

DRAWING INDEX

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11. 1605WDVM LOUVER - FASTENER SCHEDULE

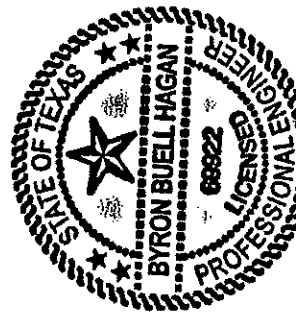
TESTS PERFORMED:

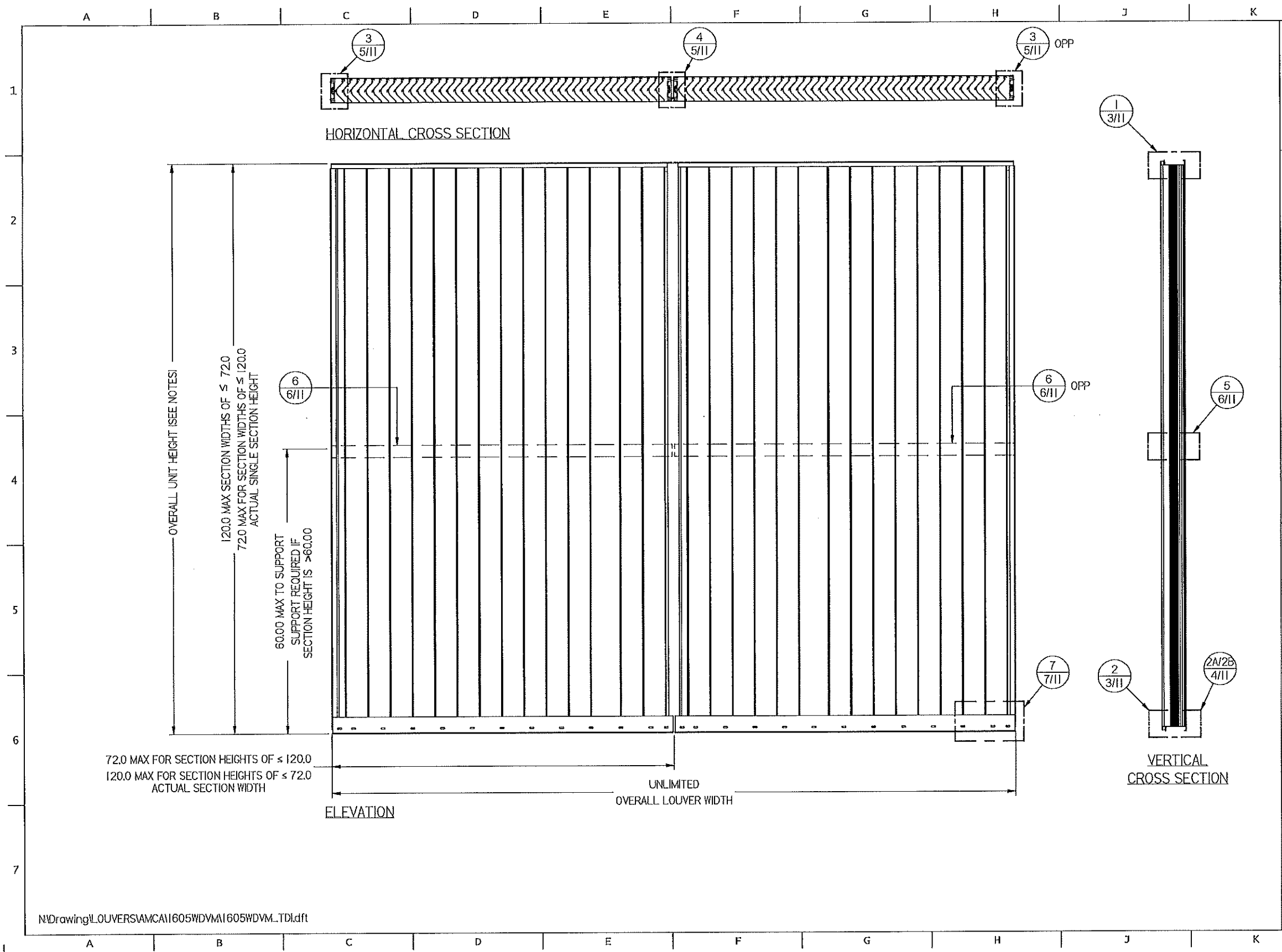
TAS-100 (A) WIND DRIVEN RAIN RESISTANCE
 TAS-201 LARGE MISSILE IMPACT
 TAS-202 UNIFORM STATIC AIR PRESSURE TEST
 TAS-203 CYCLIC WIND PRESUSRE TEST
 DESIGN PRESSURE RATING 130 PSF
 2018 IBC
 2018 IRC

NOTES:

1. THE 1605WDVM HAS BEEN TESTED IN ACCORDANCE WITH THE MIAMI-DADE COUNTY PROTOCOLS: TAS-100 A, TAS-201, TAS-202, & TAS-203 FOR WIND DRIVEN RAIN, LARGE MISSILE IMPACE, UNIFORM PRESSURE, AND CYCLIC WIND PRESSURE.
2. THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH DESIGN PRESSURES OF +/- 130 PSF OR LESS.
3. THIS LOUVER SYSTEM IS NON-BEARING AND IS NOT DESIGNED TO WITHSTAND BUILDING DEAD LOADS.
4. LOUVER ANCHORS ARE REVIEWED FOR ATTACHMENT INTO STEEL, CONCRETE, MASONRY, OR TIMBER STRUCTURE. MINIMUM EDGE DISTANCE AND EMBEDMENT REQUIREMENTS ARE SHOWN. NAILOR IND. DOES NOT DETERMINE THE STRUCTURE INTERGRITY OF THE SUBSTRUCTURE.
5. MAXIMUM SINGLE SECTION SIZE: 72" WIDE X 120" HIGH OR 120" WIDE X 72" HIGH.
6. MAXIMUM ASSEMBLED LOUVER SIZE UNLIMITED WIDE X 120" HIGH MAX. MULLION SPACING IS 72".

