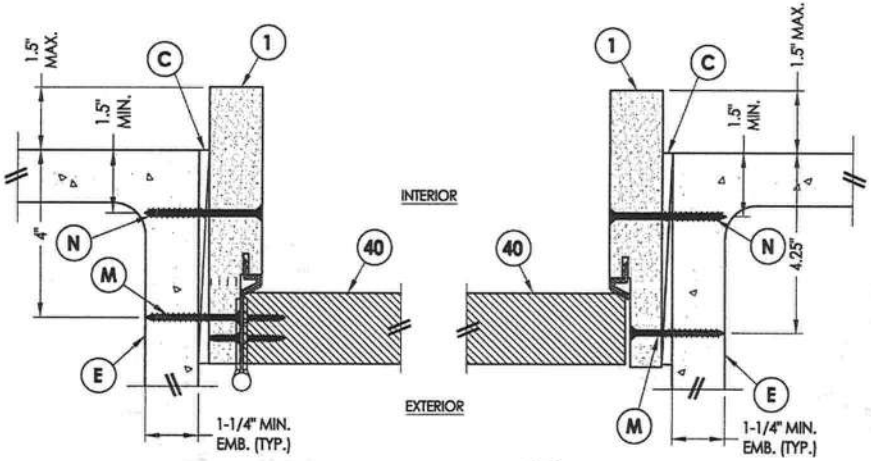


6/7 VERTICAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb



1/7 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb

2/7 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 4-9/16" jamb



3/7 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

4/7 HORIZONTAL CROSS SECTION
Shown Direct to Masonry
Outswing only w/ 6-9/16" jamb

STATE OF FLORIDA
L.F. SCHMIDT
LICENSE No. 43409
PROFESSIONAL ENGINEER

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

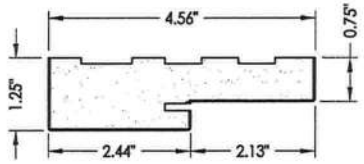
PART OR ASSEMBLY: HORIZONTAL & VERTICAL SECTIONS (DIRECT TO MASONRY)

NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED. (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

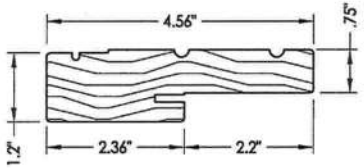
DATE: 02/20/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.6
SHEET 7 OF 9

R:\Clients\Plastpro, Inc PERMANENT\A - Florida Product Approvals\FL-15220 Non-Impact Fiberglass Door - Inswing-Outswing\C - Drawings\FL-15220 (2020)\FL-15220.6.dwg, 1-7

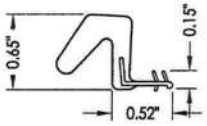
BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK SG >= 0.55	WOOD
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	3/16" x 3-1/4" PFH ITW CONCRETE SCREW	STEEL
H	1/4" X 3-1/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
I	1/4" X 1-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
J	1/4" X 3-3/4" PFH ELCO OR ITW CONCRETE SCREW	STEEL
K	1/4" X 2-1/4" ITW CONCRETE SCREW	STEEL
L	#10 X 2-1/2" PFH WOOD SCREW (1.15" MIN. EMBEDMENT)	STEEL
M	3/16" X 2-1/4" ITW CONCRETE SCREW	STEEL
N	3/16" X 2-3/4" ITW CONCRETE SCREW	STEEL
P	1/4" X 2-1/4" PFH ELCO CONCRETE SCREW	STEEL
1	POLY FIBER JAMB	COMP. / VINYL
2	FINGER JOINTED PINE FRAME	WOOD
7	WEATHERSTRIP	FOAM
8	DOOR BOTTOM SWEEP	VINYL
9	4" X 4" BUTT HINGE	STEEL
11	#9 X 3/4" PFH WOOD SCREW	STEEL
27	LATCH STRIKE PLATE	STEEL
28	DEADBOLT STRIKE PLATE	STEEL
30	OUTSWING THRESHOLD	ALUM/WOOD
34	OUTSWING THRESHOLD	ALUM/WOOD
37	INSWING THRESHOLD	ALUM/WOOD
40	DOOR PANEL - SEE DOOR PANEL DETAIL SHEET FOR CONSTRUCTION DETAILS	-
58	#8 X 2" PFH WOOD SCREW	STEEL



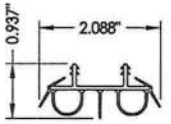
1 POLY FIBER JAMB
Plastpro



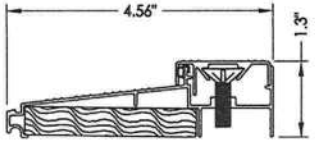
2 WOOD JAMB



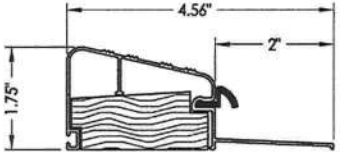
7 WEATHERSTRIP
Endura Force 5



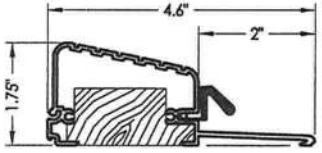
8 DOOR BOTTOM SWEEP



37 INSWING THRESHOLD
DLP (ISCS)



30 OUTSWING THRESHOLD
DLP (QOSR)



34 OUTSWING THRESHOLD
Columbia High Dam (581)

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

July 27, 2020

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R|W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: BILL OF MATERIALS

NO.	DATE	REVISIONS	BY
3	7/27/20	UPDATE TO 7TH ED (2020) FBC	LFS
2	08/02/17	UPDATE TO 6TH ED. (2017) FBC	JK
1	04/22/15	UPDATE TO 5TH ED. (2014) FBC	JK

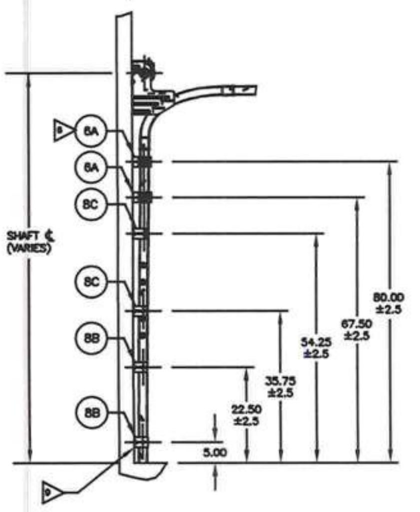
DATE: 02/20/16
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-15220.6
SHEET 9 OF 9

NOTES

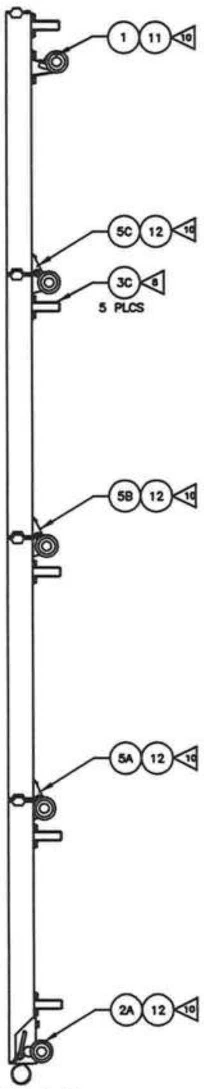
1. DESIGNED AND TESTED IN ACCORDANCE WITH THE WIND LOAD PROVISIONS OF THE FLORIDA BUILDING CODE, INTERNATIONAL BUILDING CODE, AND INTERNATIONAL RESIDENTIAL CODE. NOT TESTED FOR IMPACT RESISTANCE. PROFESSIONAL ENGINEER'S SEAL PROVIDED ONLY FOR VERIFICATION OF WIND LOAD CONSTRUCTION DETAILS.
2. FOUR SECTION, 7' TALL DOOR SHOWN, TALLER DOORS WILL HAVE ADDITIONAL SECTIONS.
3. SECTION HEIGHTS OF 20.81, 19.00, AND 16.75 ARE AVAILABLE, AND MAY BE USED IN COMBINATION TO ACHIEVE VARIOUS DOOR HEIGHTS. MAXIMUM DOOR HEIGHT IS 16'. FOR ADDITIONAL SECTIONS, THE STRUTTING SHALL BE CONSISTANT WITH THE TOP INTERMEDIATE SECTION.
4. EMBOSSMENT PATTERNS OF 14.50 X 20.375, 15.5 X 43.375, 12.5 X 20.375, AND 12.5 X 43.375 MAY BE USED. DOOR WITHOUT EMBOSSMENTS ALSO AVAILABLE. EXTERIOR PAN THICKNESS IS 25 GA (.018")
FOR THE 470, EMBOSSMENT TO BE HORIZONTAL PINSTRIPES.
5. TORSION SPRINGS SHOWN. EXTENSION SPRINGS COUNTERBALANCE ALSO AVAILABLE.
6. USE THIS BRACKET, REF. P/N 405964-0002 ON 8' HIGH DOORS ONLY.
7. WINDOWS OR VENTS MAY ONLY BE PUT IN 21" SECTIONS. WINDOW SIZE MAY BE STANDARD EMBOSSMENT SIZE WITH THICKNESS OF 1/2" INSULATED, 1/8", 1/4".
8. ATTACH STRUTS WITH TWO SCREWS AT THE END STILES AND IN PAIRS ALONG THE STRUT AT 12" CENTERS. STRUT LOCATION MAY VARY +/-2 IN. AT THE FOLLOWING LOCATIONS:
   TOP SECTION: DIRECTLY ABOVE TOP FIXTURES
   INTERMEDIATE SECTION: BELOW END HINGE
   BOTTOM SECTION: BELOW END HINGE AND ABOVE BOTTOM FIXTURE
9. USE 5/16 X 1-5/8" LAG SCREW TO ATTACH JAMB BRACKET TO JAMB. JAMB DETAIL TO BE IN ACCORDANCE WITH DRAWING 409783. JAMB BRACKETS MAY NOT BE INSTALLED DIRECTLY ON TOP OF DRYWALL.
10. ROLLER ASSY P/N 319138 AND 108135 (STEEL) MAY BE SUBSTITUTED FOR ROLLER ASSY P/N 608682 (NYLON).
11. LOW HEADROOM TRACK MAY BE SUBSTITUTED FOR STANDARD TRACK.
12. LOCK OR DRAWBAR OPERATOR REQUIRED TO HOLD THE DOOR CLOSED DURING HIGH WIND EVENT.
13. EXTERIOR JAMB WEATHERSTRIP TO BE ATTACHED WITH EITHER 2" #8 SCREWS OR 2-1/2" 8D BRIGHT COMMON NAILS AT 12" O.C., STARTING 2" FROM THE GROUND.
14. DOORS OVER 8' TALL WILL BE SUPPLIED WITH COMMERCIAL TRACK AND HARDWARE. COMMERCIAL TRACK JAMB FASTENING WILL BE 12" MAX CENTERS.

APPROVED PRESSURE RATING CHART		
WIDTH	18'	16'
POS. DESIGN PRESSURE	21.8	24.5
NEG. DESIGN PRESSURE	-28.5	-32
MAX. JAMB LOAD LBS/FT	257	257

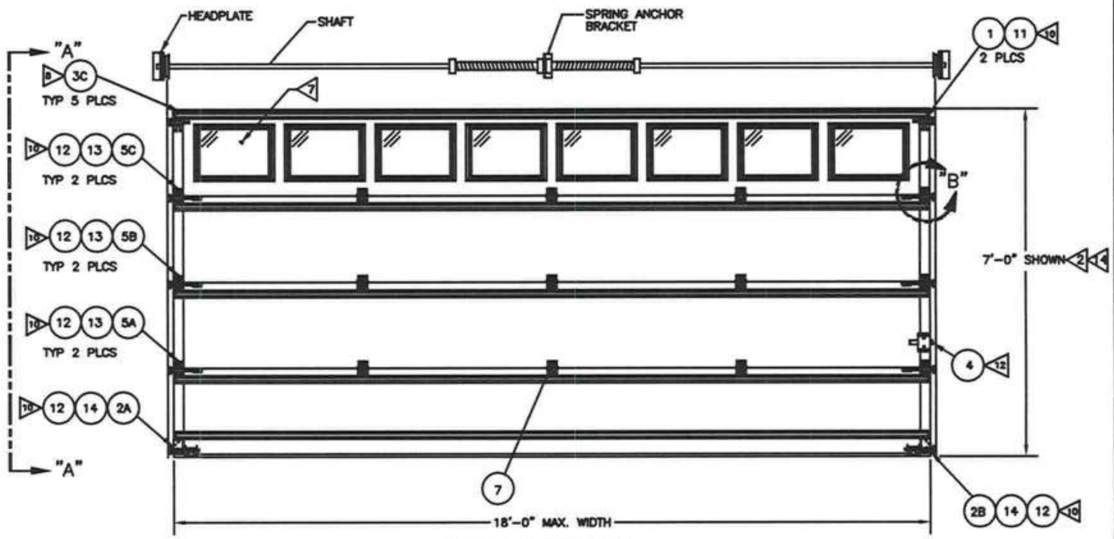
REVISIONS			
LETTER	DESCRIPTION	DATE	APPROVAL
B	ADD 470, ER 31421	8/24/16	GAC
C	UPDATED NOTE 4 AND PE INFO	10/10/17	ESC
D	ADD ORACLE (FL, PCR02177	10/28/19	TLC



STANDARD TRACK DETAIL
SCALE: 1/16" = 1"



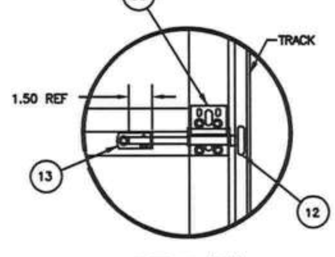
VIEW A-A
(TRACK ASSY REMOVED FOR CLARITY)



INTERIOR ELEVATION
SCALE: 1/16"=1"

FL # 11494

JOHN E. SCATES, PE
2580 KING ARTHUR #124-54
LEWISVILLE, TX 75056
FL PE 51737 TX PE 56308/F2203



DETAIL "B"
SCALE: 1/4

Digitally signed by John E. Scates, P.E.
Date: 2020.09.03 15:14:05 -05'00'

JOHN E. SCATES
LICENSE
No. 51737
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER'S SEAL PROVIDED ONLY FOR VERIFICATION OF WINDLOAD CONSTRUCTION DETAILS.

