City of Belle Isle Job Site Card Window/Door PERMIT 2019-08-011

PERMITT MUST BE POSTED ON SITE - A permit expires in 6 months if approved inspections are not recorded /schedule within that time frame. **You are responsible for scheduling and keeping track of all inspections.**

Permit Number: 2019- 08-011
Site Address: 5019 Monet Ave 32812
Class: □ Residential **Subdivision:**
Description of Work: **1 Door (s) / Size for Size**

Issue Date: 08/05/2019
Parcel #: 17-23-30-4380-05-200

Issued: QUALITY GARAGE DOOR SERVICES
Name: PIERCE, MITCHELL ORLAN

Business Phone: 321 264-6399
Contractor License: CRC1329903

Payment Date & Method: 8 / 6 / 2019 □ Picked up or sent by _____ ■ Emailed
□ Visa ■ Master Card □ Amex □ Discover □ Check / Money Order # 3387

Schedule Inspections via Email at: BIDscheduling@universalengineering.com
SCHEDULE INSPECTIONS BY 3:00 PM CUT OFF TIME
Inspection Results Will Be Sent Out the Following Business Day

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

BUILDING	INSPECTOR	DATE	COMMENTS
900 In Progress			
910 Final			

Inspection requests are to be emailed to BIDscheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. Next-Day Inspection requests must be made by 3pm. Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed. Inspection results will be sent out the following business day.
A permit expires in 6 months if approved inspections are not recorded /scheduled within that time frame.
You are responsible for scheduling and keeping track of all your inspections –

Universal Engineering Sciences - 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

RECEIVED
AUG 01 2019
BY

City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

APPLICATION FOR SIZE-FOR-SIZE WINDOW / DOOR PERMIT

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

DATE OF APPLICATION: 08/02/2019 **PERMIT NUMBER** 2019-08-011

PLEASE PRINT. The undersigned hereby applies for a permit to make installations as indicated below:

Project Address 5019 Mont Ave. MONET, Belle Isle, FL ___32809 X 32812

Property Owner Robert Elwell Phone 407-855-4855

Property Owner's Mailing Address 5019 Monet Ave. City Belle Isle

State Fl Zip Code 32812 **Parcel Id Number:** 17-23-30-4380-05-200

REQUIRED! To obtain this information, please visit http://www.ocpafl.org/Searches/ParcelSearch.aspx

Type of Building: Residential [x] Commercial [ ] Other [ ]

- **REQUIRED! Florida Product Approval Form – NOTE: installation instructions must be posted on-site before your first inspection!!**

Please indicate the nature of work by completing the information below:

Number of Size-for-Size Windows: _____ **Number of Size-for-Size Doors:** 1 **Job Valuation:** 1.964.00

I hereby certify that the above is true and correct to the best of my knowledge and make Application for Permit as outlined above, and if same is granted I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable Town and/or State of Florida codes and/or ordinances. By signing below, I recognize Republic Services is by legal contract the sole authorized provider of garbage, recycling, yard waste, and commercial garbage and construction debris collection and disposal services with the city limits of the City. Contractors, homeowners and commercial businesses may contact Republic Services at 407-293-8000 to setup accounts for Commercial, Construction Roll Off, or other services needed. Rates are fixed by contract and are available at City Hall or from Republic Services. The City enforces the contract through its code enforcement office. Failure to comply will result in a stop work order.

BY SIGNING THIS APPLICATION, YOU ARE CERTIFYING THAT YOU ARE ACTING AS THE OWNER'S AGENT FOR THIS PERMIT:

LICENSE HOLDER SIGNATURE _____ LICENSE # CRC1329903

LICENSE HOLDER NAME Mitchell Pierce COMPANY NAME Quality garage Door Services

Street Address 1429 Chaffee Dr. suite 1

City Titusville State Fl Zip Code 32780 Phone Number 321-264-6399

Email Address qualitygaragedoorservices@yahoo.com

MC 3389
PAID 8-5-19

Building Official: _____ **Date** 8-2-19

Verified Contractor's Licenses & Insurance are on file _____ **Date** 8-1-19

Zoning Fee	$	0
Permit Fee	$	29.-
Review Fee	$	(4.52
1% BCAIB Fee	$	2 min
1.5% DCA Fee	$	2 min
Total Permit Fee	$	47.52

1ST 1K
4x1

25
4
29 ÷ 2 (14.52) - 43.52

City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

Product Approval Form

DATE: 08/02/2019 PERMIT # 2019-08-011

PROJECT ADDRESS 5019 Monet Ave, Belle Isle, FL ___32809 X 32812

As required by Florida Statue 553.842 and Florida Administrative Code 9B-72m, please provide the information and approval numbers of the building components listed below if they will be utilized on the building or structure. FL Approved products are listed online at www.floridabuilding.org or can be obtained from the local product supplier. The following information must be turned in with permit application and available onsite for inspections:

- **NOTE: The Installation instructions must be posted on-site before your first inspection!!**

Product Type	Manufacturer	Model/Series	FL Product Approval #
EXTERIOR DOORS			
Swinging			
Sliding			
Sectional/Rollup	CHI	2250	FL5021.6
Other			
WINDOWS			
Single/Dbl Hung			
Horizontal Slider			
Casement			
Fixed			
Mullion			
Skylights			
Other			
STRUCTURAL COMPONENTS			
Wood Connectors			
Wood Anchors			
Truss Plates			
Insulation Forms			
Lintels			
Other			

Product Type	Manufacturer	Model/Series	FL Product Approval #
WALL PANELS			
Sliding			
Soffits			
Storefront			
Glass Block			
Other			
ROOFING PRODUCTS			
Asphalt Shingles			
Non Struct Metal			
Roofing Tiles			
Single Ply Roof			
Underlayment			
Other			
OTHER			

It is the applicant's responsibility to verify that specific products have been installed in accordance with their limitations and with the minimum required design pressures for the structure. Specific compliance will be verified during field inspections.

Applicant Signature _____ **Date** 08/02/2019

FLORIDA DEPARTMENT OF
Business & Professional Regulation

Florida dbpr

Product Approval
USER: Public User

OFFICE OF THE SECRETARY

FL #	FL15012-R6
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	C.H.I. Overhead Doors
Address/Phone/Email	1485 Sunrise Drive Arthur, IL 61911 (217) 543-2135 Ext 4273 windloadengineering@chiohd.com
Authorized Signature	Pat Hunter windloadengineering@chiohd.com
Technical Representative	
Address/Phone/Email	
Quality Assurance Representative	
Address/Phone/Email	
Category	Exterior Doors
Subcategory	Sectional Exterior Door Assemblies
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	John E. Scates
Florida License	PE-51737
Quality Assurance Entity	Architectural Testing, Inc., an Intertek Company
Quality Assurance Contract Expiration Date	12/31/2020
Validated By	Gordon Thomas, P.E. ✓ Validation Checklist - Hardcopy Received
Certificate of Independence	FL15012_R6_COI_Cert_of_Ind_Scates_2018_s.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM E330	2002
DASMA 108	2012
DASMA 108	2017
DASMA 115	2012
DASMA 115	2017

