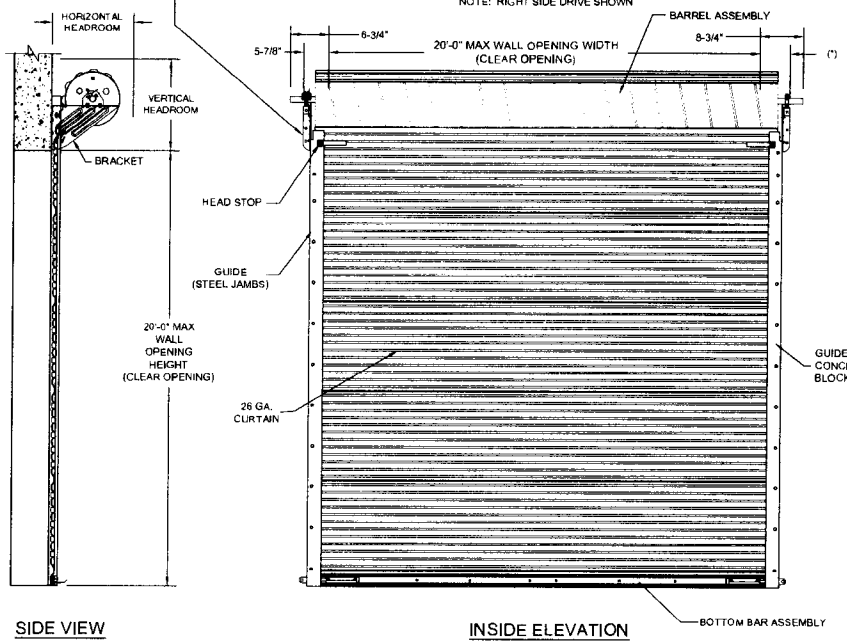
BRACKET ATTACHMENT
CONCRETE/FILLED BLOCK: POWERS WEDGE-BOLT, 3/8 X 1-3/4" LONG
STEEL: HEX BOLT, GR.5, 3/8-16 X 1-1/4" LONG

(*) FOR PUSH-UP OPERATION:.....5-7/8"
FOR HAND CHAIN OPERATION:...6-5/8"
FOR ELECTRIC OPERATION:.....7-3/8"
FOR OUTSIDE OF CHAIN DRIVE:.8-1/8"
NOTE: RIGHT SIDE DRIVE SHOWN

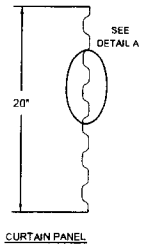


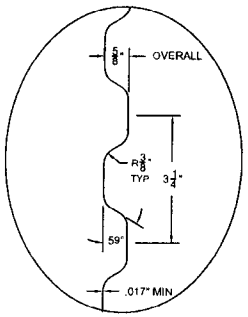
SIDE VIEW

INSIDE ELEVATION

HEADROOM REQUIRED

OPENING HEIGHT	VERTICAL HEADROOM	HORIZONTAL HEADROOM
THRU 8'-0"	20"	20"
OVER 8'-0" THRU 10'-0"	21"	21"
OVER 10'-0" THRU 14'-0"	21 1/2"	22"
OVER 14'-0" THRU 16'-0"	22"	23"
OVER 16'-0" THRU 18'-0"	22"	22"
OVER 18'-0" THRU 20'-0"	22"	22"