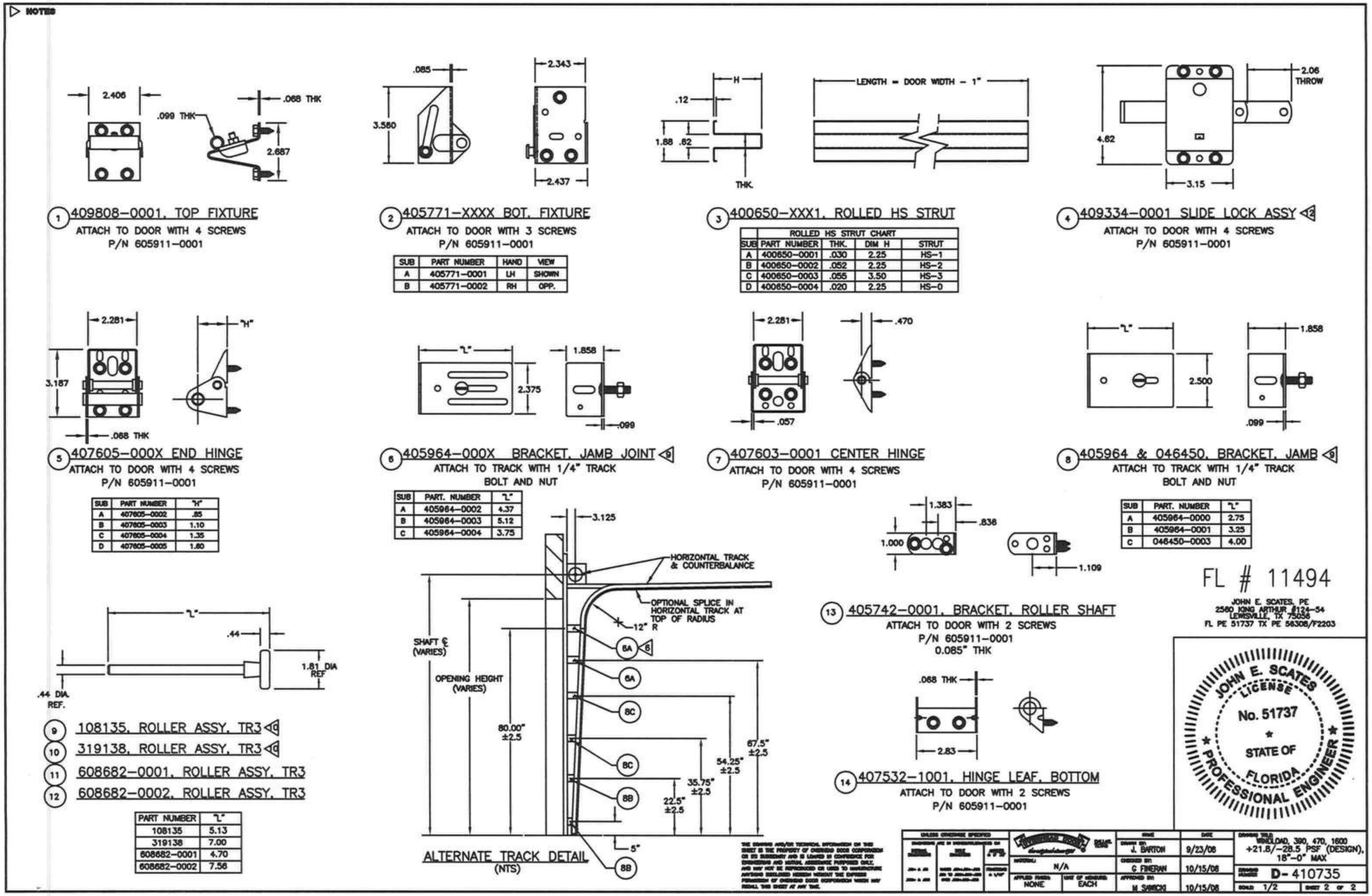
DOOR WIDTH	HINGES/ SECTION	END STILE	ROLLER SHAFT BRACKET	STRUTS/SECT.	ROLLER/ NYLON	VERTICAL TRACK
18'	3	SINGLE	YES	HS-3	2" X 7/16"	2"X .068" THK

MATERIAL: N/A	DRAWN BY: J. BARTON	9/23/08
APPLIED FINISH: NONE / UNIT OF MEASURE: EACH	CHECKED BY: C FINERAN	10/15/08
	APPROVED BY: M SAWICKI	10/15/08

DRAWING TITLE: WINDLOAD, 390, 470, 1600 +21.8/-28.5 PSF (DESIGN), 18'-0" MAX

DRAWING NUMBER: D-410735

SCALE: 3/8 SHEET 1 OF 2



SUB	PART NUMBER	HAND	VIEW
A	405771-0001	LH	SHOWN
B	405771-0002	RH	OPP.

ROLLED HS STRUT CHART

SUB	PART NUMBER	THK.	DIM H	STRUT
A	400650-0001	.030	2.25	HS-1
B	400650-0002	.052	2.25	HS-2
C	400650-0003	.055	3.50	HS-3
D	400650-0004	.020	2.25	HS-0

SUB	PART NUMBER	"H"
A	407605-0002	.85
B	407605-0003	1.10
C	407605-0004	1.35
D	407605-0005	1.60

SUB	PART. NUMBER	"L"
A	405964-0002	4.37
B	405964-0003	5.12
C	405964-0004	3.75

SUB	PART. NUMBER	"L"
A	405964-0000	2.75
B	405964-0001	3.25
C	046450-0003	4.00

PART NUMBER	"L"
108135	5.13
319138	7.00
608682-0001	4.70
608682-0002	7.56

The Genuine. The Original.

OVERHEAD DOOR®

Jamb Connection Supplement

Fastener allowable loads comply with:
ACI 318-14 (and prior versions)
AWC NDS-2018 (and prior versions)

Digitally signed by John E. Scates, P.E.
Date: 2020.09.03 14:30:04 -05'00'

This document provides a series of connection schedules and basic detailing concepts for the connection of garage door jambs to building frames with the use of various fasteners. DASMA Technical Data Sheet TDS-161 may be used as an alternate to this document.

P/N 411526 Rev. P01

SCHEDULE 2
16d COMMON WIRE NAILS AND 16d THREADED HARDENED-STEEL NAILS

LOAD PER JAMB (LB/FT)[NOTE 3]	MAXIMUM NAIL SPACING PER JAMB (IN) MAIN SUPPORT MEMBER SPECIES		
	SYP SPECIFIC GRAVITY - 0.55	DOUGLAS FIR SPECIFIC GRAVITY - 0.46	SPF SPECIFIC GRAVITY - 0.42
100	24	24	19
120	24	20	16
140	21	17	14
160	18	15	12
180	16	13	10
200	15	12	9
220	13	11	8
240	12	10	8
260	11	9	7
280	10	8	7
300	10	8	6
320	9	7	6
340	8	7	n/a
360	8	6	n/a
380	7	6	n/a
400	7	6	n/a
420	7	n/a	n/a
440	6	n/a	n/a
460	6	n/a	n/a
480	6	n/a	n/a
500	6	n/a	n/a
520	n/a	n/a	n/a
540	n/a	n/a	n/a
560	n/a	n/a	n/a
580	n/a	n/a	n/a
600	n/a	n/a	n/a
620	n/a	n/a	n/a
640	n/a	n/a	n/a
660	n/a	n/a	n/a
680	n/a	n/a	n/a
700	n/a	n/a	n/a
720	n/a	n/a	n/a
740	n/a	n/a	n/a
760	n/a	n/a	n/a
780	n/a	n/a	n/a
800	n/a	n/a	n/a

1. BASED ON 16d COMMON WIRE NAILS (0.162"x3-1/2") OR 16d THREADED HARDENED-STEEL NAILS (0.148"x3-1/2") WITH A MINIMUM PENETRATION OF 2" INTO SIDE GRAIN OF MAIN MEMBER.
2. NAILS SHALL BE PROVIDED IN PAIRS AT A MAXIMUM SPACING AS SHOWN IN TABLE WITH A MINIMUM OF THREE (3) PAIRS OF NAILS PER JAMB. NAILS AT TOP AND BOTTOM OF JAMB SHALL BE PLACED A MAXIMUM OF 6" FROM THE END OF THE JAMB.
3. LOAD PER JAMB CALCULATED BY TAKING DESIGN LOAD (PSF) TIMES DOOR WIDTH (FT) DIVIDED BY 2.

EXAMPLE: DESIGN LOAD = 30psf
DOOR WIDTH = 16ft
LOAD PER JAMB = 30psf x 16ft/2 = 240lb/ft

4. CHART IS BASED ON 6'-6" MINIMUM AND 24'-0" MAXIMUM DOOR HEIGHT.
5. ADDED DOOR JAMB TO BE 2x4 OR LARGER GRADE 2 SYP (SPECIFIC GRAVITY >=0.55) LUMBER OR BETTER MOUNTED TO SUPPORT STRUCTURE. IF MOUNTING OVER DRYWALL, INCREASE FASTENER LENGTH TO ACHIEVE MINIMUM REQUIRED PENETRATION.
6. DESIGN OF THE SUPPORT STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE BUILDING DESIGNER AND SHALL BE DESIGNED FOR THE JAMB LOAD LISTED IN ABOVE TABLE AS CALCULATED PER NOTE 3.
7. EDGE DISTANCES, END DISTANCES AND SPACINGS SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD.

Approved

John E. Scates, P.E.
2560 King Arthur Blvd, Ste 124-54
Lewisville, TX 75056
FL PE 51737 TX PE 56308/F2203

P/N 411526

SCHEDULE 4
3/8"Ø SIMPSON TITEN HD SCREW ANCHORS

	MAXIMUM SPACING OF ANCHORS PER JAMB (IN)		
LOAD PER JAMB (LB/FT)[NOTE 4]	2500 PSI CONCRETE[NOTE 1]	4000 PSI CONCRETE[NOTE 1]	2000 PSI GROUT FILLED CMU[NOTE 2]
100	24	24	24
120	24	24	24
140	24	24	24
160	24	24	24
180	24	24	24
200	24	24	24
220	24	24	24
240	24	24	24
260	24	24	16
280	24	24	16
300	24	24	16
320	24	24	16
340	24	24	16
360	24	24	16
380	24	24	8
400	24	24	8
420	24	24	8
440	24	24	8
460	24	24	8
480	24	24	8
500	24	24	8
520	24	24	8
540	24	24	8
560	23	24	8
580	22	24	8
600	21	23	8
620	21	22	8
640	20	22	8
660	19	21	8
680	19	20	8
700	18	20	8
720	18	19	8
740	17	19	N/A
760	17	18	N/A
780	16	18	N/A
800	16	17	N/A

1. BASED ON 3/8"Ø SIMPSON TITEN HD SCREW ANCHOR WITH A 1-3/4" O.D. WASHER INTO NORMAL WEIGHT UNCRACKED CONCRETE WITH A MINIMUM EMBEDMENT DEPTH OF 2-3/4" AND A MINIMUM EDGE DISTANCE OF 2-3/4".
2. BASED ON 3/8"Ø SIMPSON TITEN HD SCREW ANCHOR WITH A 1-3/4" O.D. WASHER INTO GROUT FILLED CMU WITH A MINIMUM EMBEDMENT DEPTH OF 2-3/4", A MINIMUM EDGE DISTANCE OF 4", AND A MINIMUM END DISTANCE OF 4". CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND GROUT SHALL CONFORM TO ASTM C476.
3. PROVIDE QUANTITY OF SCREW ANCHORS AS REQUIRED TO MAINTAIN MAXIMUM SPACING AS SHOWN IN TABLE WITH A MINIMUM OF THREE (3) SCREW ANCHORS PER JAMB. SCREW ANCHORS AT TOP AND BOTTOM OF JAMB SHALL BE PLACED A MAXIMUM OF 6" FROM THE END OF THE JAMB.
4. LOAD PER JAMB CALCULATED BY TAKING DESIGN LOAD (PSF) TIMES DOOR WIDTH (FT) DIVIDED BY 2.

   EXAMPLE: DESIGN LOAD = 30psf
   DOOR WIDTH = 16ft
   LOAD PER JAMB = 30psf x 16ft/2 = 240lb/ft

5. CHART IS BASED ON 6'-6" MINIMUM AND 24'-0" MAXIMUM DOOR HEIGHT.
6. ADDED DOOR JAMB TO BE 2x6 OR LARGER GRADE 2 SYP (SPECIFIC GRAVITY >=0.55) LUMBER OR BETTER MOUNTED TO SUPPORT STRUCTURE.
   IF MOUNTING OVER DRYWALL, INCREASE FASTENER LENGTH TO ACHIEVE MINIMUM REQUIRED PENETRATION.
7. DESIGN OF THE SUPPORT STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE BUILDING DESIGNER AND SHALL BE DESIGNED FOR THE JAMB LOAD LISTED IN ABOVE TABLE AS CALCULATED PER NOTE 4.
8. SCREW ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

Approved

John E. Scates, P.E.
2560 King Arthur Blvd, Ste 124-54
Lewisville, TX 75056
FL PE 51737 TX PE 56308/F2203

P/N 411526

The Genuine. The Original.