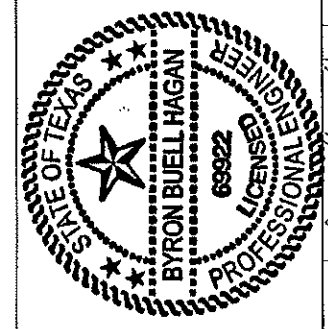
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DWN BY: fcoortinas DATE: 11/2/2020	CHK BY: Mastourian SCALE: NTS	SHEET: 1 OF 11	REV 1605WDVM B
Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		TITLE: 1605WDVM LOUVER INDEX	
REV A_ON PAGE 5 OF 11 REV_B ON PAGE 1 OF 11 ADDED CODES 2018 IBC, 2018 IRC DELETED NOTE #7		 <p style="font-size: small; margin-top: 5px;"> <i>Byron Buell Hagan</i> 11/2/20 </p>	



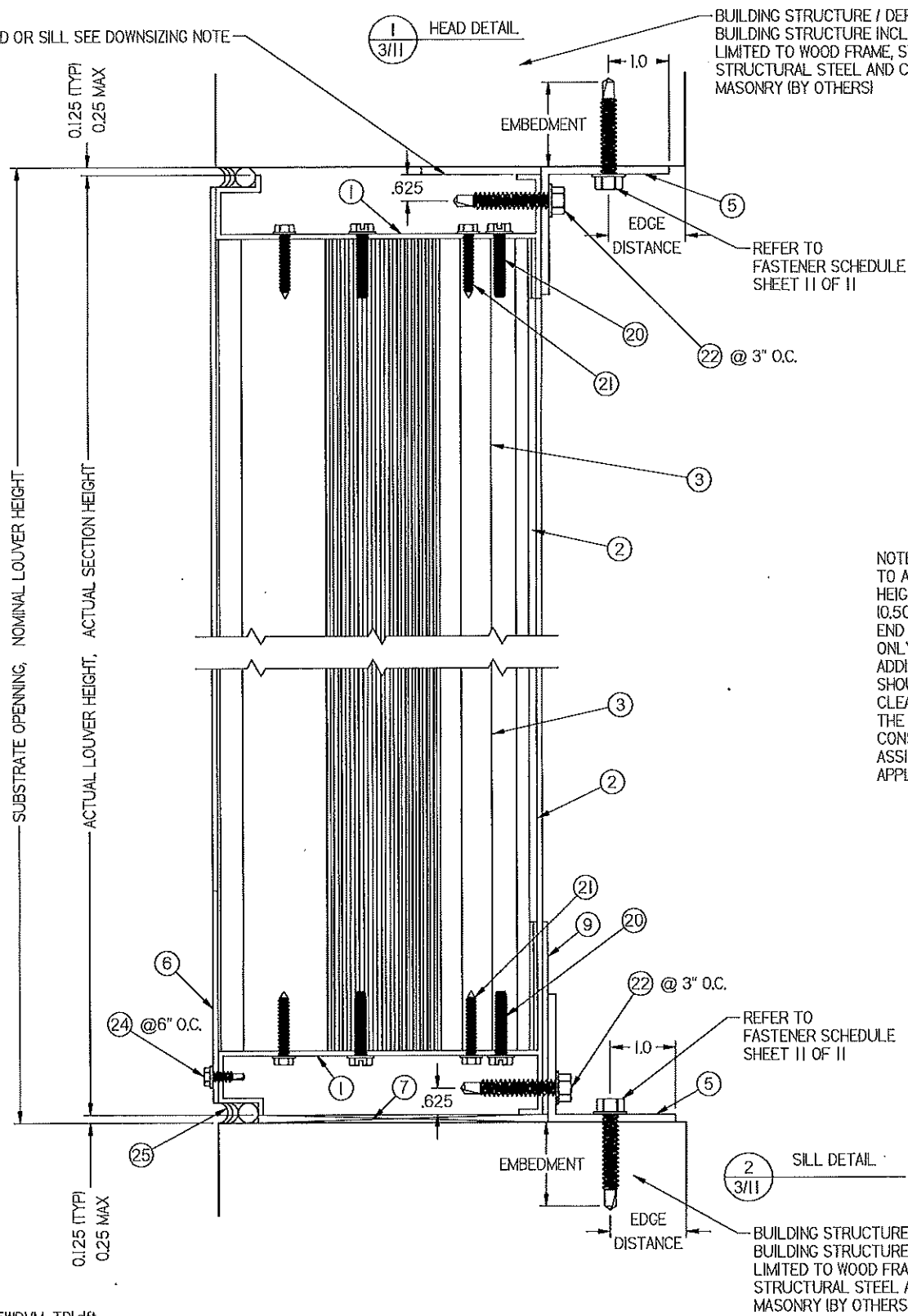
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	<p>DATE: 11/2/2020</p>	<p>SCALE: NTS</p>
<p>TITLE: 1605WDVM LOUVER ELEVATION</p>		
<p>SHEET: 2 OF 11</p>		
<p>DWG. NO. 1605WDVM</p>		<p>REV B</p>



Byron Buell Hagan
11/2/20

ALTERNATE ORIENTATION OF ITEM 5, HEAD OR SILL. SEE DOWNSIZING NOTE



NOTE:
 TO ALLOW FOR SUBSTRATE ANCHOR HEAD CLEARANCE, LOUVER HEIGHT DOWNSIZING (UNDERCUT) OF UP TO 0.25 TOTAL PER END (0.50 OVERALL TOTAL) IS ALLOWABLE. DOWNSIZING OF 0.125 PER END (0.25 OVERALL TOTAL) FROM ACTUAL HEIGHT IS STANDARD. ONLY ENDS WITH ALTERNATE ANCHOR ORIENTATION MAY REQUIRE ADDITIONAL DOWNSIZING, BUT THE 0.125 STANDARD DOWNSIZING SHOULD ALLOW FOR ALTERNATE ANCHOR ORIENTATION SETUP CLEARANCES. THERE IS NO NEED FOR ADDITIONAL DOWNSIZING AT THE JAMBS WHEN USING ALTERNATE ANCHOR ORIENTATION. CONSULT YOUR LOCAL REP OR THE MANUFACTURER IF ASSISTANCE IS NEEDED FOR PROPER DOWNSIZING FOR YOUR APPLICATION.

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DWN BY: fcoirtinas
 CHK BY: Mastourian
 DATE: 11/2/2020
 SCALE: NTS