Equivalence of Product Standards Certified By

Sections from the Code

Design Pressure: N/A **Other:** Sectional doors provided for windload applications and have been tested in accordance with ASTM E330 and ANSI/DASMA 108. Z3-16-01306 Residential Pan 16'-00" wide @ +18.7 / -20.8 PSF, see drawing for additional widths and pressures.		Created by Independent Third Party: Yes **Evaluation Reports** FL15012_R6_AE_FL15012 Eval Rept pan r6 s.pdf Created by Independent Third Party: Yes
15012.15	reL; 2140, 2141, 2240, 2241, 2150, 2151, 2250, 2251, 2550, 2551, 4140, 4141, 4240, 4241, 4150, 4151, 4250, 4251, 5240, 5241, 5250, 5251, 5940, 5941, 5950, 5951	13'-00" to 16'-00" wide by 20' high steel sectional door with or without polystyrene insulation.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** Sectional doors provided for windload applications and have been tested in accordance with ASTM E330 and ANSI/DASMA 108. Z3-16-013L6 Residential Pan 16'-00" wide @ +18.7 / -20.8 PSF, see drawing for additional widths and pressures.		**Installation Instructions** FL15012_R6_II_Jamb_Attachment_Drawings_s.pdf FL15012_R6_II_Z3-16-013L6_s.pdf Verified By: John E. Scates, P.E. FL-51737 Created by Independent Third Party: Yes **Evaluation Reports** FL15012_R6_AE_FL15012 Eval Rept pan r6 s.pdf Created by Independent Third Party: Yes
15012.16	rf; 2140, 2141, 2240, 2241, 2150, 2151, 2250, 2251, 2550, 2551, 4140, 4141, 4240, 4241, 4150, 4151, 4250, 4251, 5240, 5241, 5250, 5251, 5940, 5941, 5950, 5951	11'-00" to 16'-00" wide by 20' high steel sectional door with or without polystyrene insulation.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** Sectional doors provided for windload applications and have been tested in accordance with ASTM E330 and ANSI/DASMA 108. Z4-16-01306 Residential Pan 16'-00" wide @ +22.2 / -24.7 PSF, see drawing for additional widths and pressures.		**Installation Instructions** FL15012_R6_II_Jamb_Attachment_Drawings_s.pdf FL15012_R6_II_Z4-16-01306_s.pdf Verified By: John E. Scates, P.E. FL-51737 Created by Independent Third Party: Yes **Evaluation Reports** FL15012_R6_AE_FL15012 Eval Rept pan r6 s.pdf Created by Independent Third Party: Yes
15012.17	rfl; 2140, 2141, 2240, 2241, 2150, 2151, 2250, 2251, 2550, 2551, 4140, 4141, 4240, 4241, 4150, 4151, 4250, 4251, 5240, 5241, 5250, 5251, 5940, 5941, 5950, 5951	16'-00" to 10'-07" wide by 20' high steel sectional door with or without polystyrene insulation.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** N/A **Other:** Sectional doors provided for potential "code-plus" applications. Large Missile Impact (9 pound missile) and cycling tests conducted in accordance with ANSI/DASMA 115. Static tests conducted in accordance with ASTM E330 and ANSI/DASMA 108. Z4i-16-01507 Residential Pan 16'-00" wide @ +22.2 / -24.7 PSF, see drawing for additional widths and pressures.		**Installation Instructions** FL15012_R6_II_Jamb_Attachment_Drawings_s.pdf FL15012_R6_II_Z4i-16-01507_s.pdf Verified By: John E. Scates, P.E. FL-51737 Created by Independent Third Party: Yes **Evaluation Reports** FL15012_R6_AE_FL15012 Eval Rept pan r6 s.pdf Created by Independent Third Party: Yes
15012.18	rg; 2140, 2141, 2240, 2241, 2150, 2151, 2250, 2251, 2550, 2551, 4140, 4141, 4240, 4241, 4150, 4151, 4250, 4251, 5240, 5241, 5250, 5251, 5940, 5941, 5950, 5951	11'-00" to 16'-00" wide by 20' high steel sectional door with or without polystyrene insulation.
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** N/A **Other:** Sectional doors provided for windload applications and have been tested in accordance with ASTM E330 and ANSI/DASMA 108. Z5-16-01306 Residential Pan 16'-00" wide @ +26.2 / -29.1 PSF, see drawing for additional widths and pressures.		**Installation Instructions** FL15012_R6_II_Jamb_Attachment_Drawings_s.pdf FL15012_R6_II_Z5-16-01306_s.pdf Verified By: John E. Scates, P.E. FL-51737 Created by Independent Third Party: Yes **Evaluation Reports** FL15012_R6_AE_FL15012 Eval Rept pan r6 s.pdf Created by Independent Third Party: Yes
15012.19	rh; 2140, 2141, 2240, 2241, 2150, 2151, 2250, 2251, 2550, 2551, 4140, 4141, 4240, 4241, 4150, 4151, 4250, 4251, 5240, 5241, 5250, 5251, 5940, 5941, 5950, 5951	11'-00" to 17'-00" wide by 20' high steel sectional door with or without polystyrene insulation.
Limits of Use		**Installation Instructions**

C.H.I. OVERHEAD DOORS
WINDBREAKER SERIES

IMPACT APPROVED DOORS
iSeries

Supplemental Instructions

Pan Doors: Residential

⚠ CAUTION	**Higher wind pressures and larger doors require additional reinforcement.** **Premature failure of door system may result from improper application.** **See chart in lower left corner of drawing sheet one for the approved wind pressures and door sizes.**

⚠ WARNING	**These supplemental instructions do not contain basic door installation steps and related safety information.** **Failure to follow basic installation steps and related safety information may result in injury or death.** **Door installers must follow a primary instruction manual for basic door installation steps and related safety information.**

The correct selection of door and framing materials in adherence with local building code directives is the responsibility of the building owner/designer. Use of a reinforced garage door does not constitute automatic compliance with any building code. Local building code officials determine compliance criteria.

A locking system must be installed if the door is not electrically operated.

See drawing for stop molding requirements, when door is not more than 1" wider than opening. When using stop molding, secure molding with minimum 8d nails or 2-1/2" long screws.