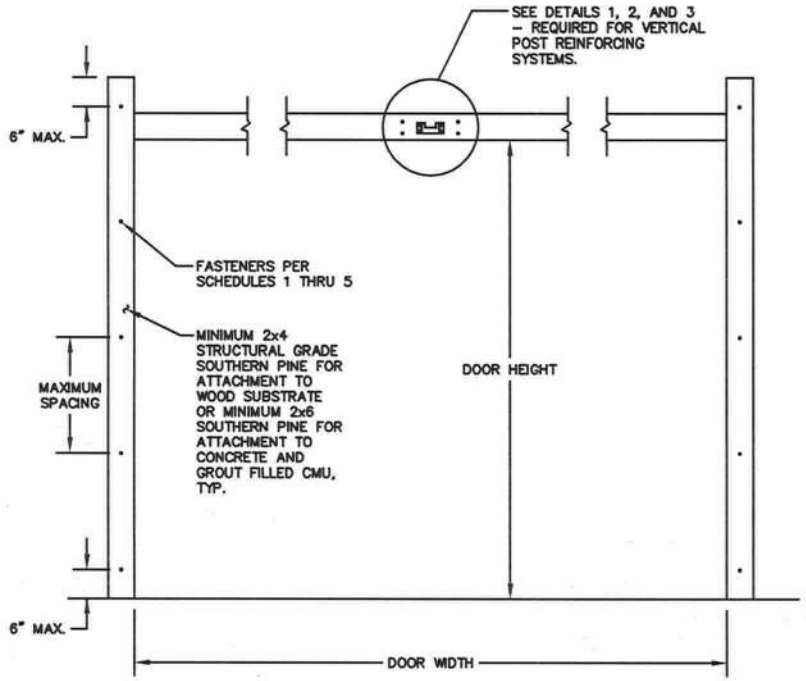
OVERHEAD DOOR

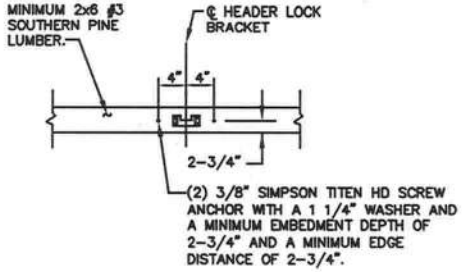
OVERHEAD DOOR CORPORATION
2501 SOUTH STATE HIGHWAY 121
SUITE 200 LEWISVILLE, TX 75067
(800) 275-3920

REVISIONS

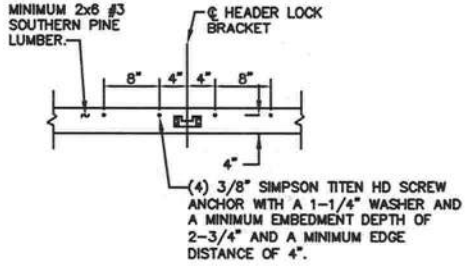
P00 NEW DRAWING, ER31052 ESC 8/6/18

P01 NOTES REVISION JQ 2/27/2020

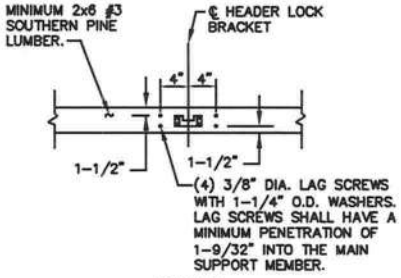




DETAIL 1
MINIMUM 2500 PSI CONCRETE
NOTE: MAXIMUM DESIGN LOAD CAPACITY OF 2085 LBS.



DETAIL 2
MINIMUM 2000 PSI GROUT FILLED CMU
NOTE: MAXIMUM DESIGN LOAD CAPACITY OF 2400 LBS.



DETAIL 3
WOOD SUPPORT STRUCTURE
NOTE: MAXIMUM DESIGN LOAD CAPACITY OF 2430 LBS.

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER'S SEAL PROVIDED ONLY FOR VERIFICATION OF WINDLOAD CONSTRUCTION DETAILS.

JOHN E. SCATES, PE
2560 KING ARTHUR BLVD #124-54
LEWISVILLE, TX 75056
FL PE 51737
TX PE 56306/F2203

	DATE	NAME
DRAWN	8/6/18	ESC
CHECKED		

SHEET 1 OF 2

JAMB CONNECTION SUPPLEMENT

DRAWING PART NO.	REV.
411526	P01

YKK AP AMERICA RESIDENTIAL

STYLEVIEW SINGLE HUNG WINDOWS - ORIEL, COTTAGE, EQUAL SASH (NON-HVHZ) (NON-IMPACT)

INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
3. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
4. FOR INSTALLATION INTO WOOD FRAMING USE #10 WOOD SCREWS OF SUFFICIENT LENGTH TO ACHIEVE 3/4 INCH MINIMUM EMBEDMENT INTO WOOD SUBSTRATE.
5. FOR INSTALLATION INTO METAL STUD USE #10 GRADE 5 HWH OR PH SELF-DRILLING OR SELF-TAPPING SCREWS THROUGH THE FRAME OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL FRAME SUBSTRATE.
6. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
7. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
8. 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 BY THE ANCHOR MANUFACTURER.
9. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
   A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
   B. STEEL - MINIMUM YIELD STRENGTH OF 33 KSI. MINIMUM 18 GA. (0.0428") WALL THICKNESS.

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC), EXCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
   - AAMA/WDMA/CSA 101/I.S.2/A440-08/11
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT. DOCUMENTS SHALL BE APPROVED BY AUTHORITY HAVING JURISDICTION (AHJ).
5. APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.
6. WINDOW FRAME MATERIAL: PVC
7. DESIGNATIONS "X" AND "O" STAND FOR THE FOLLOWING:
   X: OPERABLE PANEL
   O: FIXED PANEL
8. GLAZING MEETS ASTM E1300 REQUIREMENTS, SEE SHEET 4 FOR GLAZING DETAILS.

TABLE OF CONTENTS

CONFIGURATION	DESIGN PRESSURE	MAXIMUM SIZE	MISSILE IMPACT RATING
O/X-O/X-OX (ORIEL)	+50 / -50 PSF	107.5" x 71.5"	NON-IMPACT
O/X-O/X (ORIEL)	+50 / -50 PSF	71.5" x 71.5"	NON-IMPACT
O/X-O/X-O/X (COTTAGE)	+50 / -50 PSF	107.5" x 71.5"	NON-IMPACT
O/X-O/X (COTTAGE)	+50 / -50 PSF	71.5" x 71.5"	NON-IMPACT
O/X-O/X-O/X (EQUAL SASH)	+50 / -50 PSF	107.5" x 71.5"	NON-IMPACT
O/X-O/X (EQUAL SASH)	+50 / -50 PSF	71.5" x 71.5"	NON-IMPACT

YKK AP AMERICA RESIDENTIAL
270 RIVERSIDE PKWY
AUSTELL, GEORGIA 30168
PH: (478)277-1955 FAX: (678)838-6001

TITLE: STYLEVIEW SINGLE HUNG WINDOWS (NON-HVHZ) (NON-IMPACT) INSTALLATION & GENERAL NOTES

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
PH: (954)399-8478
FAX: (954)744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

Digitally signed by Hermes F Norero
Reason: I am approving this document
Date: 2020.09.29 15:13:34 -05'00'

HERMES F. NORERO LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER

HERMES F. NORERO, P.E.
FLORIDA P.E. No 73778
BUILDING DROPS, INC
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

FL #: FL21451

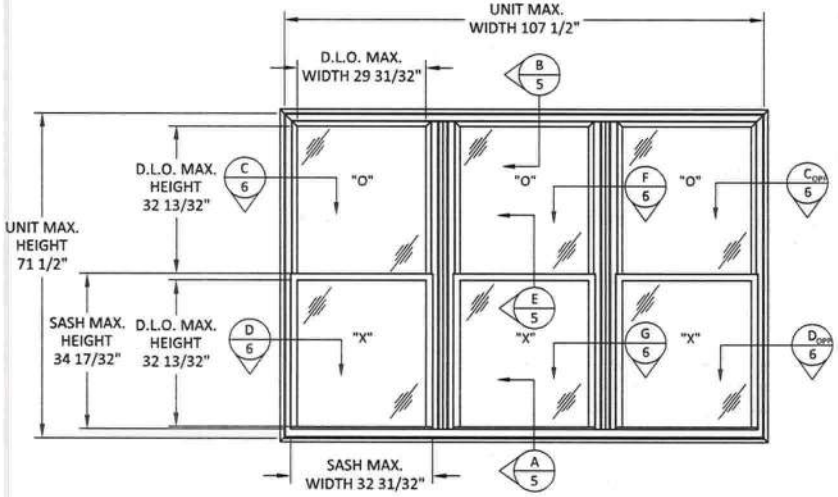
DATE: 10.04.16

DWG. BY: AM | CHK. BY: HFN

SCALE: NTS

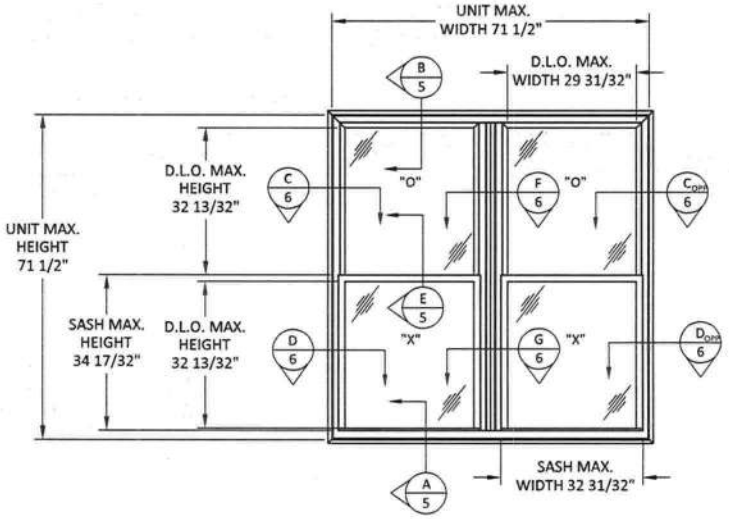
DWG. #: YKK190

SHEET: 1 OF 6



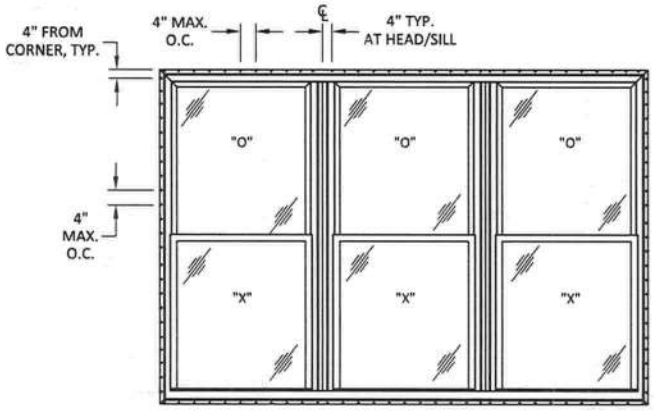
TYPICAL ELEVATION

TRIPLE SINGLE HUNG WINDOW (EQUAL SASH)



TYPICAL ELEVATION

TWIN SINGLE HUNG WINDOW (EQUAL SASH)



ANCHOR LAYOUT

NAIL FIN INSTALLATION (EQUAL SASH)

NOTE:
TWIN SINGLE HUNG CONFIGURATION HAS SIMILAR ANCHOR LAYOUT AS TRIPLE SINGLE HUNG WINDOW.

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270 RIVERSIDE PKWY
AUSTELL, GEORGIA 30168
PH: (478)277-1955 FAX: (678)838-6001

TITLE: STYLEVIEW SINGLE HUNG WINDOWS (NON-HVHZ) (NON-IMPACT)
ELEVATIONS & ANCHOR LAYOUT

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398 E. DANIA BEACH BLVD., STE. 338
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FAX: (954)744-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

HERMES F. NORERO
LICENSED
No. 73778
STATE OF FLORIDA
PROFESSIONAL ENGINEER

HERMES F. NORERO, P.E.
FLORIDA P.E. No 73778
BUILDING DROPS, INC
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

FL #: FL21451

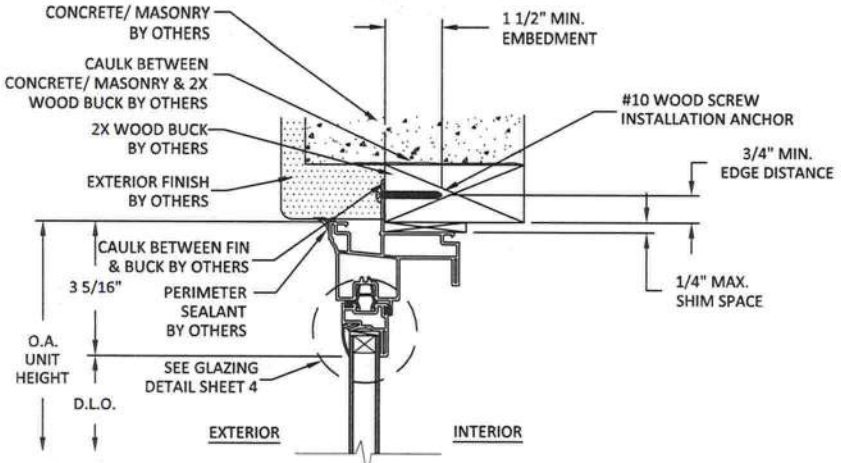
DATE: 10.04.16

DWG. BY: AM | CHK. BY: HFN

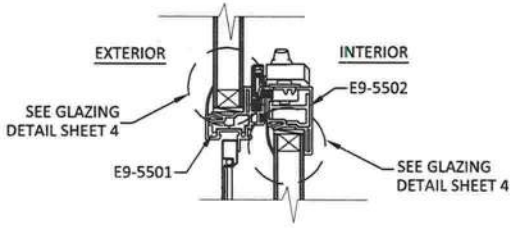
SCALE: NTS

DWG. #: YKK190

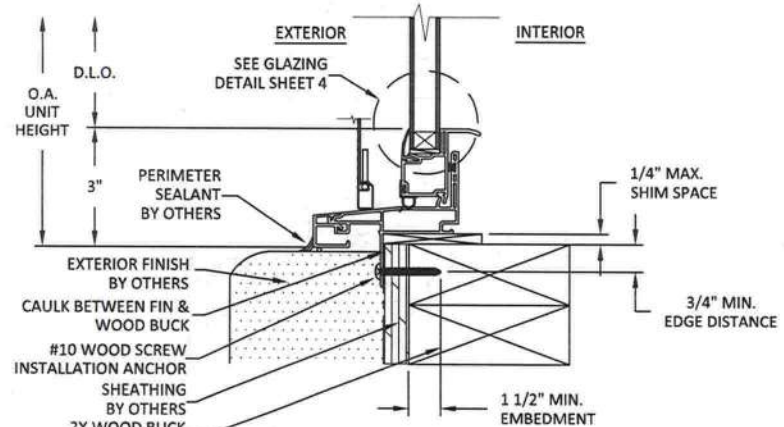
SHEET: 3 OF 6



B/5 VERTICAL SECTION
HEAD - 2X WOOD BUCK
NAIL FIN



E/5 VERTICAL SECTION
MEETING RAIL



A/5 VERTICAL SECTION
SILL - 2X WOOD FRAMING
NAIL FIN

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270 RIVERSIDE PKWY
AUSTELL, GEORGIA 30168
PH: (478)277-1955 FAX: (678)838-6001

