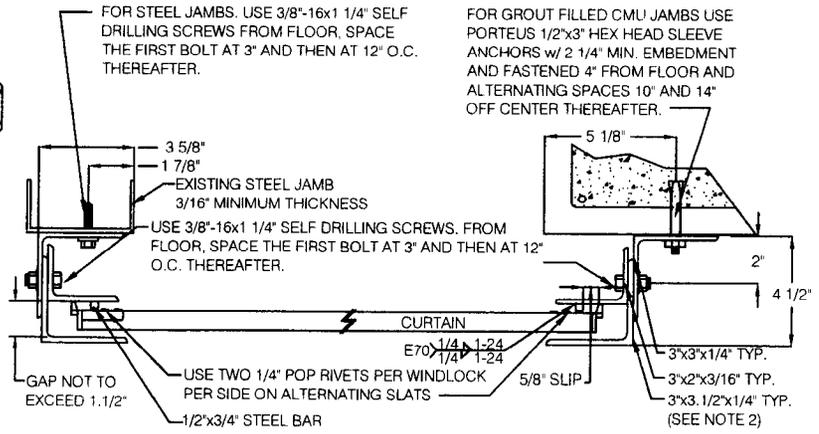


22, 20 OR 18 GAUGE GALVANIZED STEEL.  
 GALVANIZED ACCORDING TO A.S.T.M. A653-G90  
 AND FINISHED WITH BAKED EPOXY PRIMER AND  
 BAKED POLYESTER TOPCOAT (SEE NOTE 1)

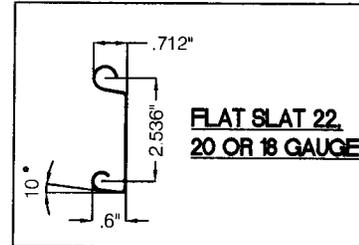
**INTERIOR ELEVATION**

**SIDE ELEVATION**

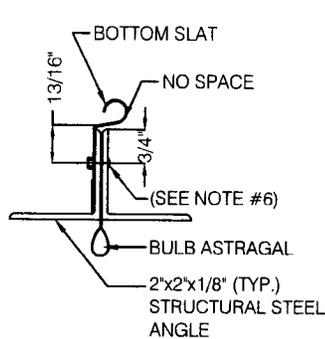


**STEEL JAMB**

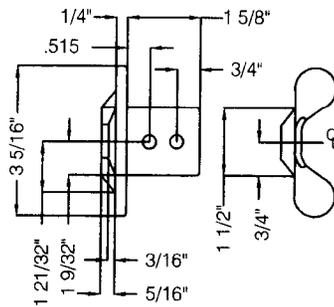
**CMU POURED BLOCK JAMB**



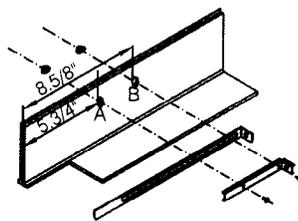
**FLAT SLAT 22,  
 20 OR 18 GAUGE**



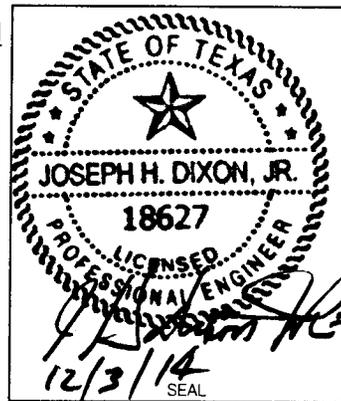
**BOTTOM BAR**



MATERIAL: CAST IRON  
**WINDLOCK**



**SLIDE BOLT LOCK**



SCALE: VARIES (DO NOT SCALE DRAWINGS)  
 TOLERANCES  
 FRACTION = +/- 1/32  
 .X = +/- .032  
 .XX = +/- .015  
 .XXX = +/- .005 < +/- .5

DRAWN BY: BCLLC  
 ISSUE: 12-03-14



4255 McEver Industrial Dr.  
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 www.astadoor.com

**400 SERIES FLAT SLAT CERTIFIED  
 WINDLOAD RATED ROLLING STEEL  
 SERVICE DOOR**

TEST SIZE	DESIGN PRESSURE	TEST PRESSURE
14'-0\"/>	+/- 500	+/- 750
MODELS	TEST LOCATION	
422-22 GAUGE 420-20 GAUGE 418-18 GAUGE	ELEMENT-ORLANDO 124 PREMIER ROAD ORLANDO, FL 32822	