JOHN E. SCATES
LICENSE
No. 51737
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by John E. Scates P.E.
Date: 2018.02.08 11:33:00 -06'00'

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, Texas 75056
TXPE 56308, F-2203
Florida P.E. # 51737

Professional Engineer's seal provided only for verification of windload construction details

>10° Roof Slope / Residential Applications

C.H.I. Wind Zone	ASCE 7-05 Exp B MPH	ASCE 7-10 Exp B MPH	Pressure (PSF) by Door Width						
			8' x 7'	9' x 7'	10' x 7'	12' x 7'	14' x 7'	15' x 7'	≥ 16' x 7'
Zone 1	90	116	12.9/-14.7	12.8/-14.5	12.7/-14.3	12.5/-14.1	12.4/-13.9	12.3/-13.8	12.3/-13.7
Zone 2	100	129	16.0/-18.1	15.8/-17.9	15.7/-17.7	15.5/-17.4	15.3/-17.1	15.2/-17.0	15.2/-16.9
Zone 3	110	142	19.3/-21.9	19.1/-21.6	19.0/-21.4	18.7/-21.0	18.5/-20.7	18.4/-20.6	18.3/-20.4
Zone 4	120	155	23.0/-26.1	22.8/-25.8	22.6/-25.5	22.3/-25.0	22.0/-24.6	21.9/-24.5	21.8/-24.3
Zone 5	130	168	27.0/-30.6	26.7/-30.2	26.5/-29.9	26.2/-29.3	25.9/-28.9	25.7/-28.7	25.6/-28.5
Zone 6	140	181	31.3/-35.5	31.0/-35.1	30.8/-34.7	30.4/-34.0	30.0/-33.5	29.8/-33.3	29.7/-33.1
Zone 7	150	194	35.9/-40.8	35.6/-40.2	35.3/-39.8	34.8/-39.1	34.4/-38.5	34.3/-38.2	34.1/-38.0
Zone 8	156/*160	201/*206	38.6/-43.8	38.3/-43.3	38.0/-42.8	*39.7/-44.4	*39.2/-43.8	*39.0/-43.5	*38.8/-43.3
Zone 9	166	214	43.9/-49.8	43.6/-49.3	43.3/-48.7	42.7/-47.8	42.2/-47.1	42.0/-46.8	41.8/-46.6

*the higher Exp B values apply to doors greater than 10' wide

≤10° Roof Slope / Commercial Applications

C.H.I. Wind Zone	ASCE 7-05 Exp B MPH	ASCE 7-10 Exp B MPH	Pressure (PSF) by Door Width						
			8' x 8'	9' x 8'	10' x 8'	12' x 8'	14' x 8'	15' x 8'	≥ 16' x 8'
Zone 1	90	116	11.7/-13.3	11.6/-13.1	11.6/-13.0	11.4/-12.7	11.3/-12.6	11.2/-12.5	11.2/-12.4
Zone 2	100	129	14.5/-16.4	14.4/-16.2	14.3/-16.0	14.1/-15.7	13.9/-15.5	13.8/-15.4	13.8/-15.3
Zone 3	110	142	17.5/-19.9	17.4/-19.6	17.3/-19.4	17.0/-19.0	16.8/-18.8	16.7/-18.6	16.7/-18.5
Zone 4	120	155	20.9/-23.6	20.7/-23.3	20.5/-23.1	20.3/-22.7	20.0/-22.3	19.9/-22.2	19.8/-22.1
Zone 5	130	168	24.5/-27.7	24.3/-27.4	24.1/-27.1	23.8/-26.6	23.5/-26.2	23.4/-26.0	23.3/-25.9
Zone 6	140	181	28.4/-32.2	28.2/-31.7	28.0/-31.4	27.6/-30.8	27.3/-30.4	27.1/-30.2	27.0/-30.0
Zone 7	150	194	32.6/-36.9	32.3/-36.4	32.1/-36.0	31.7/-35.4	31.3/-34.9	31.1/-34.7	31.0/-34.5
Zone 8	154	199	34.3/-38.8	34.0/-38.3	33.7/-37.9	33.3/-37.2	32.9/-36.7	32.7/-36.5	32.6/-36.2
Zone 9	166	214	39.8/-45.0	39.4/-44.4	39.1/-44.0	38.6/-43.2	38.2/-42.5	38.0/-42.3	37.8/-42.0

General Notes

-Exp B values are to nearest miles-per-hour (MPH)

-Pressure values are pounds-per-square-foot (PSF)

-Positive pressure signifies pressure acting inward to the building

-Negative pressure signifies pressure acting outward from the building

-Enclosed structure classification with 2' of the door in the end zone

-60' x 40' building size (larger buildings may require higher negative PSF)

-30' Mean Roof Height (MRH), see chart for differing MRH and Exp values

-Greater door heights require lower PSF values to meet same MPH

ASCE 7-05 notes

-Importance Factor of 1.00

-Utilizes nominal / basic wind speeds

ASCE 7-10 notes

-Risk Catergory II

-Utilizes ultimate wind speeds

Mean Roof Height (MRH) / Exposures (Exp)

MRH	Exp B	Exp C	Exp D
15'	100%	90%	82%
20'	100%	88%	80%
25'	100%	86%	78%
30'	100%	84%	77%
35'	97%	83%	76%
40'	95%	81%	75%
45'	94%	80%	74%
50'	92%	80%	74%
55'	91%	79%	73%
60'	90%	78%	73%

These percentages reduce Exp B wind speeds to approximate MPH for mean roof heights shown in MRH column.

