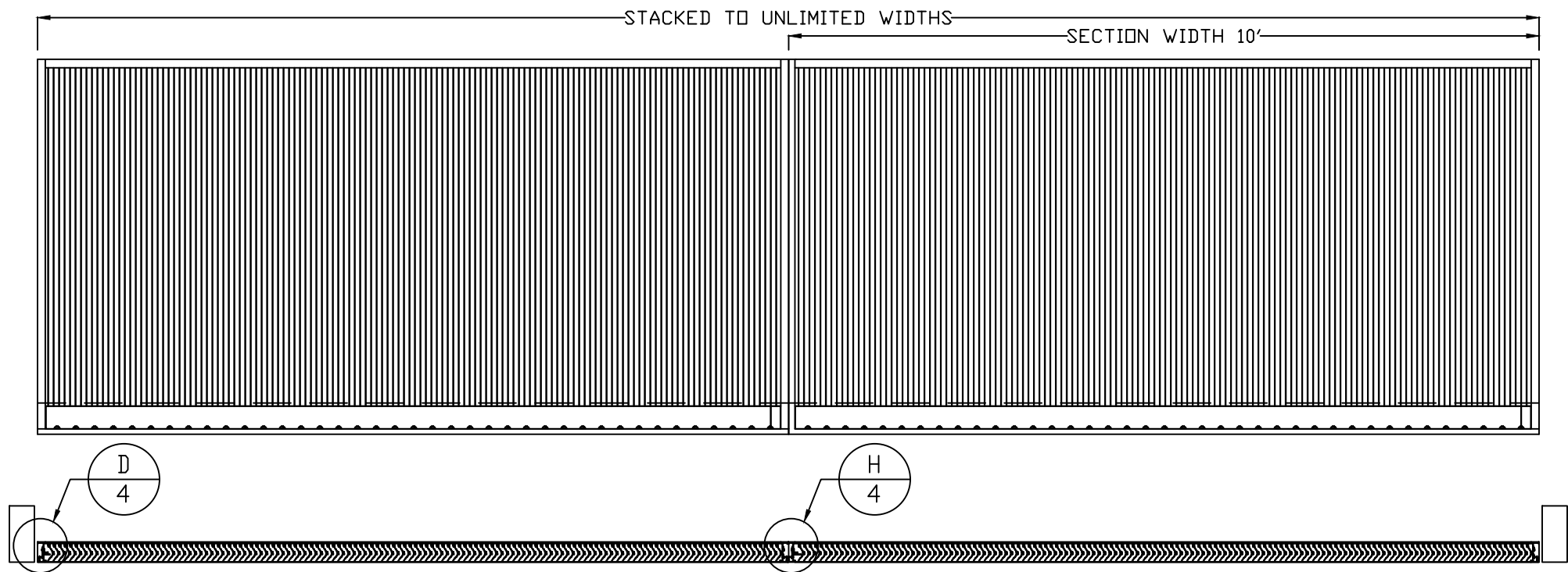


SPECIMEN I

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



DESIGN PRESSURE
120 PSF

02/09/2026
COA: 9090

Wayne K. Helmila
PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. 59092
LICENSE

A,B,C
4

E,F,G
4

- 1) It shall be the responsibility of the Structural Engineer of Record to verify the capacity of the structure to support the loads imposed by the louvers.
- 2) These louvers have been designed according to the Florida Building Code and the Aluminum Design Manual. They are tested in accordance with Dade County protocols: TAS 201, TAS 202 and TAS 203.
- 3) All fasteners shall be stainless steel Series 300, condition CW $F_y = 65$ ksi, $F_u = 110$ ksi minimum except the fasteners specified in note 11 of this sheet 1.
- 4) Concrete strength shall be $f'_c = 4000$ psi cracked, normal weight. Grout filled CMU $f'_m = 1,500$ psi.
- 5) Section widths and heights are limited as shown in elevations and details.
- 6) Each fastener used must be detailed on the drawing and verified on the NOA.
- 7) Separation of unpainted aluminum and dissimilar materials to be maintained by the installer.
- 8) This louver system has been tested, analyzed and approved for design pressures up to and including +/-120 PSF. Any louver height 8' or less is approved for windloads 120 PSF or less. For heights greater than 8' but less than 10', maximum design windload is limited to 90 PSF. Louver widths cannot exceed 10'. The individual louver section square footage must not exceed 64 sq.ft. for 120 PSF and 70 sq.ft. for 90 PSF.
- 9) Stack sections horizontally to an unlimited opening width. No additional vertical structure is required. For stacking louvers horizontally, mullion spacing to be limited to 10 ft, 8 ft, and 7 ft for heights less or equal to 5 ft, 8ft, and 10 ft respectively. See detail H/4
- 10) Louver Construction - Head, sill and jambs are constructed of extruded aluminum. The corners are coped and butted, secured with (2) #10 x 2" hex head screws at each corner, through the sill into the jambs/ mullions, and through the Jambs into the Head.
- 11) These louvers have been designed and tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris (Basic Protection, Missile Level D and Enhanced Protection, Missile Level E). These louvers have been designed and tested in accordance with AMCA 550 Test Method for High Velocity Wind Driven Rain Resistance Louvers. Passing AMCA 550 significantly reduces rain penetrating the space behind the louvers. Per Miami-Dade D.R.E.R.: the louver may be installed in a location where the room behind the louver is NOT DESIGNED to drain water penetrating into the room and the room will house non waterproof or non water resistance equipment, components, or supplies
- 12) A horizontal blade support channel at midpoint is required if section height is greater than 5' and two horizontal blade support channels are required at third-points for section heights greater than 8' but less than the max section height of 10'.

