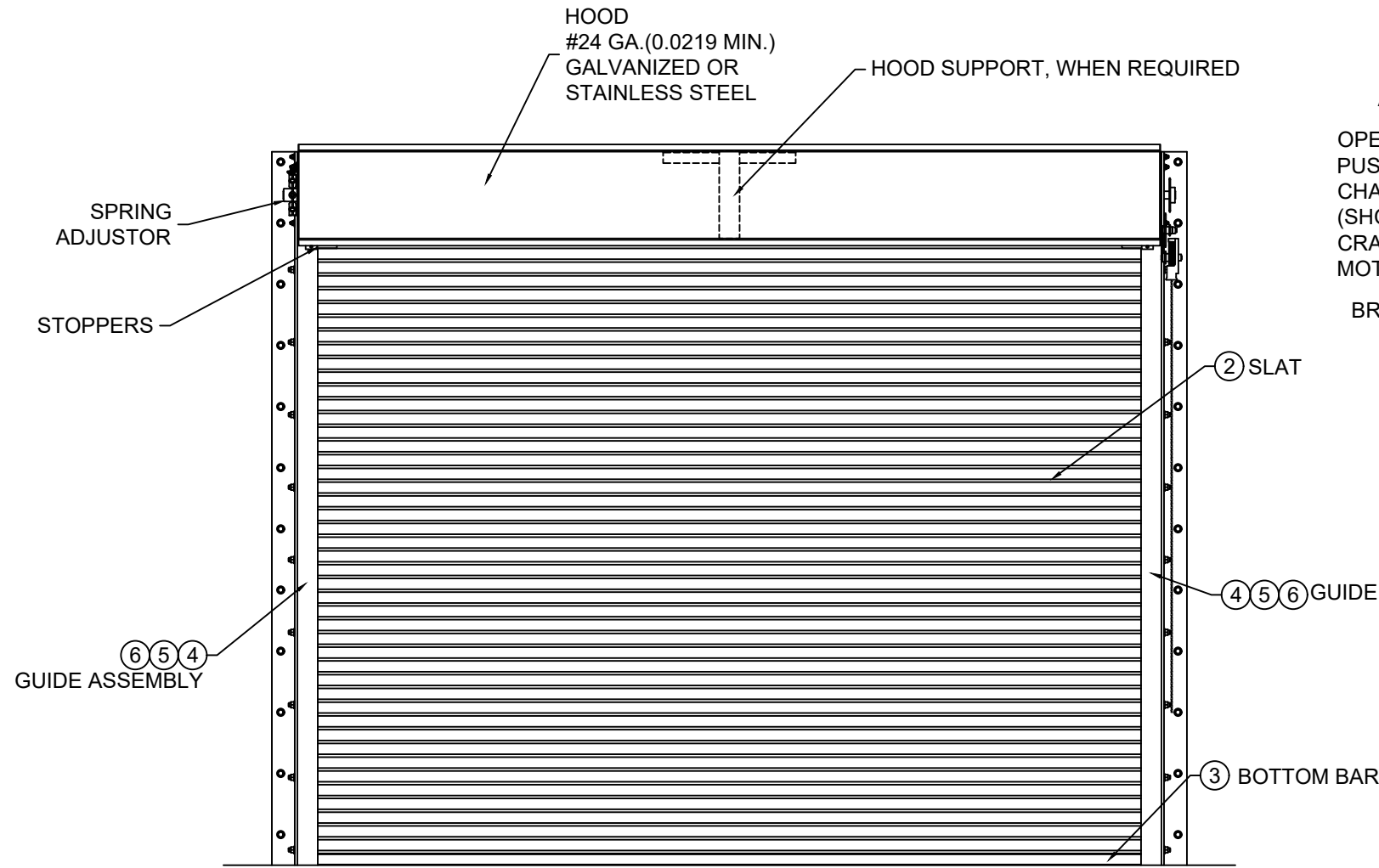
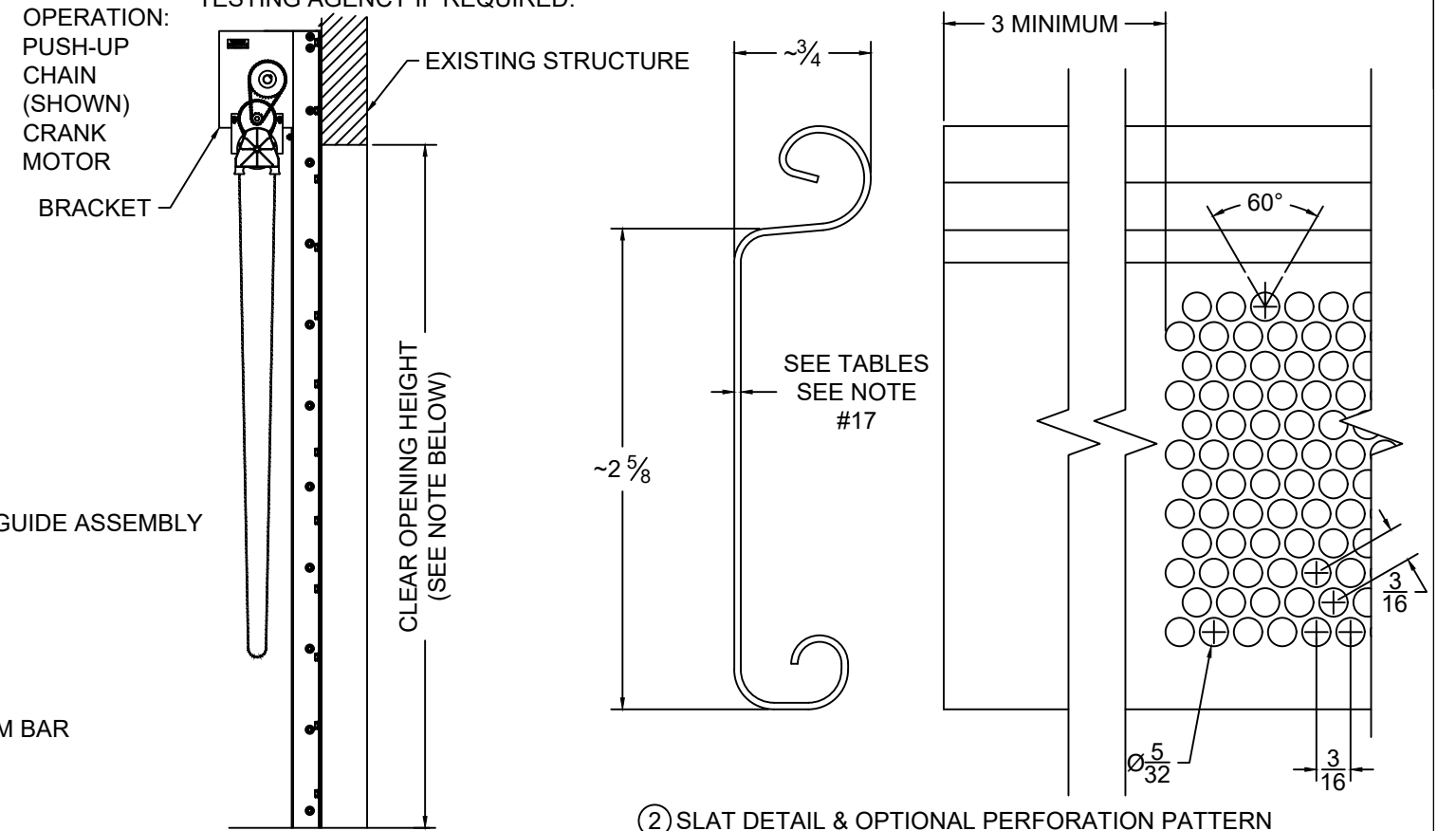


L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028



ROLL-UP MECHANISM NOT INCLUDED IN THIS APPROVAL. MUST BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY IF REQUIRED.



