

UNILUX GmbH

SERIES "HAHS-4" ALUMINUM CLAD WOOD LIFT-SLIDE DOOR OXXO

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN EVALUATED TO COMPLY WITH THE CURRENT PROVISIONS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING THE HIGH VELOCITY HURRICANE ZONES (HVHZ) AND IS BASED ON TESTING CONDUCTED TO TAS-202, 201 & 203 TEST PROTOCOLS PER TEST REPORT# NCTL-210-3984-01.
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE, MASONRY AND 2X 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. 1X BUCK OVER MASONRY AND/OR CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF THE INSTALLATION METHODS DEViate FROM THESE APPROVED DETAILS THIS WOULD REQUIRE FURTHER INVESTIGATION BY A LICENSED OR REGISTERED DESIGN PROFESSIONAL.
5. ALL SETTING BLOCKS AND GASKET MATERIALS SHALL BE IN COMPLIANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE. SETTING BLOCKS SHALL BE NEOPRENE WITH A 70 TO 90 SHORE A DUROMETER. GASKET MATERIALS SHALL BE EDPM WITH A MINIMUM 60 SHORE A DUROMETER.
6. IN NON-HVHZ OR HVHZ AREAS WHERE WINDBORNE DEBRIS PROTECTION REQUIREMENTS EXIST, USE OF AN IMPACT PROTECTIVE SYSTEM COMPLYING WITH THE FBC REQUIREMENTS FOR WINDBORNE DEBRIS REGIONS IS NOT REQUIRED FOR THE PRODUCT(S) HEREIN.
7. MATERIALS:

7.1. FRAME: WOOD WITH SPECIFIC GRAVITY = 0.50

7.2. CLADDING: ALUMINUM 6063-T5

7.3. MISC. COMPONENTS: ALUMINUM 6063-T5

7.4. SILL: ALUMINUM 6060-T66
8. GLAZING:

8.1. GLASS MEETS THE REQUIREMENTS OF ASTM E1300-04e01.

8.2. SEE GLAZING DETAIL ON SHEET 7 OF 10.

8.3. GLASS SHALL MEET SAFETY GLAZING REQUIREMENTS PER CURRENT EDITION OF THE FLORIDA BUILDING CODE.

8.4. APPROVED INTERLAYER: SENTRYGLAS BY KURARAY AMERICA PER CURRENT MIAMI DADE NOTICE OF ACCEPTANCE (N.O.A.)
9. DESIGNATIONS "X" AND "O" STAND FOR THE FOLLOWING:

9.1. X: OPERABLE

9.2. O: STATIONARY

ANCHOR NOTES:

1. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH A LOAD BEARING SHIM, SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
2. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS. ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW. SEE ANCHOR TABLE ON SHEETS 3 OF10 FOR ANCHOR QUANTITIES, MIN. EMBEDMENT AND EDGE DISTANCES FOR APPROVED SUBSTRATES SHOWN.
3. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

3.1. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.42 (NON-HVHZ) AND 0.55 (HVHZ).

3.2. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

3.3. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, MEDIUM WT. DENSITY > 117 PCF WITH COMPRESSIVE STRENGTH OF 1900 PSI MIN.

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	GENERAL AND INSTALLATION NOTES
2	ELEVATION AND ANCHOR LAYOUT
3	ANCHOR CHART
4	VERTICAL INSTALLATION DETAILS
5	HORIZONTAL INSTALLATION DETAILS
6	CROSS SECTIONS
7	BILL OF MATERIALS AND GLAZING DETAIL
8	COMPONENTS
9	COMPONENTS
10	HARDWARE DETAIL

DESIGN PRESSURE RATING (PSF)		
LARGE MISSILE RATING		
MAX. OVERALL TESTED PANEL SIZE (IN)	MAX. DESIGN PRESSURE (PSF)	PANEL TYPE
60.94" x 91.375"	± 60	OPERABLE
60.94" x 91.375"		STATIONARY
MAXIMUM FRAME SIZE OFFERINGS		
4- PANEL (240.16" X 96.06") OXXO		
APPROVED OTHER CONFIGURATIONS - OX, XO, OXX, XXO		
GLAZING REQUIREMENTS - SEE SHEET 7 FOR DETAILS		
<u>APPROXIMATELY 1-1/4" THICK OVERALL</u> 0.250" TEMPERED GLASS / .468" AIRSPACE; ALUMINUM SPACER / 0.1875" HEAT STRENGTHENED GLASS / 0.105" SG BY KURARAY AMERICA/ 0.1875" HEAT STRENGTHENED GLASS (EXTERIOR TO INTERIOR)		

UNILUX GmbH

NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY

TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE
GENERAL AND INSTALLATION NOTES

DRAWN BY: JRM

SCALE: N.T.S.