Wayne K Helmila

Digitally signed by Wayne K Helmila
DN: CN=Wayne K Helmila,
dnQualifier=A01410D0000019B9935A98A002F0D50,
O=Unaffiliated, C=US
Reason: This item has been digitally signed and sealed
by Wayne K Helmila on the date adjacent to the seal.
Printed copies of this document are not considered
signed and sealed and the signature must be verified on
any electronic copies.
Date: 2026.02.09 14:33:28-06'00'

PROJECT: DC-3704
TITLE: SUBMITTAL DRAWINGS - SPECIMEN I
SCALE: 3/8" - 1'
DRW BY: N SHRIRAM

REVISION: 1
DATE: 03-14-2024
SHEET: 1 OF 7
DRW NO: RD-7444

Construction Specialties™
3 WERNER WAY, LEBANON, NEW JERSEY
PHONE: 1-800-233-8493

CS



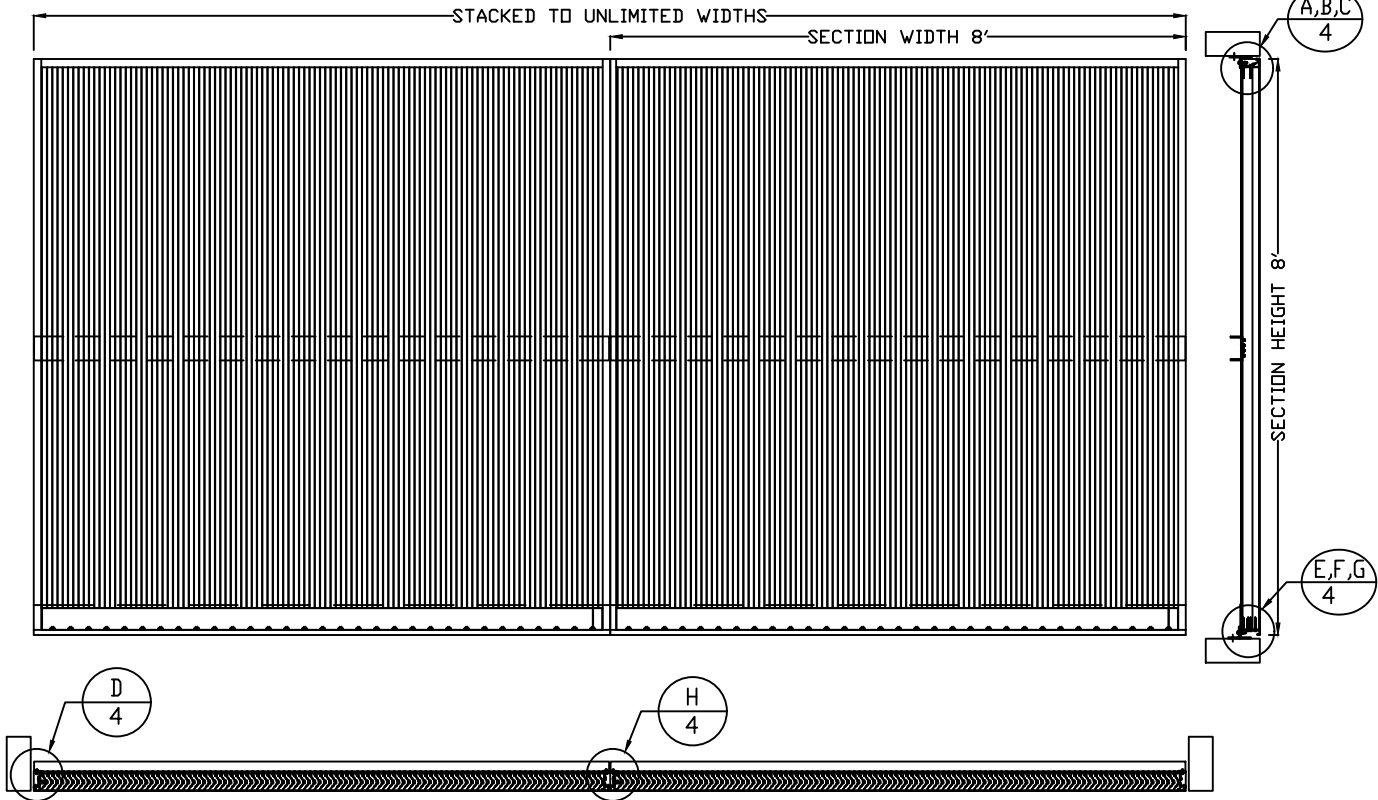
02/09/2026
COA: 9090

RICE
ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

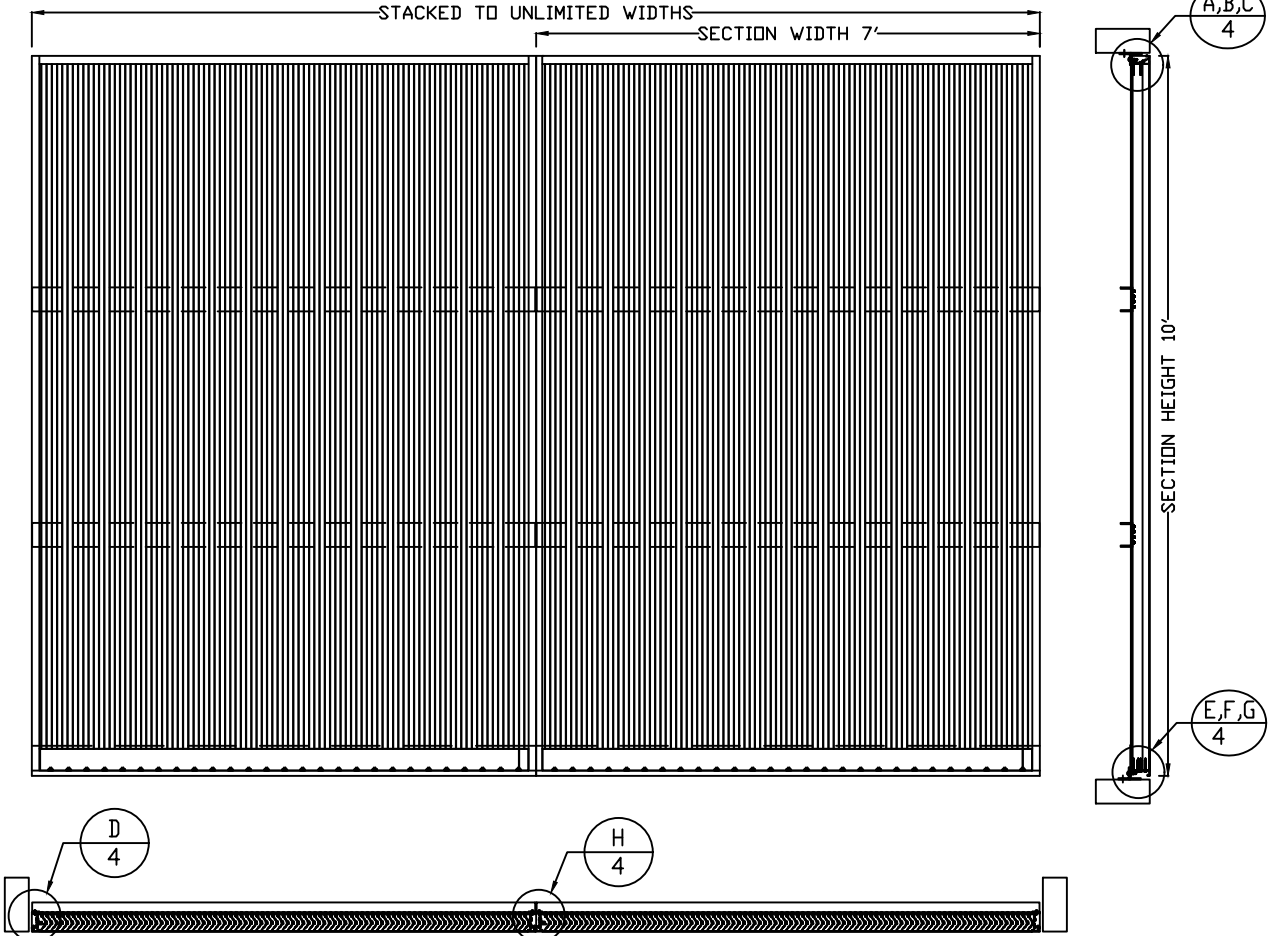
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