TITLE: STYLEVIEW SINGLE HUNG WINDOWS (NON-HVHZ) (NON-IMPACT)
VERTICAL SECTIONS

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DANIA BEACH, FL 33004
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WEB: www.buildingdrops.com

REMARKS	BY	DATE

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HERMES F. NORERO, P.E.
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398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

FL #: FL21451
DATE: 10.04.16
DWG. BY: AM
CHK. BY: HFN
SCALE: NTS
DWG. #: YKK190
SHEET: 5 OF 6

YKK AP AMERICA RESIDENTIAL

STYLEVIEW NO TRIM PICTURE WINDOW (NON-HVHZ) (NON-IMPACT)

INSTALLATION NOTES:

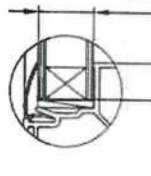
1. FOR DP +/- 50 PSF, ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
2. FOR DP +/- 35 PSF, ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EVERY OTHER ANCHOR LOCATION SHOWN.
3. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION OF THE MAXIMUM SIZE LISTED.
4. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH THE DEPICTED LOCATION & SPACING IN THE ANCHOR LAYOUT DETAILS (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
5. FOR INSTALLATION INTO WOOD FRAMING USE *#8 WOOD SCREWS* OF SUFFICIENT LENGTH TO ACHIEVE 1 1/2 INCH MINIMUM EMBEDMENT INTO WOOD SUBSTRATE.
6. FOR INSTALLATION INTO METAL STUD USE #8 PAN HEAD SCREWS THROUGH THE FRAME OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL FRAME SUBSTRATE.
7. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4 INCH. SHIM SPACE WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
8. FOR MASONRY OR CONCRETE OPENINGS, 1X WOOD BUCK MAY BE USED (OPTIONAL AS LONG AS THE MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS ARE STILL MET WITHIN THE CORRESPONDING HOST SUBSTRATE. SEE GENERAL NOTE #3 ON SHEET 1 FOR MORE INFORMATION.
9. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
10. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
11. 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 BY THE ANCHOR MANUFACTURER.
12. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
    A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
    B. STEEL - MINIMUM YIELD STRENGTH OF 33 KSI. MINIMUM 18 GA. WALL THICKNESS.

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC), EXCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
   - AAMA/WDMA/CSA 101/I.S.2/A440-17
   - ASTM E283-04(12)
   - ASTM E330-14
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X FRAMING AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT IN NON-HVHZ AREAS.
5. APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.
6. WINDOW FRAME MATERIAL: PVC
7. DESIGNATIONS "X" AND "O" STAND FOR THE FOLLOWING:
   X: OPERABLE PANEL
   O: FIXED PANEL
8. GLAZING SHALL MEET ASTM E1300 REQUIREMENTS, SEE SHEET 1 FOR GLAZING DETAILS.

DESIGN PRESSURE TABLE

TYP. OVERALL SIZE		DESIGN PRESSURE	CONFIGURATION	INSTALLATION METHOD	IMPACT RATING	GLAZING TYPE
WIDTH	HEIGTH					
71.5"	71.5"	+50/-50 PSF	"O"	NAIL FIN	NOT RATED	G1
72"	96"	+35/-35 PSF	"O"	NAIL FIN	NOT RATED	G1
79.5"	79.5"	+50/-50 PSF	"O"	NAIL FIN	NOT RATED	G1



GLAZING DETAIL

GLAZING NOTES:

1. GLASS THICKNESS AND TYPE SHALL COMPLY WITH ASTM E1300 GLASS STRENGTH REQUIREMENTS.
2. SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A) AS REFERENCED IN FBC CHAPTER 24.
3. SETTING BLOCK TO BE LOCATED AT 1/4 SPAN LENGTH FOR GLASS WIDER THAN 36" PER FBC CHAPTER 24.
4. ALL GLAZING CONFIGURATIONS SHALL COMPLY WITH SAFETY GLAZING REQUIREMENTS OUTLINED IN CURRENT FBC.

INTERCEPT STAINLESS STEEL OR TIN PLATED SPACER: AROUND THE PERIMETER OF THE GLASS

PRIMARY SEALANT:
POLYISOBUTYLENE (PIB)

SECONDARY SEALANT:
STRUCTURAL SILICONE INTENDED FOR FABRICATION OF INSULATED GLASS UNITS.

YKK AP Quality inspires

YKK AP AMERICA RESIDENTIAL
4234 OCMULGEE BLVD.
MACON, GEORGIA 31217
PH: (866) 348-9091

TITLE: STYLEVIEW NO TRIM PICTURE WINDOW (NON-HVHZ) (NON-IMPACT)
INSTALLATION, GENERAL NOTES & GLAZING DETAIL

PREPARED BY: BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
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REMARKS	BY	DATE

Digitally signed by Hermes F Norero
Reason: I am approving this document

HERMES F. NORERO, P.E.
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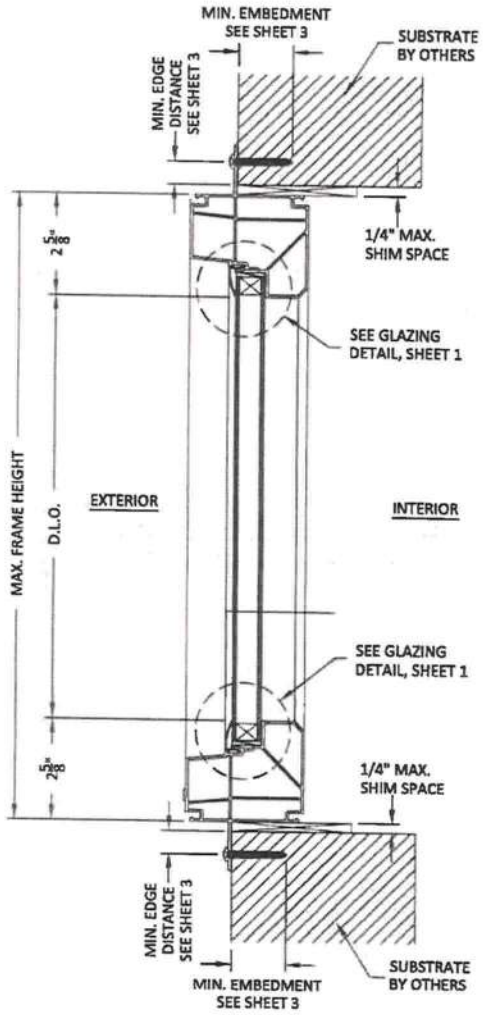
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
FBPE CERT. OF AUTHORIZATION No. 29578

FL #: FL7829
DATE: 02.01.18
DWG. BY: RV
CHK. BY: HFN
SCALE: NTS
DWG. #: YKK258



A/3 **VERTICAL SECTION**
NAIL FIN

ANCHOR SCHEDULE				
METHOD	SUBSTRATE	ANCHOR SCHEDULE	MIN EMBEDMENT	MIN. EDGE DISTANCE
NAILING FIN	WOOD: MIN. SG = 0.55	#8 WOOD SCREW PAN HEAD	1.5"	0.75"
	METAL: 18 GAUGE Steel, MIN. Fy = 33KSI	#8 TEK SCREW	3 THREADS MIN PENETRATION BEYOND METAL	0.50"

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YKK AP AMERICA RESIDENTIAL
4234 OCMULGEE BLVD.
MACON, GEORGIA 31217
PH: (866) 348-9092

TITLE: STYLEVIEW NO TRIM PICTURE WINDOW (NON-HVHZ) (NON-IMPACT)
VERTICAL SECTION & ANCHOR SCHEDULE

PREPARED BY:
BUILDING DROPS, INC.
398 E. DANIA BEACH BLVD., STE. 338
DANIA BEACH, FL 33004
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FAX: (954)784-4738
WEB: www.buildingdrops.com

REMARKS	BY	DATE

HERMES F. NORIEGA LICENSE No. 73778 STATE OF FLORIDA PROFESSIONAL ENGINEER

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FLORIDA P.E. No 73778
BUILDING DROPS, INC
398 E. DANIA BEACH BLVD. # 338
DANIA BEACH, FL 33004
PEPE CERT. OF AUTHORIZATION No. 29578

FL #: FL7829
DATE: 02.01.18
DWG. BY: RV
CHK. BY: HFN
SCALE: NTS
DWG. #: YKK258
SHEET: 3 OF 4

Florida Product Approval

HardiePlank® Lap Siding

- For use inside HVHZ:
    - HardiePlank Lap Siding fastener types, fastening schedule, and installation shall be in accordance with the Miami-Dade County Florida NOA 20-0730.06. Consult the HardiePlank product installation instructions on the follow pages for all other installation requirements.

- For use outside of HVHZ,
    - HardiePlank Lap Siding fastener types, fastening schedule, and installation shall be in accordance with CAE Engineering Reports No.:2001-10.2.1, 2001-10.2.2, 2001-10.2.3. Consult the HardiePlank product installation instructions on the follow pages for all other installation requirements.

CLEARANCE AND FLASHING REQUIREMENTS

Figure 3
Roof to Wall

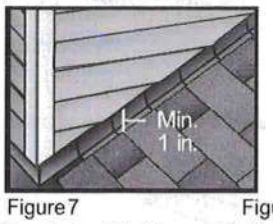


Figure 4
Horizontal Flashing

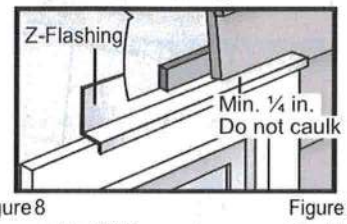


Figure 5
Kickout Flashing

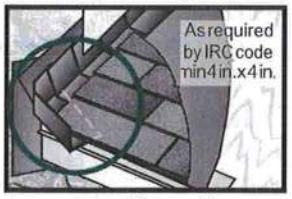


Figure 6
Slabs, Path, Steps to Siding

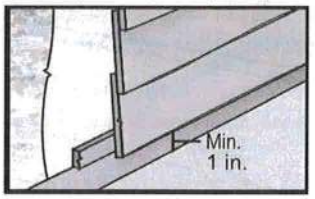


Figure 7
Deck to Wall

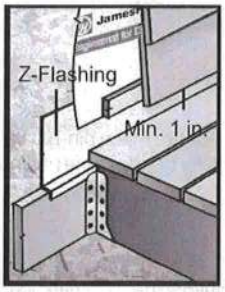


Figure 8
Ground to Siding

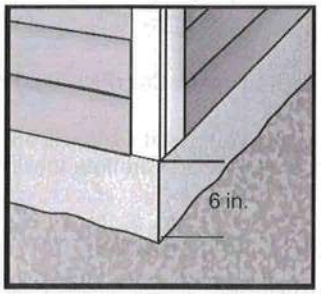


Figure 9
Gutter to Siding

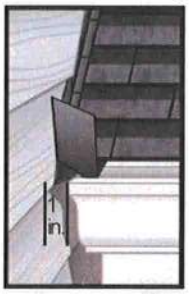


Figure 10
Sheltered Areas

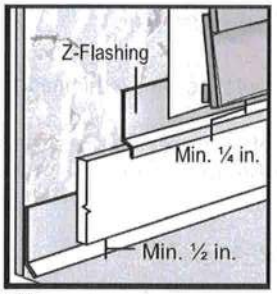


Figure 11
Mortar/Masonry

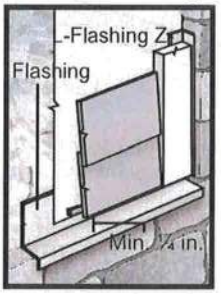


Figure 12
Drip Edge

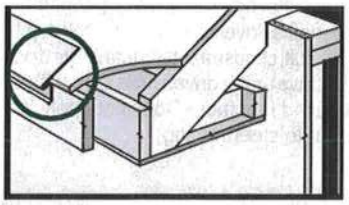


Figure 13
Block Penetration
(Recommended in HZ10)

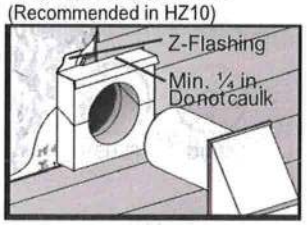
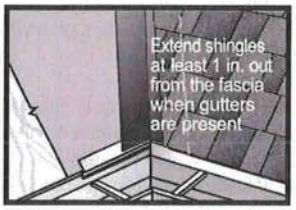


Figure 14
Valley/Shingle Extension



FASTENER REQUIREMENTS*

Refer to the applicable ESR report online to determine which fastener meets your wind load design criteria.

Blind Nailing is the preferred method of installation for HardiePlank® lap siding products. Face nailing should only be used where required by code for high wind areas and must not be used in conjunction with Blind nailing (Please see JH Tech bulletin 17 for exemption when doing a repair).

BLIND NAILING

Nails - Wood Framing
- Siding nail (0.09 in. shank x 0.221 in. HD x 2 in. long)
- 11ga. roofing nail (0.121 in. shank x 0.371 in. HD x 1.25 in. long)

Screws - Steel Framing
- Ribbed Wafer-head or equivalent (No. 8 x 1 1/4 in. long x 0.375 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing
- ET & F Panelfast® nails or equivalent (0.10 in. shank x 0.313 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.
- Siding nail (0.09 in. shank x 0.215 in. HD x 1-1/2 in. long
- Ribbed Wafer-head or equivalent (No. 8 x 1 5/8 in. long x 0.375 in. HD).