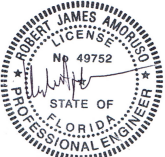
REV: A

DATE: 09/04/14

DRAWING NO: NL-0039

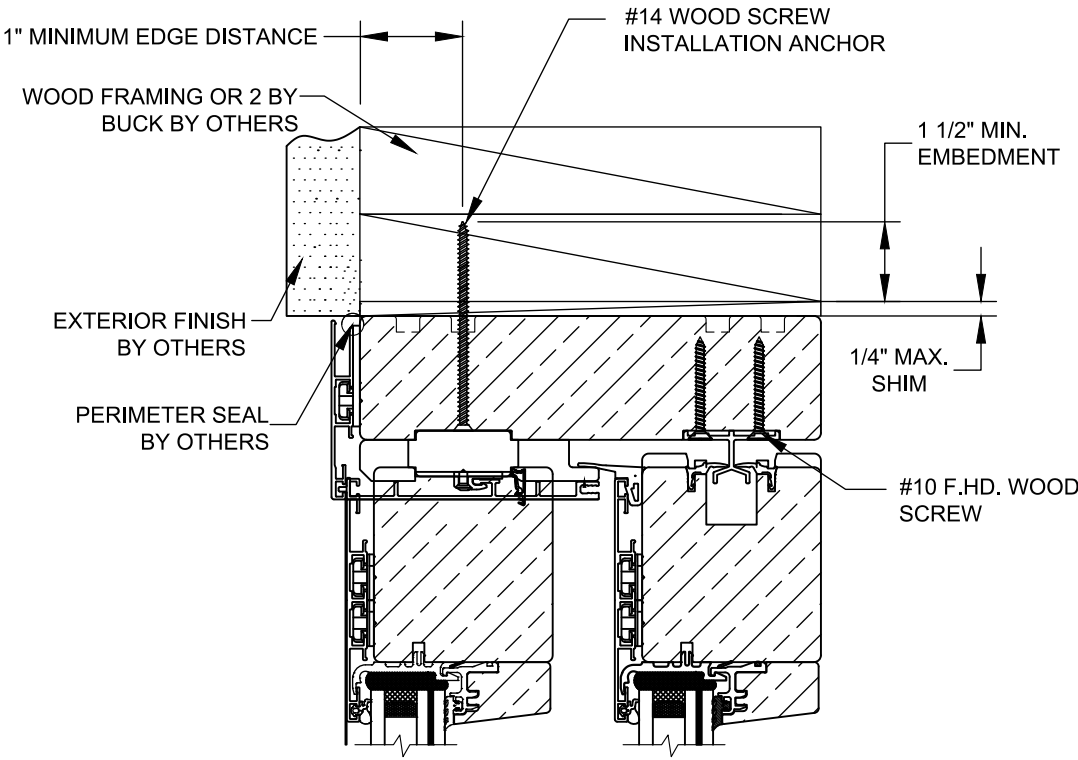
SHEET: 1 OF 10

ROBERT J. AMORUSO
FL. P.E. NO. 49752



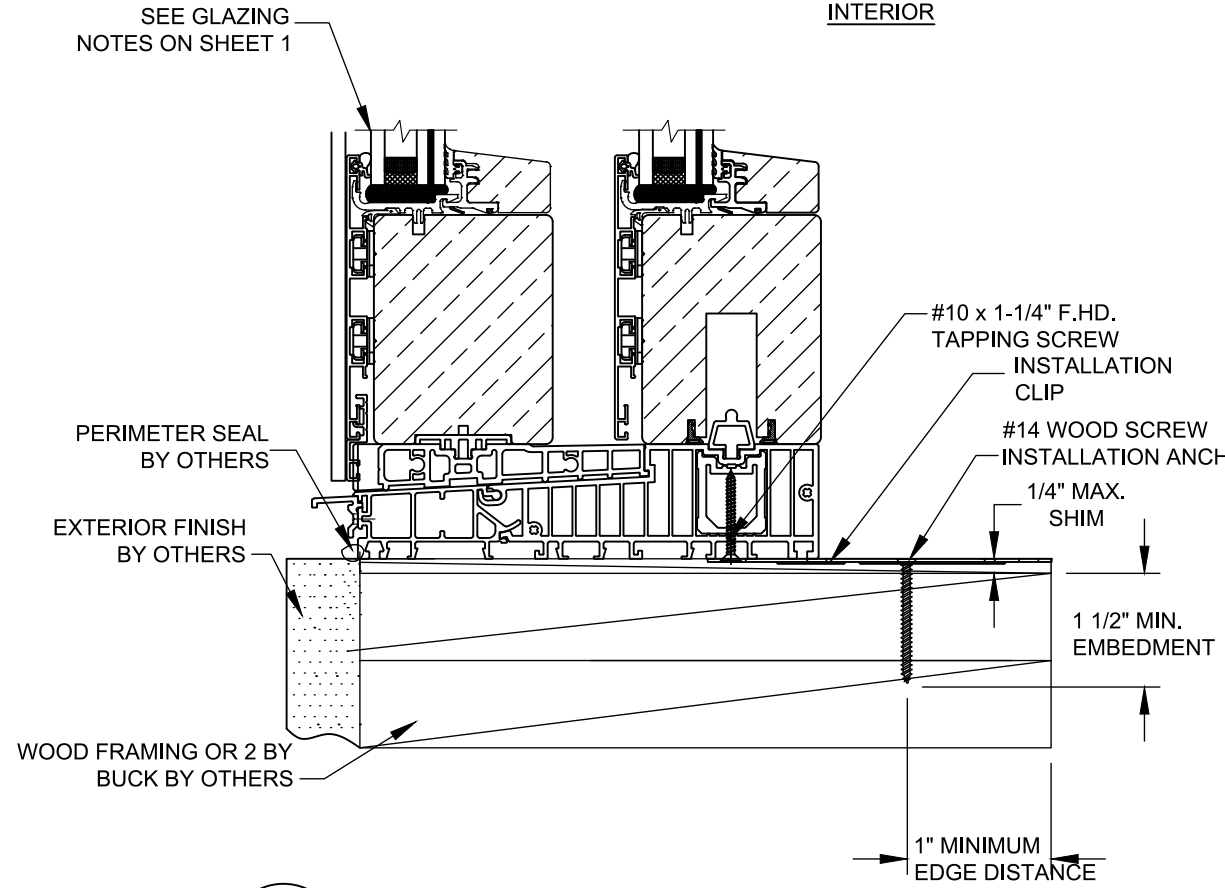
Digitally signed by Robert J Amoruso
Date: 2017.06.26 08:51:36 -04'00'