SPECIMEN 2

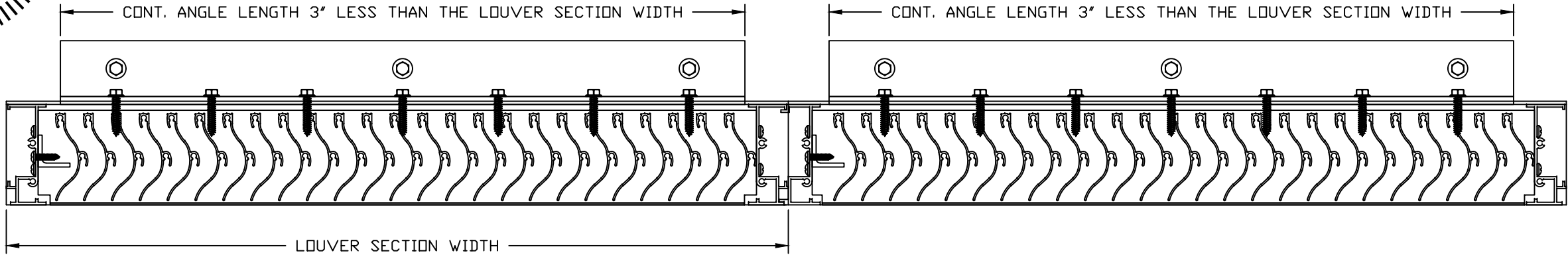


DESIGN PRESSURE 120 PSF

SPECIMEN 3



DESIGN PRESSURE 90 PSF

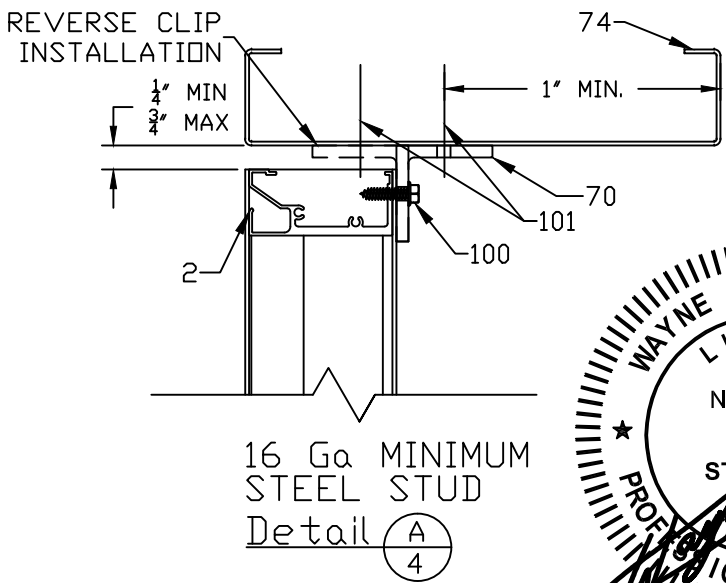


SCALE: 3"=1'

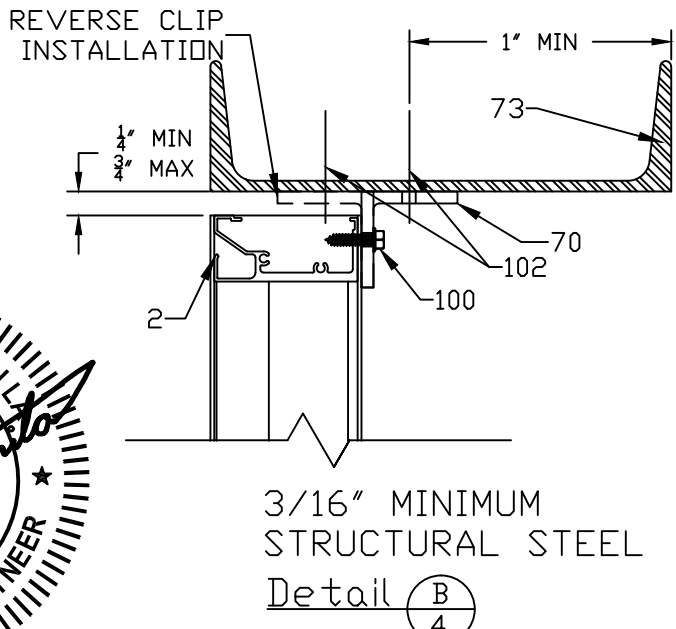
PROJECT: DC-3704	REVISION: 1
TITLE: SUBMITTAL DRAWINGS - SPECIMEN 2 & 3	DATE: 03-14-2024
SCALE: 3/8"=1'	SHEET: 2 OF 7
DRW BY: N SHRIRAM	DRW NO : RD-7444

**Construction Specialties™**
3 WERNER WAY, LEBANON, NEW JERSEY
PHONE: 1-800-233-8493

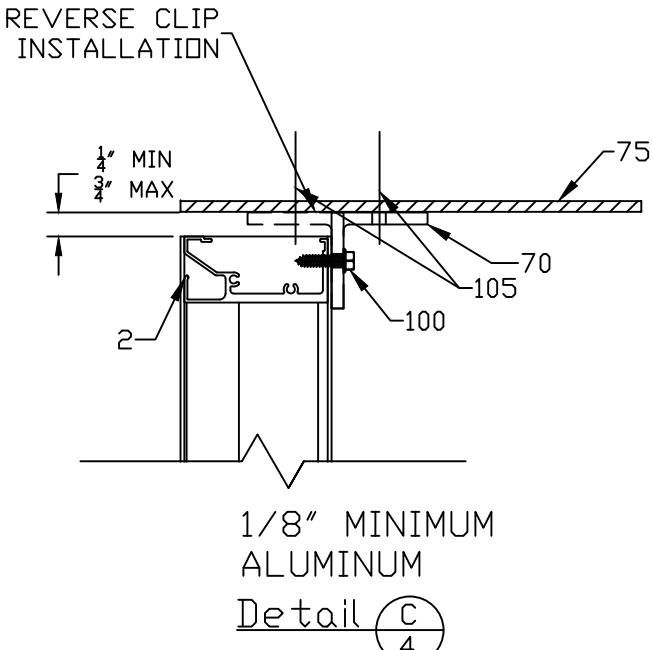
ALL SUBSTRATES SHOWN BELOW CAN BE
USED FOR HEAD AND/OR SILL CONDITIONS.