Nailor Industries Inc.
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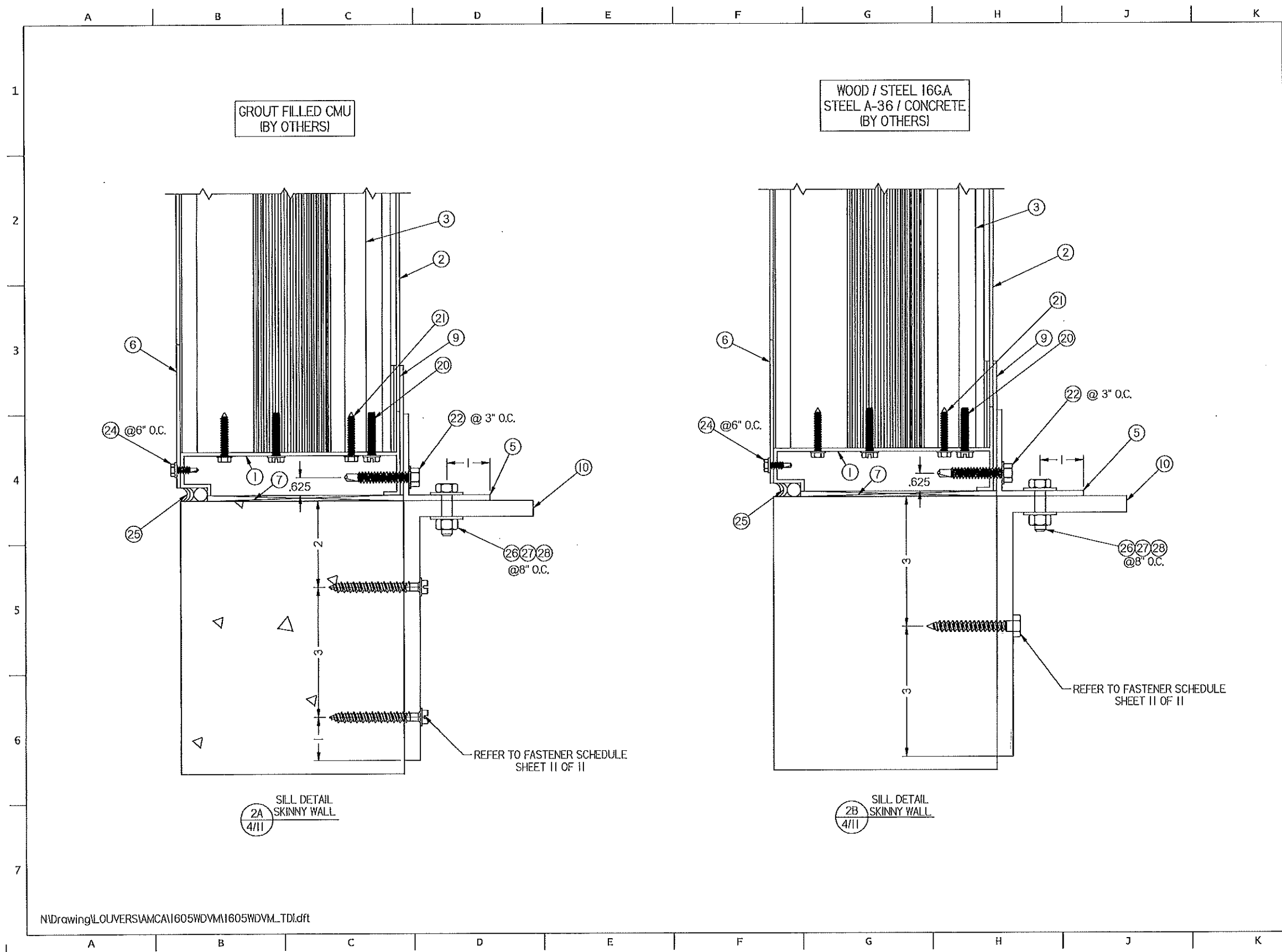
TITLE:
 1605WDVM LOUVER
 HEAD AND SILL DETAIL



Byron Buell Hagan
 11/2/20

REV B
 DWG. NO. 1605WDVM

SHEET: 3 OF 11



GROUT FILLED CMU
(BY OTHERS)

WOOD / STEEL 16GA
STEEL A-36 / CONCRETE
(BY OTHERS)

SILL DETAIL
2A
SKINNY WALL
4/11

SILL DETAIL
2B
SKINNY WALL
4/11

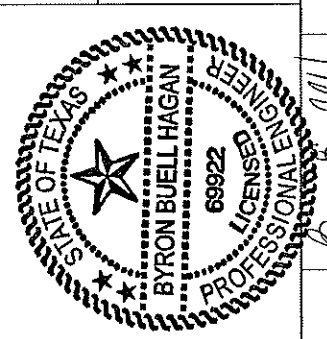
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SHEET 11 OF 11

REFER TO FASTENER SCHEDULE
SHEET 11 OF 11

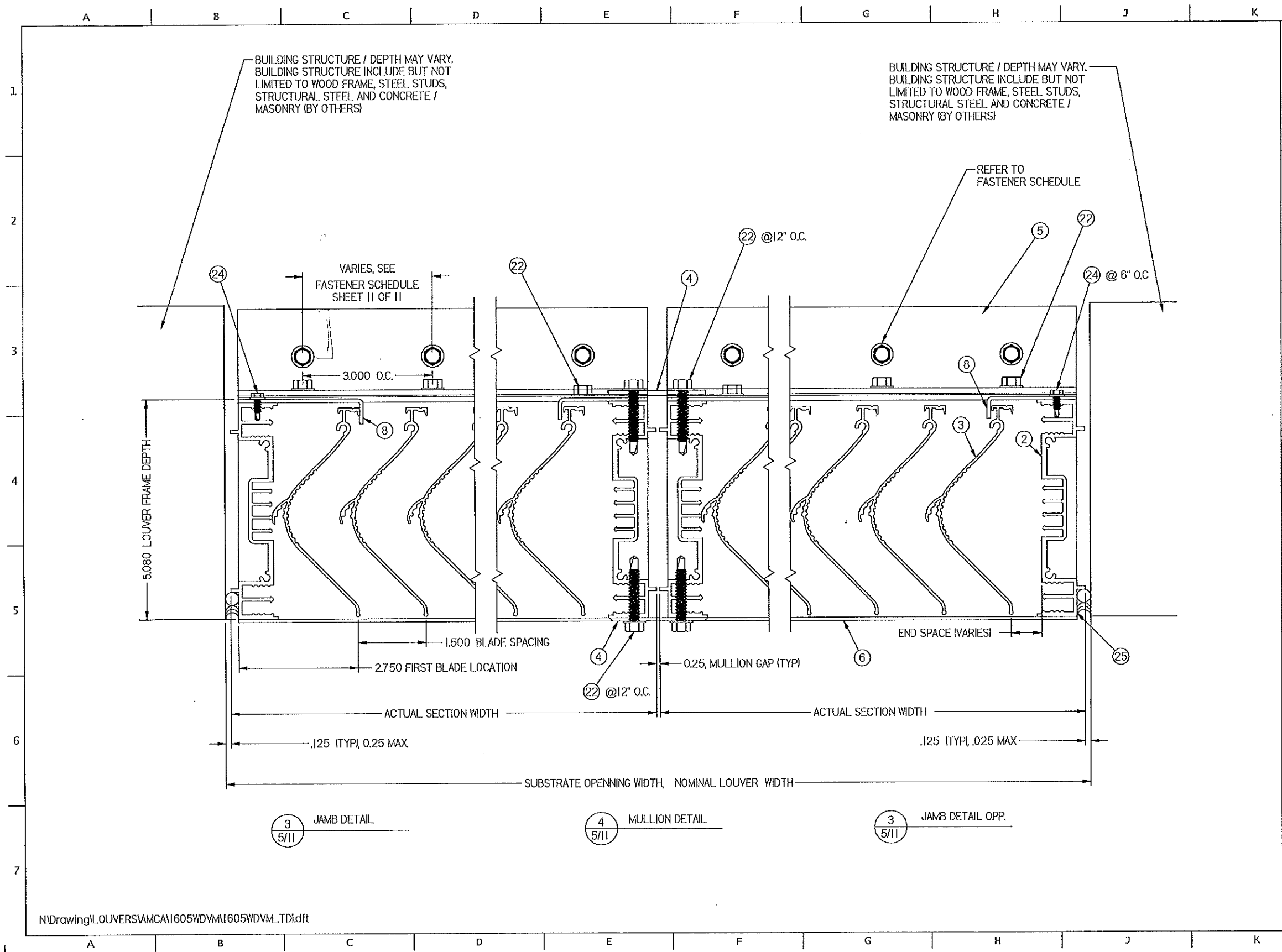
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DATE: 11/2/2020	SCALE: NTS
SHEET: 4 OF 11	
DWG. NO.	REV
1605WDVM	B