12472 LAKE UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@comcast.net

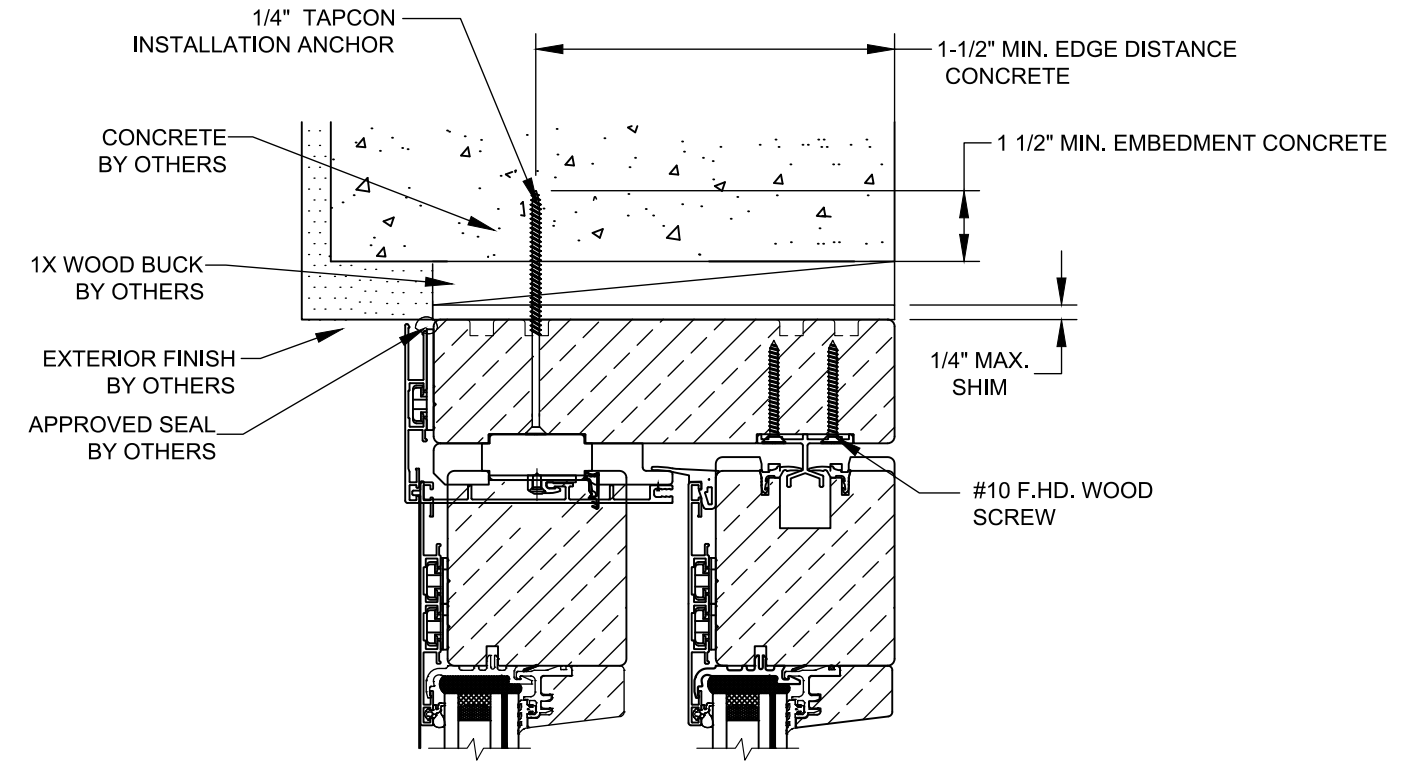


EXTERIOR

INTERIOR



A
4 **VERTICAL SECTION**
WOOD FRAME OR 2 BY SUBSTRATE



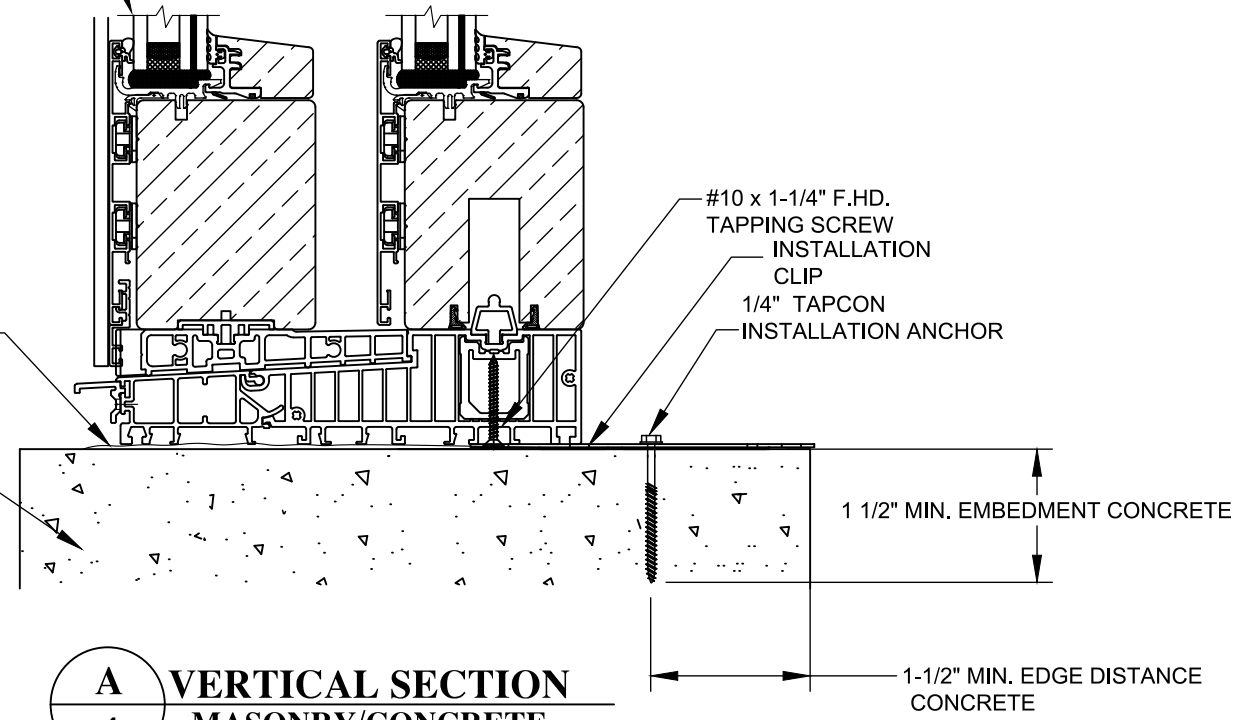
EXTERIOR

INTERIOR

SEE GLAZING
NOTES ON SHEET 1

APPROVED SEALANT BETWEEN
CONCRETE BY OTHERS

CONCRETE
BY OTHERS

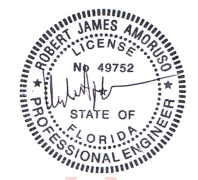


A
4 **VERTICAL SECTION**
MASONRY/CONCRETE
SUBSTRATE

REV	DESCRIPTION	DATE	BY
A	UPDATE TO 5TH EDITION (2014) FBC	06/10/17	RJA

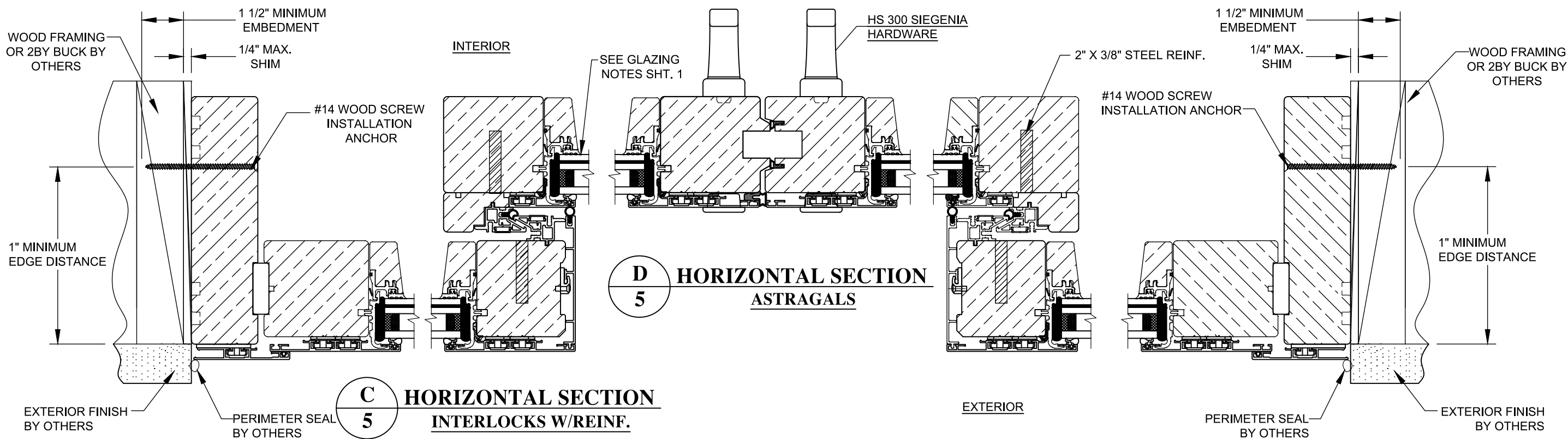
UNILUX GmbH NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY	DRAWN BY: JRM	DATE: 09/04/14
TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE VERTICAL INSTALLATION DETAILS	SCALE: N.T.S.	DRAWING NO: NL-0039
	REV: A	SHEET: 4 OF 10

ROBERT J. AMORUSO
FL. P.E. NO. 49752



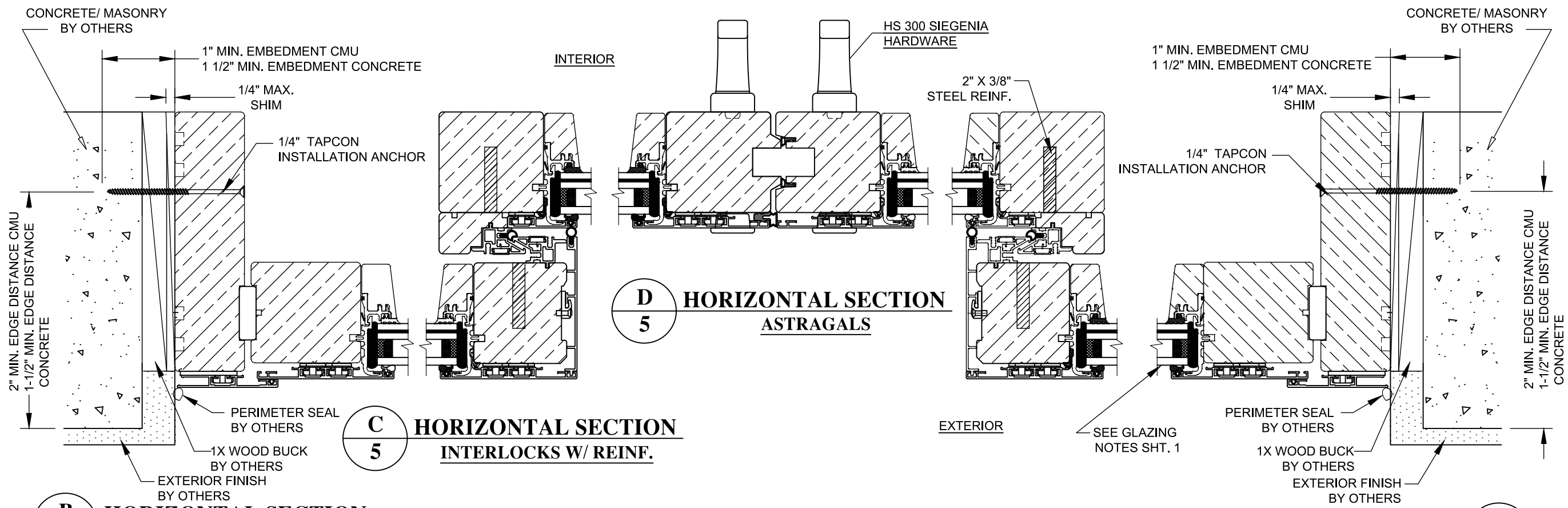
Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:52:21 -04'00'