FACE NAILING

Nails - Wood Framing
- 6d (0.113 in. shank x 0.267 in. HD x 2 in. long)
- Siding nail (0.09" shank x 0.221" HD x 2" long)

Screws - Steel Framing
- Ribbed Bugle-head or equivalent (No. 8-18 x 1-5/8 in. long x 0.323 in. HD) Screws must penetrate 3 threads into metal framing.

Nails - Steel Framing
- ET & F pin or equivalent (0.10 in. shank x 0.25 in. HD x 1-1/2 in. long) Nails must penetrate minimum 1/4 in. into metal framing.

OSB minimum 7/16 in.
- Siding nail (0.09 in. shank x 0.221 in. HD x 1-1/2 in. long)

*Also see General Fastening Requirements; and when considering alternative fastening options refer to James Hardie's Technical Bulletin USTB 5 - Fastening Tips for HardiePlank Lap Siding.

COLORPLUS® TECHNOLOGY CAULKING, TOUCH-UP & LAMINATE

- Care should be taken when handling and cutting James Hardie® ColorPlus® products. During installation use a wet soft cloth or soft brush to gently wipe off any residue or construction dust left on the product, then rinse with a garden hose.
- Touch up nicks, scrapes and nail heads using the ColorPlus® Technology touch-up applicator. Touch-up should be used sparingly. If large areas require touch-up, replace the damaged area with new HardiePlank® lap siding with ColorPlus® Technology.
- Laminate sheet must be removed immediately after installation of each course.
- Terminate non-factory cut edges into trim where possible, and caulk. Color matched caulks are available from your ColorPlus® product dealer.
- Treat all other non-factory cut edges using the ColorPlus Technology edge coaters, available from your ColorPlus product dealer.

Note: James Hardie does not warrant the usage of third party touch-up or paints used as touch-up on James Hardie ColorPlus products.

Problems with appearance or performance arising from use of third party touch-up paints or paints used as touch-up that are not James Hardie touch-up will not be covered under the James Hardie ColorPlus Limited Finish Warranty.

PAINTING JAMES HARDIE® SIDING AND TRIM PRODUCTS WITH COLORPLUS® TECHNOLOGY

When repainting ColorPlus products, James Hardie recommends the following regarding surface preparation and topcoat application:

- Ensure the surface is clean, dry, and free of any dust, dirt, or mildew
- Repriming is normally not necessary
- 100% acrylic topcoats are recommended
- DO NOT use stain, oil/alkyd base paint, or powder coating on James Hardie® Products.
- Apply finish coat in accordance with paint manufacturers written instructions regarding coverage, application methods, and application temperature
- DO NOT caulk nail heads when using ColorPlus products, refer to the ColorPlus touch-up section

COVERAGE CHART/ESTIMATING GUIDE

Number of 12 ft. planks, does not include waste

COVERAGE AREA LESS OPENINGS SQ (1 SQ = 100 sq.ft.)	(exposure)	HARDIEPLANK® LAP SIDING WIDTH 5 1/4 4	6 1/4 5	7 1/4 6	7 1/2 6 1/4	8 6 3/4	8 1/4 7	9 1/4 8	9 1/2 8 1/4	12 10 3/4
1		25	20	17	16	15	14	13	13	9
2		50	40	33	32	30	29	25	25	19
3		75	60	50	48	44	43	38	38	28
4		100	80	67	64	59	57	50	50	37
5		125	100	83	80	74	71	63	63	47
6		150	120	100	96	89	86	75	75	56
7		175	140	117	112	104	100	88	88	65
8		200	160	133	128	119	114	100	100	74
9		225	180	150	144	133	129	113	113	84
10		250	200	167	160	148	143	125	125	93
11		275	220	183	176	163	157	138	138	102
12		300	240	200	192	178	171	150	150	112
13		325	260	217	208	193	186	163	163	121
14		350	280	233	224	207	200	175	175	130
15		375	300	250	240	222	214	188	188	140
16		400	320	267	256	237	229	200	200	149
17		425	340	283	272	252	243	213	213	158
18		450	360	300	288	267	257	225	225	167
19		475	380	317	304	281	271	238	238	177
20		500	400	333	320	296	286	250	250	186

This coverage chart is meant as a guide. Actual usage is subject to variables such as building design. James Hardie does not assume responsibility for over or under ordering of product.

HS11119 P4/4 12/19

DANGER: May cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product. Refer to the current product Safety Data Sheet before use. The hazard associated with fiber cement arises from crystalline silica present in the dust generated by activities such as cutting, machining, drilling, routing, sawing, crushing, or otherwise abrading fiber cement, and when cleaning up, disposing of or moving the dust. When doing any of these activities in a manner that generates dust you must (1) comply with the OSHA standard for silica dust and/or other applicable law, (2) follow James Hardie cutting instructions to reduce or limit the release of dust; (3) warn others in the area to avoid breathing the dust; (4) when using mechanical saw or high speed cutting tools, work outdoors and use dust collection equipment; and (5) if no other dust controls are available, wear a dust mask or respirator that meets NIOSH requirements (e.g. N-95 dust mask). During clean-up, use a well maintained vacuum and filter appropriate for capturing fine (respirable) dust or use wet clean-up methods - never dry sweep.

WARNING: This product can expose you to chemicals including respirable crystalline silica, which is known to the State of California to cause cancer. For more information go to P65Warnings.ca.gov.

RECOGNITION: In accordance with ICC-ES Evaluation Report ESR-2290, HardiePlank® lap siding is recognized as a suitable alternate to that specified in the 2006, 2009, 2012 & 2015 International Residential Code for One and Two-Family Dwellings, and the 2006, 2009, 2012 & 2015 International Building Code. HardiePlank lap siding is also recognized for application in the following: City of Los Angeles Research Report No. 24862, State of Florida Product Approval FL#13192, Miami-Dade County Florida NOA No. 17-0406.06, U.S. Dept. of HUD Materials Release 1263f, Texas Department of Insurance Product Evaluation EC-23, City of New York MEA 223-93-M, and California DSA PA-019. These documents should also be consulted for additional information concerning the suitability of this product for specific applications.

Product warranties, safety information and additional installation information are available at jameshardiepros.com

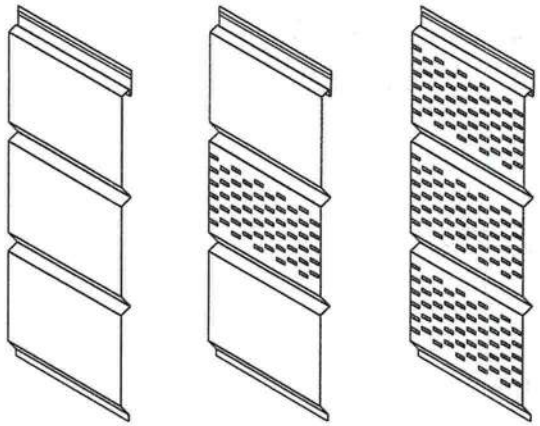
JamesHardie

AMERICAN CONSTRUCTION METALS

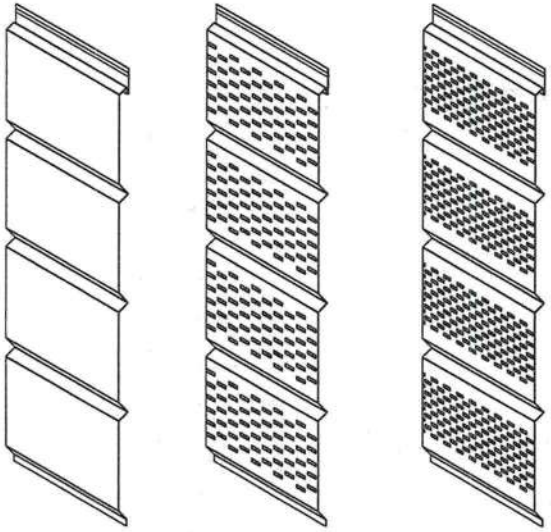
6938 N US Highway 41, Apollo Beach, FL 33572

"TRIPLE 4" & "QUAD 4"

ALUMINUM "V - GROOVE" SOFFIT



TRIPLE 4 (T4)
T-4-012 (.0115" THICK)
T-4-014 (.0135" THICK)



QUAD 4 (Q4)
Q-4-012 (.0115" THICK)
Q-4-014 (.0135" THICK)

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 7th Edition (2020) Florida Building Code excluding the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. Site conditions not covered by this drawing are subject to further engineering analysis.
4. Wood/CMU wall construction, by others, must be designed properly to receive loads from the soffit and/or 2" x 2" batten strips.
5. Aluminum soffits shall conform to the specification and labelling requirements of FBC Section 1709.10.

TABLE OF CONTENTS

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
10.6.20

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.8197
FBPE Registry No. 9813

PRODUCT: ALUMINUM SOFFIT

PART OR ASSEMBLY: TYPICAL ELEVATIONS & GENERAL NOTES

NO.	DATE	REVISIONS	BY
7	10/01/20	UPDATE TO 7TH ED. (2020) FBC	LFS
6	03/19/20	ADD ALTERNATE 7" CHANNEL	LFS
5	01/01/09	UPDATE TO 6TH ED. (2017) FBC	LFS
4	03/02/15	UPDATE TO 5TH ED. (2014) FBC	JK
3	12/13/11	UPDATE FOR 2010 FBC	LFS

DATE: 01/01/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-12019.1
SHEET 1 OF 5

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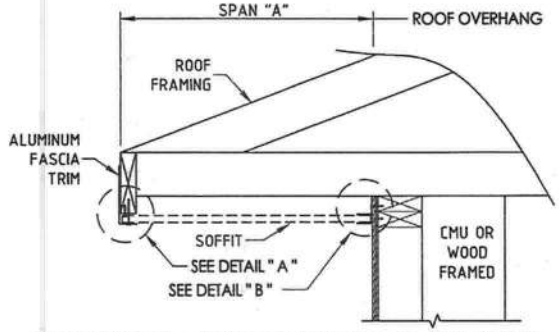
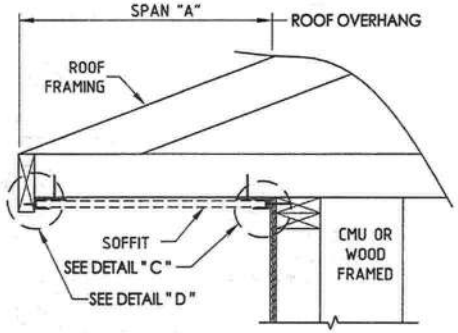


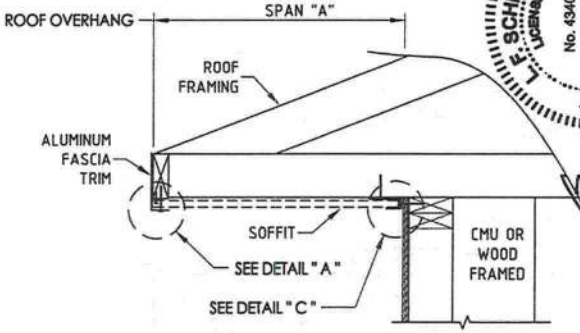
SIDE VIEW - SINGLE SPAN w/F-CHANNEL

(Shown w/ truss/framing cantilever)



SIDE VIEW - SINGLE SPAN w/J-CHANNELS

(Shown w/ truss/framing cantilever)

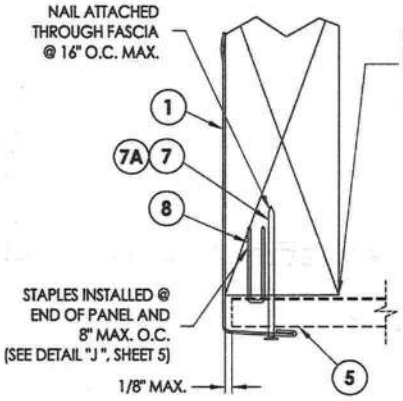


SIDE VIEW - SINGLE SPAN w/J-CHANNEL

(Shown w/ truss/framing cantilever)

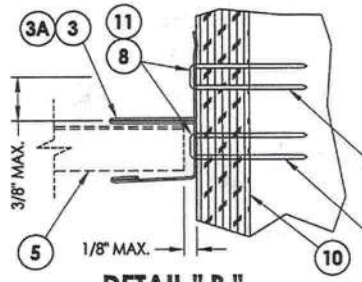
SINGLE SPAN LENGTH "A"	DESIGN PRESSURE (PSF)	
	POSITIVE	NEGATIVE
8"	+70.0	-141.0
10"	+60.0	-60.0
12"	+50.0	-50.0
14"	+38.5	-38.5
16"	+30.0	-30.0

NOTE: WOOD FRAMING AND CONNECTIONS TO BE DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD



DETAIL " A "

Fascia

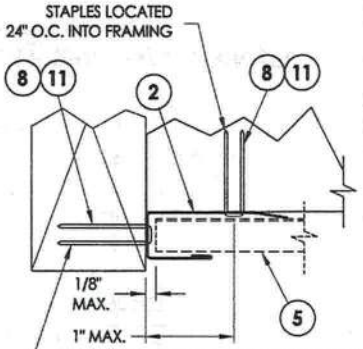


STAPLES INSTALLED @ 24" O.C. (INTO WOOD) ON F-CHANNEL LEG OR T-NAIL @ 12" O.C. (INTO WOOD OR MASONRY)

STAPLES INSTALLED @ 12" O.C. (INTO WOOD) IN F-CHANNEL SLOT OR T-NAIL @ 12" O.C. (INTO WOOD OR MASONRY)

DETAIL " B "

F-Channel

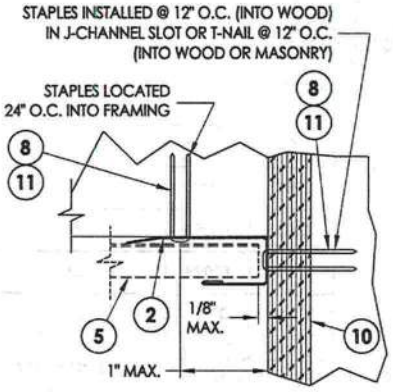


STAPLES INSTALLED @ 12" O.C. (INTO WOOD) IN J-CHANNEL SLOT OR T-NAIL @ 12" O.C.