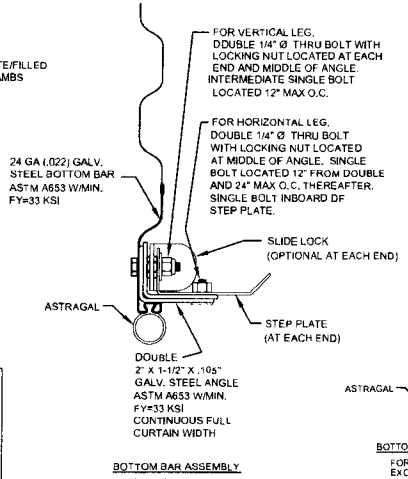




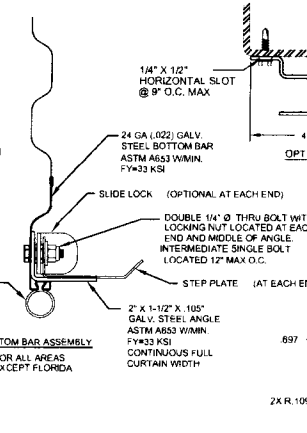
DETAIL A

ASTM A653 GR 80 ZINC COATED STEEL
PRE-PAINTED WITH FULL COAT OF PRIMER AND
BAKED SILICONIZED POLYESTER FINISH COAT

26 GA CURTAIN DETAIL

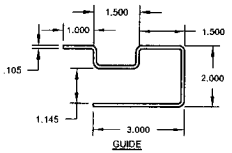


BOTTOM BAR ASSEMBLY
FOR FLORIDA ONLY

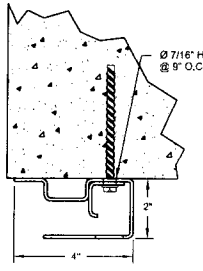


BOTTOM BAR ASSEMBLY
FOR ALL AREAS EXCEPT FLORIDA

ALL COMPONENTS SHALL BE ASTM A653 STEEL W/MIN FY=33 KSI GALVANIZED PER ASTM A653 G-90

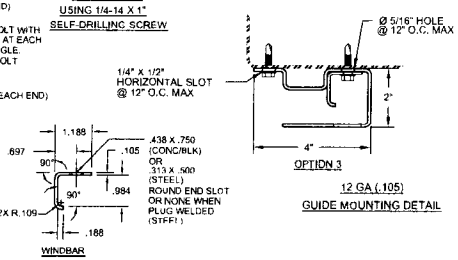


GUIDE

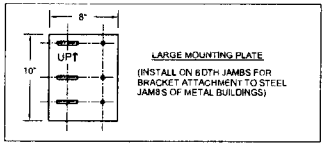


CONCRETE/FILLED BLOCK JAMBS
USING 3/8" X 4" POWERS WEDGE-BOLT

STEEL JAMBS
USING 1/4-14 X 1" SELF-DRILLING SCREW



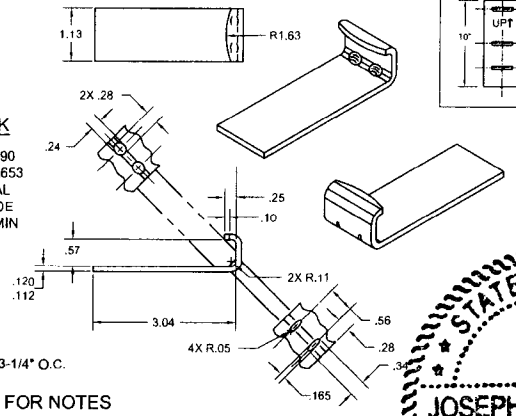
12 GA (.105)
GUIDE MOUNTING DETAIL



LARGE MOUNTING PLATE
(INSTALL ON BOTH JAMBS FOR BRACKET ATTACHMENT TO STEEL JAMBS OF METAL BUILDINGS)

WINDLOCK

MATERIAL: G90 GALV. ASTM A653 STRUCTURAL STEEL, GRADE 50, CLASS 1 MIN FY=50 KSI



WINDLOCK AT 3-1/4" O.C.

SEE SHEET 2 FOR NOTES

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
—	DRAWING RELEASE	1-31-03	DM
A	GUIDE ATTACH AT TOE	11-13-03	DM
B	ADD GUIDE OPTION 3	4-13-04	DM
C	RETEST FOR FLORIDA	9-26-05	DM
D	REMOVED STDNRDS. OATES	9-26-05	CS
E	ADDED "T" BRACKET OPTION	01-20-12	CS
F	ADDED CHARTED PSF VALUES	11-07-12	CS
G	REVISED CHARTED PSF VALUES DOWN TO 10FT. REVISED HEADROOM CHART.	05-22-13	CS

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES LISTED BELOW.