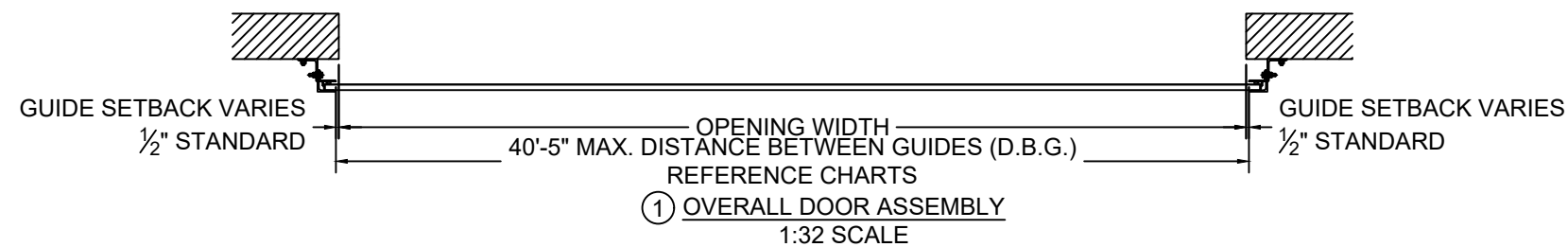
NOTE: WIND LOADS SPECIFIED IN TABLES ARE ACCEPTABLE FOR ANY C.O.H. UP TO 30'-0"

② SLAT DETAIL & OPTIONAL PERFORATION PATTERN

TYPICAL SECTION

- ASTM A653 HSLAS TYPE B GRADE 40 G40 OR
- ASTM A653 HSLAS TYPE A GRADE 40 G40 OR
- ASTM A653 STRUCTURAL STEEL GRADE 40 G40
- OR TYPE 304 STAINLESS STEEL (MIN. YIELD 40,000 psi)
- OR TYPE 316 STAINLESS STEEL (MIN. YIELD 40,000 psi)
- OR TYPE 430 STAINLESS STEEL (MIN. YIELD 40,000 psi)
- OR TYPE 201 STAINLESS STEEL (MIN. YIELD 40,000 psi)

FULL SCALE



ENTREMATIC  
165 CARRIAGE COURT  
WINSTON SALEM, NC 27105

P: 800.503.3667  
W: AMARR.COM  
E: ASK.AMARR@ENTREMATIC.COM

Unless otherwise specified, dimensions are in inches & tolerances are:

0.000 = +/- 0.031  
FRACTIONAL = +/- 1/32  
ANGLES = +/- 1/2 DEG

TITLE: WIND LOAD CONFIGURATION  
NON-INSULATED ROLLING STEEL DOOR  
CP0020 SLAT NON-IMPACT RATED

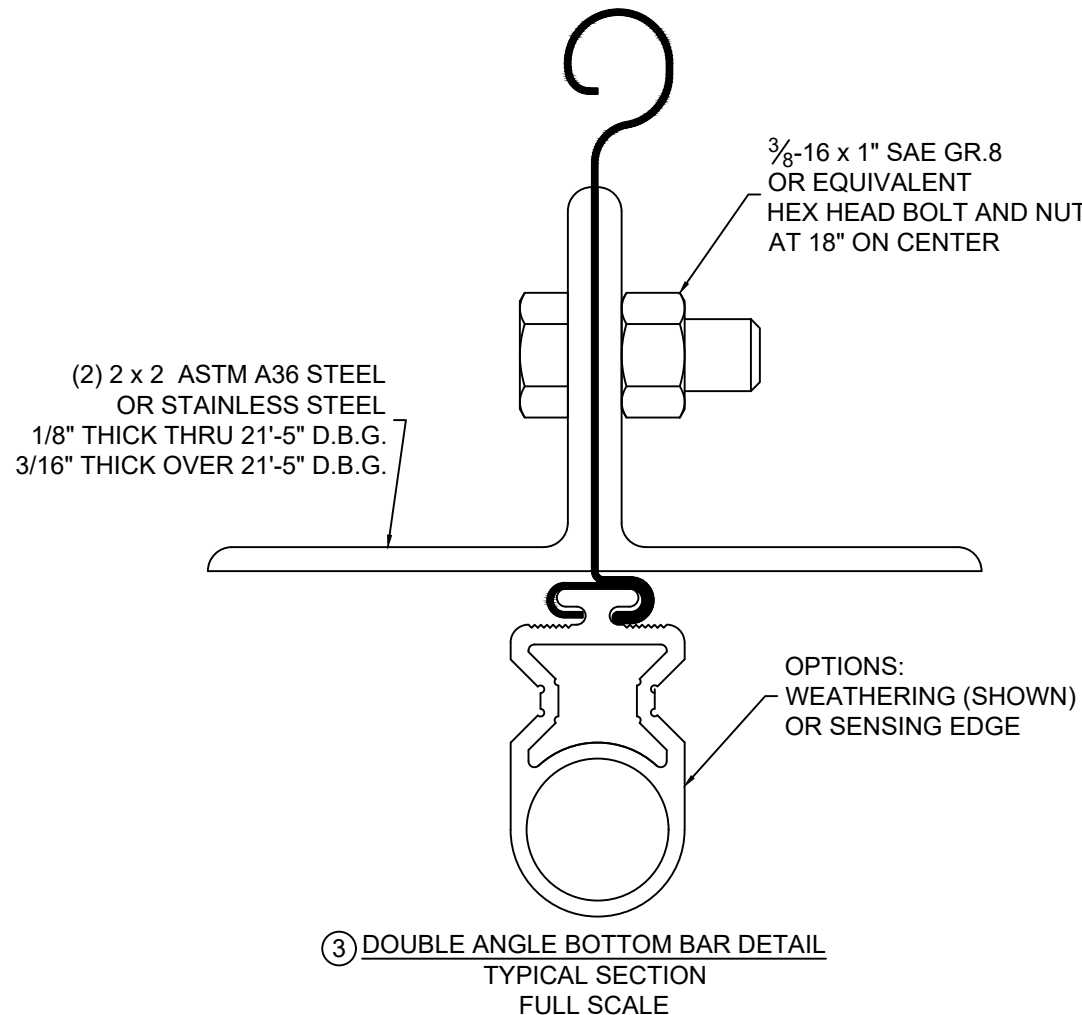
DRAWN BY: TJE  
SIZE: B  
SCALE: AS NOTED  
SHEET: 1/8