DRAWING # 607-6CMU-400FM

SHEET 1 OF 3

# GENERAL NOTES:

1. STEEL USED FOR SLATS IS ASTM-A653 WITH MINIMUM YIELD OF 50 KSI AND TENSILE OF 60 KSI.
2. GUIDES AND BOTTOM BAR COMPOSED OF STRUCTURAL STEEL ANGLES WITH MINIMUM YIELD STRENGTH OF 36 KSI.
3. THE WINDLOCKS ARE ATTACHED TO EVERY OTHER SLAT BEGINNING AT THE BOTTOM SLAT. WINDLOCKS ARE ATTACHED USING TWO - 1/4" x 15/32" STEEL, ZINC PLATED RIVETS.
4. THIS DOOR HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND THE INTERNATIONAL BUILDING CODE. THE DESIGN WIND PRESSURES REQUIRED FOR ANY DOOR SHALL BE DETERMINED USING THE APPROPRIATE SECTION OF THE CODE HAVING JURISDICTION WHERE THE BUILDING IS LOCATED.
5. THIS DOOR HAS BEEN SUCCESSFULLY TESTED TO:
  - THE UNIFORM STATIC AIR PRESSURE TEST PER ASTM E-330 AND DASMA 108-05. TO A DESIGN LOAD PRESSURE OF +/- 50.0 PSF AND A TESTED PRESSURE OF +/- 75.0 PSF.
6. ALL FASTENERS SHALL BE GALVANIZED OR ZINC COATED WITH A MINIMUM TENSILE STRENGTH OF 60KSI.
7. FOR GROUT FILLED CMU JAMBS. USE PORTEUS 1/2" x 3" HEX HEAD SLEEVE ANCHORS WITH 2 1/4" MINIMUM EMBEDMENT AND FASTENED 4" FROM FLOOR AND ALTERNATING SPACED 10" AND 14" OFF CENTER THEREAFTER.
8. BOTTOM BAR ASSEMBLY FASTENED 5 3/4" FROM EACH END AND 12" O.C. FROM CENTER USING 5/16" x 1" CARRIAGE BOLTS.

	4255 McEver Industrial Dr. Acworth, GA 30101 PH: (770) 974-2600/Fax: (770) 974-1455 www.astadoor.com		
	<b>400 SERIES FLAT SLAT CERTIFIED                  WINDLOAD RATED ROLLING STEEL                  SERVICE DOOR</b>		
SCALE : VARIES (DO NOT SCALE DRAWINGS) TOLERANCES FRACTION = +/- 1/32 .X = +/- .032 .XX = +/- .015 .XXX = +/- .005 < =/- 5	<b>TEST SIZE</b> 14'-0"W x 10'H	<b>DESIGN PRESSURE</b> +/- 50.0	<b>TEST PRESSURE</b> +/- 75.0
DRAWN BY: BCLLC ISSUE: 12-03-14	MODELS 422-22 GAUGE 420-20 GAUGE 418-18 GAUGE	TEST LOCATION ELEMENT-ORLANDO 124 PREMIER ROAD ORLANDO, FL 32822	
DRAWING # 607-6CMU-400FM			SHEET 2 OF 3

	Width	Design Windload		Flat Slat Door	
	ft	Pos psf	Neg psf	Model	gage in
14'-0" x 10'-0" Test Door	14	50	50	422-22	0.029
Calibration calculations for test door				420-20	
				418-18	
<b>Comparative forces by calculation to determine maximum design pressure</b>					
<b>Max Door Size</b>					
8 x 30	8	81.1	81.1	422-22	0.029
9 x 30	9	81.1	81.1	422-22	0.029
10 x 30	10	81.1	81.1	422-22	0.029
11 x 30	11	81.1	81.1	422-22	0.029
12 x 30	12	69.1	69.1	422-22	0.029
13 x 30	13	58.3	58.3	422-22	0.029
14 x 30	14	50.0	50.0	422-22	0.029
15 x 30	15	43.5	43.5	422-22	0.029
16 x 30	16	38.3	38.3	422-22	0.029
17 x 30	17	34.1	34.1	422-22	0.029
18 x 30	18	30.6	30.6	422-22	0.029

Summary of Catenary Forces for alternative doors  
 Compared to Element Materials Technology Report No.: ESP010181P-4, dated 08/21/13  
 Rolling Steel Slat Door (Flat Slat)  
 Test Door: 14'-0" wide x 10' high, Design Windload +/- 50 psf  
 Static air pressure test conducted in accordance with ASTM E330-02 and DASMA 108-05

Design wind forces are calculated to produce catenary forces at the guides equal to or less than those calculated for the test door. This indicates that the curtain, windlocks, windlock connections, guide angles, and jamb anchorages will all be stressed to approximately the same as those in the test door, provided that the door is constructed the same for all opening widths.

STATE OF TEXAS  
 JOSEPH H. DIXON, JR.  
 18627  
 LICENSED PROFESSIONAL ENGINEER  
 12/3/14  
 SEAL

SCALE : VARIES (DO NOT SCALE DRAWINGS)  
 TOLERANCES  
 FRACTION = +/- 1/32  
 X = +/- .032  
 .XX = +/- .015  
 .XXX = +/- .005 < +/- 5

DRAWN BY: BCLLC  
 ISSUE: 12-03-14

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**400 SERIES FLAT SLAT CERTIFIED WINDLOAD RATED ROLLING STEEL SERVICE DOOR**

<b>TEST SIZE</b> 14'-0"W x 10'H	<b>DESIGN PRESSURE</b> +/- 50.0	<b>TEST PRESSURE</b> +/- 75.0
<b>MODELS</b> 422-22 GAUGE 420-20 GAUGE 418-18 GAUGE	<b>TEST LOCATION</b> ELEMENT-ORLANDO 124 PREMIER ROAD ORLANDO, FL 32822	

DRAWING # 607-6CMU-400FM      SHEET 3 OF 3