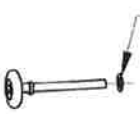
For Use With Drawing Number
Z4-16-01306

Strut Placement

Section Number	Door Height									
	6'-6" to 7'-0"	7'-6" to 8'-0"	8'-3" to 8'-9"	9'-0" to 10'-6"	10'-9" to 12'-3"	12'-6" to 14'-0"	14'-3" to 15'-9"	16'-0" to 17'-6"	17'-9" to 19'-3"	19'-6" to 20'-0"
12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A
11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B
10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B
9	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B 1 at Detail C
8	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
7	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
6	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
5	N/A	1 at Detail A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C
4	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
3	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
2	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
1	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C

Push Nut Detail (use on all rollers)

use 3/8" I. D. on bottom fixture roller stem
use 7/16" I. D. on end hinge and top fixture roller stems



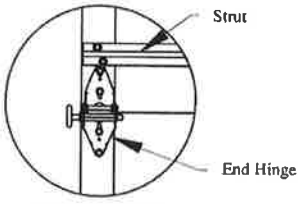
Push nut: Slide roller into fixture and tap push nut onto roller stem using 1/2" socket and hammer. Leave 1/8" to 1/4" space between push nut and fixture.

Track Bracket Spacing

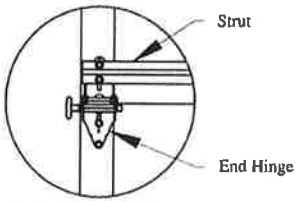
Track bracket spacing shown for doors up to four sections high. Additional door sections may be added for maximum door height depicted on line drawing. Track brackets must be added (per track) for each section and spaced at a distance not greater than the corresponding section height (see line drawing for required quantities).

Strut Placement Concerning Windows

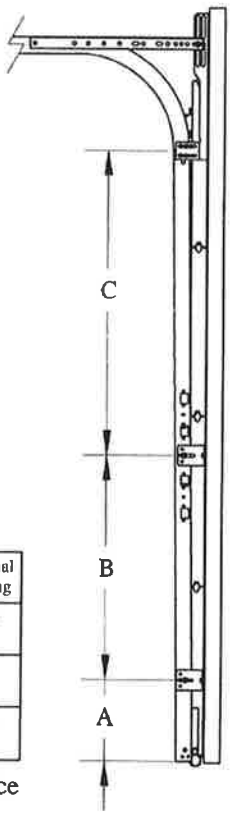
Where a strut crosses a window, it is acceptable to move the strut from a position of "Strut above hinge" down to "Strut on top half of the hinge".



Strut above hinge



Strut on top half of hinge

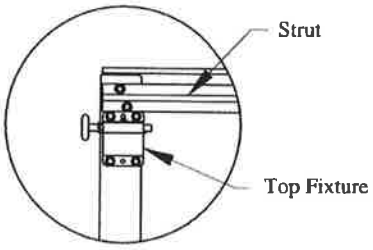


	Nominal Spacing
C	38"
B	28"
A	10"