DWG NO: ES-16-68-AMARR

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028

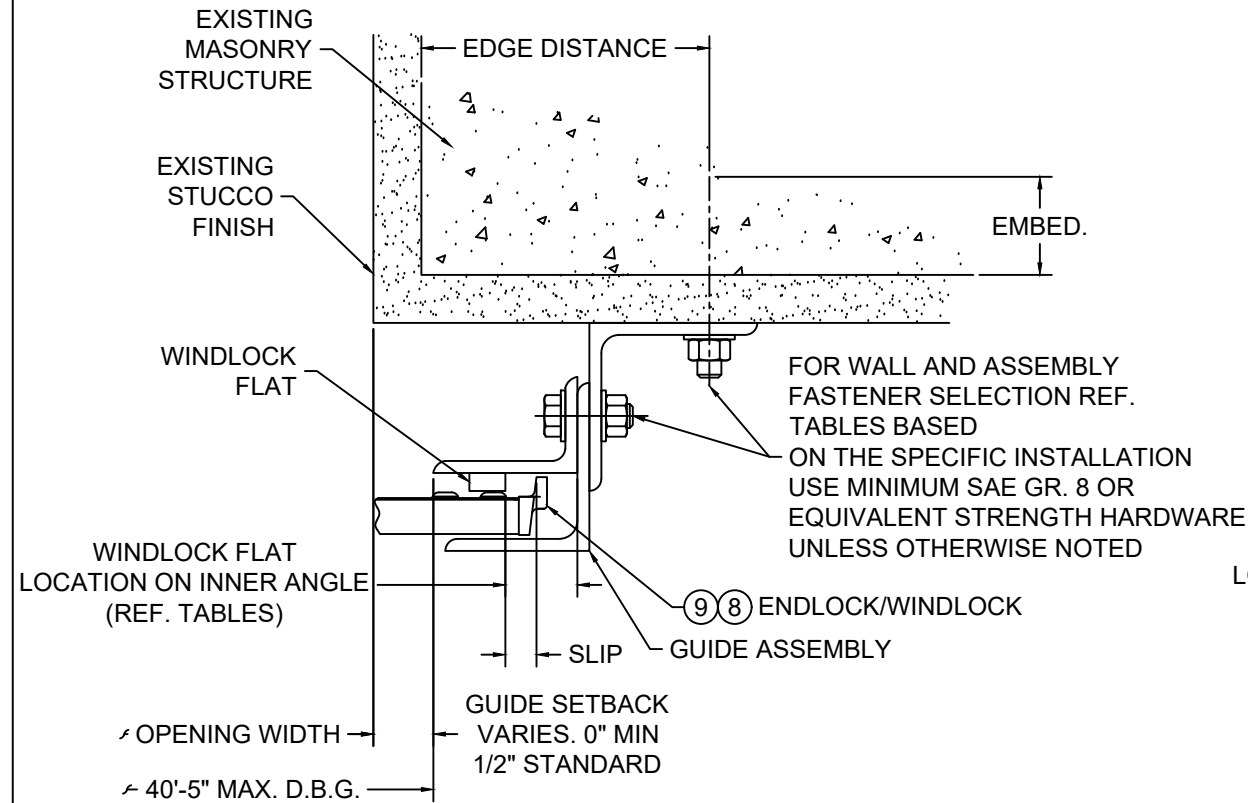
**GENERAL NOTES:**

1. THESE PRODUCT EVALUATION DOCUMENTS REPRESENT A ROLL-UP DOOR ASSEMBLY DESIGNED AND TESTED IN ACCORDANCE WITH THE STANDARD BUILDING CODE, THE 2018 INTERNATIONAL BUILDING CODE, AND THE FLORIDA BUILDING CODE.
2. THIS ROLL-UP DOOR HAS BEEN TESTED FOR UNIFORM STATIC PRESSURE IN ACCORDANCE WITH THE FBC TEST PROTOCOL FOR HIGH VELOCITY HURRICANE ZONES TAS 202.
3. A 33% INCREASE IN ALLOWABLE STRESS HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT.
4. DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY.
5. THESE PRODUCT EVALUATION DOCUMENTS ARE PREPARED BY THE PRODUCT ENGINEER AND ARE GENERIC. THEY DO NOT INCLUDE INFORMATION PREPARED FOR A SPECIFIC SITE.
6. THESE PRODUCT EVALUATION DOCUMENTS ARE NOT VALID FOR PERMIT WITHOUT ORIGINAL SIGNATURE, DATE AND EMBOSSED SEAL ON EACH PERMIT COPY, WHETHER OR NOT A MASTER APPROVAL DOCUMENT IS ON FILE WITH A MUNICIPALITY OR OTHER GOVERNING AGENCY.
7. THESE PRODUCT EVALUATION DOCUMENTS ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THE EXISTING STRUCTURE IS CAPABLE OF SUPPORTING THE SUPERIMPOSED LOADS Vx & Vy ON THE JAMBS OF THE DOOR.
8. ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED.
9. WHEN THE SITE CONDITIONS DEVIATE FROM THESE PRODUCT EVALUATION DOCUMENTS, SITE SPECIFIC DOCUMENTS SHALL BE PREPARED BY A DULY LICENSED AND REGISTERED ENGINEER OR ARCHITECT.
10. IF THE DEVIATING SITE SPECIFIC DOCUMENTS ARE PREPARED BY A DELEGATED REGISTERED ENGINEER OR ARCHITECT, SAID DOCUMENTS SHALL BEAR THE DATE, SIGNATURE, AND EMBOSSED SEAL OF THE DELEGATED ENGINEER OR ARCHITECT AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR REVIEW.
11. ALL HARDWARE SHALL BE GALVANIZED STEEL, PLATED STEEL OR STAINLESS STEEL
12. ALL WINDLOCK RIVETS SHALL BE 1/4" STEEL RIVETS IFI GRADE 30 WITH A MINIMUM TENSILE STRENGTH OF 1,850 Lbs., AND SHEAR STRENGTH OF 2,400 Lbs., U.O.N.. RIVETS TO BE INSTALLED IN ALL WINDLOCK HOLES.
13. ENDLOCKS/WINDLOCKS SHALL BE CAST MALLEABLE IRON TYPE 32510 PER ASTM A47 OR CAST DUCTILE IRON PER ASTM A536 GRADE 65-45-12.
14. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS IN ACCORDANCE WITH A.W.S. SPECIFICATIONS, LATEST EDITION. ALL WELDING ELECTRODES SHALL CONFORM TO A.W.S. A5.1 GRADE E-70. MINIMUM WELDING PROCESSES SHALL BE ARC WELDING A.W.S. E7014 OR MIG WELDING A.W.S. ER70S-6.
15. ANCHOR NOTES:  
 A. EMBEDMENT LENGTH DOES NOT INCLUDE STUCCO FINISH.  
 B. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.  
 C. ANCHOR CAPACITY FOR THIS ROLL-UP DOOR IS BASED ON MIN. 3,000 P.S.I. CONCRETE EXCEPT WHERE NOTED..  
 D. FOR MINIMUM EMBEDMENT AND MINIMUM EDGE DISTANCE, REFER TO TABLES.
16. DOOR MAY BE INSTALLED ON THE INSIDE OR OUTSIDE OF AN EXTERIOR WALL
17. IF OPTIONAL PERFORATION PATTERN IS CHOSEN, MINIMUM SLAT THICKNESS IS 0.0405"
18. ALL SHAPES USED FOR GUIDE ASSEMBLIES MUST CONFORM TO ATSM A36 FOR STEEL OR ASTM A276 FOR TYPES 304 OR 316 WITH A MINIMUM 36 KSI YIELD STRENGTH.



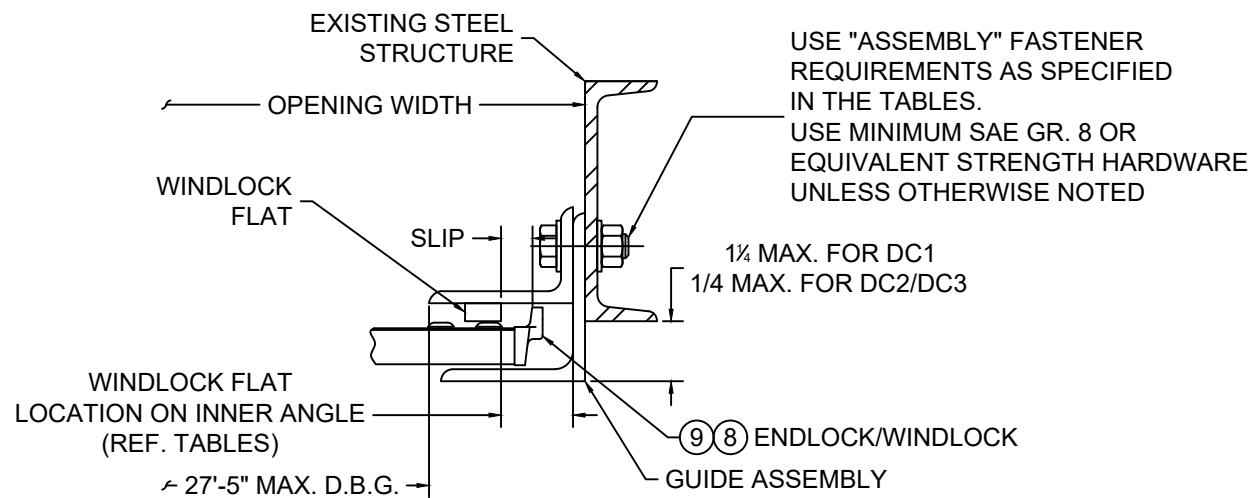
 <b>ENTREMATIC</b>	ENTREMATIC 165 CARRIAGE COURT WINSTON SALEM, NC 27105  P: 800.503.3667 W: AMARR.COM E: ASK.AMARR@ENTREMATIC.COM	Unless otherwise specified, dimensions are in inches & tolerances are:  0.000 = +/- 0.031 FRACTIONAL = +/- 1/32 ANGLES = +/- 1/2 DEG			
	TITLE: <b>WIND LOAD CONFIGURATION NON-INSULATED ROLLING STEEL DOOR CP0020 SLAT NON-IMPACT RATED</b>	DRAWN BY: <b>TJE</b>	SIZE: <b>B</b>	SCALE: <b>AS NOTED</b>	SHEET: <b>2/8</b>
		DWG NO: <b>ES-16-68-AMARR</b>			