DETAIL " D "

J-Channel

Fascia



DETAIL " C "

J-Channel

SUBSTRATE NOTES:
1. WOOD SUBSTRATE: G = 0.42 OR BETTER
2. MASONRY SUBSTRATE: 3,000 PSI CONCRETE (ACI 301) OR HOLLOW BLOCK (ASTM C90).

STATE OF FLORIDA PROFESSIONAL ENGINEER
LYNDON F. SCHMIDT
LICENSE No. 43409
10-6-20

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE Registry No. 9813

PRODUCT: ALUMINUM SOFFIT

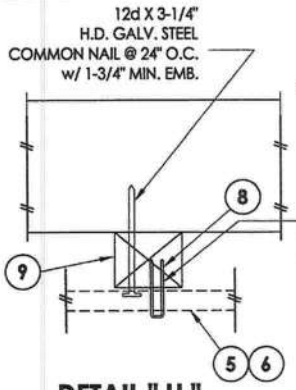
PART OR ASSEMBLY: SOFFIT DETAILS & DESIGN PRESSURES

NO.	DATE	REVISIONS	BY
7	10/01/20	UPDATE TO 7TH ED. (2020) FBC	LFS
6	03/19/20	ADD ALTERNATE "F" CHANNEL	LFS
5	01/01/09	UPDATE TO 6TH ED. (2017) FBC	LFS
4	03/02/15	UPDATE TO 5TH ED. (2014) FBC	JK
3	12/13/11	UPDATE FOR 2010 FBC	LFS

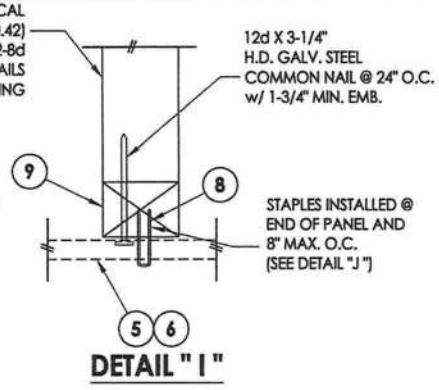
DATE: 1/9/09
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-12019.1
SHEET 3 OF 5

R:\Clients\American Construction Metals PERMANENTA - Florida Product Approvals\FL-12019\(C - Drawings\FL-12019 (2020)\FL-12019.1.dwg, 1-3

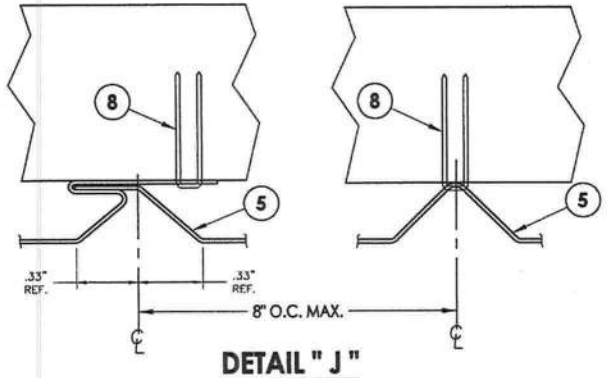
ITEM	DESCRIPTION	MATERIAL
1	FASCIA (0.0215" THK.) ALUM. 3105 - H14	ALUMINUM
2	"J" CHANNEL (0.0155" THK.) ALUM. 3105 - H24	ALUMINUM
3	"F" CHANNEL (0.0155" THK.) ALUM. 3104 - H19	ALUMINUM
3A	"F" CHANNEL (0.0170" THK.) ALUM. 3104 - H19	ALUMINUM
5	QUAD 4 PANEL (0.0115" OR 0.0135" THICK) ALUM. 3105	ALUMINUM
6	TRIPLE 4 PANEL (0.0115" OR 0.0135" THICK) ALUM. 3105	ALUMINUM
7	#15 x 1-3/4" TRIM NAIL	S.S.
7A	14GA. X 1-1/2" LONG FINISHING NAIL w/ 3/16" DIA. HEAD	S.S.
8	18" GA. X 1/4" SS STAPLE (w/ 7/8" MIN. EMBEDMENT)	STEEL
9	2" X 2" BATTEN STRIP (G=0.42 OR BETTER)	WOOD
10	APA B-C GROUP 1 EXT. 15/32" PLYWOOD OR BETTER	WOOD
11	0.097" DIA. T-NAIL (w/ 5/8" MIN. EMBEDMENT)	STEEL



DETAIL " H "



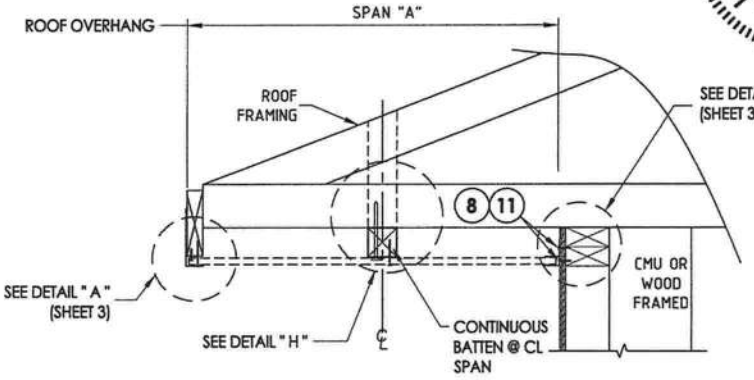
DETAIL " I "



DETAIL " J "

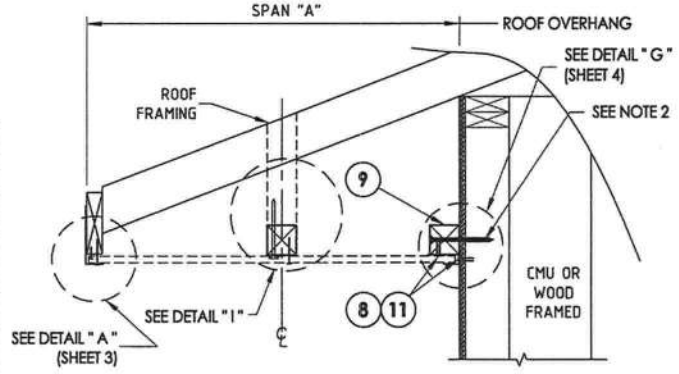
TWIN SPAN LENGTH w/CONTINUOUS BATTEN "A"	DESIGN PRESSURE (PSF)	
	POSITIVE	NEGATIVE
16"	+70.0	-70.0
18"	+66.5	-66.5
20"	+60.0	-60.0
22"	+54.5	-54.5
24"	+50.0	-50.0

CONNECTOR NOTES:
1. WOOD FRAMING AND CONNECTIONS TO BE DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD
2. 12d COMMON NAIL OR 3/16" ITW TAPCON CONCRETE SCREW (MIN. 1-1/4" EMBEDMENT) @ 24" ON CENTER



SIDE VIEW - DOUBLE SPAN w/BATTEN

(Shown w/ truss/framing cantilever)



SIDE VIEW - DOUBLE SPAN w/BATTEN

(Shown w/ truss/framing overhang)

SUBSTRATE NOTES:
1. WOOD SUBSTRATE: G = 0.42 OR BETTER
2. MASONRY SUBSTRATE: 3,000 PSI CONCRETE (ACI 301) OR HOLLOW BLOCK (ASTM C90).

Documents Prepared By:
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P.E. No. 43409
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3	12/13/11	UPDATE FOR 2010 FBC	LFS

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DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-12019.1
SHEET 5 OF 5

R:\Clients\American Construction Metals PERMANENTVA - Florida Product Approvals\FL-12019\C - Drawings\FL-12019 (2020)\FL-12019.1.dwg, 1-5

UL Evaluation Report

UL ER2919-01

Issued: May 21, 2013

Revised: November 18, 2020

Visit UL, LLC's Product iQ™ database for the status of this Report.

UL Category Code: ULEZ

CSI MasterFormat®

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Sub-level 2: 07 30 00 – Steep Slope Roofing
Sub-level 3: 07 31 00 – Shingles and Shakes
Sub-level 4: 07 31 13 – Asphalt Shingles

COMPANY:

TAMKO BUILDING PRODUCTS LLC
198 FOUR STATES DRIVE
GALENA, KANSAS 66739
(417) 624-6644
www.tamko.com

1. SUBJECT: Asphalt Shingles

ELITE GLASS-SEAL,

HERITAGE, HERITAGE IR, HERITAGE PREMIUM, HERITAGE WOODGATE, HERITAGE VINTAGE, AND HERITAGE PROLINE TITAN XT

HERITAGE VINTAGE 12 X 12 HIP AND RIDGE, 12-¼ X 12 HIP AND RIDGE, AND 12-¼ X 12 HERITAGE HIP AND RIDGE IR

HERITAGE VINTAGE STARTER

2. SCOPE OF EVALUATION

- 2018, 2015, 2012, and 2009 *International Building Code* ® (IBC)
- 2018, 2015, 2012, and 2009 *International Residential Code* ® (IRC)
- 2020 Florida Building Code – Building
- 2020 Florida Building Code – Residential
- ICC ES Acceptance Criteria for Quality Documentation (AC10)

Physical Properties: TAMKO asphalt shingles covered under this Report have been tested for physical properties in accordance with ASTM D3462. Shingles tested in accordance with ASTM D3462 qualify for use under Section 1507.2.4 of the 2018 IBC, Section 1507.2.5 of the 2015, 2012, and 2009 IBC, Section 1507.2.5 of the 2020 Florida Building Code - Building, or Section R905.2.4 of the IRC and 2020 Florida Building Code - Residential. When installed on new construction in accordance with this report and the TAMKO Building Products LLC installation instructions, the shingles are a Class A roof covering. When the shingles are installed over existing roof coverings, the Class A fire classification is maintained.

5.1 Three-Tab Shingles – Elite Glass-Seal:

Elite Glass-Seal shingles are three-tab shingles manufactured with a single fiberglass mat, coated on both sides with asphalt, and surfaced on the weather-exposed side with mineral granules. The shingles are self-sealing and have beads of thermal-tab sealing adhesive above the shingle butt on the weather side. See Table 2 for product dimensions and manufacturing locations.

5.2 Laminated Shingles – Heritage, Heritage IR, Heritage Premium, Heritage Woodgate, Heritage Vintage, and Heritage Proline Titan XT:

Heritage, Heritage IR, Heritage Premium, Heritage Woodgate, Heritage Vintage, and Heritage Proline Titan XT shingles are laminated shingles manufactured with a double layer of fiberglass mats coated with asphalt on all sides, and surfaced on the weather-exposed side with mineral granules. See Table 3, Table 4, Table 5, Table 6, Table 7, Table 10, and Table 13 for product dimensions and manufacturing locations.

5.3 Hip & Ridge Shingles – 12-¼ X 12 Hip and Ridge, Heritage Vintage 12 X 12 Hip and Ridge, 12-¼ X 12 Heritage Hip and Ridge IR:

Hip and Ridge are prefabricated hip and ridge shingles available as 12-¼ X 12 Hip and Ridge and 12-¼ x 12 Heritage Hip and Ridge IR. Heritage Vintage Hip and Ridge are prefabricated hip and ridge shingles available as 12 X 12 Hip and Ridge. As an alternative, Elite Glass-Seal shingles are cut into three 12-¼ inch by 12-inch (305 mm by 305 mm) hip and ridge shingles. See Table 8, Table 9, and Table 11 for product dimensions and manufacturing locations.

6. INSTALLATION

TAMKO asphalt shingles must be installed in accordance with the applicable code, this report and the manufacturer's published installation instructions. The shingles must be installed in accordance with Section 1507.2 of the IBC and 2020 Florida Building Code - Building, or Section R905.2 of the IRC and 2020 Florida Building Code - Residential, as applicable, except as noted in this report.

The manufacturer's published installation instructions must be available at all times on the jobsite during installation.

Minimum roof slopes must be 2:12 (16.67% slope) for the three-tab shingles described under 5.1 of this Report and for the laminated shingles described under 5.2 of this Report.

6.3.2 Laminated Shingles – Heritage, Heritage IR, Heritage Premium, Heritage Woodgate, and Heritage Proline XT:

For roof slopes 2:12 up to but less than 21:12 (16.67% to 175% slope), each shingle must be fastened to the roof deck using a minimum of four fasteners, spaced as shown in Tables 3, 4, 5, 6, 10, and 13.

For roof slopes equal to or greater than 21:12 (175% slope), six fasteners must be used, spaced as shown in Tables 3, 5, 6, 10, and Table 13.

Maximum exposure to the weather must be 5-⅝ inches (143 mm).

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles can be hand-sealed. Four evenly spaced 1-inch diameter (25.4 mm) spots of cement should be placed under the exposed portion of the shingle, approximately 1 inch (76 mm) above the butt edge.

6.3.3 Laminated Shingles – Heritage Vintage:

For roof slopes 2:12 up to but less than 21:12 (16.67% to 175% slope), each shingle must be fastened to the roof deck using a minimum of five fasteners, spaced as shown in Table 7.

For roof slopes equal to or greater than 21:12 (175% slope), nine fasteners must be used, spaced as shown in Table 7.

Fasteners must be located 6 and 11-½ inches (152 and 292 mm) above the butt edge of the shingles.

Maximum exposure to the weather must be 5 inches (127 mm).

In colder climates or wind regions where it is questionable whether the thermal-sealing adhesive will activate to seal the shingles, the shingles must be hand-sealed. Four evenly spaced 1-inch diameter (25.4 mm) spots of cement should be placed under the exposed portion of the shingle, approximately 1 inch (127 mm) above the butt edge.