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TITLE
1605WDVM LOUVER
SKINNY WALL APPLICATION
HEAD AND SILL DETAIL



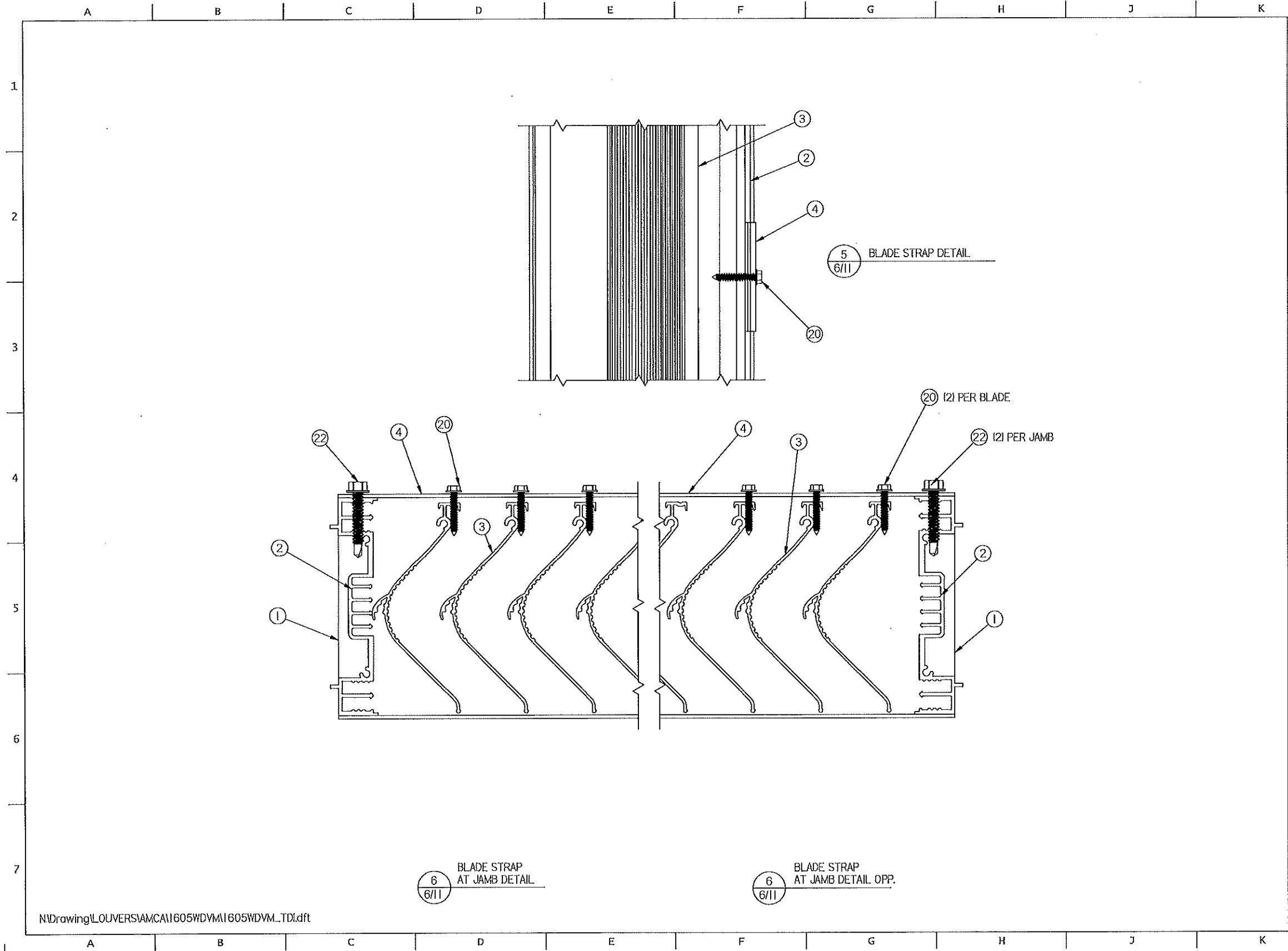
Byron Buell Hagan
11/2/20



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Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		REV B
TITLE: 1605WDVM LOUVER		DWG. NO. 1605WDVM
REV. A. 3.000 O.C. WAS VARIES SEE BILL OF MATERIAL 3-C		

Byron Buell Hagan
 11/2/20




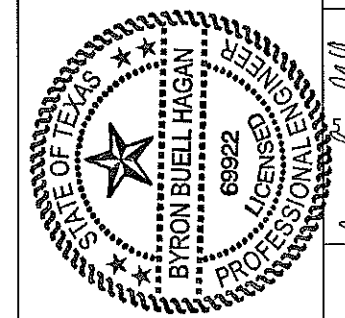
6
6/11
BLADE STRAP AT JAMB DETAIL

6
6/11
BLADE STRAP AT JAMB DETAIL OPP.