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028

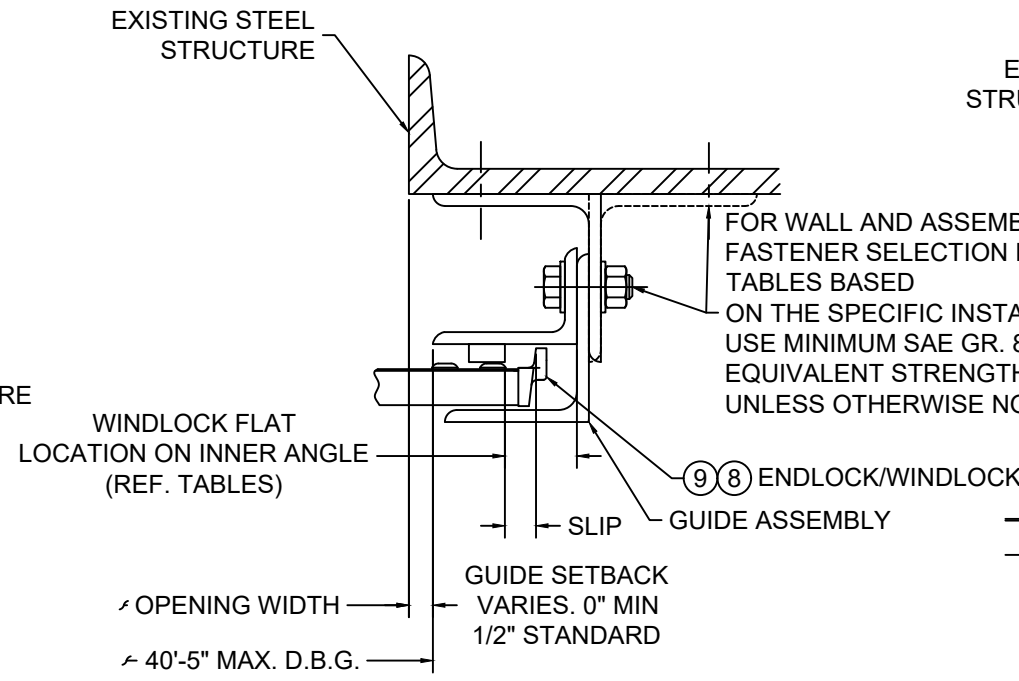


NOTE:  
THROUGH BOLTING TO FILLED BLOCK REQUIRES THE USE OF 1/4" THICK STEEL OR STAINLESS STEEL CRUSH PLATE

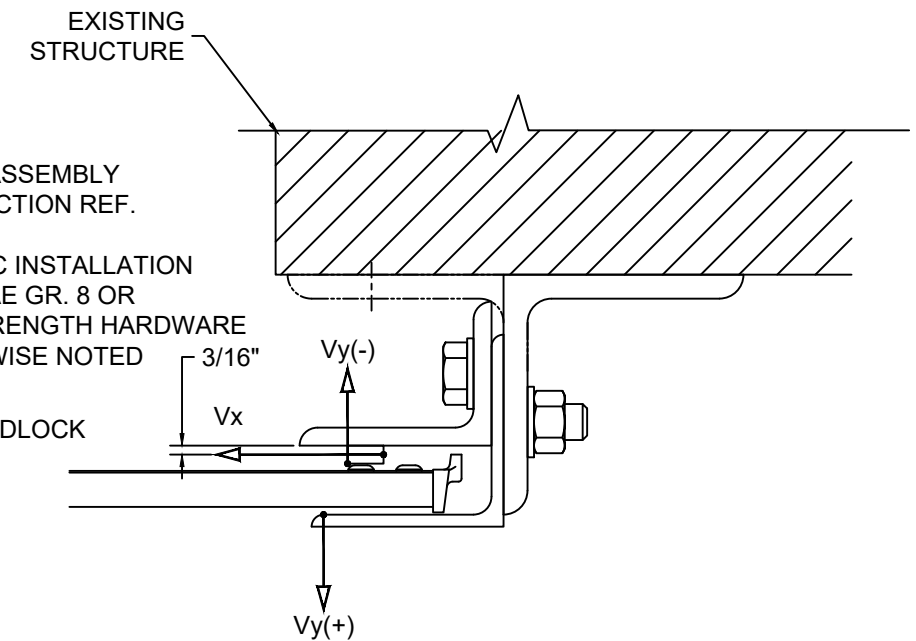
⑤ GUIDE ASSEMBLY  
CONCRETE OR FILLED BLOCK  
STRUCTURE  
(Z-GUIDE)



④ GUIDE ASSEMBLY  
STEEL STRUCTURE  
(BETWEEN JAMBS GUIDE)



⑥ GUIDE ASSEMBLY  
STEEL STRUCTURE  
(Z-GUIDE OR E-GUIDE)



NOTE:

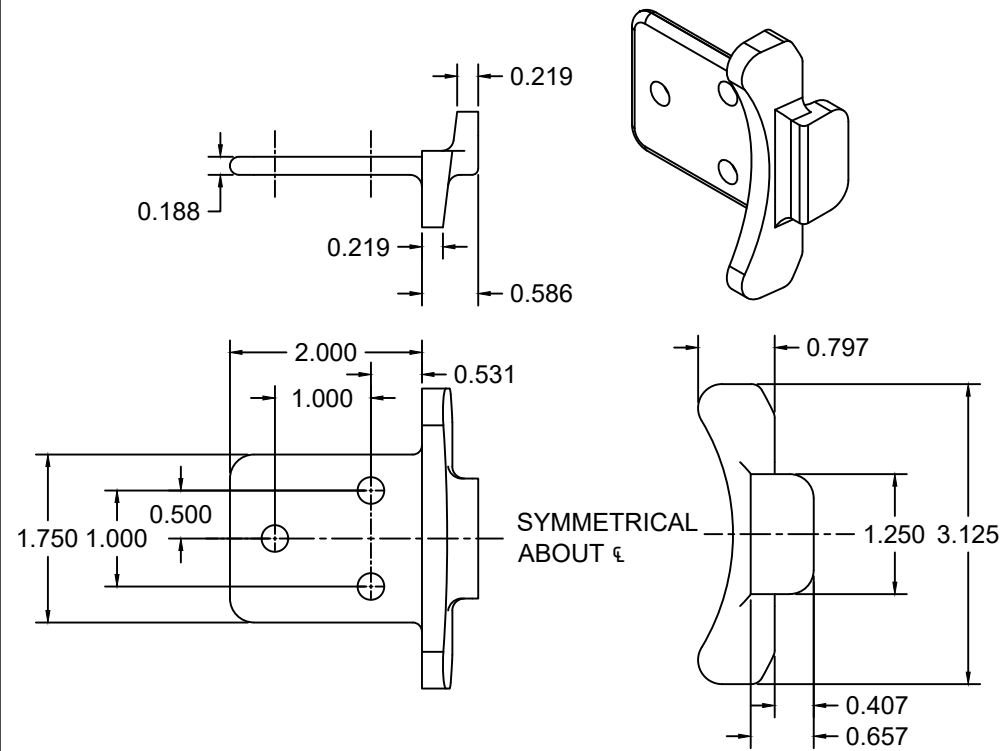
1.  $V_x$  &  $V_y$  ARE HORIZ. AND VERT. COMPONENTS OF THE REACTION, RESPECTIVELY, RESULTING FROM WIND LOADS ON THE ROLL-UP DOOR. THE EXISTING STRUCTURE SHALL BE CAPABLE OF RESISTING  $V_x$  &  $V_y$  FORCES SHOWN AND THE CORRESPONDING REACTIONS DUE TO THE ECCENTRICITIES OF THE FORCES.

⑦ SUPERIMPOSED LOAD DIAGRAM  
SCALE: 3" = 1'-0"

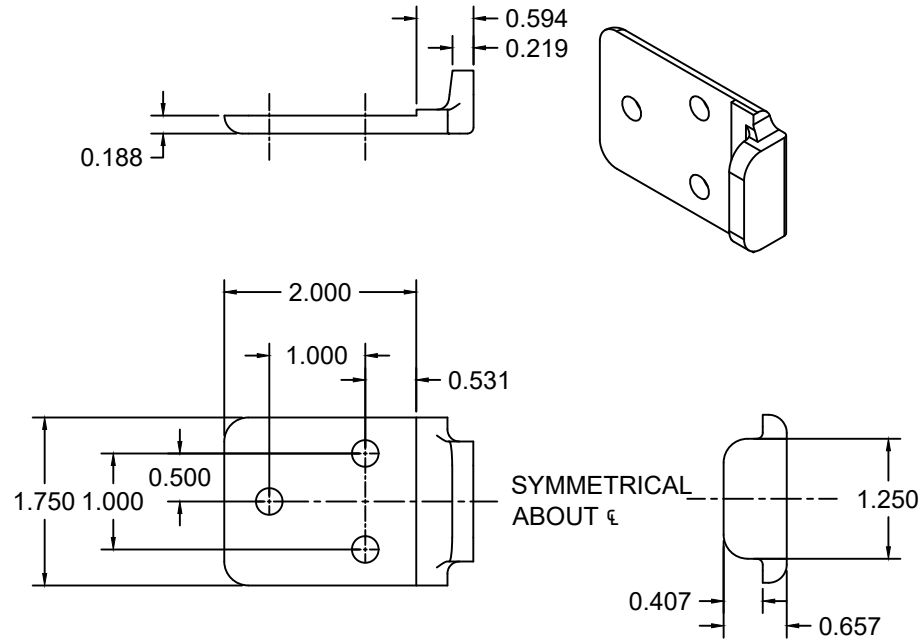


 <b>ENTREMATIC</b>	ENTREMATIC 165 CARRIAGE COURT WINSTON SALEM, NC 27105  P: 800.503.3667 W: AMARR.COM E: ASK.AMARR@ENTREMATIC.COM	Unless otherwise specified, dimensions are in inches & tolerances are:  0.000 = +/- 0.031 FRACTIONAL = +/- 1/32 ANGLES = +/- 1/2 DEG
	TITLE: <b>WIND LOAD CONFIGURATION NON-INSULATED ROLLING STEEL DOOR CP0020 SLAT NON-IMPACT RATED</b>	DRAWN BY: <b>TJE</b> DWG NO: <b>ES-16-68-AMARR</b>

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028



⑧ ENDLOCK / WINDLOCK DETAIL, CP1152  
 CAST MALLEABLE IRON ASTM A47, GRADE 32510, OR  
 DUCTILE IRON PER ASTM A536 GRADE 65-45-12, GALVANIZED IN ACCORDANCE WITH  
 ASTM A123, GRADE 85 ZINC-COATING  
 1/2 SCALE