+/-3" tolerance

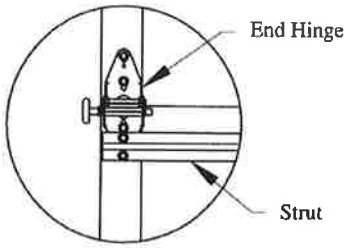
For Use With Drawing Number
Z4-16-01306

Strut Placement Detail



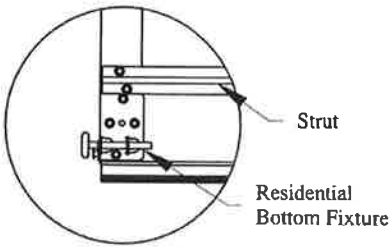
Strut above top fixture

Detail A



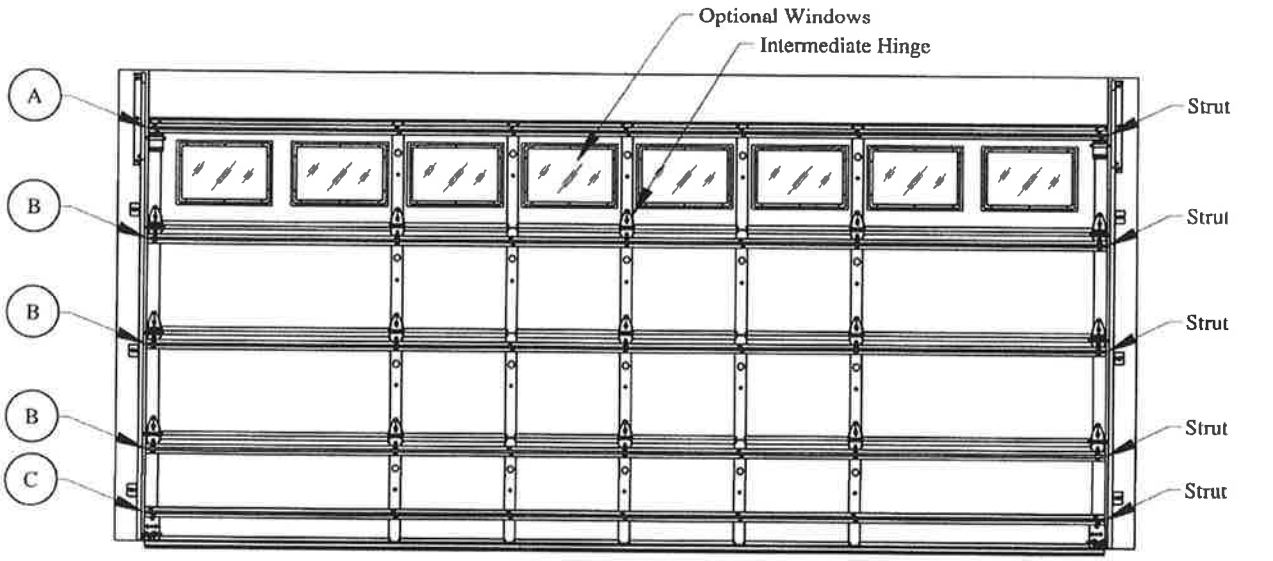
Strut on bottom half of hinge

Detail B



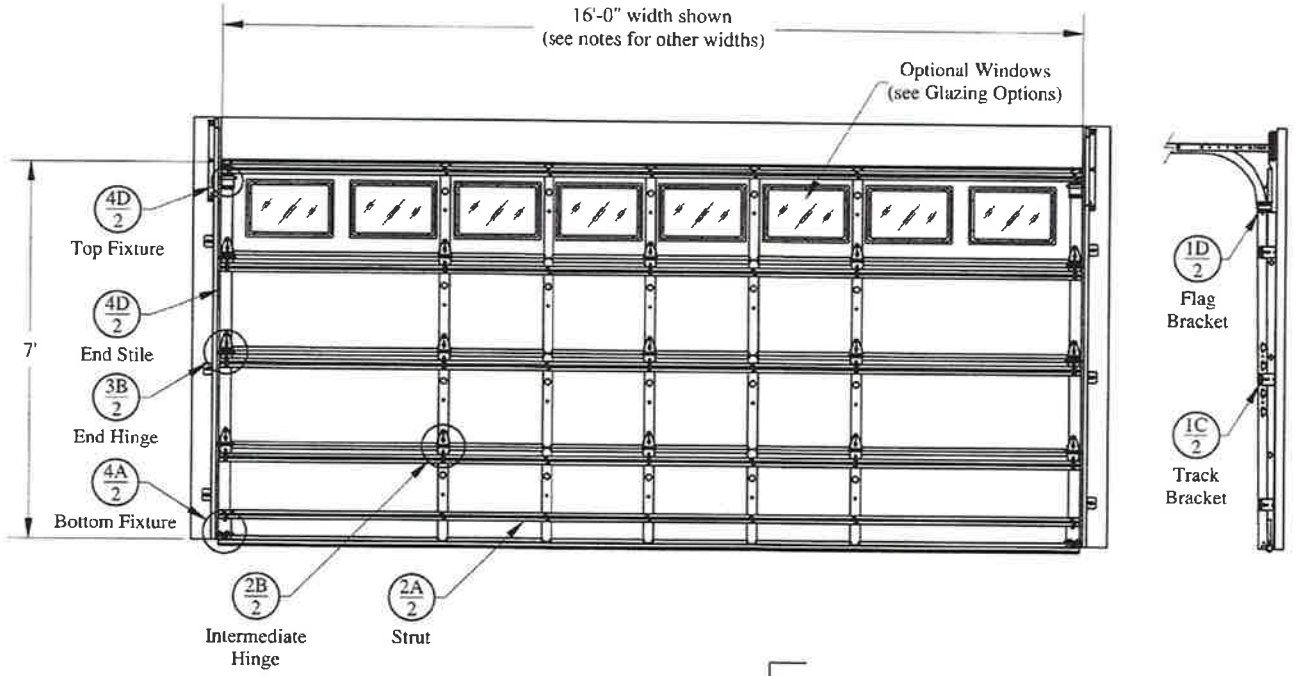
Strut above bottom fixture

Detail C



5 Struts

Glazing Options: (max daylight opening 39-3/8" x 12-1/2")
- 1/8" DSB
- 1/4" Tempered Glass or Polycarbonate
- 7/16" Insulated Glass w/opt for Tempered