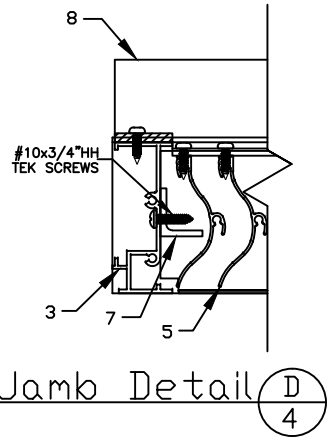
02/09/2026
COA: 9090



3/16" MINIMUM
STRUCTURAL STEEL
Detail (B)
4
ALL STEEL SHAPES
ACCEPTABLE

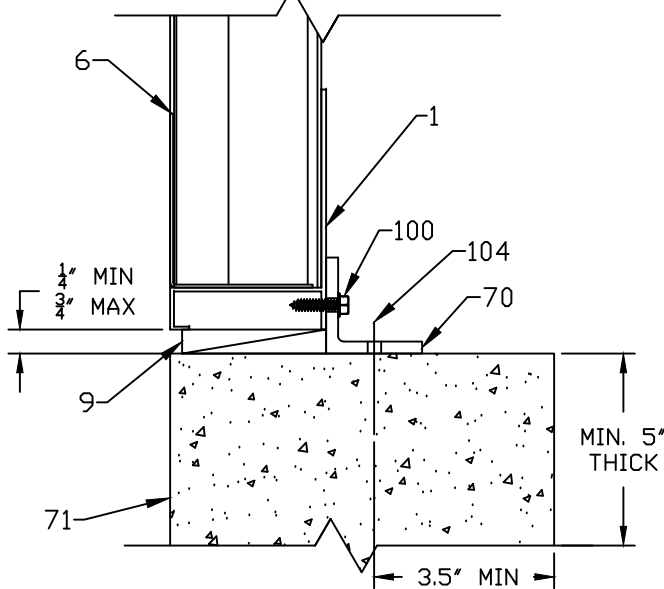


1/8" MINIMUM
ALUMINUM
Detail (C)
4
ALL ALUMINUM
SHAPES
ACCEPTABLE



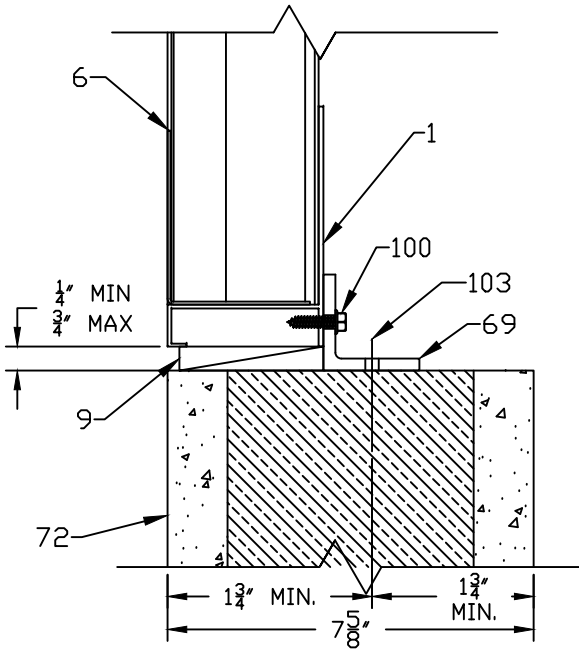
NO ATTACHMENT
TO STRUCTURE
REQUIRED AT
JAMBS

REVERSE CLIP INSTALLATION IS ONLY
ALLOWED IF THE LOUVER IS SET BACK A
MIN. OF 1" OR MORE FOR CRACKED CONCRETE.



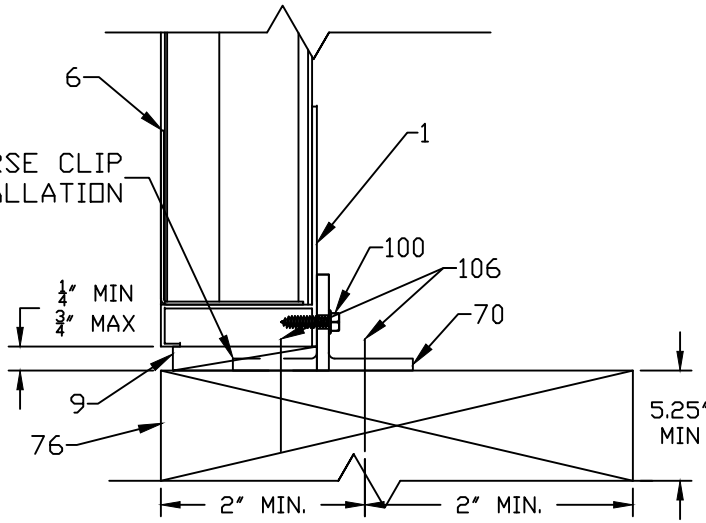
CONCRETE
(MIN. 4000 PSI)
Detail (E)
4

REVERSE CLIP INSTALLATION
IS NOT ALLOWED FOR CMU.