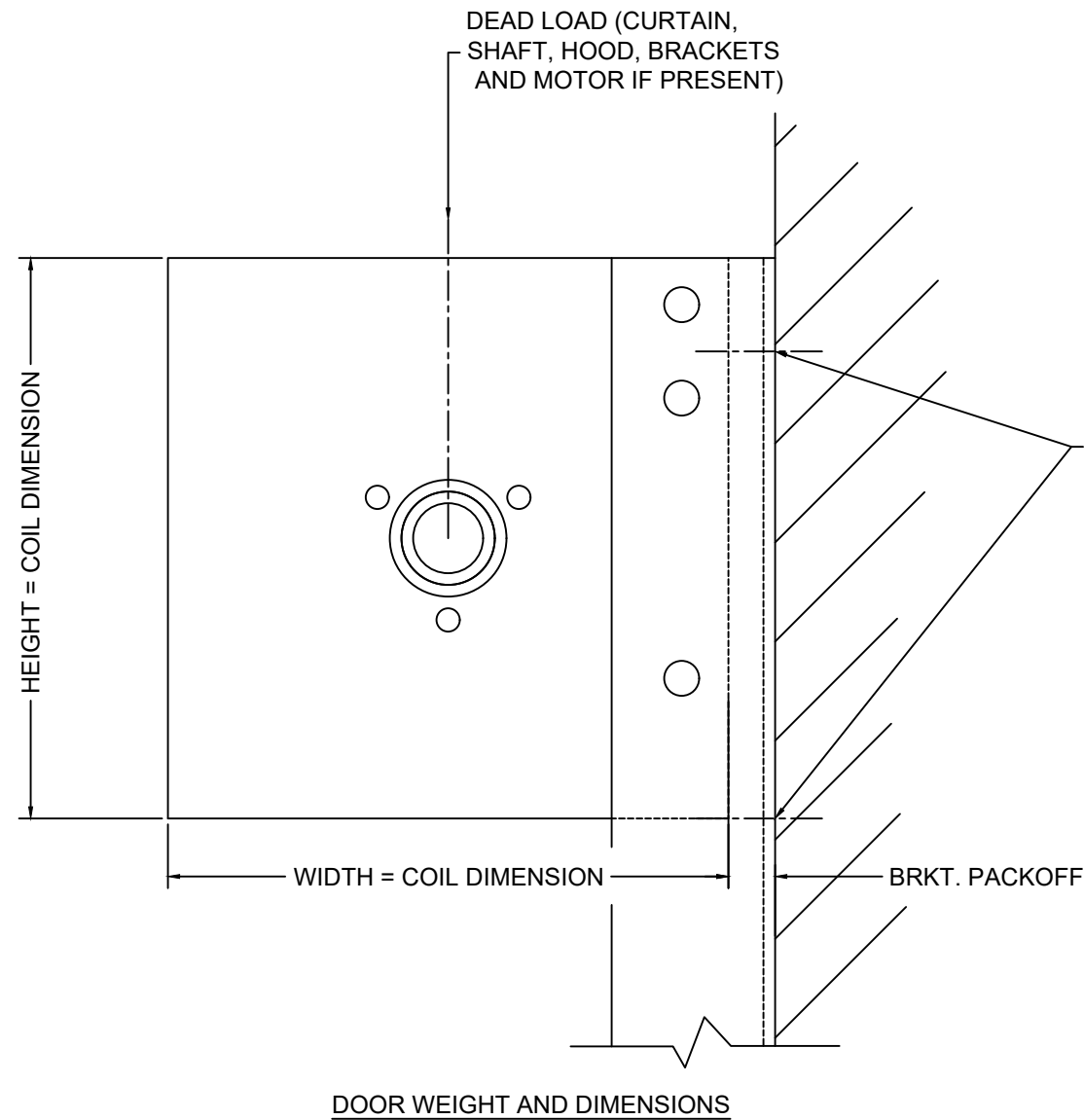


⑨ WINDLOCK DETAIL, CP1153  
 CAST MALLEABLE IRON ASTM A47, GRADE 32510, OR  
 DUCTILE IRON PER ASTM A536 GRADE 65-45-12, GALVANIZED IN  
 ACCORDANCE WITH ASTM A123, GRADE 85 ZINC-COATING  
 1/2 SCALE

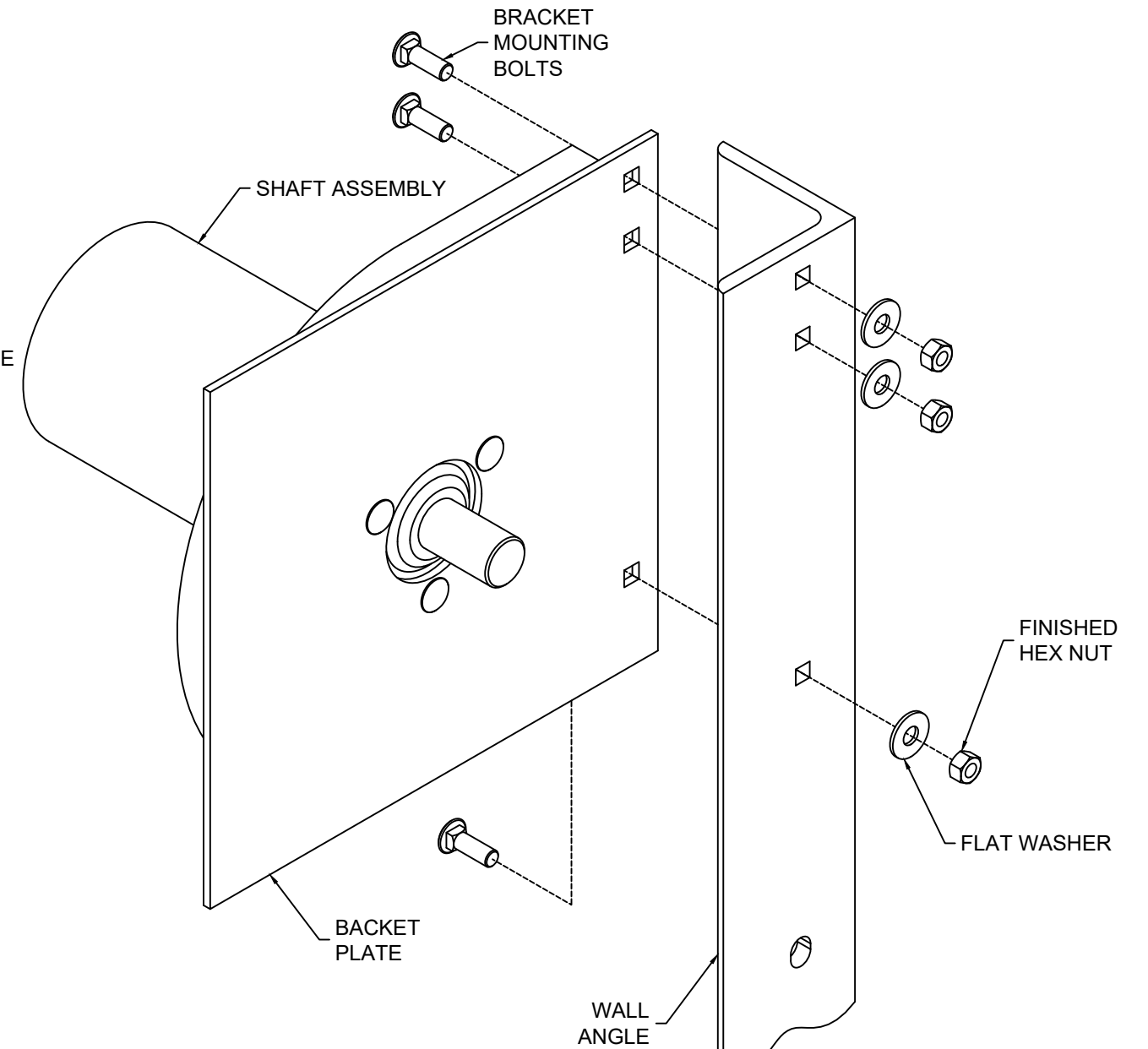


 <b>ENTREMATIC</b>	ENTREMATIC 165 CARRIAGE COURT WINSTON SALEM, NC 27105		Unless otherwise specified, dimensions are in inches & tolerances are:  0.000 = +/- 0.031 FRACTIONAL = +/- 1/32 ANGLES = +/- 1/2 DEG			
	P: 800.503.3667 W: AMARR.COM E: ASK.AMARR@ENTREMATIC.COM		TITLE: WIND LOAD CONFIGURATION NON-INSULATED ROLLING STEEL DOOR CP0020 SLAT NON-IMPACT RATED	DRAWN BY: <b>TJE</b>	SIZE: <b>B</b>	SCALE: <b>AS NOTED</b>
DWG NO: <b>ES-16-68-AMARR</b>						

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028



FOR "WALL ANGLE" TO WALL CONNECTION, REF. TABLES BASED ON THE SPECIFIC INSTALLATION. USE AT LEAST ONE FASTENER OR WELD AT THE INDICATED LOCATIONS.