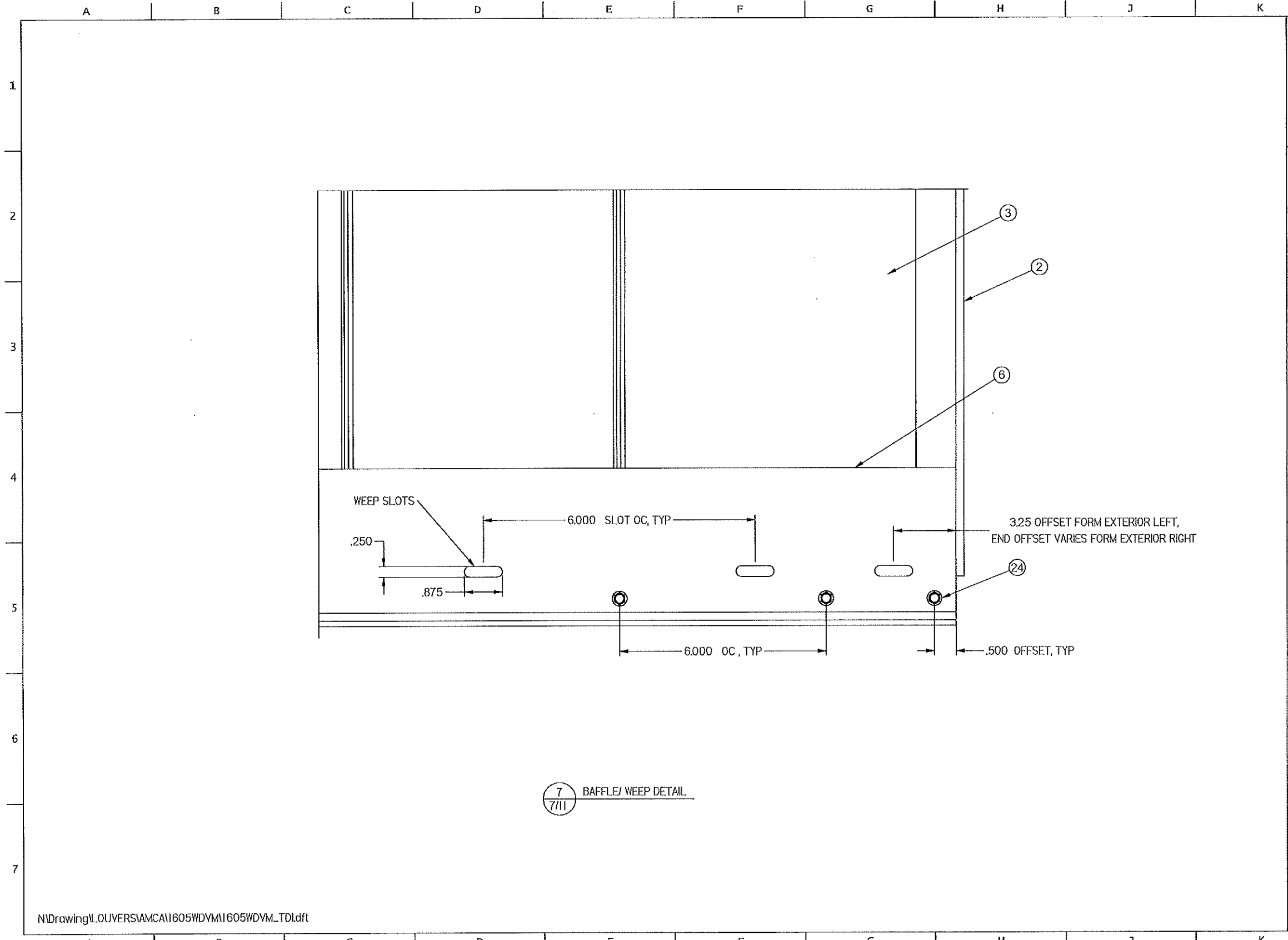
5
6/11
BLADE STRAP DETAIL

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 <p>Nalor Industries Inc. 4714 Winfield Road Houston, TX 77039 www.nalor.com TEL: 281-590-1172 FAX: 281-590-3086</p>	<p>DWN BY: fcoortinas DATE: 11/2/2020</p>	<p>CHK BY: Mastourian SCALE: NTS</p>
	<p>TITLE: 1605WDVM LOUVER BLADE STRAP DETAIL</p>	
<p>SHEET: 6 OF 11</p>		<p>DWG. NO. 1605WDVM REV B</p>



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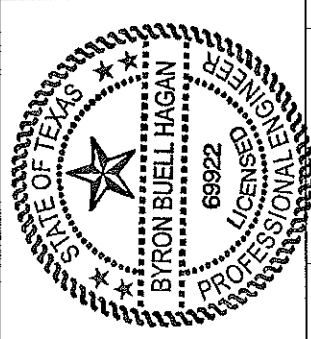


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SHEET: 7 OF 11	
DWG. NO.	REV
1605WDVM	B

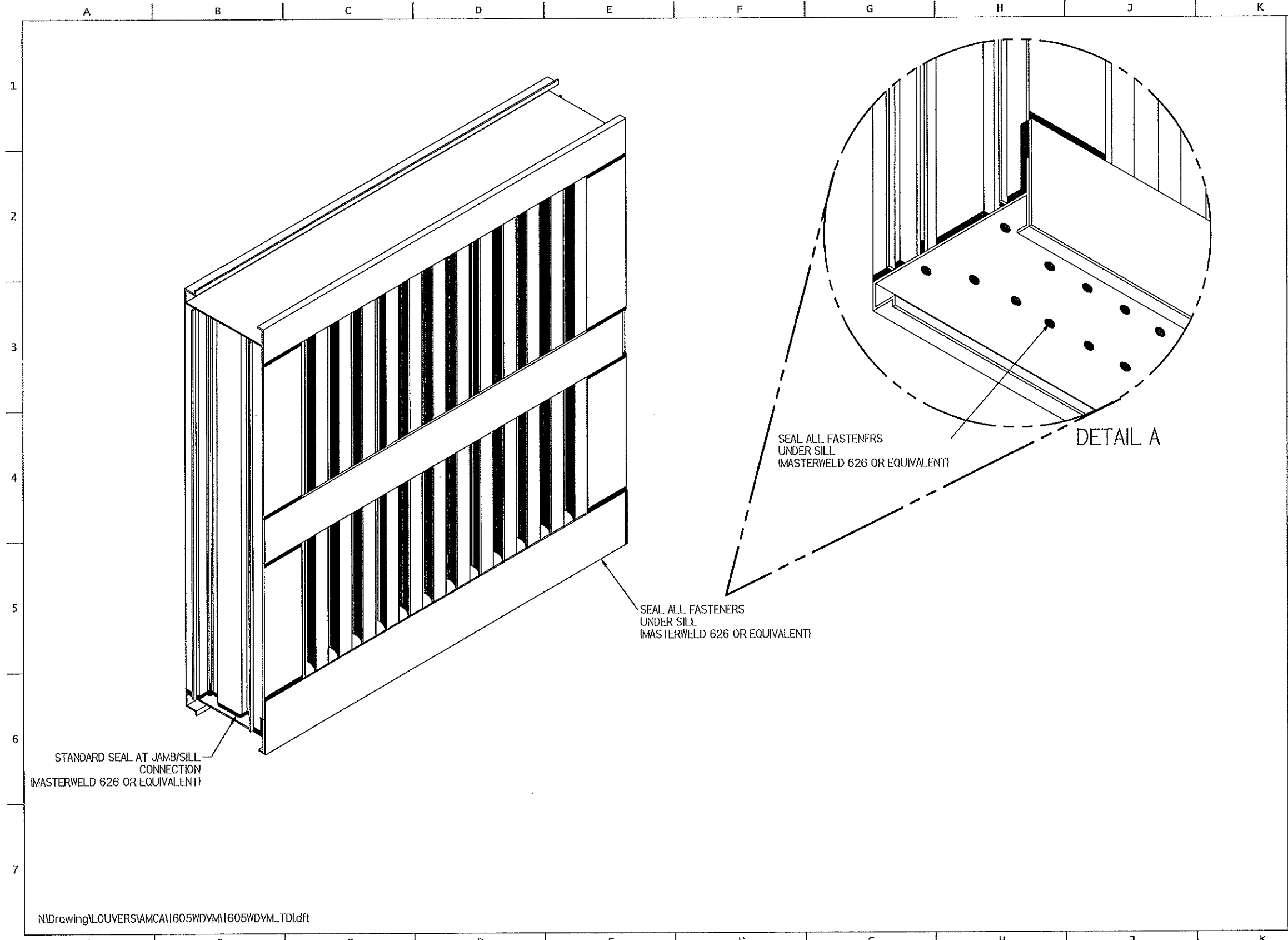
Nailor Industries Inc.
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TITLE:
 1605WDVM LOUVER
 BAFFLE / WEEP DETAIL