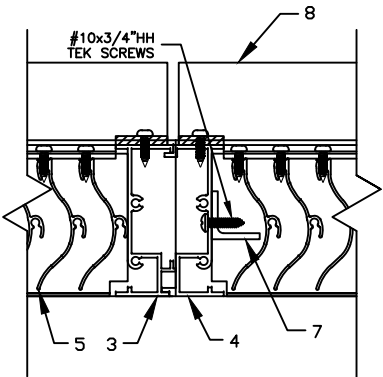


GROUT FILLED
CMU (1,500 PSI)
Detail (F)
4

REVERSE CLIP
INSTALLATION



WOOD
G=0.42 MIN.
Detail (G)
4



NO ATTACHMENT
TO STRUCTURE
REQUIRED AT
MULLIONS

RICE

ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

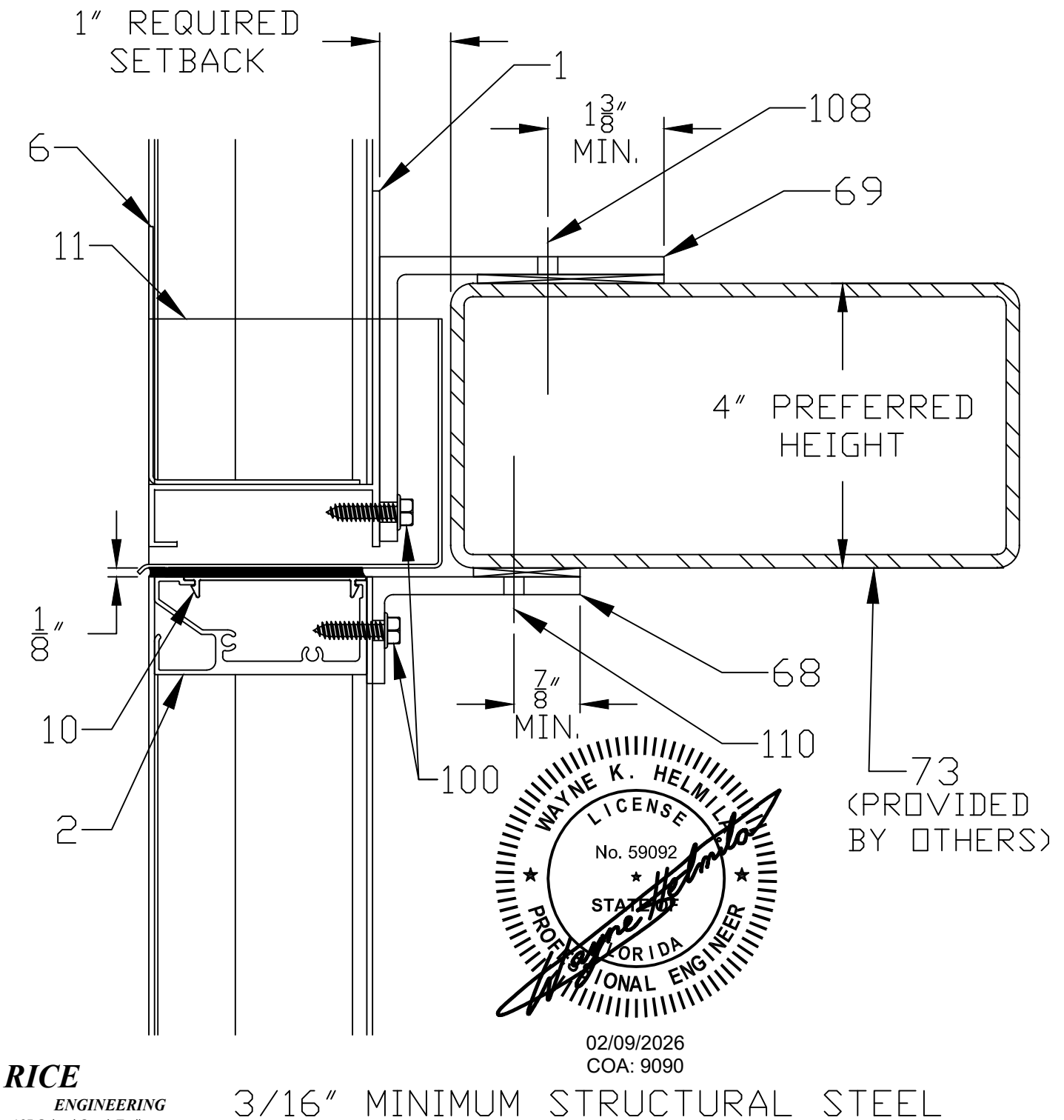
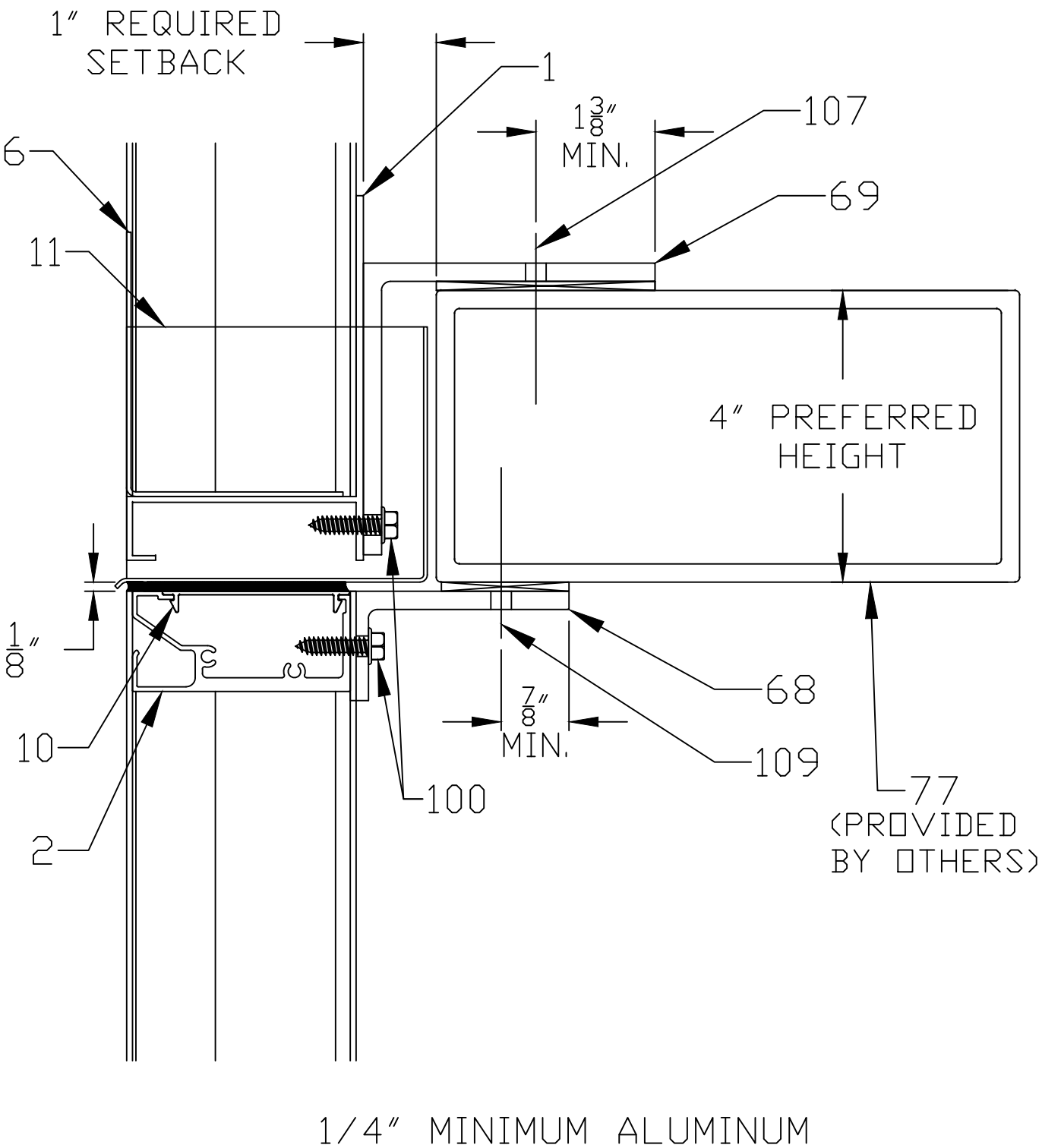
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