12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@
comcast.net



B
5 **HORIZONTAL SECTION**
WOOD FRAME OR 2 BY SUBSTRATE

B_{OPP}
5 **HORIZONTAL SECTION**
WOOD FRAME OR 2 BY SUBSTRATE



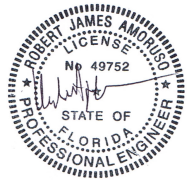
B
5 **HORIZONTAL SECTION**
MASONRY/CONCRETE SUBSTRATE

B_{OPP}
5 **HORIZONTAL SECTION**
MASONRY/CONCRETE SUBSTRATE

REV	DESCRIPTION	DATE	BY
A	UPDATE TO 5TH EDITION (2014) FBC	06/10/17	RJ

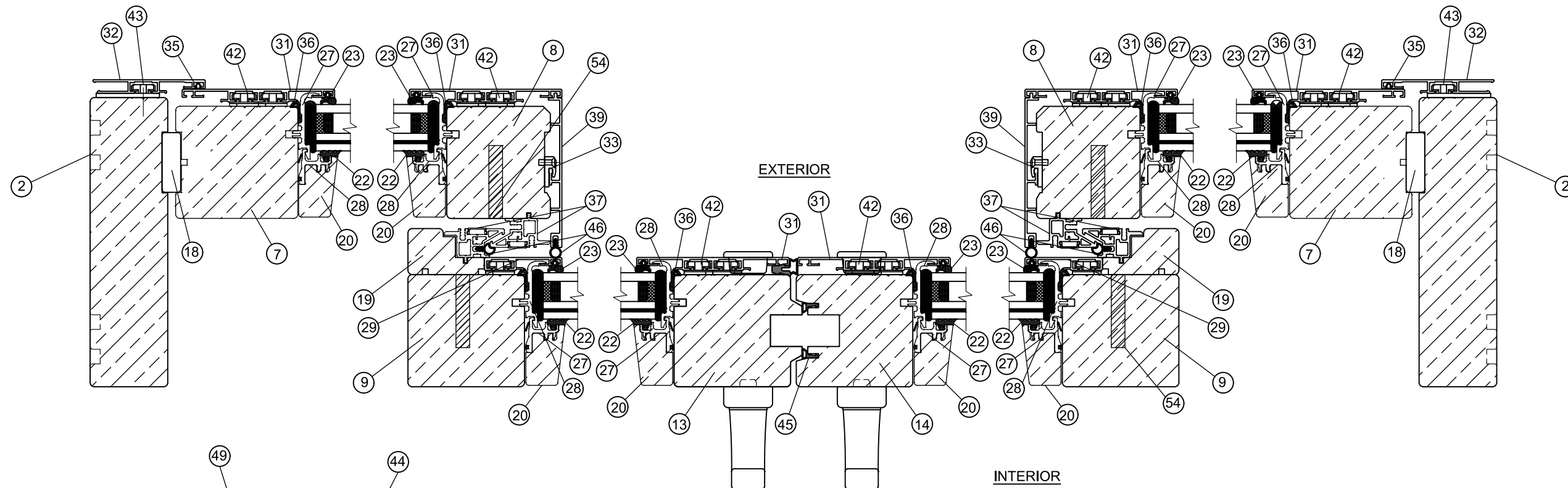
UNILUX GmbH NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY		DRAWN BY:	JRM	DATE:	09/04/14
TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE HORIZONTAL INSTALLATION DETAILS		SCALE:	N.T.S.	DRAWING NO:	NL-0039
		REV:	A	SHEET:	5 OF 10

ROBERT J. AMORUSO
FL. P.E. NO. 49752



Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:52:36 -04'00'

12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@comcast.net

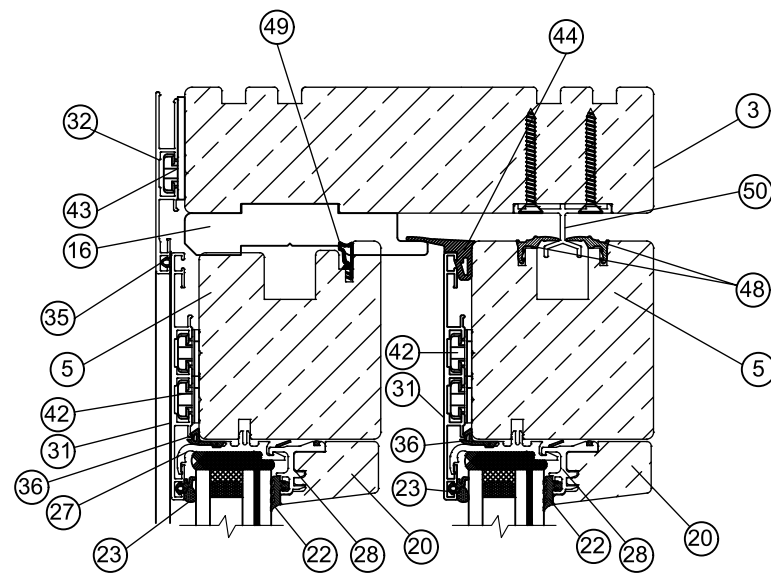


EXTERIOR

INTERIOR

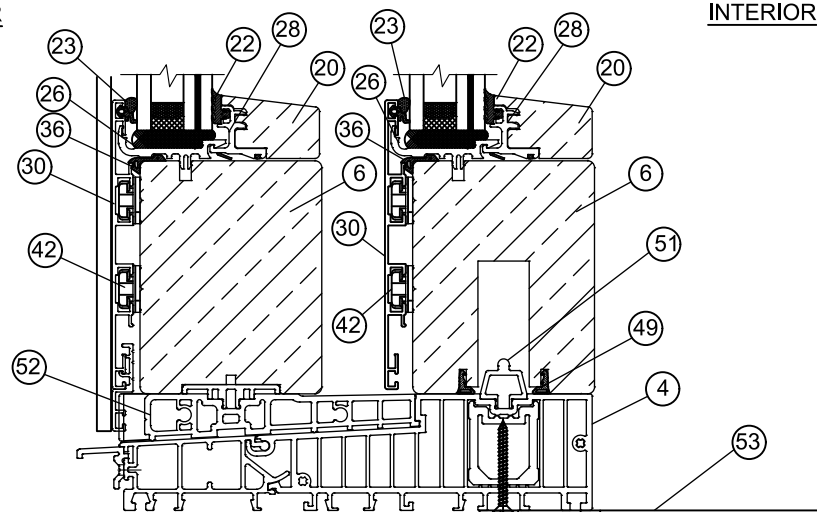
HS 300 SIEGENIA
HARDWARE

**HORIZONTAL CROSS SECTION
FOR PARTS IDENTIFICATION**

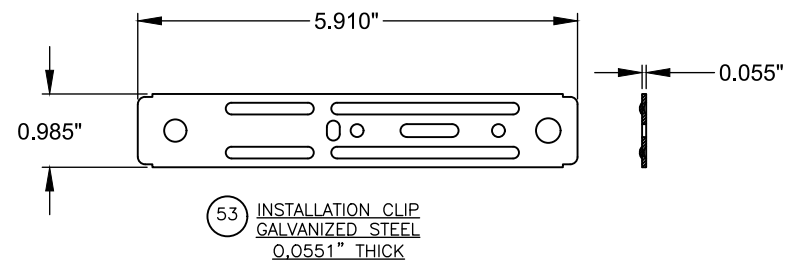


EXTERIOR

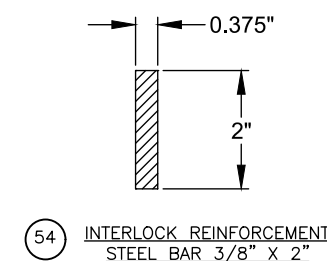
INTERIOR



**VERTICAL CROSS
SECTION FOR PARTS
IDENTIFICATION**



53 INSTALLATION CLIP
GALVANIZED STEEL
0.0551" THICK

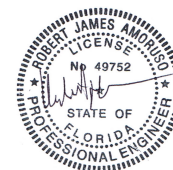


54 INTERLOCK REINFORCEMENT
STEEL BAR 3/8" X 2"

UNILUX GmbH
NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY
TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE
VERTICAL & HORIZONTAL CROSS SECTIONS