door height	section quantity	strut quantity	trk brkt per side
6'-6" to 7'-0"	4	5	3
7'-6" to 8'-0"	5	6	4
8'-3" to 8'-9"	5	6	4
9'-0" to 10'-6"	6	7	5
10'-9" to 12'-3"	7	8	6
12'-6" to 14'-0"	8	9	7
14'-3" to 15'-9"	9	10	8
16'-0" to 17'-6"	10	11	9
17'-9" to 19'-3"	11	12	10
19'-6" to 20'-0"	12	13	11

Track bracket quantities shown are for use with grade 2 or better Southern Yellow Pine. Refer to Jamb Attachment Detail supplemental instructions for usage of alternate jamb materials.

Details for door heights up to 20'-0" are contained in the Supplemental Instructions, which are required in addition to this drawing for installation. Do not install door using only this drawing.

Supporting structural elements shall be designed by a registered professional engineer for wind loads shown on this drawing. If door is not electrically operated, a lock must be installed.

This door has been evaluated in accordance with ASTM E 330-2002 and ANSI/DASMA 108-2002, 108-2005 & 108-2012

Applicable wind speeds are dependent on building envelope and must be determined in compliance with relevant ASCE 7, IBC or IRC standards to meet regional and local requirements.

Maximum door height: 20'-00"

Glazing and door have not been tested for windborne debris.

Width	Design Pressure (PSF)	Stile Qty.
11'-00"	+32.3 / -35.9	2
12'-00"	+29.6 / -32.9	3
13'-00"	+27.3 / -30.4	3
14'-00"	+25.4 / -28.2	4
15'-00"	+23.7 / -26.3	4
16'-00"	+22.2 / -24.7	5

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Professional Engineer's seal provided only for verification of windload construction details

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
TXPE 56308, F-2203
Florida P.E. # 51737

C.H.I.

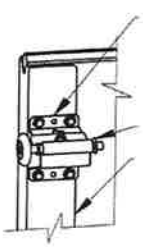
SCALE nts

DATE 05-25-2017

Models: 2X4X, 2X5X, 4X4X, 4X5X, 52XX, 59XX

C.H.I. Drawing: Z4-16-01306

Details on some views may have been omitted for clarity.



Top Fixture
(.059) galvanized steel top fixture attached with four 1/4" x 3/4" screws.

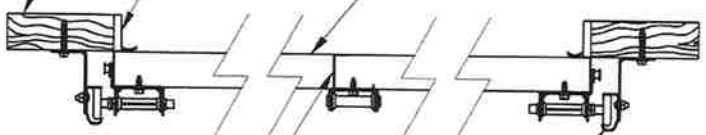
push nut

End Stile
(.034) steel end stile

The vertical wood jamb fasteners may be counter sunk to provide a flat mounting surface. See jamb attachment details for more information about attaching jambs to structure.

2" x 7/16" (nominal) stop molding to be attached with minimum 8d nail or 2-1/2"long screw on 8" spacing. Stop molding not required when door is more than 1" wider than opening.

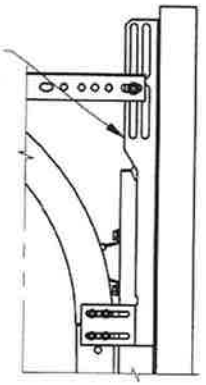
nominal (.0185) galvanized steel minimum

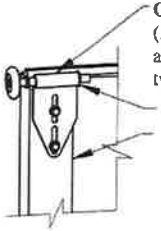


(.034) steel center stile

2" (min) x .045 (min) galvanized steel track

Flag Bracket
(.086) galvanized steel flag bracket attached to wood jamb with three 5/16" x 1-5/8" wood lag screws, to horizontal track with two 1/4" x 5/8" track bolts and nuts and to vertical track with two 1/4" x 5/8" track bolts and nuts.



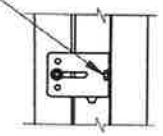


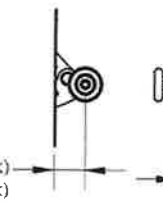
Optional Top Fixture
(.109) galvanized steel top fixture attached with two 1/4" x 3/4" screws.

push nut

(.034) steel end stile

Track Bracket
(.102) galvanized steel track bracket attached to wood jamb with one 5/16" x 1-5/8" wood lag screw per bracket and attached to vertical track with one 1/4" x 5/8" track bolt and nut or two 1/4" x 11/32" rivets.