BRACKET MOUNTING

NOTE:

1. STANDARD BRACKET MOUNTING DETAIL IS DEPICTED, OTHER MOUNTINGS ARE AVAILABLE

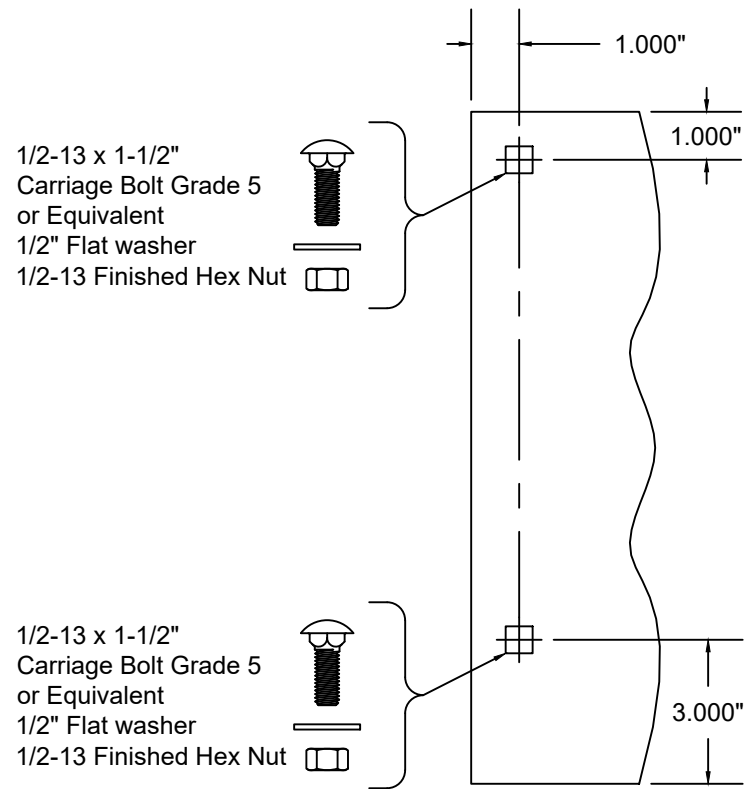
NOTE:

1. WHEN MOTOR IS PROVIDED, HEIGHT OR WIDTH DIMENSION MAY INCREASE UP TO 2-1/2" BASED ON MOTOR LOCATION. WHEN AN 8" DIAMETER OR LARGER SHAFT ASSEMBLY IS PROVIDED, HEIGHT DIMENSION INCREASES BY 2".

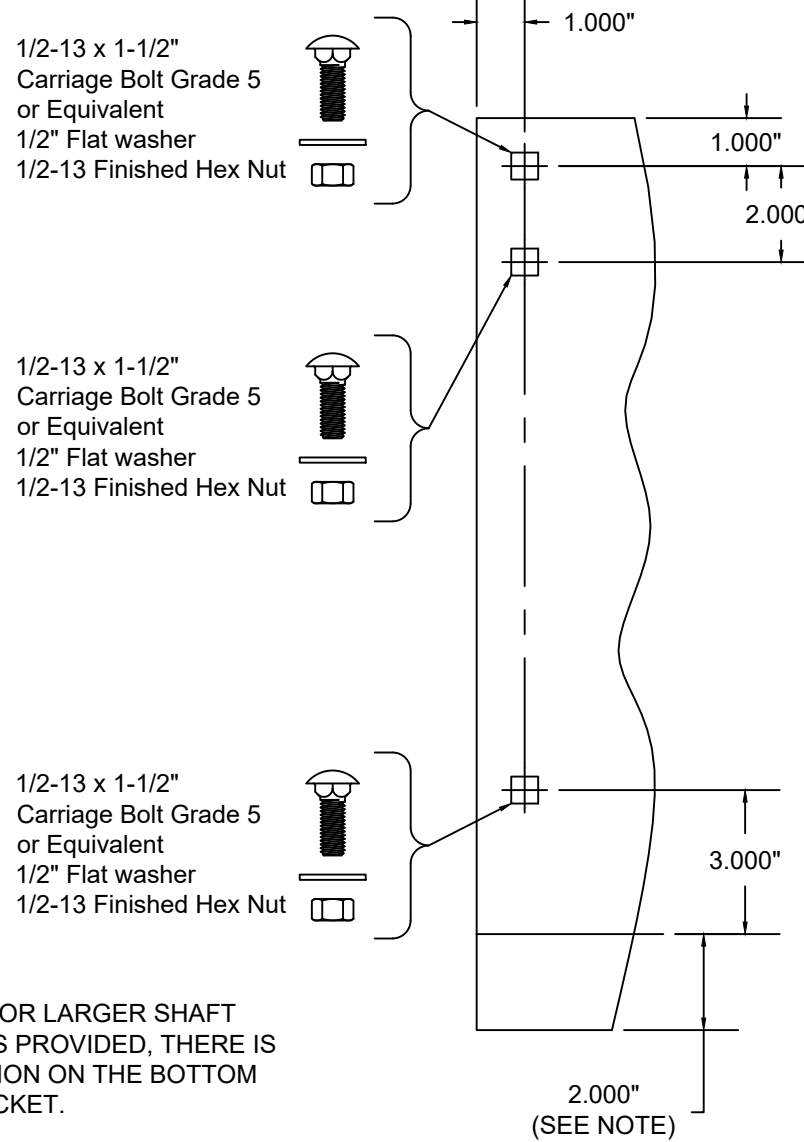


 <b>ENTREMATIC</b>	ENTREMATIC 165 CARRIAGE COURT WINSTON SALEM, NC 27105  P: 800.503.3667 W: AMARR.COM E: ASK.AMARR@ENTREMATIC.COM	Unless otherwise specified, dimensions are in inches & tolerances are:  0.000 = +/- 0.031 FRACTIONAL = +/- 1/32 ANGLES = +/- 1/2 DEG
	TITLE: <b>WIND LOAD CONFIGURATION          NON-INSULATED ROLLING STEEL DOOR          CP0020 SLAT NON-IMPACT RATED</b>	DRAWN BY: <b>TJE</b> DWG NO: <b>ES-16-68-AMARR</b>