Byron Buell Hagan
 11/2/20

7
 7/11 BAFFLE / WEEP DETAIL




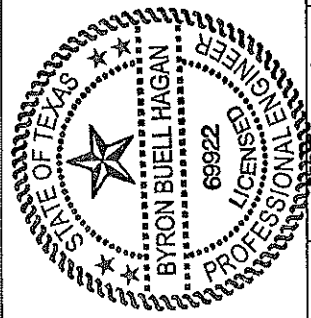
STANDARD SEAL AT JAMB/SILL CONNECTION
(MASTERWELD 626 OR EQUIVALENT)

SEAL ALL FASTENERS UNDER SILL
(MASTERWELD 626 OR EQUIVALENT)

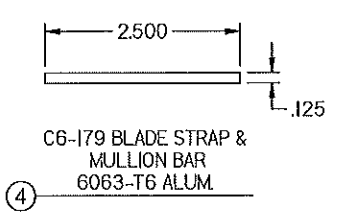
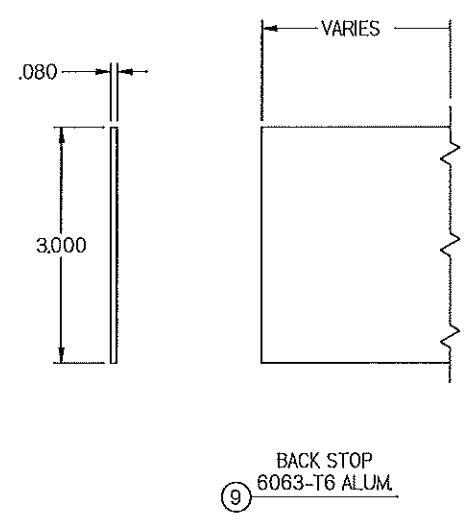
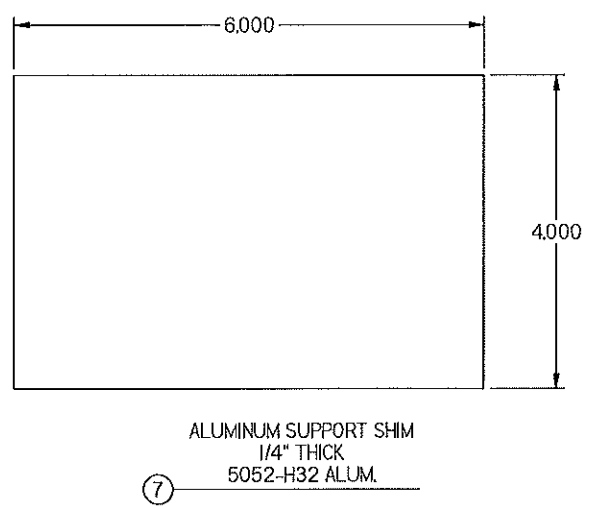
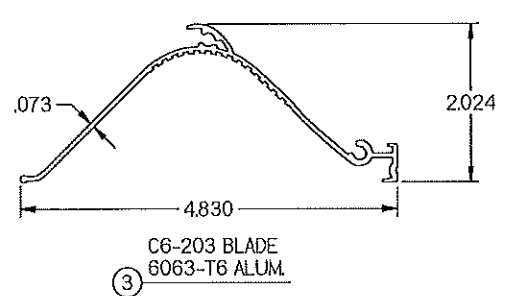
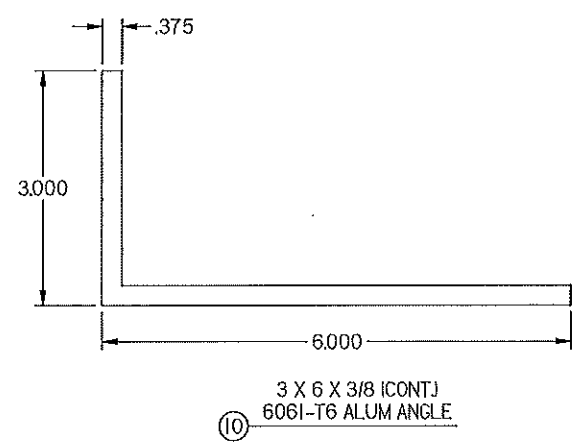
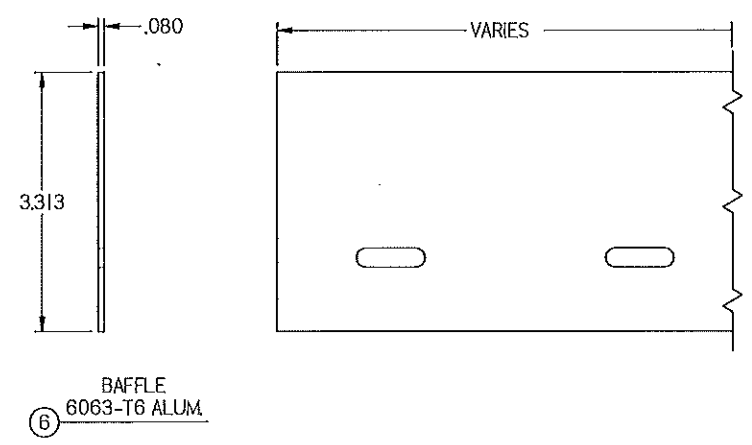
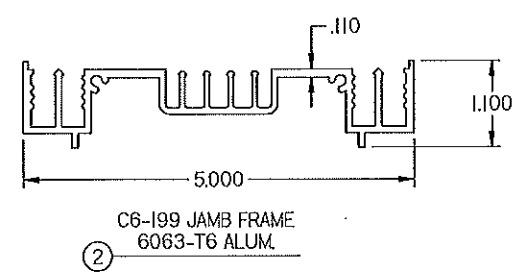
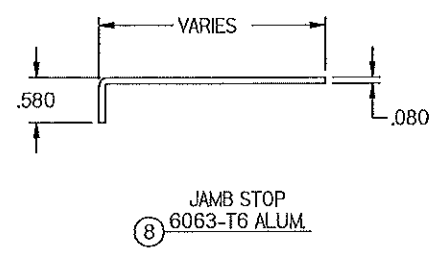
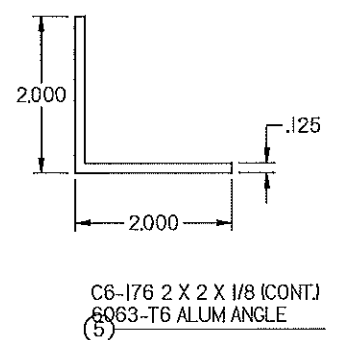
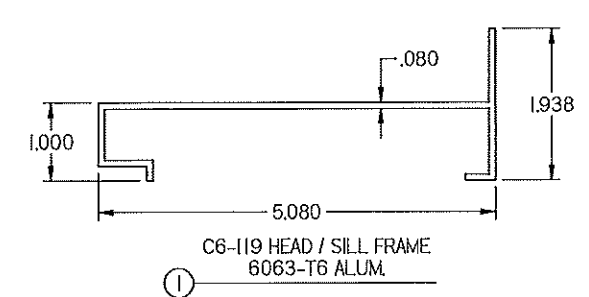
SEAL ALL FASTENERS UNDER SILL
(MASTERWELD 626 OR EQUIVALENT)