DRAWN BY: JRM
SCALE: N.T.S.
REV: A
DATE: 09/04/14
DRAWING NO: NL-0039
SHEET: 6 OF 10

ROBERT J. AMORUSO
FL. P.E. NO. 49752

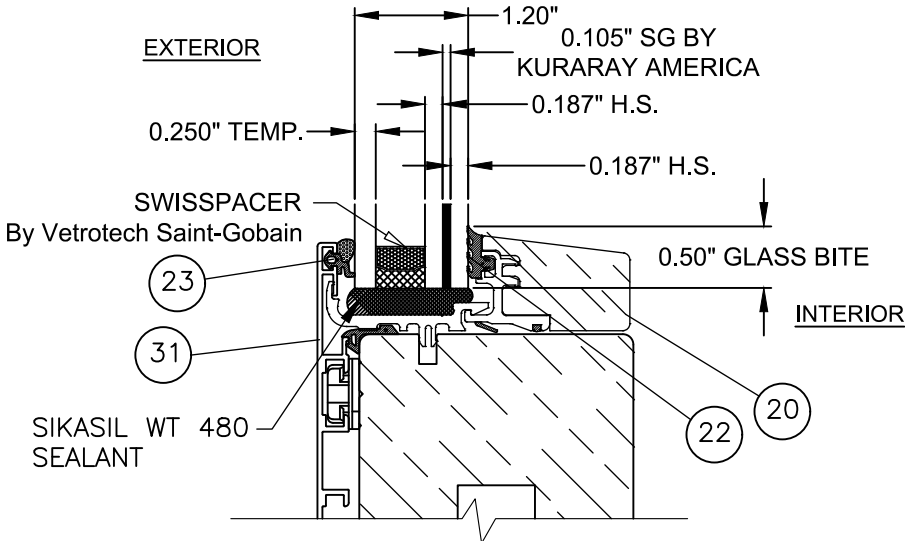


Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:52:52 -04'00'

12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@
comcast.net

QTY.	PART NO.	DESCRIPTION	MANUFACTURER
1	F33-0001	FRAME LOCK SIDE, WOOD G .50	UNILUX
2	F33-0002	FRAME FIXED SIDE, WOOD G .50	UNILUX
3	F33-0003	FRAME HEAD, WOOD G. .50	UNILUX
4	PPBB1550-524010	FRAME SILL SEGMENT-ALUMINUM 6060-T66	UNILUX
5	F33-0004	FIXED SASH TOP RAIL, WOOD G .50	UNILUX
6	F33-0005	FIXED SASH BOTTOM RAIL, WOOD G .50	UNILUX
7	F33-0006	FIXED SASH TO FRAME STILE, WOOD G .50	UNILUX
8	F33-0007-1	FIXED SASH MIDDLE STILE, WOOD G .50	UNILUX
9	F33-0008	OPERABLE SASH TOP RAIL, WOOD G .50	UNILUX
10	F33-0009	OPERABLE SASH BOTTOM RAIL, WOOD G .50	UNILUX
11	F33-0010	OPERABLE SASH LOCK STILE, WOOD G .50	UNILUX
12	F33-0011-1	OPERABLE SASH MIDDLE STILE, WOOD G .50	UNILUX
13	F33-0012	MALE ASTRAGAL CENTER STILE, WOOD G .50	UNILUX
14	F33-0020	FEMALE ASTRAGAL CENTER STILE, WOOD G .50	UNILUX
15	F33-0030	NR-1 FILLER BEAD, TOP, TRACK 2	UNILUX
16	F33-0032	NR-3 FILLER BEAD, SIDE LOCK SIDE, TRACK 2	UNILUX
17	F33-0033	NR-4 FILLER BEAD, SIDE LOCK SIDE, TRACK 1	UNILUX
18	F33-0036	NR-7 FILLER BEAD SIDE SIDE, TRACK 2	UNILUX
19	F33-0037	NR-8 FILLER BEAD MIDDLE, TRACK 1	UNILUX
20	F33-0111	GLAZING BEAD-32MM GLAZING	UNILUX
21	E41-0151	HOLDER FOR ENLARGEMENT PROFILE 25 MM	UNILUX
22	E41-1002	INTERIOR GLAZING GASKET, EPDM DUROMETER 80	UNILUX
23	E41-1029	EXTERIOR GLAZING GASKET, EPDM DUROMETER 80	UNILUX
24	E51-0221	ADDITIONAL FRAME CORNER KEY	UNILUX
25	E51-0206	CORNER KEY, 19 X 5MM, VARIABLE	UNILUX
26	E51-0185	BASE FASTENER FOR GLASS, FIXED SIDE/TOP	UNILUX
27	E51-0189	BASE FASTENER FOR GLASS, FIXED BOTTOM	UNILUX
28	E51-0187	GLASS FASTENER FOR BASE, FIXED	UNILUX
29	E51-0074	SASH PROFILE, MIDDLE PART	UNILUX
30	E51-0010	CLAD FOR POST 124MM	UNILUX
31	E51-0004	CLAD FOR POST 164MM	UNILUX
32	E51-0002	CLAD FOR FRAME PROFILE 78MM	UNILUX
33	E41-0151	HOLDER FOR ENLARGEMENT PROFILE 25 MM	UNILUX

QTY.	PART NO.	DESCRIPTION	MANUFACTURER
34	E45-0102	CORNER KEY FOR SASH CLADING	UNILUX
35	E41-1003	FRAME GASKET	UNILUX
36	E41-1028	CENTER SEAL FOR FIXED GLAZING, EPDM 70 DUR.	UNILUX
37	E33-0006	CENTER INTERLOCK-ALUMINUM 6060-T66	UNILUX
38	E33-0004-1	BOTT. PROFILE FIXED GLAZING-ALUM. 6060-T66	UNILUX
39	E33-0001-1	CLAD 104 SIDE FIXED SASH-ALUM. 6060 T-66	UNILUX
40	E33-0002	CLAD 110 SIDE FIXED SASH-ALUM. 6060 T-66	UNILUX
41	E41-0123	ADDITIONAL CORNER KEY, FRAME	UNILUX
42	E41-0114	FASTENER FOR SASH CLADDING	UNILUX
43	E41-0116	FASTENER FOR FRAME CLADDING	UNILUX
44	E33-1001	SASH GASKET SLIDING SASH TOP	UNILUX
45	E33-1002	GASKET FOR ASTRAGAL STILES	UNILUX
46	E33-1003	TUBE GASKET	UNILUX
47	E33-0101	END CAP INTERLOCK PROFILES	UNILUX
48	HA-HS_DICHTUNG-FUHRUNG	GASKET GUIDING RAIL-EPDM 70 DUR.	UNILUX
49	E51-1006	SASH GASKET- EPDM 70 DUR.	UNILUX
50	HA-HS_FUHRUNGSSCHIENE	GUIDE RAIL TOP-ALUMINUM 6060-T66	UNILUX
51	PPLB6140-524010	SLIDE RAIL-ALUMINUM 6060 T-66	UNILUX
52	PPZB5320-021010	ATTACHMENT BAR-ALUMINUM 6060 T-66	UNILUX
53	PURCHASE	GALVANIZED STEEL ANCHOR CLIP 0.055" THICK	SIMPSON
54	PURCHASE	INTERLOCK REINF. 3/8" X 2" STEEL BAR	UNILUX