DECIMAL	FRACTIONS	ANGLES	HOLE DIAMETERS	
X.XX +/-0.030"	+/-1/16"	+/- 0° 30'	UNDER 0.251	+ 0.004 - 0.003
X.XXX +/-0.005"			0.251 - 0.500	+ 0.006 - 0.003
			OVER 0.500	+ 0.008 - 0.003

PART NUMBER:
MATERIAL:
APPLIED FINISH:
UNIT OF MEASURE:

APPROVALS		DATE
DRAWN:	CURT SCHROEDER	11-07-12
CHECKED:	CURT SCHROEDER	11-07-12
APPROVED:	CURT SCHROEDER	11-07-12

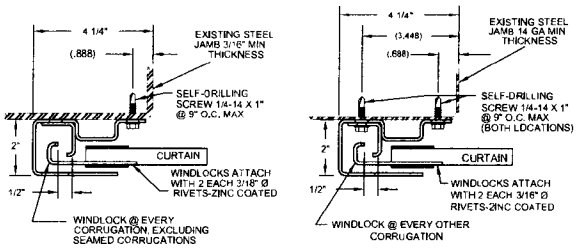
JANUS INTERNATIONAL CORPORATION
134 JANUS INTERNATIONAL BLVD TEMPLE, GA 30179
770-562-2850/Fax 770-562-2264

CERTIFIED WIND LOAD RATED 26 GA. SERIES 3100 DOOR ASSEMBLY
MAX. SIZE: 20'-0" X 20'-0"