6.4 Valley Construction and Other Flashing:

Valleys must consist of woven, open valley or closed-cut construction and must be flashed in accordance with Section 1507.2.8.2 of the 2018 IBC, and Section 1507.2.9.2 of the 2020 Florida Building Code - Building, 2015, 2012, and 2009 IBC or Section R905.2.8.2 of the IRC and 2020 Florida Building Code - Residential. Other flashings must be in accordance with Sections 1503.2 and 1507.2.8 of 2020 Florida Building Code - Building, 2018 IBC, Section 1507.2.9 of the 2015, 2012, and 2009 IBC, or Section R903.2 and Section R905.2.8 of the IRC and 2020 Florida Building Code - Residential, as applicable.

7.5 Fasteners:

Fasteners must be minimum No. 12 gage [0.105 inch (2.7 mm)], ⅜-inch diameter head (9.5 mm), galvanized, stainless steel, aluminum or copper corrosion-resistance nails. Fasteners must be of sufficient length to penetrate into the sheathing ¾-inch (19.1 mm), or through the sheathing, where the sheathing is less than ¾-inch (19.1 mm) thick. Fasteners must be compliant with ASTM F1667.

7.6 Asphalt Cement:

Asphalt cement must comply with ASTM D4586, Type I, Class I.

8. CONDITIONS OF USE

The TAMKO Asphalt Shingles described in this Report comply with, or are suitable alternatives to, what is specified in those codes listed in Section 2 of this Report, subject to the following conditions:

8.1 Materials and methods of installation shall comply with this Report and the manufacturer's published installation instructions. In the event of a conflict between the installation instructions and this Report, this Report governs.

8.2 The products are manufactured at the locations listed in Table 1 of this Report under the UL LLC Classification and Follow-Up Service Program, which includes regular audits in accordance with quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC10.

8.3 See UL Product iQ™ database for Prepared Roof-Covering Materials (TFWZ).

9. SUPPORTING EVIDENCE

9.1 Manufacturer's descriptive product literature, including installation instructions.

9.2 See UL Product iQ™ database for the following:

9.2.1 UL test reports and Classification in accordance with ANSI/UL 790, Class A and UL Subject 2375 for Roof-Covering Materials (TFWZ).

9.2.2 UL test reports and Classification in accordance with ASTM D3462 for Prepared Roof-Covering Materials (TFWZ).

9.2.3 UL test reports and Classification in accordance with ASTM D7158, Class H for Prepared Roof-Covering Materials (TGAH).

9.2.4 UL test reports and Classification in accordance with ASTM D3161, Class F Prepared Roof-Covering Materials (TFWZ).

9.3 Quality Documentation in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

10. IDENTIFICATION

TAMKO asphalt shingles described in this Evaluation Report are identified by a marking on each package bearing the report holder's name (TAMKO Building Products LLC), the plant identification, the product name, the UL Listing/Classification Mark and the evaluation report number UL ER2919-01. The validity of this Evaluation Report is contingent upon this identification appearing on the package.

Table 2 – Elite Glass-Seal

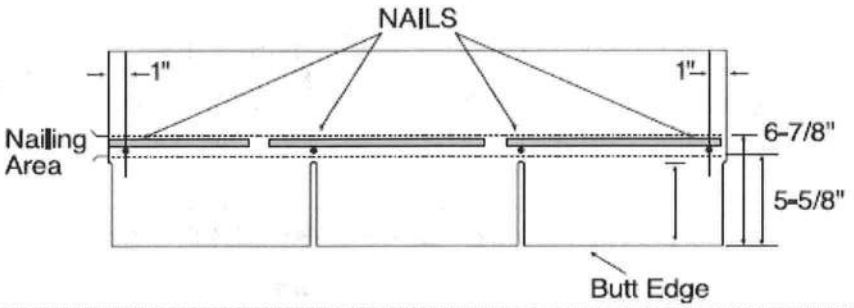
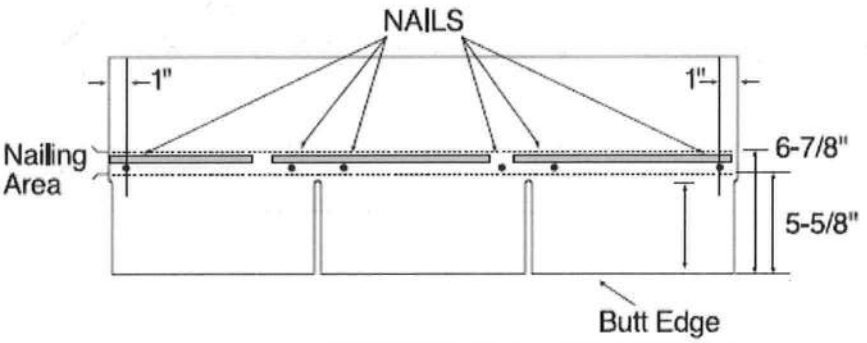
Dimensions:	12-¼" x 36"
Plant Location(s):	Frederick, Joplin
Fastening Pattern:	For slopes 2:12 up to but less than 21:12 
Fastening Pattern:	For slopes equal to or greater than 21:12 

Table 4 – Heritage

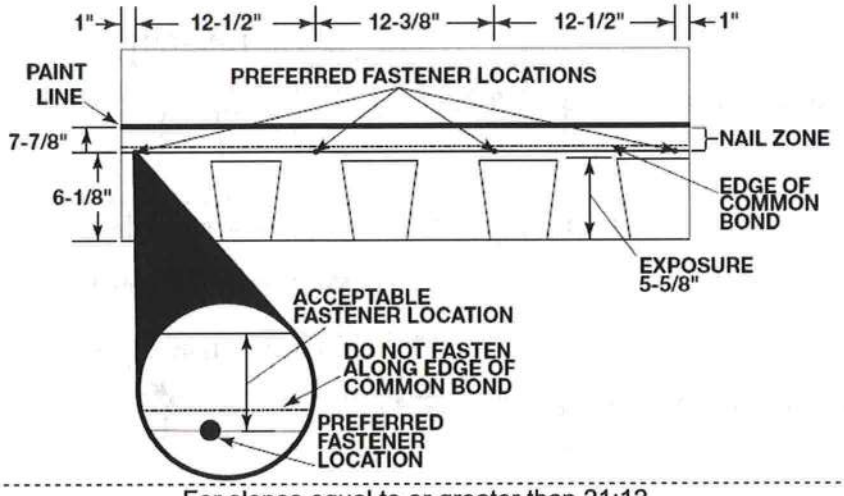
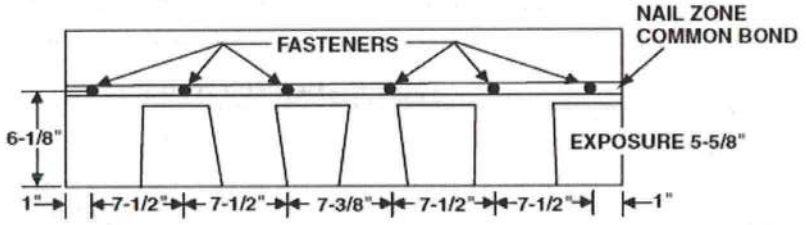
Dimensions:	13-¼" x 39-$^3/_8$"
Plant Location(s):	Tuscaloosa
Fastening Pattern:	For slopes 2:12 up to but less than 21:12 
Fastening Pattern:	For slopes equal to or greater than 21:12 

Table 7 – Heritage Vintage

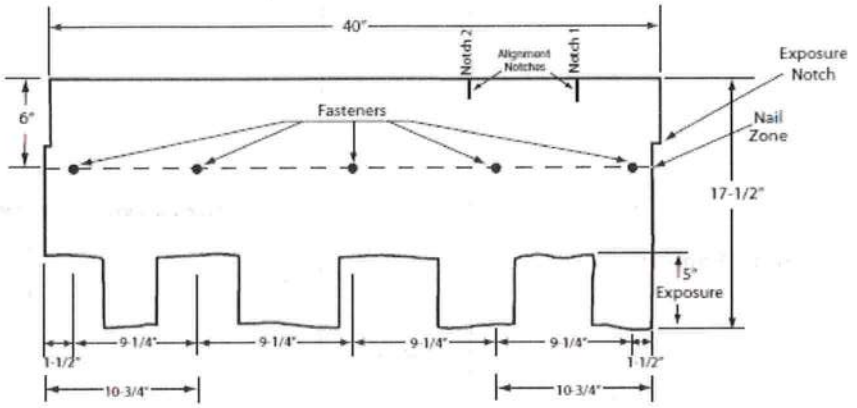
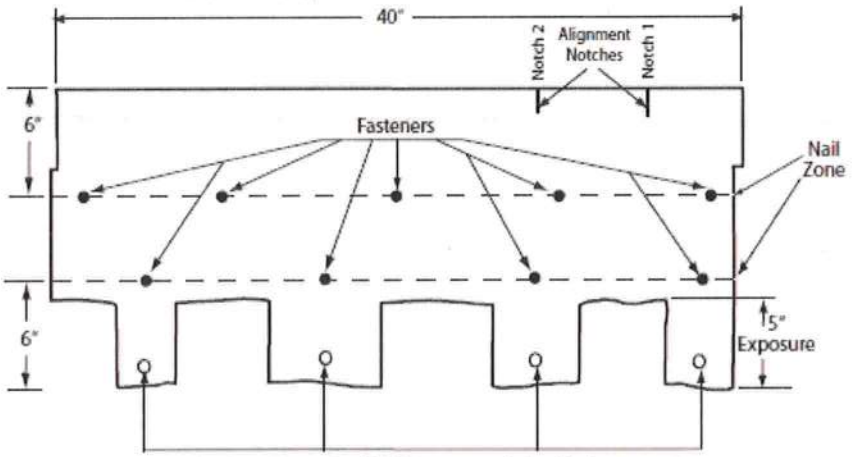
Dimensions:	17-1/2" x 40"
Plant Location(s):	Phillipsburg
Fastening Pattern:	For slopes 2:12 up to but less than 21:12 
Fastening Pattern:	For slopes equal to or greater than 21:12  Apply under each tab 1" diameter asphalt adhesive cement.

Table 9 – 12-¼ X 12 Hip and Ridge

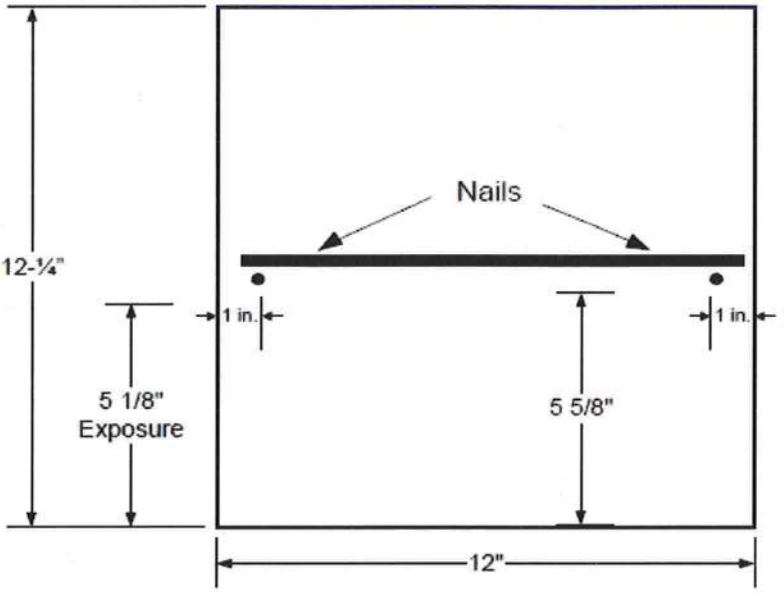
Dimensions:	12-¼" x 12"
Plant Location(s):	Frederick, Joplin
Fastening Pattern:	

Table 11 Heritage Hip and Ridge IR

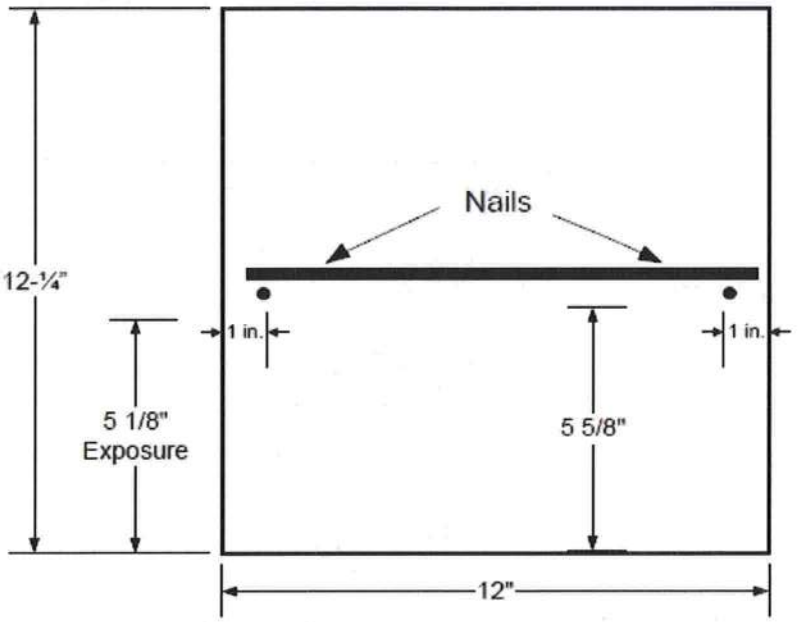
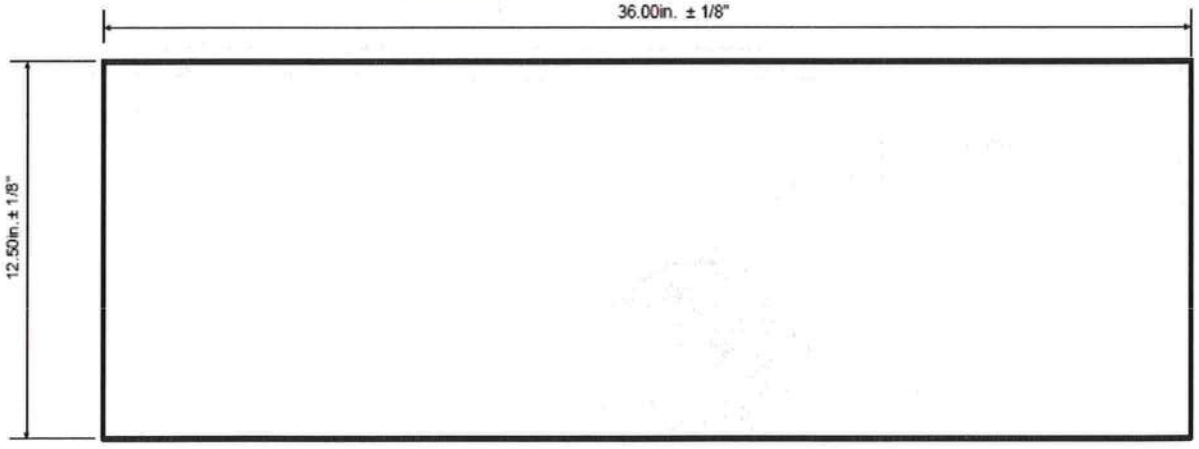
Dimensions:	12-¼" x 12"
Plant Location(s):	Joplin
Fastening Pattern:	

Table 12 Heritage Vintage Starter



NEMO|etc.
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ENGINEER EVALUATE TEST CONSULT

EVALUATION REPORT

Tarco Roofing
One Information Way, Suite 225
Little Rock, AR 72202
(254) 913-7750

Evaluation Report 10880.07.08-R13
FL10450-R13
Date of Issuance: 07/11/2008
Revision 13: 09/18/2020

SCOPE:
This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The products described herein have been evaluated for compliance with the **7th Edition (2020) Florida Building Code** sections noted herein.