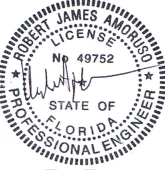


GLAZING DETAIL

			RJA	BY
			06/10/17	DATE
		UPDATE TO 5TH EDITION (2014) FBC		DESCRIPTION
		A		REV

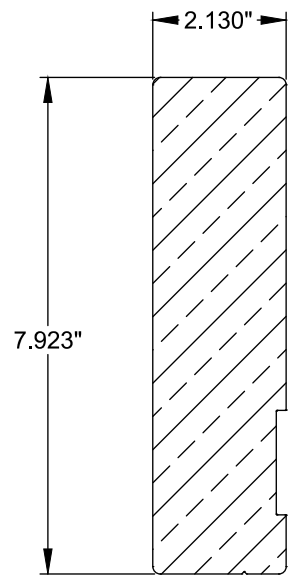
UNILUX GmbH		DATE: 09/04/14		SHEET: 7 OF 10	
NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY		DRAWING NO: NL-0039		REV: A	
TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE BILL OF MATERIALS & GLAZING DETAIL		SCALE: N.T.S.			
		DRAWN BY: JRM			

ROBERT J. AMORUSO
FL. P.E. NO. 49752

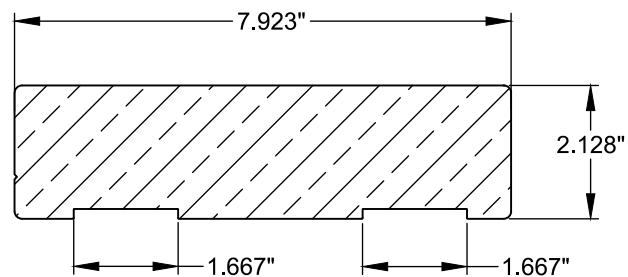


Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:53:10 -04'00'

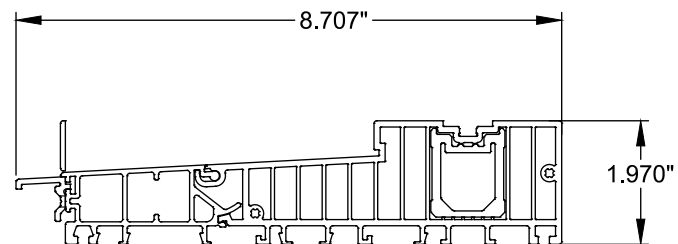
12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@comcast.net



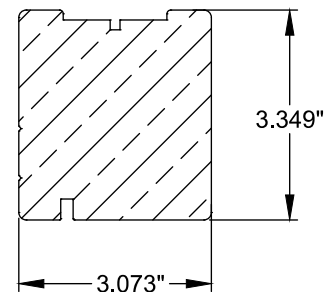
2 F33-0002 FRAME FIXED JAMB
WOOD G.50



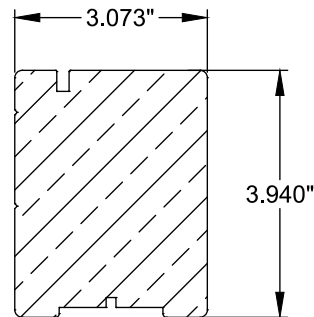
3 F33-0003 FRAME HEAD
WOOD G.50



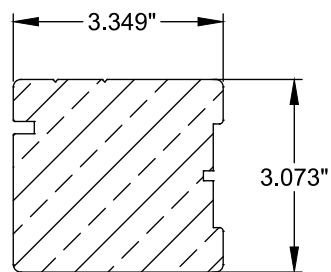
4 FRAME SILL SEGMENT
PPBB1770-524010
6060-T66 ALUMINUM



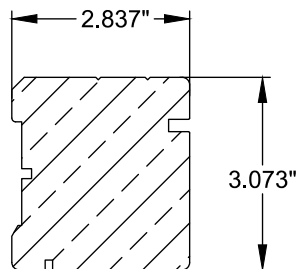
5 F33-0004 SASH TOP
WOOD G.50



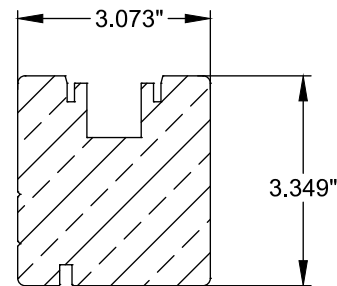
6 F33-0005 SASH BOTTOM
WOOD G.50



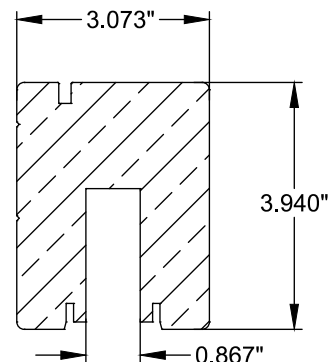
7 F33-0006 FIXED SASH
TO FRAME STILE
WOOD G.50



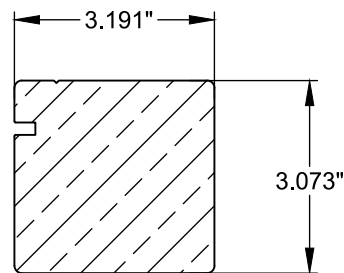
8 F33-0007-1 FIXED
SASH MIDDLE STILE
WOOD G.50



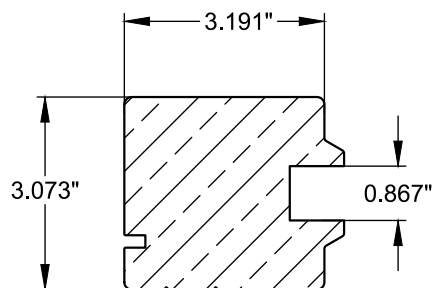
9 F33-0008 OPERABLE
SASH TOP RAIL
WOOD G.50



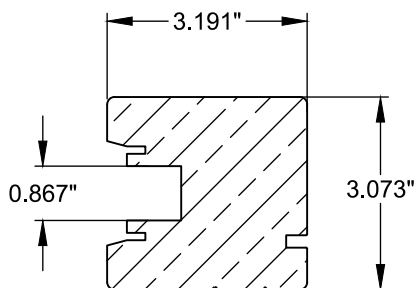
10 F33-0009 OPERABLE
SASH BOTTOM RAIL
WOOD G.50



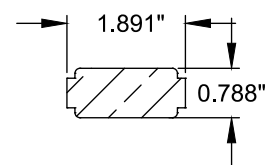
12 F33-0011-1 OPERABLE
SASH MIDDLE STILE
WOOD G.50



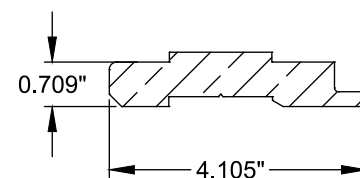
13 F33-0012 MALE
ASTRAGAL STILE
WOOD G.50



14 F33-0020 FEMALE
ASTRAGAL STILE
WOOD G.50



15 F33-0030 NR-1
FILLER BEAD
TOP WOOD G.50



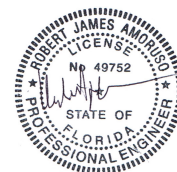
16 F33-0032 NR-3
FILLER BEAD SIDE
WOOD G.50