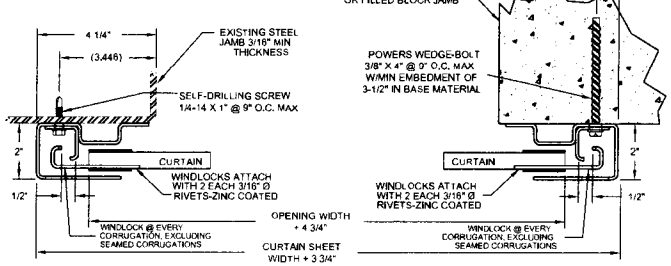
SIZE: B | DRAWING NUMBER: T1005 | REV: G
SCALE: NONE | SHEET: 1 OF: 2

STATE OF TEXAS
JOSEPH H. DIXON, JR.
18627
LICENSED
PROFESSIONAL ENGINEER
5/22/13

STEEL JAMBS
LH GUIDE MOUNT SHOWN

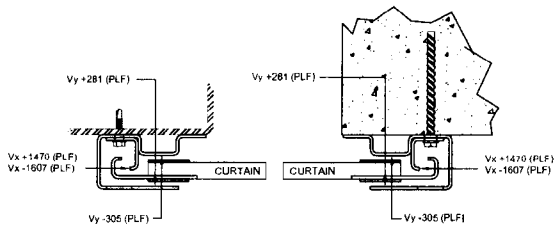


OPTION 1 OPTION 3



OPTION 2

CONCRETE/FILLED BLOCK JAMBS
RH GUIDE MOUNT SHOWN

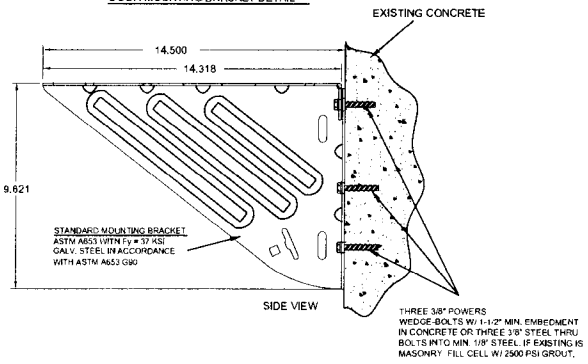


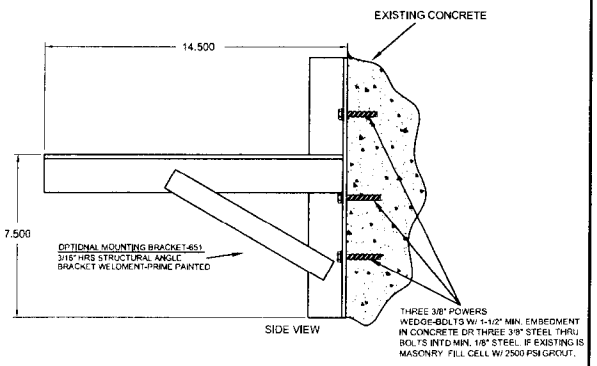
OPTION 2

CONCRETE/FILLED BLOCK JAMBS
RH GUIDE MOUNT SHOWN

SUPERIMPOSED LOAD DIAGRAM

DOOR MOUNTING BRACKET DETAIL





GENERAL NOTES

1. THIS ROLL-UP DOOR SYSTEM IS DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND INTERNATIONAL BUILDING CODE (IBC). THE REQUIRED DESIGN WIND PRESSURES FOR A DOOR IN ANY PARTICULAR BUILDING SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 1609 OF THE FBC. IN CODE JURISDICTIONS OUTSIDE OF FLORIDA. REQUIRED DESIGN WIND PRESSURES MAY BE DETERMINED IN ACCORDANCE WITH SECTION 1609 OF THE IBC OR WITH THE LOCAL BUILDING CODE IN EFFECT FOR THE SPECIFIC LOCATION.
2. THIS ROLL-UP DOOR HAS BEEN SUCCESSFULLY TESTED ACCORDING TO THE UNIFORM STATIC AIR PRESSURE TEST PER ASTM E330 AND ANSI/DASMA 108 TO SAFELY RESIST A POSITIVE AND NEGATIVE WINDL LOAD AS NOTED BELOW. A TEST LOAD OF 1.5 X DESIGN LOAD HAS BEEN USED.

   DESIGN LOAD = $^{+35.0}_{-38.0}$ PSF
3. WIND LOADS FOR BUILDING OPENINGS SHALL BE DETERMINED BY A PROFESSIONAL ENGINEER USING APPROPRIATE WIND SPEED AND DESIGN CRITERIA. THIS DOOR MAY BE USED WHERE THE DESIGN LOAD MEETS OR EXCEEDS THE DESIGN LOAD FOR THE BUILDING OPENING.
4. SUPERIMPOSED LOADS ON THE JAMBS FROM THIS DOOR ARE DESIGNED AS Vx AND Vy HEREIN. CONTRACTORS SHALL HAVE BUILDING ENGINEER VERIFY ADEQUACY OF BUILDING STRUCTURE TO RESIST SUPERIMPOSED LOADS Vx, Vy.
5. 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.
6. DOORS SHALL BE PROVIDED WITH LOCK MECHANISMS AT THE OPTION OF THE OWNER.
7. ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.
8. DESIGN BASED ON CERTIFIED TESTING LABORATORIES, INC. TEST REPORTS NO. CTLA-1432W FOR THROUGH GUIDE ATTACHMENT TO JAMB AND NO. CTLA-1432W-1 FOR TOE OF GUIDE ATTACHMENT TO JAMB.
9. ANCHOR NOTES:
   A. EMBEDMENT LENGTH DOES NOT INCLUDE STUCCO FINISH.
   B. FOR HOLLOW MASONRY, FILL ALL CELLS @ ANCHOR WITH 2500 PSI GROUT.
   C. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
10. DOOR OPERATION TYPE TO BE PUSH-UP, HAND CHAIN, OR ELECTRIC.
11. GUIDE TO JAMB ATTACHMENT FASTENERS BEGIN 4" FROM FLOOR AND 4" BELOW TOP OF THE WALL OPENING.
12. TEST DOOR WALL OPENING SIZE: 16 ' - 0" X 8 ' - 0".

REVISIONS			
REV	DESCRIPTION	DATE	APPROVAL
—	DRAWING RELEASE	1-31-03	DM
A	GUIDE ATTACH AT TOE	11-13-03	DM
B	ADD GUIDE OPTION 3	4-13-04	DM
C	RETEST FOR FLORIDA	9-26-05	DM
D	REMOVED STDNRDS. DATES	9-26-05	CS
E	ADDED "T" BRACKET OPTION	01-20-12	CS
F	ADDED CHARTED PSF VALUES	11-07-12	CS
G	REVISED CHARTED PSF VALUES DOWN TO 10FT. REVISED HEADROOM CHART	05-22-13	CS

ALLOWABLE TRANSVERSE DESIGN WIND LOADS

MAX DOOR WIDTH	MAX DOOR HEIGHT	DESIGN LOAD POSITIVE (PSF)	DESIGN LOAD NEGATIVE (PSF)
10'-0"	20'-0"	77.7	83.6
11'-0"	20'-0"	65.8	70.8
12'-0"	20'-0"	56.4	61
13'-0"	20'-0"	49.3	53.3
14'-0"	20'-0"	43.5	47.2
15'-0"	20'-0"	38.8	42.1
16'-0"	20'-0"	35.0	38.0
17'-0"	20'-0"	31.8	34.5
18'-0"	20'-0"	29.0	31.5
19'-0"	20'-0"	26.6	28.9
20'-0"	20'-0"	24.5	26.7

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES LISTED BELOW.