Construction Specialties™
3 WERNER WAY, LEBANON, NEW JERSEY
PHONE: 1-800-233-8493



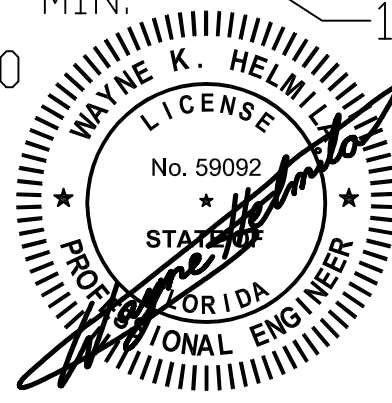
PROJECT: DC-3704
TITLE: SUBMITTAL DRAWINGS - MOUNTING DETAILS
SCALE: 3" = 1'
DRW BY: N SHRIRAM
REVISION: I
DATE: 03-14-2024
SHEET: 4 OF 7
DRW NO: RD-7444

STACK CONDITION



RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



02/09/2026
COA: 9090

REVISION: 1	PROJECT: DC-3704	Construction Specialties™ 3 WERNER WAY, LEBANON, NEW JERSEY PHONE: 1-800-233-8493
DATE: 03-14-2024	TITLE: SUBMITTAL DRAWINGS - STACK MOUNTING	
SHEET: 5 OF 7	SCALE: 6" - 1"	
DRW NO: RD-7444	DRW BY: N SHRIRAM	

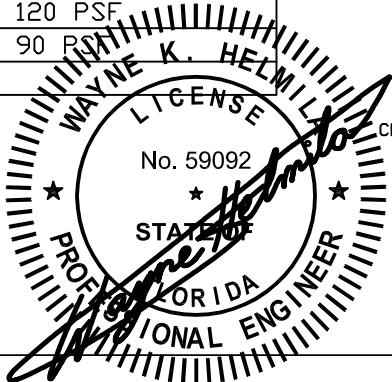
TABLE 1 - PARTS LIST		
ITEM #	PART	DESCRIPTION
1	SILL	6063-T6 ALUMINUM 0.080" THK
2	HEAD	6063-T6 ALUMINUM 0.125" THK *
3	JAMB	6063-T6 ALUMINUM 0.080" THK
4	MULLION	6063-T6 ALUMINUM 0.080" THK
5	BLADE	6063-T6 ALUMINUM 0.050" THK
6	SILL BAFFLE	6063-T6 ALUMINUM 0.080" THK
7	LEFT JAMB CONT. ANGLE	6061-T6 ALUMINUM 0.125" THK
8	BLADE SUPPORT CHANNEL	6061-T6 ALUMINUM 4" CHANNEL
9	SHIM (SILL ONLY)	NON-COMPRESSIBLE MATERIAL, BY OTHERS
10	SNAP COVER	6063-T6 ALUMINUM 0.080" THK
11	SILL PAN	3003-H14 ALUMINUM 0.050" THK
68	HEAD MOUNTING ANGLE (STACK CONDITION)	6061-T6 ALUMINUM 3"x1½"x1/4" CONT. ANGLE
69	SILL MOUNTING ANGLE (STACK CONDITION)	6061-T6 ALUMINUM 4"x4"x1/4" CONT. ANGLE
70	HEAD/SILL MOUNTING ANGLE	6061-T6 ALUMINUM 2"x2"x1/4" CONT. ANGLE
71	CONCRETE	4000 PSI CONCRETE, CRACKED, NORMAL WEIGHT
72	CMU	GROUT FILLED MASONRY UNIT (1500 PSI, ASTM C90, TYPE II WITH TYPE N MORTAR)
73	STRUCTURAL STEEL	3/16"THK MIN. ANY SHAPE (BY OTHERS)
74	STEEL STUD	16 GA MIN. COLD FORMED STEEL STUD, Fy=33Ksi
75	ALUMINUM	1/8" THK. MIN. (6063-T5) ANY SHAPE
76	WOOD	SG=0.42 MIN. SPRUCE-PINE-FIR, 5.25" MIN. THICKNESS
77	ALUMINUM	1/4" THK. MIN. (6063-T5) ANY SHAPE (BY OTHERS)

STEEL ANCHOR PLATES, CLIP ANGLES, REINFORCEMENT CHANNELS AND BARS TO BE MINIMUM ASTM A-36 STEEL, DESIGNED BY OTHERS.
STEEL TUBES TO BE MINIMUM ASTM A-500, GRADE B, Fy = 46 KSI., DESIGNED BY OTHERS.

*HEAD AND SILL EXTRUSION HAS 0.100" THICKNESS ON REAR LEG FOR MOUNTING FASTENERS.
ALL OTHER THICKNESS ARE NOMINAL 0.081" THK.