UNILUX GmbH
NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY

TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE
COMPONENTS

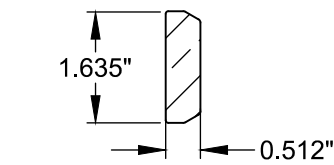
DRAWN BY: JRM
SCALE: N.T.S.
REV: A
DATE: 09/04/14
DRAWING NO: NL-0039
SHEET: 8 OF 10

ROBERT J. AMORUSO
FL. P.E. NO. 49752

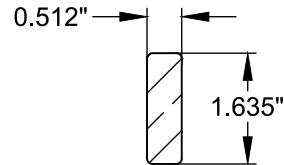


Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:53:25 -04'00'

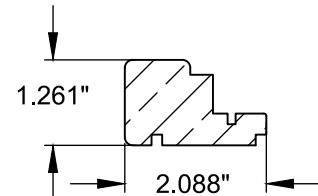
12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@
comcast.net



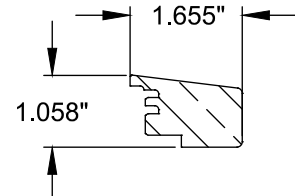
17 F33-0033 NR-4
FILLER BEAD LOCK SIDE
TRACK 1 WOOD G.50



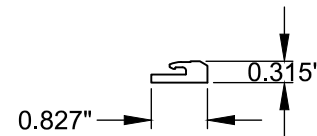
18 F33-0036 NR-7
FILLER BEAD SIDE
TRACK 2 WOOD G.50



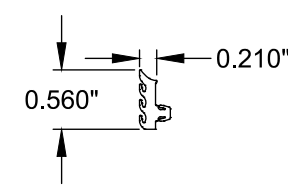
19 F33-0037 NR-8
FILLER BEAD MIDDLE
TRACK 1 WOOD G.50



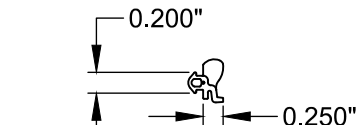
20 F33-0111 32MM
GLAZING BEAD
WOOD G.50



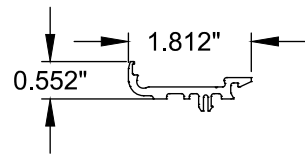
21 E41-0151 HOLDER FOR
ENLARGEMENT PROFILE



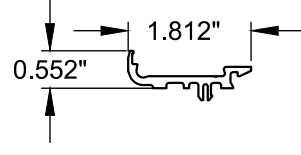
22 E41-1002 INTERIOR GLAZING
GASKET EPDM 80 DUR.



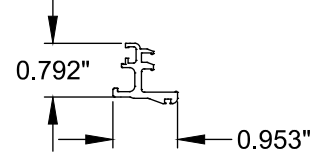
23 E41-1029 INTERIOR GLAZING
GASKET EPDM 80 DUR.



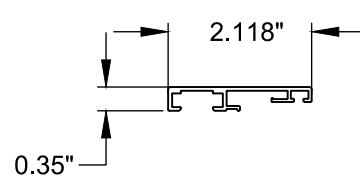
26 E51-0185 BASE FASTENER
FOR GLASS FIXED SIDE/TOP



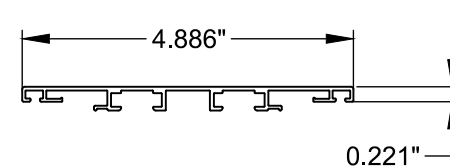
27 E51-0189 BASE FASTENER
FOR GLASS BOTTOM



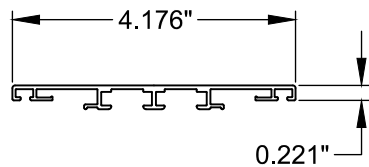
28 E51-0187 BASE FASTENER
FOR BASE



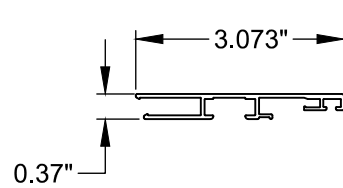
29 E51-0074 SASH PROFILE
MIDDLE PART



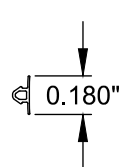
30 E51-0010 CLAD FOR
POST 124MM



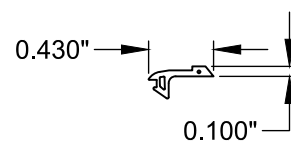
31 E51-0004 CLAD FOR
POST 164MM



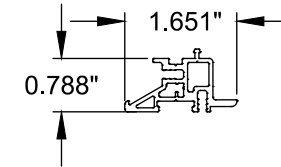
32 E51-0002 CLAD FOR
FRAME PROFILE 78MM



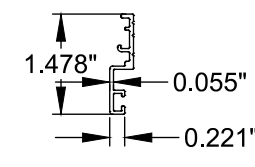
35 E41-1003 INTERIOR GLAZING
GASKET EPDM 70 DUR.



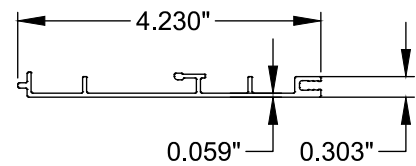
36 E41-1028 INTERIOR GLAZING
GASKET EPDM 70 DUR.



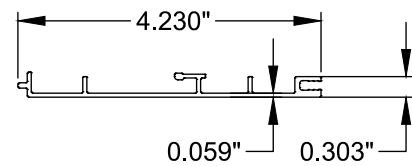
37 E33-0006 INTERLOCK
ALUMINUM 6060-T66



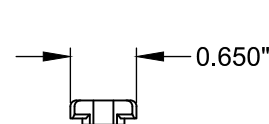
38 E33-0004-1 BOTTOM
PROFILE FIXED
ALUMINUM 6060-T66



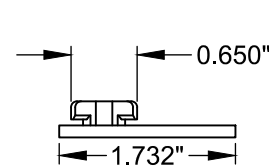
39 E33-000-1 SIDE CLAD 104
ALUMINUM 6060-T66



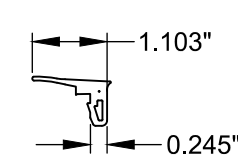
40 E33-0002 SIDE CLAD 110
ALUMINUM 6060-T66



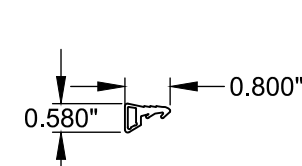
42 E41-0114 CLADDING
FASTENER PLASTIC



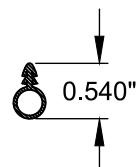
43 E41-0116 CLADDING
FASTENER PLASTIC



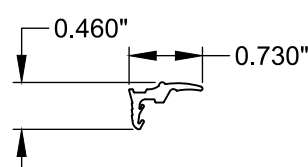
44 E33-1001 SASH
GASKET EPDM 70 DUR.



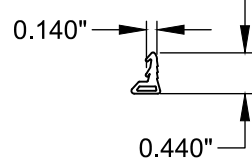
45 E33-1002 ASTRAGAL
GASKET EPDM 70 DUR.



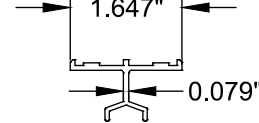
46 E33-1003 TUBE
GASKET EPDM 70 DUR.



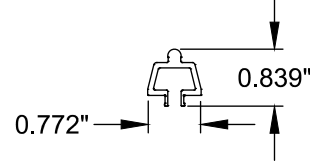
48 HA-HS DICHTUNG-FÜHRUNGSSCHIENE
TOP GUIDE RAIL GASKET EPDM 70 DUR.