DECIMAL	FRACTIONS	ANGLES	HOLE DIAMETERS	
.XX +/-0.03 .XXX +/-0.005	+/-1/16"	+/- 0° 30'	UNDER 0.251	+ 0.004 - 0.003
			0.251 - 0.500	+ 0.006 - 0.003
			OVER 0.500	+ 0.008 - 0.003

PART NUMBER:
MATERIAL:
APPLIED FINISH:
UNIT OF MEASURE:

APPROVALS	DATE
DRAWN: CURT SCHROEDER	11-07-12
CHECKED: CURT SCHROEDER	11-07-12
APPROVED: CURT SCHROEDER	11-07-12

JANUS INTERNATIONAL CORPORATION
134 JANUS INTERNATIONAL BLVD TEMPLE, GA 30179
770-562-2850/Fax 770-562-2264

CERTIFIED WIND LOAD RATED 26
GA. SERIES 3100 DOOR ASSEMBLY
MAX. SIZE: 20'-0" X 20'-0"

SIZE: B | DRAWING NUMBER: T1005 | REV.: G
SCALE: NONE | SHEET: 2 OF: 2

STATE OF TEXAS
JOSEPH H. DIXON, JR
18627
LICENSED PROFESSIONAL ENGINEER
5/22/13

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION Effective Date: June 1, 2013
GDR-41

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **November 2015**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads shall not exceed the allowable wind loads shown in this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Series 3100 Steel Roll Up Doors, Non-impact Resistant, as manufactured by:

Janus International Corporation
134 Janus International Blvd.
Temple, Georgia 30179-4435
(770) 562-2850
www.janusintl.com

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation and drawings that are referenced in this evaluation report.

PRODUCT DESCRIPTION

This evaluation report is for the Series 3100 steel roll up doors. The steel roll-up doors consist of a corrugated steel curtain that is suspended from a barrel. Coil springs, located within the barrel, raise and lower the curtain, which wraps around the barrel. The steel curtain is raised by push-up, hand chain, or electric operation. The sides of the curtain are constrained from lateral movement along their vertical edges by steel guides that are attached to the structure. The steel roll up doors specified in this evaluation report are non-impact resistant. This evaluation report includes the following doors:

System	Description	Maximum Width	Maximum Height
1	26 Gauge Series 3100 Roll Up Doors; Single Curtain; Windlocks	20’-0”	20’-0”

The steel roll up doors specified in this evaluation report consist of the following components:

Curtain: 26 gauge corrugated steel that is roll-formed from ASTM A 653 grade 80 steel. The corrugated sheets are galvanized and pre-painted with silicone polyester paint. The corrugated sheets are interlocked mechanically to form the curtain.

Guides: 12 gauge galvanized steel roll-formed from ASTM A 653 steel. The dimensions of the guide are 4” x 2”.

Wind Bar: 12 gauge galvanized steel roll-formed from ASTM A 653 steel. The dimensions of the wind bar are 1.188” x 0.984” x 0.188” x 0.105” x full length of guide.

Bottom Bar: One (1) 24 gauge galvanized steel bottom bar full length of curtain. Two (2) roll-formed steel angles, 2" x 1 ½" x 0.105" x full length of curtain. Along the vertical leg, the steel angles are attached to the steel bottom bar with ¼" diameter thru bolts and lock nuts. Two (2) bolts are located at each end and two (2) bolts are located at the center. One (1) bolt is located 12 inches on center. Along the horizontal leg, the steel angles are attached to each other with ¼" diameter thru bolts and lock nuts. Two (2) bolts are located at the center. One (1) bolt is located 12 inches from the double bolts and one (1) bolt is located 24 inches on center thereafter. A single bolt is located inboard of the step plate. A continuous vinyl bulb astragal is attached to the bottom of the bottom bar.

Windlocks: 11 gauge galvanized steel. The dimensions of the windlock are 1.130" x 3.040". The windlock is attached to each side of the curtain at every corrugation except at the seemed corrugations. Each windlock is attached to the curtain with two (2) 3/16" diameter zinc coated rivets.