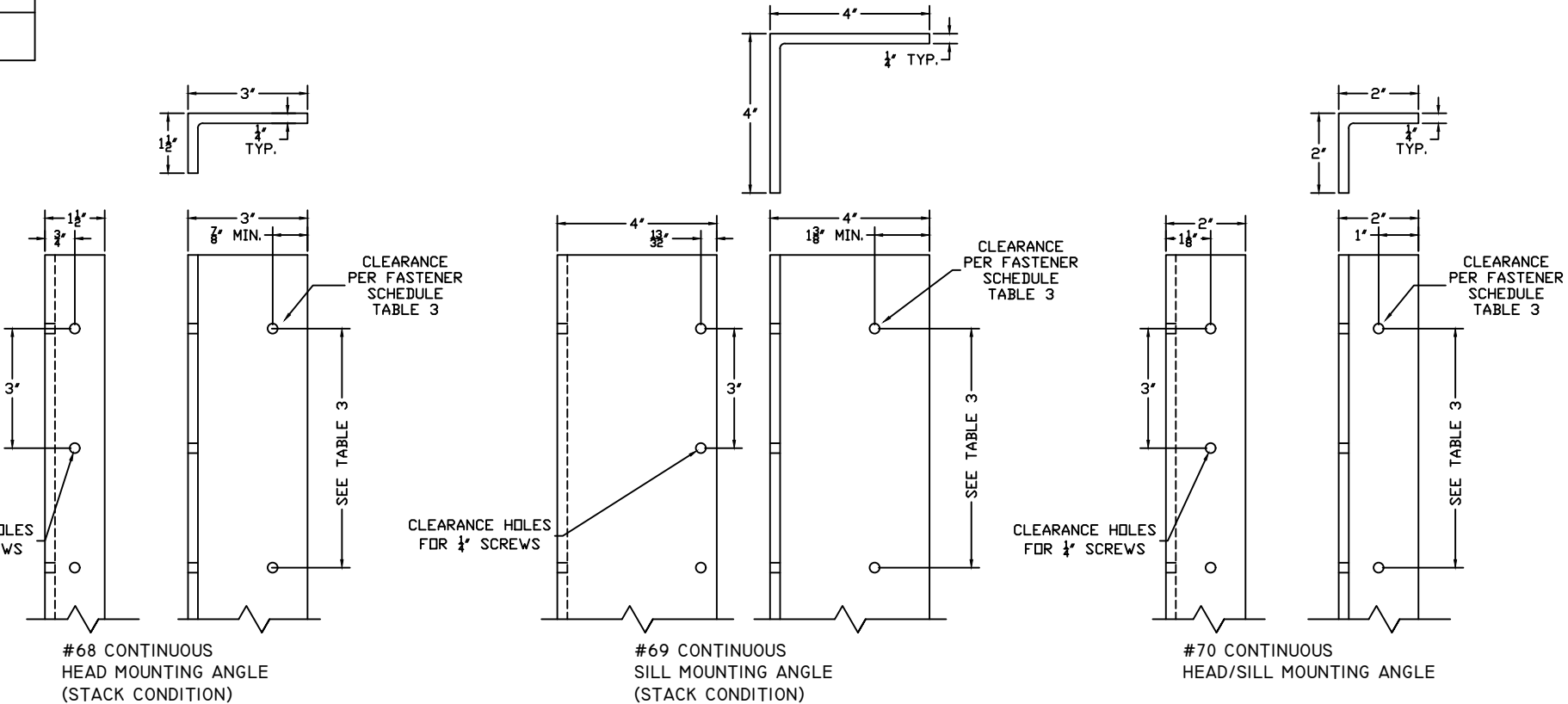
TABLE 2 - HEIGHT VS WINDLOAD	
LOUVER HEIGHT	MAX WIND LOAD
UP TO 8 FEET	120 PSF
OVER 8 FEET TO 10 FEET	90 PSF

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



02/09/2026
COA: 9090

TABLE 3 - Building Attachment Fastener Schedule						
Part #	Fastener Description	Substrate	Max Spacing	Min. Edge Dist.	Min. Embed.	Min. End Dist.
100	1/4"-14 Dia. S.S. 300 Series Screws	Aluminum Head/Sill Frame Members	3"	NA	NA	NA
101	1/4"-14 ELCD Drill-Flex or EQ.	Min. 16 Ga (0.06" thick) Cold Formed Steel Stud	3 1/4"	1"	NA	1"
102	1/4"-20 ELCD Bi-Flex or EQ.	3/16" Structural Steel, A36 or better (Any shape)	9"	1"	NA	1"
103	1/2" Dia. Hilti HUS-EZ S.S. 316 SS Anchor	ASTM C90 type II Grout-filled concrete masonry block f'm = 1,500 psi	16" (8" Min.)	1-3/4"	4 1/4"	4"
104	1/4" Dia. Hilti HUS-EZ S.S. 316 SS Anchor	4000 psi. Cracked Concrete, Min. 5" Thk	6"	3 1/2"	2 1/2"	3 1/2"
105	1/4"-14 ELCD Bi-Flex or EQ.	Aluminum Min 1/8" thick 6063-T5 or better (Any Shape)	3 1/2"	1"	NA	1"
106	1/2" Dia. x 4" LG S.S. 300 Series Lag Screws	Wood Spruce Pine-Fir (Min. 5.25" Height)	9"	2"	3 1/8"	2"
107	1/4"-14 ELCD Bi-Flex or EQ	Aluminum Min 1/4" thick 6063-T5 or better (Any Shape)	5"	1"	NA	1"
108	1/4"-20 ELCD Bi-Flex or EQ	Steel Min 3/16" thick A36 or better (Any Shape)	5 1/2"	1"	NA	1"
109	1/4"-14 ELCD Bi-Flex or EQ	Aluminum Min 1/4" thick 6063-T5 or better (Any Shape)	7"	7/8"	NA	7/8"
110	1/4"-20 ELCD Bi-Flex or EQ	Steel Min 3/16" thick A36 or better (Any Shape)	9"	7/8"	NA	7/8"



REVISION: 1

DATE: 03-14-2024

SHEET: 6 OF 7

DRW NO : RD-7444

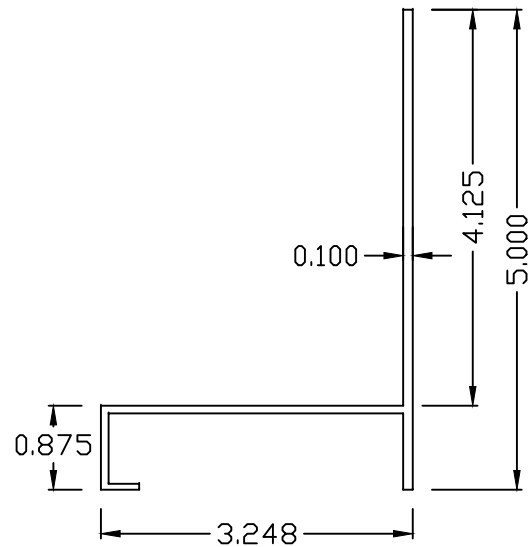
PROJECT: DC-3704

TITLE: SUBMITTAL DRAWINGS - TABLES & CLIP

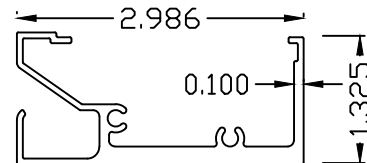
SCALE: 3" = 1'