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028

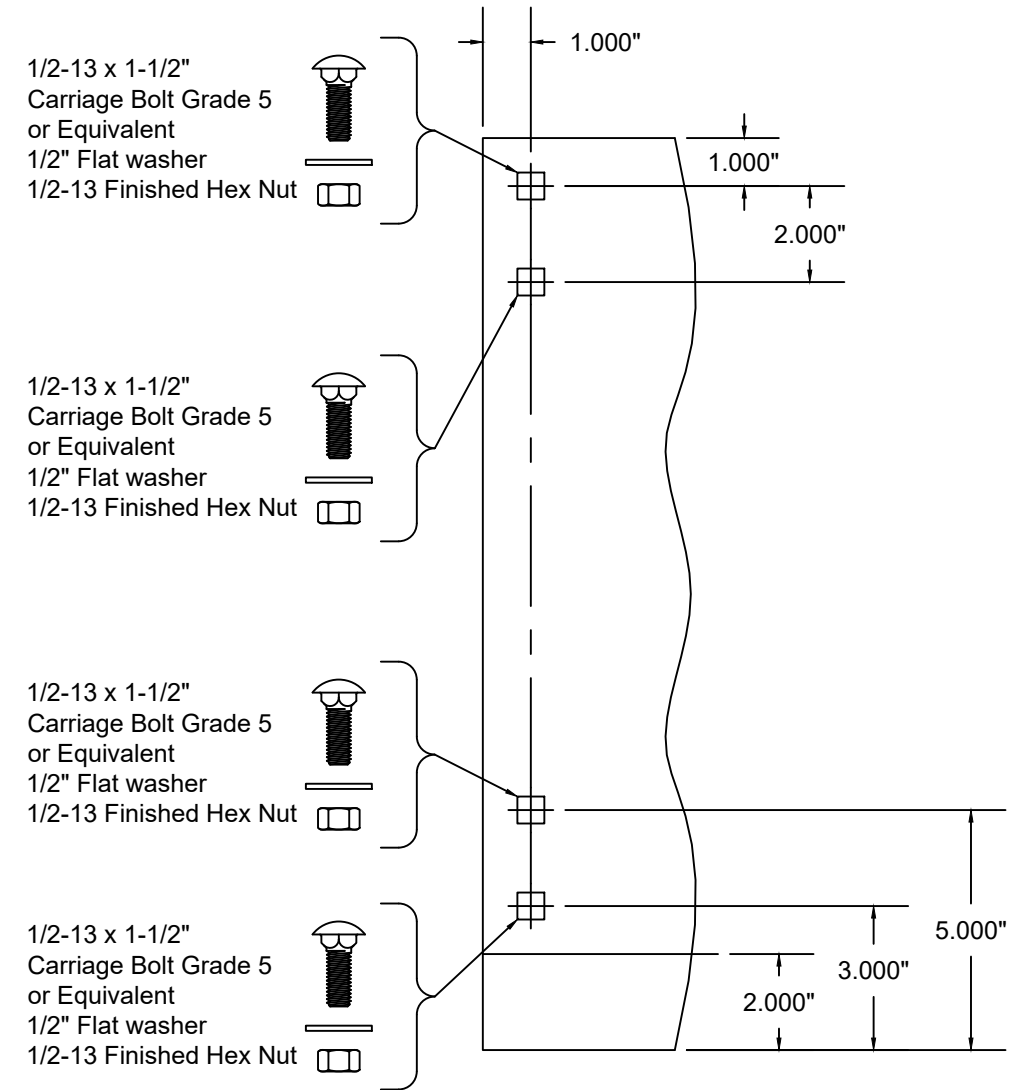


THRU 6"Ø SHAFT ASSEMBLY  
 14" THRU 16" COIL DIMENSION  
 MIN. THICKNESS 0.172" ASTM A36 STEEL  
 OR ASTM A480 STAINLESS STEEL,  
 TYPES 304 OR 316, MIN. 36 KSI YIELD STRENGTH  
 SCALE: 1-1/2" = 1'-0"



NOTE:  
 WHEN A 8"Ø OR LARGER SHAFT  
 ASSEMBLY IS PROVIDED, THERE IS  
 A 2" EXTENSION ON THE BOTTOM  
 OF THE BRACKET.

THRU 10"Ø SHAFT ASSEMBLY  
 17" AND LARGER COIL DIMENSION  
 MIN. THICKNESS 0.240" ASTM A36 STEEL  
 OR ASTM A480 STAINLESS STEEL,  
 TYPES 304 OR 316, MIN. 36 KSI YIELD STRENGTH  
 SCALE: 1-1/2" = 1'-0"



12"Ø SHAFT ASSEMBLY  
 17" AND LARGER COIL DIMENSION  
 MIN. THICKNESS 0.240" ASTM A36 STEEL  
 OR ASTM A480 STAINLESS STEEL,  
 TYPES 304 OR 316, MIN. 36 KSI YIELD STRENGTH  
 SCALE: 1-1/2" = 1'-0"



ENTREMATIC  
 165 CARRIAGE COURT  
 WINSTON SALEM, NC 27105

P: 800.503.3667  
 W: AMARR.COM  
 E: ASK.AMARR@ENTREMATIC.COM

Unless otherwise specified,  
 dimensions are in inches &  
 tolerances are:

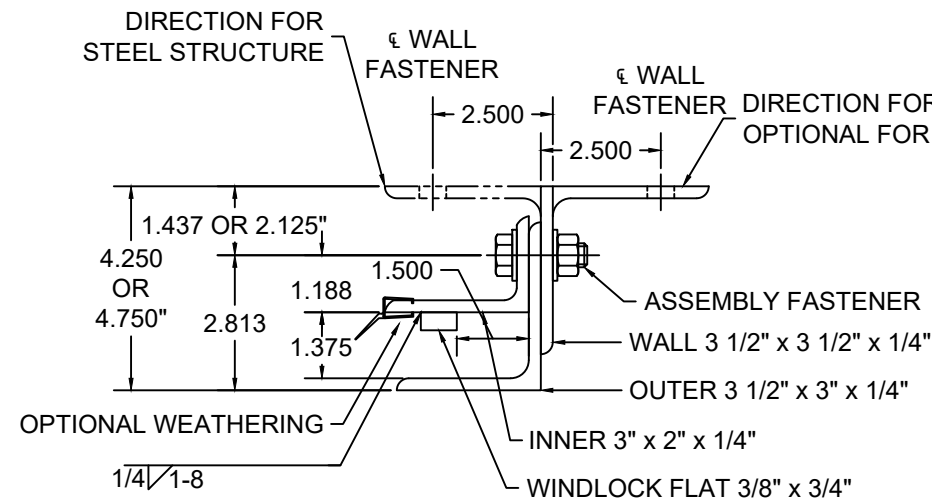
0.000 = +/- 0.031  
 FRACTIONAL = +/- 1/32  
 ANGLES = +/- 1/2 DEG

TITLE: WIND LOAD CONFIGURATION  
 NON-INSULATED ROLLING STEEL DOOR  
 CP0020 SLAT NON-IMPACT RATED

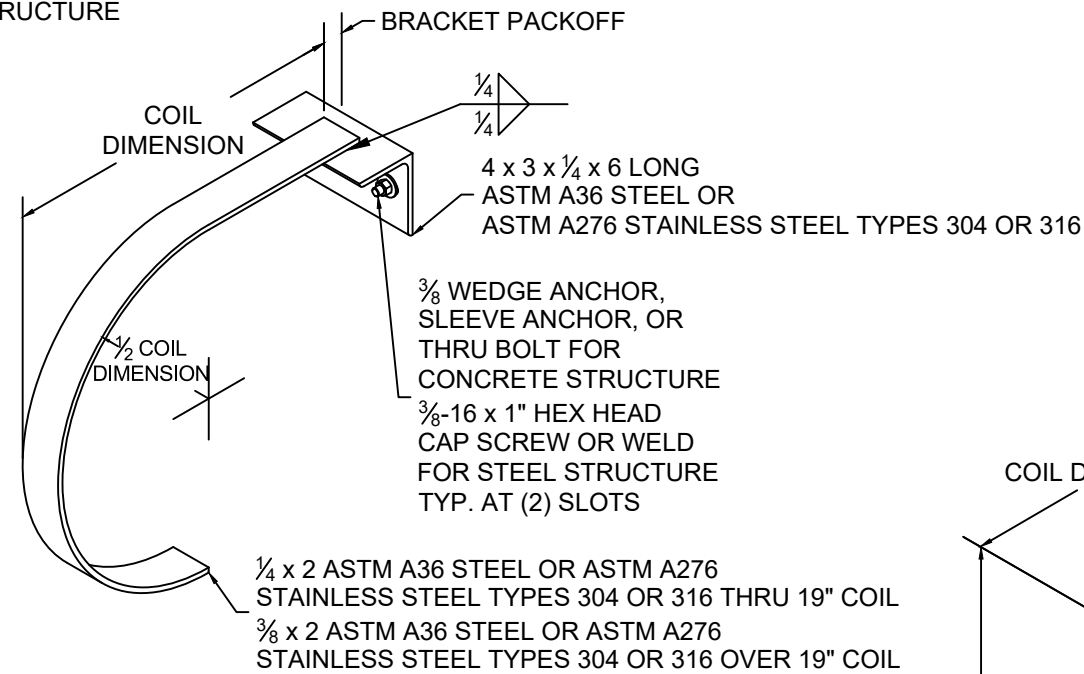
DRAWN BY: TJE  
 SIZE: B  
 SCALE: AS NOTED  
 SHEET: 6/8

DWG NO: ES-16-68-AMARR

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028

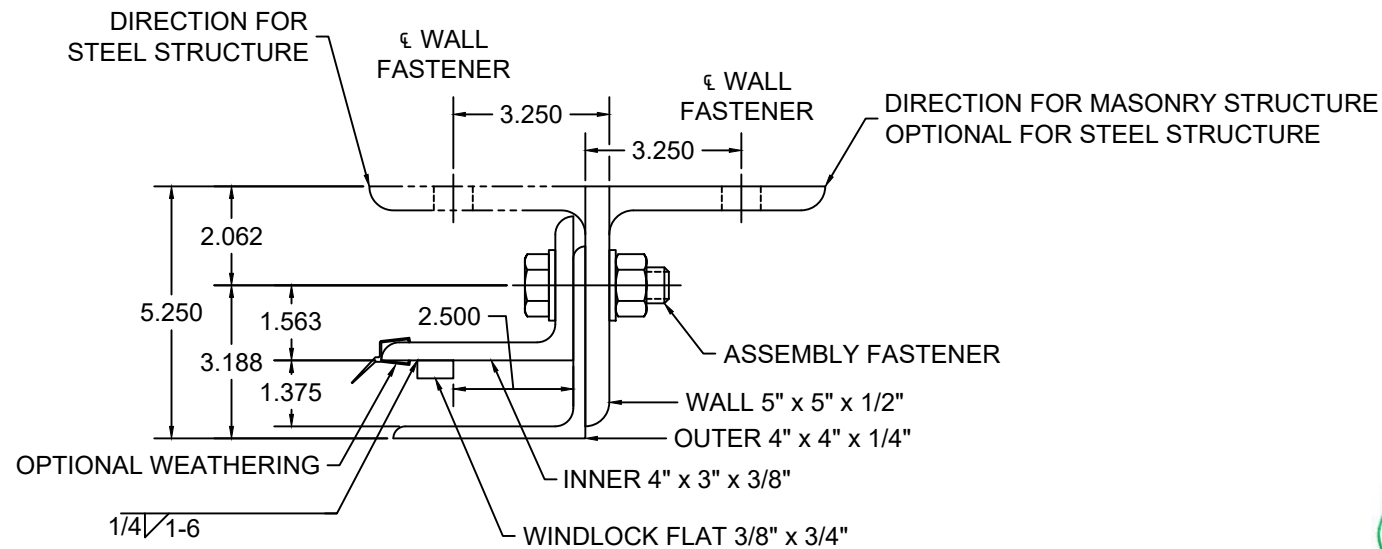


GUIDE ASSEMBLY TYPE DC 1  
SCALE: 3" = 1'-0"