DETAIL A

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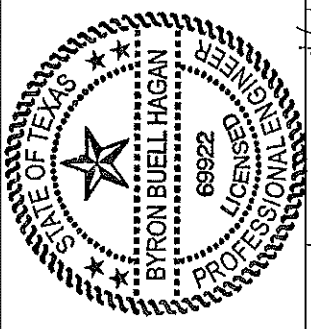
 Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086	DWN BY: fcortinas	CHK BY: Mastourion
	DATE: 11/2/2020	SCALE: NTS
TITLE 1605WDVM LOUVER SEALANT DETAIL	SHEET: 8 OF 11	
	DWG. NO. 1605WDVM	
	<i>Byron Buell Hagan</i> 11/2/20	

A B C D E F G H J K L



DWN BY: fcoirtinas
CHK BY: Mastourian
DATE: 11/2/2020
SCALE: NTS
SHEET: 9 OF 11
DWG. NO. 1605WDVM
REV B

Nalor Industries Inc.
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TEL: 281-590-1172 FAX: 281-590-3086
www.nalor.com
TITLE: 1605WDVM LOUVER
PART PROFILES



Byron Buell Hagan
11/2/20

A B C D E F G H J K L

A B C D E F G H J K L

BILL OF MATERIALS

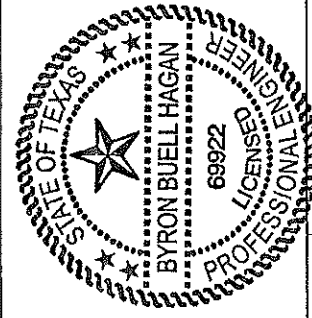
ITEM	INTERNAL ID	DESCRIPTION	MATERIAL	NOTES
1	C6-119	HEAD / SILL FRAME	6063-T6	
2	C6-199	JAMB FRAME	6063-T6	
3	C6-203	BLADE	6063-T6	1.5" CENTERS/SPACING
4	C6-179	BLADE STRAP / MULLION BAR	6063-T6	REQUIRED IF SECTION HEIGHT IS 60.0"
5	C6-176	2 X 2 X 1/8 ANGLE (CONT.)	6063-T6	AT HEAD AND SILL ONLY
6	-	BAFFLE	6063-T6	
7	-	ALUMINIUM SUPPORT SHIM	5052-H32	BY OTHERS, OPTIONAL, AS NEEDED
8	-	JAMB STOP	6063-T6	SIZE VARIES AS NEEDED,
9	-	BACK STOP	6063-T6	LENGTH VARIES WITH DAMPER SIZE.
10	-	6 X 3 X 3/8 ANGLE (CONT.)	6061-T6	USED IN SKINNY WALL APPLICATION
--				
20	C6-189	SCREW, MACHINE, HW, #10-24 X 1 1/2,	300 SERIES, SS CON. CW	2 @ BLADE ENDS, AND BLADE STRAP ONE PER BLADE
21	C6-192	SCREW, MACHINE, HEX, #10 X 1 1/2,	300 SERIES, SS CON. CW	2 @ FRAME CORNERS
22	C6-193	SCREWM METAL, HEX, #14 X 1 1/2,	300 SERIES, SS CON. CW	@ HEAD AND SILL, AND 2 AT BLADE STRAP AT JAMBS
24	C6-198	SCREW, MTL, HEX, #8 X 3/4,	300 SERIES, SS CON. CW	@ SILL AT BAFFLE AND JAMB STOPS @ 6" O.C.
25	-	SEALANT & BACKER ROD	VARIOUS	BY OTHERS
26	C6-181	1/4 NYLON INSERT LOCKNUT	STAINLESS	
27	C6-186	1/4 COMM'L FLAT WASHER	STAINLESS	
28	C6-187	1/4-20 X 1 HEX CAP SCREW 18-8 SS	STAINLESS	

GENERAL NOTES:

- DUE TO PASSING TAS-100A, THE LOUVER IS DESIGNED TO PREVENT WIND DRIVEN RAIN FROM PENETRATING THE SPACE BEHIND THE LOUVER. AS SUCH, THE LOUVER MAY BE INSTALLED IN A LOCATION WHERE THE SPACE/ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/ PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- THE MAXIMUM SINGLE SECTION SIZE IS 120 WIDE BY 72 HIGH OR 72 WIDE BY 120 HIGH. THE MAXIMUM OVERALL/ ASSEMBLED SIZE IS UNLIMITED WIDE BY USE OF MULTIPLE SECTIONS. SECTIONS/ ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDED THERE IS SUITABLE STRUCTURAL SUPPORT (DESIGNED AND INSTALLED BY OTHERS) TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER HEAD AND / OR SILL MOUNTING ANGLES TO THE SUBSTRATE.
- GENERAL LOUVER CONSTRUCTION: HEAD, SILL, JAMBS, AND BLADES ARE EXTRUDED ALUMINIUM. BLADE SPACING IS 1.5 INCHES. BLADES ARE SECURED WITH (2) #10 X 1 1/2" MACHINE SCREWS PER BLADE END. HEAD IS SECURED TO THE JAMB WITH (2) #10 X 1 1/2" MACHINE SCREWS PER HEAD END, SILL IS SECURED TO JAMBS WITH (2) #10 X 1 1/2" MACHINE SCREWS PER SILL END. BLADE SUPPORT STRAP IS SECURED TO BLADES BY (2) SCREW PER BLADE AND SECURED TO JAMB BY (2) SCREWS AT STRAP END. BLADE SUPPORT STRAP IS REQUIRED IF ACTUAL LOUVER HEIGHT IS > 60 INCHES.
- INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED. SEE ALUMINUM DESIGN MANUAL (CHAPTER F) FOR DETAILS.
- ALL ALUMINIUM, STAINLESS STEEL (SS), AND PLATED / COATED STEEL PARTS PROVIDED BY MANUFACTURER ARE INHERENTLY CORROSION RESISTANT OR HAVE A CORROSION RESISTANT COATING.
- STEEL / STAINLESS, STEEL / ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS EQUAL OR GREATER YIELD STRENGTH. PART DIMENSIONS ARE MINIMUMS UNLESS DEFINED OTHER WISE.
- THE INTERNAL ID# SHOWN ON PAGE 9 IS FOR FACTORY USE AND TRACKING PURPOSES ONLY AND MAY BE UPDATED AT ANY TIME. ANY UPDATES WILL NOT ALTER THE ITEM AS DESCRIBED HEREIN.

\\Drawing\LOUVERS\AMCA\1605WDM\1605WDM.TDI.dft

A B C D E F G H J K L

DWN BY: fcortinas DATE: 11/21/2020	CHK BY: Mastourian SCALE: NTS	SHEET: 10 OF 11 DWG. NO. 1605WDM
	Nalor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nalor.com	
		11/21/20 Byron Buell Hagan

LOUVER MODEL 1605WDVM FASTENER SCHEDULE															
WOOD	STEEL STUD	STEEL	CONCRETE	CMU	SKINNY WALL	MIN.	FASTENER TYPE								
HEAD / SILL ANGLE FASTENER, HEIGHTS <=120 INCHES							DIAMETER	# Rqd	O.C. SPACING	EDGE	EMBEDMENT				
X						SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)				1/4"	1	3-1/4"	2"	3"
X						SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)				3/8"	1	3-3/4"	2"	3"
	X					16 Ga.	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)				1/4"	1	3"	2"	3 THREADS BEYOND SUBSTRATE
		X				A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)				1/4"	1	9"	2"	1/4"
		X				A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)				5/16"	1	12"	2"	1/4"
			X-CRACKED			4ksi	HILTI KWIK HUS-EZ				1/4"	1	7"	4"	2-1/2"
			X-CRACKED			4ksi	HILTI KWIK HUS-EZ				3/8"		12"	4"	3-1/4"
				X-GROUT FILLED		1.5ksi	STAINLESS STEEL THREADED ROD (300 SERIES, SS - COND. CW - FY= 65KSI) WITH HILTI HIT-HY 70 ADHESIVE				5/8"	1	8"	4"	5-5/8"
X					X	SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)				1/4"	1	3-3/4"	3"	3"
X					X	SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)				3/8"	1	5"	3"	3"
	X				X	16 Ga.	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)				1/4"	1	1"	3"	3 THREADS BEYOND SUBSTRATE
		X			X	A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)				1/4"	1	7"	3"	1/4"
		X			X	A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)				5/16"	1	8"	3"	1/4"
			X-CRACKED		X	4ksi	HILTI KWIK BOLT TZ				3/8"	1	8"	3"	2-3/8"
			X-CRACKED		X	4ksi	HILTI KWIK BOLT TZ				1/2"	1	10"	3"	2-3/8"
				X-GROUT FILLED	X	1.5ksi	ELCO AGGRE-GATORS (300 SERIES, SS- CON. CW - FY= 65ksi)				1/4"	2	3-1/2"	2"	2"

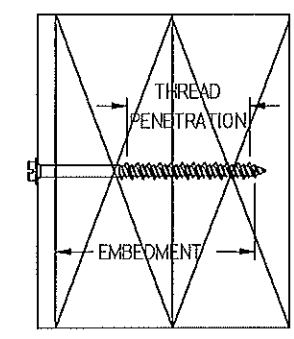
NOTE 1: CONCRETE MASONRY (CMU) SHALL BE > THE FOLLOWING: 6" WIDE, CMU CONFORMING TO ASTM C-90 FILLED WITH 4,747 KSI GROUT.

NOTE 2: CONCRETE MASONRY (CMU) SHALL BE > THE FOLLOWING: 6" WIDE, GRADE N, TYPE II, LIGHT-WEIGHT / MEDIUM-WEIGHT / NORMAL-WEIGHT CMU CONFORMING TO ASTM C-90. MORTAR MUST BE TYPE N.

NOTE 3: CONCRETE, STEEL, WOOD, MASONRY, CURTAIN WALL, STOREFRONT, AND ALL OTHER BUILDING SUBSTRATES ARE DESIGNED BY OTHERS.

NOTE 4: ENGINEER OF RECORD TO VERIFY THAT BUILDING SUBSTRATE CAN SUPPORT THE LOUVER REACTIONS.

NOTE 5: THREAD PENETRATION LENGTH SIGNIFIES THE REQUIRED LENGTH OF THE THREADED PORTION OF THE FASTENER INTO THE WOOD SUBSTRATE PROVIDING FULL CONTACT WITH WOOD. LAG SCREW TIP CANNOT BE CONSIDERED PART OF THE TREADED PORTION FO THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS / SPICES WHERE THE LAG SCREW COULD FALL BETWEEN MEMBERS.



N:\Drawing\LOUVERS\AMCA\1605WDVM\1605WDVM.TDI.dft

DWN BY: fcortinas DATE: 11/2/2020	CHK BY: Mastourian SCALE: NTS
	SHEET: 11 OF 11 DWG. NO. 1605WDVM
Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com	TITLE: 1605WDVM LOUVER FASTENER SCHEDULE
	BYRON BUELL HAGAN 69922 LICENSED PROFESSIONAL ENGINEER

Byron Buell Hagan
 11/2/20