Hardware: None.

Product Identification: A label will be affixed to the bottom bar of the steel roll up door. The label shall include the manufacturer's name, model number of door, the allowable design pressure rating, the design drawing number, and compliance with either ASTM E 330 or ANSI/DASMA 108.

LIMITATIONS

System	Maximum Width	Maximum Height	Drawing	Design Pressure Rating (psf)
1	12'-0"	20'-0"	T1005 Rev G	+56.4, -61.0
	13'-0"			+49.3; -53.3
	14"-0"			+43.5; -47.2
	15'-0"			+38.8, -42.2
	16'-0"			+35.0, -38.0
	17'-0"			+31.8; -34.5
	18'-0"			+29.0; -31.5
	19'-0"			+26.6; -28.9
	20'-0"			+24.5; -26.7

Glazing: None.

Impact Resistance: These door assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These door assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

Acceptance of Smaller Assemblies: Door assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

Drawing:

System 1: Janus International Corporation; Certified Wind Load Rated 26 GA. Series 3100 Door Assembly Max. Size 20'-0" x 20'-0"; Drawing No. T1005, Rev G; Sheet 1 and 2 of 2; revised 5-22-2013; signed, sealed, and dated 5-22-2013, by Joseph H. Dixon, P.E.

INSTALLATION INSTRUCTIONS

The steel roll up doors shall be installed to the substrate using one of the following methods (refer to the design drawing referenced above for further guidance):

Bolted to cast-in-place, pre-cast concrete, or grout-filled CMU substrate:

System 1: Guide Mounting: Each guide and wind bar shall be anchored to the substrate with minimum $\frac{3}{8}$" x 4" Powers Wedge-Bolt anchors. The anchors shall be placed through the interior of the guide, through the wind bar, and into the substrate. The anchors shall be spaced a maximum of 9 inches on center along the length of the guide. The anchors shall penetrate a minimum of $3\frac{1}{2}$" into the substrate. If the bolt must penetrate through a wall covering, then the bolt length shall be increased by the thickness of the wall covering material. The anchors shall be located a minimum of $3\frac{7}{16}$ inches from the edge of the door opening. Grout shall be minimum 2,500 psi.

System 1: Tensioner Bracket Mounting: Each bracket shall be anchored to the substrate with three (3) minimum $\frac{3}{8}$" diameter Powers Wedge-Bolt anchors with a minimum $1\frac{1}{2}$" embedment. If the bolts must penetrate through a wall covering, then the bolt length shall be increased by the thickness of the wall covering material.

Bolted to steel substrate:

System 1: Guide Mounting: The steel substrate shall be minimum $\frac{1}{8}$" thick A36 steel. Each guide and wind bar shall be mounting using one of the following options:

Option 1: The wind bar is welded to the guide with a $\frac{7}{16}$" plug weld located 9 inches on center. The guide is anchored to the substrate with one (1) minimum $\frac{1}{4}$-14 x 1" self-drilling TEKS screw located at the toe of the guide. The screws shall be spaced a maximum of 9 inches on center along the length of the guide.

Option 2: The guide and wind bar are anchored to the substrate with one (1) minimum $\frac{1}{4}$-14 x 1" self-drilling TEKS screw. The screws shall be placed through the interior of the guide, through the wind bar, and into the substrate. The screws shall be spaced a maximum of 9 inches on center along the length of the guide.

Option 3: The guide and wind bar are anchored to the substrate with one (1) minimum $\frac{1}{4}$-14 x 1" self-drilling TEKS screw. The screws shall be placed through the interior of the guide, through the wind bar, and into the substrate. The toe of the guide is also anchored to the substrate with one (1) minimum $\frac{1}{4}$-14 x 1" self-drilling TEKS screw. The screws shall be spaced a maximum of 9 inches on center along the length of the guide.

System 1: Tensioner Bracket Mounting: Each bracket shall be anchored to the substrate with three (3) minimum $\frac{3}{8}$" diameter Powers Wedge-Bolt anchors with a minimum $1\frac{1}{2}$" embedment. If the bolts must penetrate through a wall covering, then the bolt length shall be increased by the thickness of the wall covering material.

Note: The manufacturer's installation instructions and the design drawings referenced in this evaluation report shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.