DRW BY: N SHRIRAM

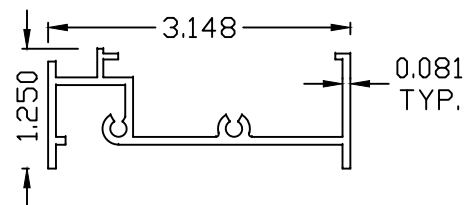
**Construction Specialties™**
3 WERNER WAY, LEBANON, NEW JERSEY
PHONE: 1-800-233-8493



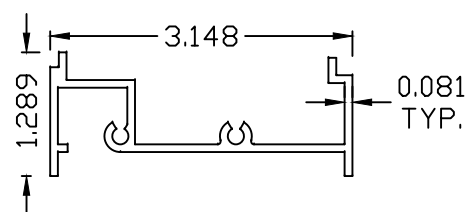
#1 SILL



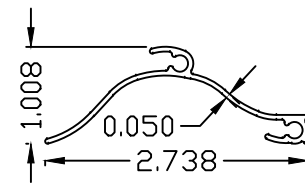
#2 HEAD



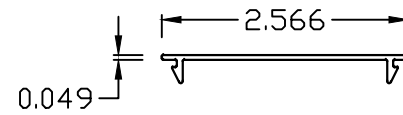
#3 JAMB



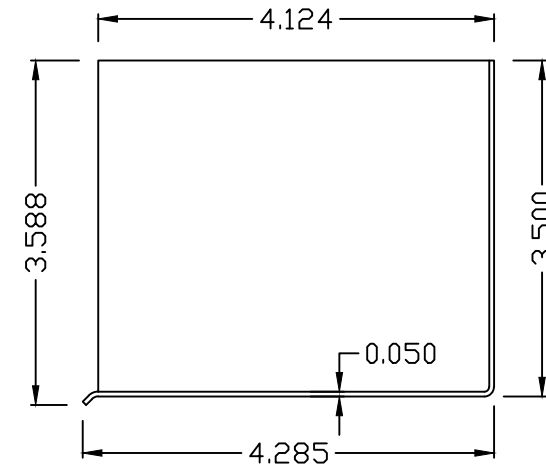
#4 MULLION



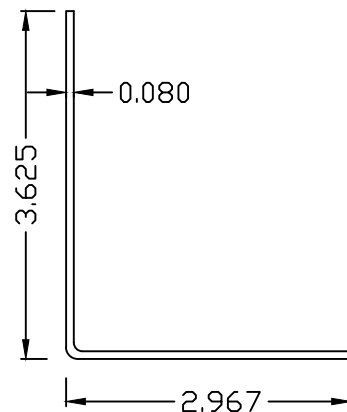
#5 BLADE



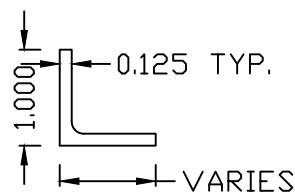
#10 SNAP COVER



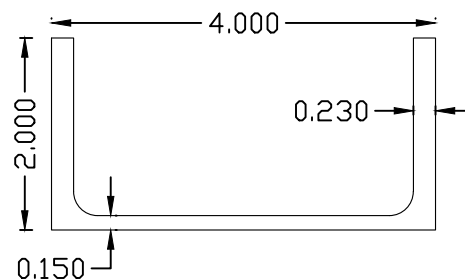
#11 SILL PAN



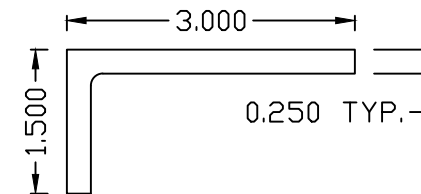
#6 FORMED SILL BAFFLE



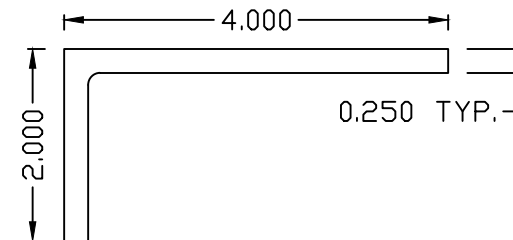
#7 LEFT JAMB CONT. ANGLE



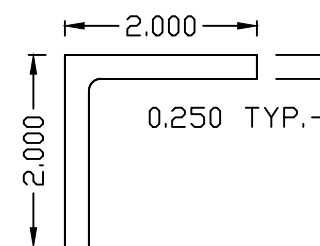
#8 BLADE SUPPORT CHANNEL
4" ALUMINUM CHANNEL 6061-T6



#68 HEAD MOUNTING ANGLE
(STACK CONDITION)

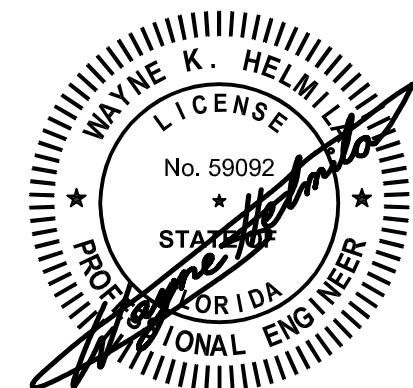


#69 SILL MOUNTING ANGLE
(STACK CONDITION)



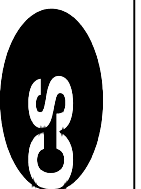
#70 HEAD/SILL MOUNTING ANGLE

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



02/09/2026
COA: 9090

Construction Specialties™
3 WERNER WAY, LEBANON, NEW JERSEY
PHONE: 1-800-233-8493



PROJECT: DC-3704
TITLE: DADE COUNTY TESTING SAMPLE PARTS
SCALE: 6" - 1"
DRW BY: N SHRIRAM
REVISION: 1
DATE: 03-14-2024
SHEET: 7 OF 7
DRW NO : RD-7444