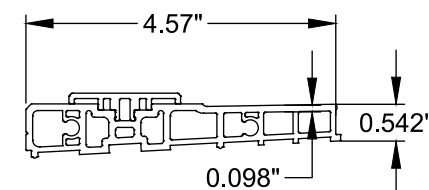
49 E51-1006 SASH
GASKET EPDM 70 DUR.



50 HA-HS FÜHRUNGSSCHIENE
GUIDE RAIL ALUMINUM 6060-T66



51 PPLB6150-524010
SLIDE RAIL
ALUMINUM 6060-T66



52 PPZB5020-021010
ATTACHMENT BAR
ALUMINUM 6060-T66

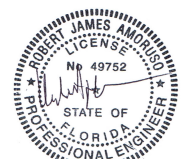
REV	DESCRIPTION	DATE	BY
A	UPDATE TO 5TH EDITION (2014) FBC	06/10/17	RJ

UNILUX GmbH
NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY

TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE COMPONENTS

DRAWN BY:	JRM	DATE:	09/04/14
SCALE:	N.T.S.	DRAWING NO:	NL-0039
REV:	A	SHEET:	9 OF 10

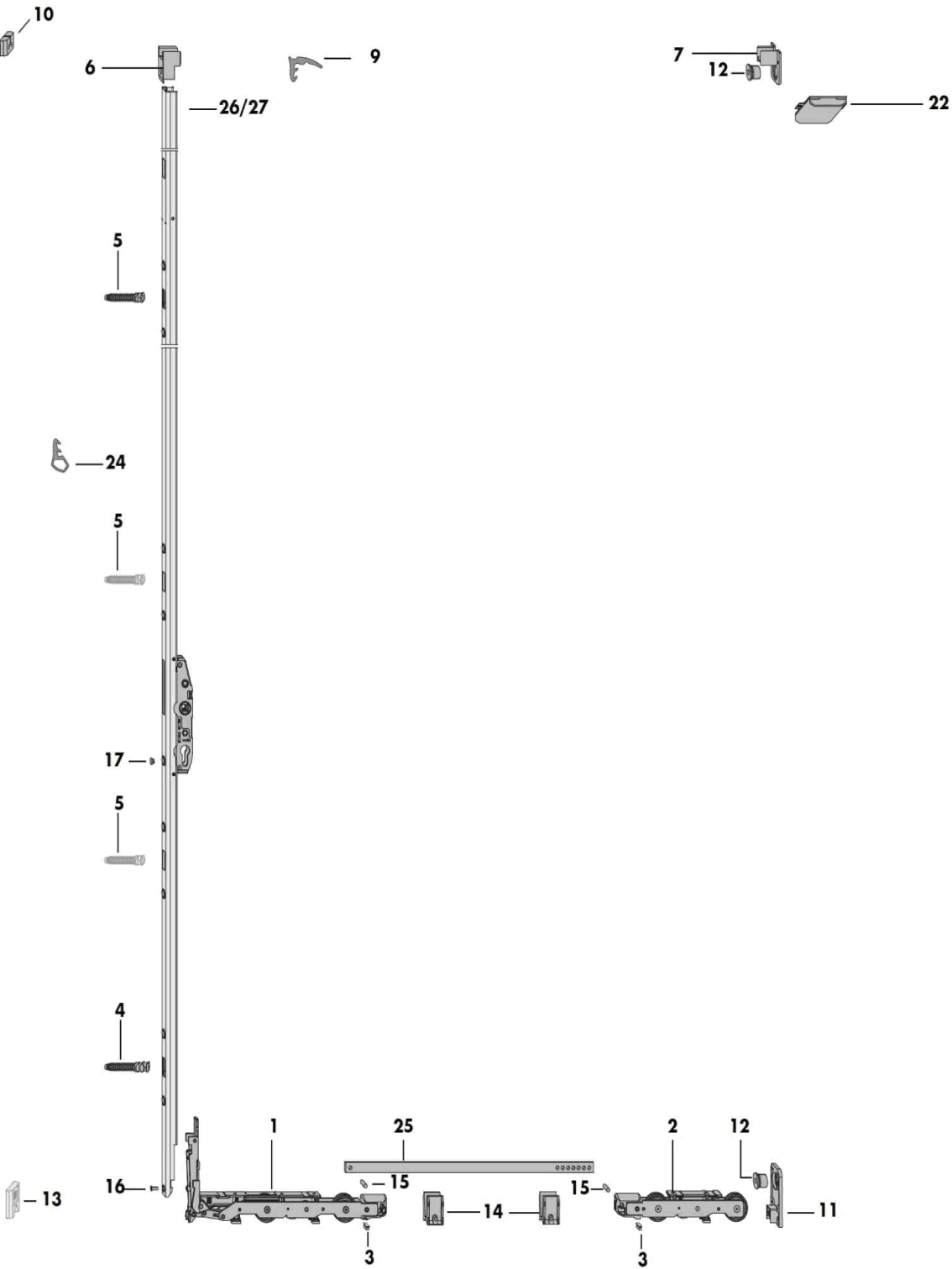
ROBERT J. AMORUSO
FL. P.E. NO. 49752



Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:53:41 -04'00'

12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@comcast.net

QTY.	PART NO.	DESCRIPTION	MANUFACTURER
1	PMKB030010001	BOGIE WHEELS V, VSU HS 300 TS	SIEGENIA
2	-----	BOGIE WHEELS H, HS 300 TS	SIEGENIA
3	-----	BRUSH LENGTH 100MM	SIEGENIA
4	PMZB03400E601	LOCKING BOLT E, BOTTOM TS	SIEGENIA
5	-----	LOCKING BOLT E, TOP TS	SIEGENIA
6	-----	FRONT TOP GUIDE	SIEGENIA
7	-----	REAR TOP GUIDE	SIEGENIA
9	-----	TOP SEAL HH013401, LENGTH 10.2MM	SIEGENIA
10	-----	TOP FILLING PIECE FOR GUIDE RAIL	SIEGENIA
11	PMZB03100E601	BOTTOM COVER PLATE REAR HIGH	SIEGENIA
12	-----	STOP	SIEGENIA
13	PMZB03400E601	BOTTOM HIGH FILLING PIECE FOR SEALING RAIL	SIEGENIA
14	-----	BOTTOM GUIDE	SIEGENIA
15	-----	DOWEL PIN 6 X 12	SIEGENIA
16	-----	M5 X 13 COUNTERSUNK SCREW	SIEGENIA
17	-----	CLOSING CAP, GREY OR BROWN	SIEGENIA
22	PMZB04000E601	SEALING BRIDGE A0017	SIEGENIA
24	PDPB00300E601	SEAL HHO 13402, LENGTH 17.5MM	SIEGENIA
25	-----	CONNECTING ROD	SIEGENIA
26	-----	GEAR PORTAL HS 300 PZ	SIEGENIA
27	-----	COMFORT GEAR	SIEGENIA

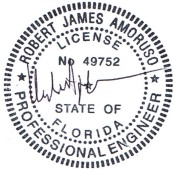


LIFT AND SLIDE
HS 300 HARDWARE
SIEGENIA

			RJ	BY
			06/10/17	DATE
		UPDATE TO 5TH EDITION (2014) FBC		DESCRIPTION
		A	REV	

UNILUX GmbH NIKOLAUS-MEETH, STR. 1, SALMTAL, D-54528 GERMANY		TITLE: SERIES "HAHS-4" ALUM. CLAD WOOD LIFT-SLIDE COMPONENTS	
DRAWN BY: JRM	DATE: 09/04/14	SCALE: N.T.S.	SHEET: 10 OF 10
REV: A	DRAWING NO: NL-0039		

ROBERT J. AMORUSO
FL. P.E. NO. 49752



Digitally signed by
Robert J Amoruso
Date: 2017.06.26
08:53:58 -04'00'

12472 LAKE
UNDERHILL RD
NO. 148
ORLANDO, FL 32828
robert.amoruso@
comcast.net