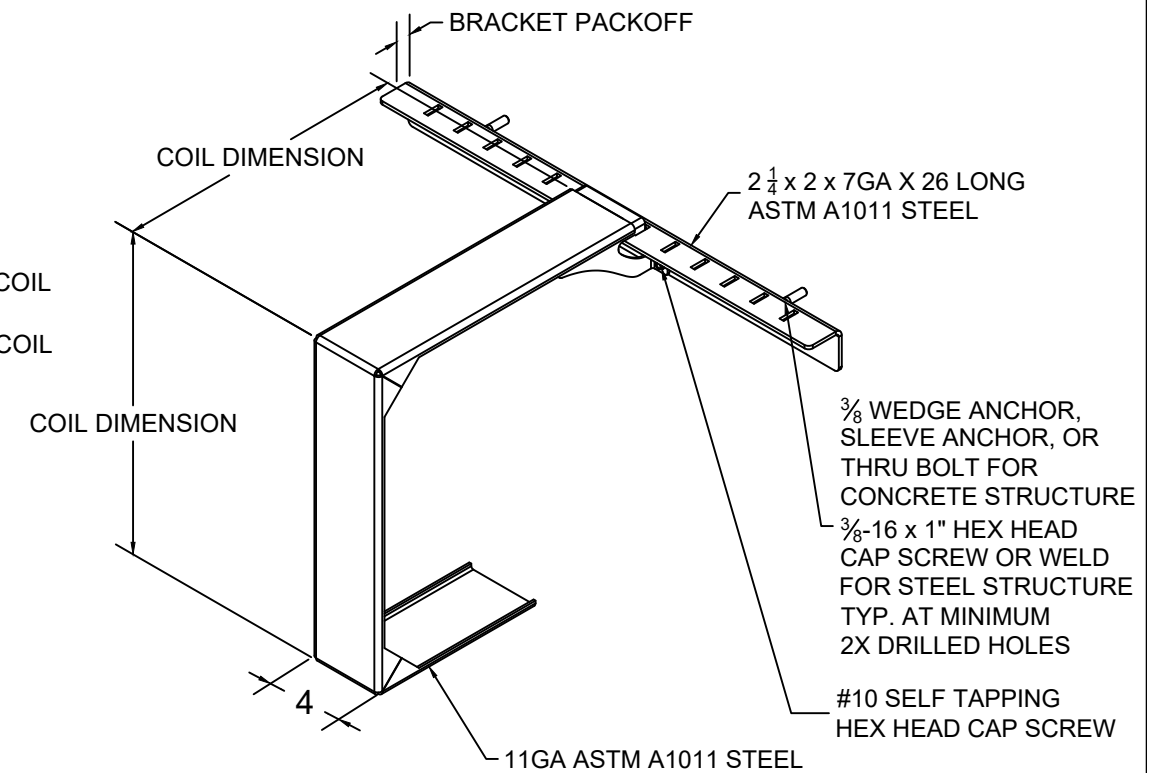


MID-HOOD SUPPORT  
(WHEN REQUIRED)

"D" SHAPE DEPICTED, SQUARE STYLE ALSO AVAILABLE  
SCALE: NTS



GUIDE ASSEMBLY TYPE DC 2 & DC 3  
SCALE: 3" = 1'-0"



MID-HOOD SUPPORT  
(WHEN REQUIRED)

SQUARE STYLE DEPICTED, "D" SHAPE ALSO AVAILABLE  
SCALE: NTS



ENTREMATIC  
165 CARRIAGE COURT  
WINSTON SALEM, NC 27105

P: 800.503.3667  
W: AMARR.COM  
E: ASK.AMARR@ENTREMATIC.COM

Unless otherwise specified,  
dimensions are in inches &  
tolerances are:

0.000 = +/- 0.031  
FRACTIONAL = +/- 1/32  
ANGLES = +/- 1/2 DEG

TITLE: WIND LOAD CONFIGURATION  
NON-INSULATED ROLLING STEEL DOOR  
CP0020 SLAT NON-IMPACT RATED

DRAWN BY: TJE  
SIZE: B  
SCALE: AS NOTED  
SHEET: 7/8

DWG NO: ES-16-68-AMARR

L'TR	REVISION	DATE	BY	E.C.O.
*	ORIGINAL ISSUE	08/10/16	TJE	1672
A	HOOD SUPPORT UPDATE; 2018 IBC	03/09/20	MAN	2028

**CP0020 -Galvanized or Stainless Steel**

										Concrete Minimum 3,000 PSI Compressive Strength (Anchors are the same diameter as assembly fasteners)							
Door Configuration	Minimum Thickness	Maximum Pressure	Windlock Flat Location	Slip	Windlock	Guide Assembly	Windlock Weld Pitch	Assembly Fastener Diameter	Assembly Fastener Spacing	Hilti Kwik Bolt 3				Simpson Wedge All			
										Max O.C.	Embed	Min. Wall Thick.	Edge Dist	Max O.C.	Embed	Min. Wall Thick.	Edge Dist
DC 1	0.0236	65 PSF	1 1/2	0.656	CP1152 & CP1153	DC1	8	1/2	12	8	3 1/2	5 1/4	5 3/4	8	4 1/2	6 3/4	5 3/4
DC 2	0.0296	65 PSF	2 1/2	1.656	CP1152 & CP1153	DC2	6	3/4	15	11	4 3/4	7 1/8	7 1/2	11	5	7 1/2	7 1/2
DC 3	0.0405	60 PSF	2 1/2	1.656	CP1152 & CP1153	DC3	6	3/4	15	11	4 3/4	7 1/8	7 1/2	11	5	7 1/2	7 1/2

**CP0020 - Galvanized or Stainless Steel, Cont.**

Door Configuration	Filled CMU			Steel (Wall anchors are the same diameter as assembly fasteners)					Superimposed Loads (at Maximum Pressure)			
	Through Bolt			Welded		Through Bolt	Tapped					
	Max. O.C.	Dia.	Edge Dist	Max O.C.	Slot Size	Max O.C.	Max O.C.	Min. Thickness	Vx (+)	Vy (+)	Vx (-)	Vy (-)
DC 1	8	1/2	5 3/4	12	9/16 x 3/4	12	12	1/4	1976	473	1955	474
DC 2	8	3/4	7 1/2	15	13/16 x 1	15	15	3/8	3147	828	3132	829
DC 3	N/A			11	13/16 x 1	11	11	3/8	3241	823	3227	824

SEE CHARTS BELOW FOR MAXIMUM PRESSURE/WIDTH COMBINATIONS FOR EACH DOOR CONFIGURATION

DC 1 Door Configuration	
DBG Up To	Maximum Pressure
14'-5"	65 PSF (Tested)
16'-5"	50 PSF
18'-5"	40 PSF
22'-5"	30 PSF
29'-5"	20 PSF

DC 2 Door Configuration	
DBG Up To	Maximum Pressure
25'-5"	65 PSF (Tested)
26'-5"	60 PSF
29'-5"	50 PSF
34'-5"	40 PSF
40'-5"	30 PSF

DC 3 Door Configuration	
DBG Up To	Maximum Pressure
27'-5"	60 PSF (Tested)
30'-5"	50 PSF
35'-5"	40 PSF
40'-5"	30 PSF



 <b>ENTREMATIC</b>	ENTREMATIC 165 CARRIAGE COURT WINSTON SALEM, NC 27105  P: 800.503.3667 W: AMARR.COM E: ASK.AMARR@ENTREMATIC.COM	Unless otherwise specified, dimensions are in inches & tolerances are:  0.000 = +/- 0.031 FRACTIONAL = +/- 1/32 ANGLES = +/- 1/2 DEG
	TITLE: <b>WIND LOAD CONFIGURATION          NON-INSULATED ROLLING STEEL DOOR          CP0020 SLAT NON-IMPACT RATED</b>	DRAWN BY: <b>TJE</b> DWG NO: <b>ES-16-68-AMARR</b>