DESCRIPTION: Tarco Roof Underlayments

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein and FBC 1507.1.1.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our Evaluation Reports by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 11.

Prepared by:

Robert J.M. Nieminen, P.E.
Florida Registration No. 59166, Florida DCA ANE1983

ROBERT J. M. NIEMINEN LICENSE No. 59166 STATE OF FLORIDA PROFESSIONAL ENGINEER

The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 09/18/2020. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

4. PRODUCT DESCRIPTION:

	Product	Material Standard	Plant(s)	Description
4.1	LeakBarrier® MS300 Ice and Water Armor	ASTM D1970	Belton, TX Greencastle, PA	self-adhering, glass mat reinforced, mineral surfaced, SBS modified roof underlayment
4.2	TopShield Ice & Water G300	ASTM D1970	Belton, TX Greencastle, PA	self-adhering, glass mat reinforced, mineral surfaced, SBS modified roof underlayment
4.3	LeakBarrier® PS200^{HT} Ice and Water Armor	ASTM D1970 and FRSA/TRI 09-18	Belton, TX Greencastle, PA	self-adhering, glass mat reinforced, fabric surfaced, SBS modified roof underlayment
4.4	LeakBarrier® PS200^{MU} Ice and Water Armor	ASTM D1970	Belton, TX Greencastle, PA	self-adhering, glass mat reinforced, smooth poly film surfaced, SBS modified roof underlayment
4.5	LeakBarrier® NR600 Ultra Ice and Water Armor	ASTM D1970 and FRSA/TRI 09-18	Greencastle, PA	self-adhering, polyester-fabric surfaced, SBS modified roof underlayment
4.6	LeakBarrier® SS400 Ice and Water Armor	ASTM D1970	Belton, TX Greencastle, PA	self-adhering, fiberglass reinforced, smooth surfaced modified underlayment
4.7	Tarco 30	ASTM D226, Type II	Belton, TX Greencastle, PA	asphalt-saturated organic felt
4.8	LeakBarrier® EasyLay®	ASTM D226, Type II	Belton, TX Greencastle, PA	asphalt-coated polyester fabric roof underlayment
4.9	Fiberglass Mineral Surfaced Roll Roofing	ASTM D3909	Greencastle, PA	glass-fiber-reinforced, asphalt-coated, granule surfaced underlayment used as a valley liner
4.10	ASTM Organic Mineral Surface Tile Underlayment	ASTM D6380, Class M	Greencastle, PA	asphalt-saturated organic roll roofing sheet
4.11	LeakBarrier® EasyMop™ SBS	FRSA/TRI April 09-18	Greencastle, PA	polyester reinforced, SBS modified bitumen roofing underlayment
4.12	LeakBarrier® EasyLay® UDL 15	1507.1.1.1(2&3, Exception), 1507.1.1.1(5) / R905.1.1.1(2&3, Exception), R905.1.1.1(5)	Gujarat, India	woven-polymeric scrim with a textured fabric on the top surface
4.13	LeakBarrier® EasyLay® UDL 30	1507.1.1.1(2&3, Exception), 1507.1.1.1(5) / R905.1.1.1(2&3, Exception), R905.1.1.1(5)	Gujarat, India	woven-polymeric scrim with a textured fabric on the top surface

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use in FBC High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).

5.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.

5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.

5.6.1 Adhesive-set is limited to use of following underlayment / tile-adhesive combinations.

TABLE 1A: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS[1]

Underlayment	Adhesive	Florida Product Approval
LeakBarrier PS200^{HT}	Dupont "Tile Bond™ Roof Tile Adhesive"	FL22525
LeakBarrier PS200^{HT}, LeakBarrier NR600 Ultra, ASTM Organic Mineral Surface Tile Underlayment or LeakBarrier EasyMop SBS	ICP Adhesives and Sealants "Polyset® AH-160"	FL6332
LeakBarrier PS200^{HT}	ICP Adhesives and Sealants "Polyset® RTA-1"	FL6276

5.6.2 Tarco 30, EasyLay, LeakBarrier EasyLay UDL 15 or LeakBarrier EasyLay UDL 30 may be used as a mechanically attached anchor sheet followed by an asphalt-applied ASTM Organic Mineral Surface Tile Underlayment or LeakBarrier EasyMop SBS.

5.7 **Allowable Substrates:**

TABLE 2: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS

Underlayment	Application	Primer	Substrates
LeakBarrier MS300	self-adhering	(Optional) ASTM D41	plywood; OSB or structural concrete
TopShield Ice & Water G300			
LeakBarrier PS200^{HT}			
LeakBarrier PS200^{MU}			
LeakBarrier NR600 Ultra			
LeakBarrier SS400			
LeakBarrier MS300	self-adhering	none	ASTM D226 Type II felt; ASTM D4869 Type III or IV felt; LeakBarrier EasyLay, LeakBarrier EasyLay UDL 15 or LeakBarrier EasyLay UDL 30
TopShield Ice & Water G300			
LeakBarrier PS200^{HT}			
LeakBarrier PS200^{MU}			
LeakBarrier NR600 Ultra			
LeakBarrier SS400			
LeakBarrier MS300	self-adhering	ASTM D41	metal (flashing metal, valley metal, etc.)
TopShield Ice & Water G300			
LeakBarrier PS200^{HT}			
LeakBarrier PS200^{MU}			
LeakBarrier NR600 Ultra			
LeakBarrier SS400			
ASTM Organic Mineral Surface Tile Underlayment	hot asphalt	ASTM D41	structural concrete
LeakBarrier EasyMop SBS			
ASTM Organic Mineral Surface Tile Underlayment	hot asphalt	None	ASTM D226 Type II felt, ASTM D4601 base sheet
LeakBarrier EasyMop SBS			

[1] *Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval for Overturning Moment Resistance Performance.*

5.8.3.2 Mechanically-Attached Base Sheet:

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI** *Florida High Wind Concrete and Clay Roof Tile Installation Manual*, Sixth Edition, Appendix A, Table 1A or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.

Alternatively, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020) for enhancements.

#5 Maximum Design Pressure = **-45.0 psf***:

Deck:	Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet:	LeakBarrier EasyLay UDL 15 or LeakBarrier EasyLay UDL 30 (48" wide rolls).
Fasteners:	12 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails and 1-5/8-inch diameter tin caps
Spacing:	6" o.c. at the 4-inch wide side laps and 8" o.c. at three (3) equally spaced, staggered center rows.
Base Ply:	(Optional) LeakBarrier PS200^{MU}, self-adhered
Underlayment:	LeakBarrier PS200^{HT}, self-adhered.

#6 Maximum Design Pressure = **-45.0 psf***:

Deck:	Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet:	LeakBarrier EasyLay UDL 15 or LeakBarrier EasyLay UDL 30 (48" wide rolls).
Fasteners:	12 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails and 1-5/8-inch diameter tin caps
Spacing:	6" o.c. at the 4-inch wide side laps and 8" o.c. at three (3) equally spaced, staggered center rows.
Primer:	ASTM D41 primer at tin-caps.
Base Ply:	(Optional) LeakBarrier PS200^{MU}, self-adhered
Underlayment:	LeakBarrier NR600 Ultra, self-adhered.

#7 Maximum Design Pressure = **-60.0 psf**:

Deck:	Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet:	LeakBarrier EasyLay
Fasteners:	12 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails and 1-5/8-inch diameter tin caps
Spacing:	7" o.c. at the 4-inch wide side laps and 7" o.c. at three (3) equally spaced, staggered center rows.
Base Ply:	(Optional) LeakBarrier PS200^{MU}, self-adhered
Underlayment:	LeakBarrier PS200^{HT}, self-adhered.

#8 Maximum Design Pressure = **-60.0 psf**:

Deck:	Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
Base Sheet:	LeakBarrier EasyLay UDL 15 or LeakBarrier EasyLay UDL 30 (48" wide rolls).
Fasteners:	12 ga. x 1.25-inch long x 3/8-inch head diameter annular ring shank roofing nails and 1-5/8-inch diameter tin caps
Spacing:	6" o.c. at the 4-inch wide side laps and 6" o.c. at four (4) equally spaced, staggered center rows.
Base Ply:	(Optional) LeakBarrier PS200^{MU}, self-adhered
Underlayment:	LeakBarrier PS200^{HT}, self-adhered.

5.10 Tile Slippage Limitations: When loading roof tiles on the underlayment in direct-deck tile roof assemblies, the maximum roof slope shall be as follows. These slope limitations can only be exceeded by using battens during loading of the roof tiles.

TABLE 4: TILE SLIPPAGE LIMITATIONS FOR DIRECT-DECK TILE INSTALLATIONS

Underlayment*	Tile Profile	Staging Method	Maximum Slope
LeakBarrier PS200^{HT}	Flat	10-tile stack** or 6-tile stack (4 over 2)	6:12
	Lugged	6-tile stack (4 over 2)	6:12
LeakBarrier NR600 Ultra	Flat or Lugged	6-tile stack (4 over 2)	6:12
ASTM Organic Mineral Surface Tile Underlayment or LeakBarrier EasyMop SBS	Flat	6-tile stack (4 over 2)	5:12
	Lugged	6-tile stack (4 over 2)	6:12

Notes: **Tarco Roofing specifies a minimum 48 cure-time after the installation of self-adhering membranes and before loading of roofing tiles.*

***If tiles are to be left in a staged condition for more than 30 days, Tarco Roofing requires tiles be staged two tiles perpendicular to slope, four tiles on top, parallel to slope, regardless of the allowances noted above*

6. INSTALLATION:

6.1 **Tarco Roof Underlayments** shall be installed in accordance with **Tarco Roofing** installation instructions subject to the Limitations set forth in Section 5 herein and the specifics noted below.

6.2 Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application, and prime the substrate (if applicable).

6.3 Tarco 30:

6.3.1 Non-Tile Applications:

Shall be installed in compliance with requirements for an approved mechanically attached underlayment (ASTM D226, Type II) in **FBC Table 1507.1.1.1** or **FBC Residential Table R905.1.1.1** for the type of prepared roof covering to be installed, and the manufacturer's installation instructions. FBC requirements take precedence over the manufacturer's installation instructions.

6.3.2 Tile Applications:

Tarco 30 is limited to use as a mechanically attached base sheet in the "TWO-PLY SYSTEM" from **FRSA/TRI** *Florida High Wind Concrete and Clay Roof Tile Installation Manual*, Sixth Edition, followed by ASTM Organic Mineral Surface Tile Underlayment or LeakBarrier EasyMop SBS applied in hot asphalt, or other FBC Approved hot-asphalt applied cap sheet. Refer to **FRSA/TRI**, Sixth Edition, Appendix A, Table 1 for attachment requirements.

6.4 LeakBarrier EasyLay:

6.4.1 Non-Tile Applications:

Shall be installed in compliance with requirements for an approved mechanically attached underlayment (ASTM D226, Type II) in **FBC Table 1507.1.1.1** or **FBC Residential Table R905.1.1.1** for the type of prepared roof covering to be installed, and the manufacturer's installation instructions. FBC requirements take precedence over the manufacturer's installation instructions.

6.8	**ASTM Organic Mineral Surface Tile Underlayment** and **LeakBarrier™ EasyMop SBS:**

6.8.1 Tile Applications:

ASTM Organic Mineral Surface Tile Underlayment and LeakBarrier™ EasyMop SBS are limited to use as the Hot Asphalt applied "Cap Sheet" in the "TWO-PLY SYSTEM" from **FRSA/TRI** *Florida High Wind Concrete and Clay Roof Tile Installation Manual*, Sixth Edition.

Refer to Section 5.8.2 for attachment limitations.

Refer to Table 4 for tile staging limitations.

6.9	**Fiberglass Mineral Surface Roll Roofing** and **ASTM Organic Mineral Surface Tile Underlayment:**

6.9.1 Fiberglass Mineral Surface Roll Roofing and ASTM Organic Mineral Surface Tile Underlayment are limited to use as a valley liner in accordance with **FBC 1507.2.9.2** or **FBC Residential R905.2.8.2**. Installation shall be in accordance with the manufacturer's instructions before applying shingles.

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to Section 4 herein for products and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

UL LLC – QUA9625; (414) 248-6409; Karen.buchmann@ul.com

- END OF EVALUATION REPORT -