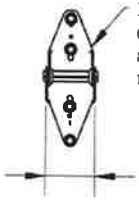


End Hinge
galvanized steel attached with four 1/4" x 3/4" screws.

push nut

2" (max. for .058 thick)
4" (max. for .109 thick)

2 3/4"

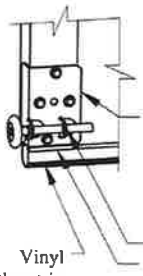


Intermediate Hinge
(.058) galvanized steel attached with four 1/4" x 3/4" screws.

2 3/4"

nominal Ø 2" (min.)
10 (min.) ball roller with nylon or steel tire.

3-1/2" (min.) stem

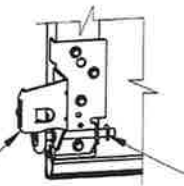


Bottom Bracket
(.102) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.

push nut

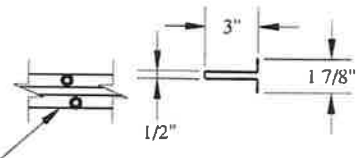
Aluminum extrusion

Vinyl weatherstrip



Optional Bottom Bracket
(.109) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.

push nut



3"

1 7/8"

1/2"

Strut
(.051) 50 ksi galvanized steel 3" strut attached with two 1/4" x 3/4" screws per stile.

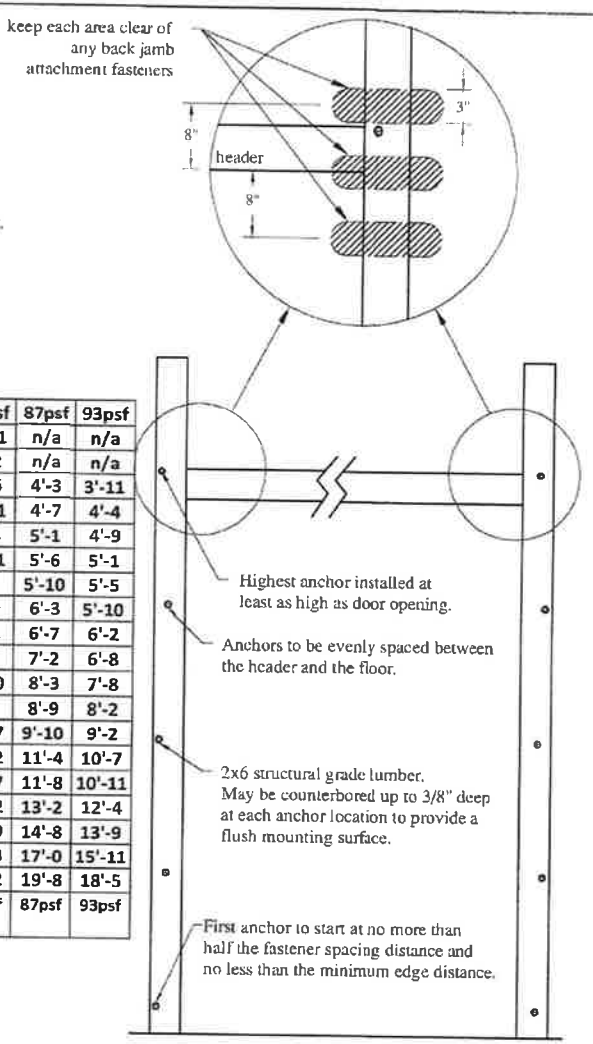
JOHN E. SCATES
LICENSE
No. 51737
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Professional Engineer's seal provided only for verification of windload construction details

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
TXPE 56308, F-2203
Florida P.E. # 51737

C.H.I.
SCALE nts
DATE 05-25-2017
Models: 2X4X, 2X5X, 4X4X, 4X5X, 52XX, 59XX
C.H.I. Drawing: Z4-16-01306

Anchor: ITW Tapcon or Tapcon LDT or Simpson Strong-Tie.
ITW Ramset/ Redhead Tapcon, 1/4" diameter, minimum 3.5" long with washer that conforms to ANSI B18.22.1 type B.
ITW Ramset/ Redhead Large Diameter Tapcon, 3/8" diameter, minimum 4" long with washer that conforms to ANSI B18.22.1 type B.
Simpson Titen HD, 3/8" diameter, minimum 4" long with washer that conforms to ANSI B18.22.1 type B.
Simpson Wedge-All, 3/8" diameter, minimum 4" long with washer that conforms to ANSI B18.22.1 type B.
When applying back jambs over dry wall or other non structural wall covering, use longer fasteners to insure minimum embedment required.
This chart applies to wood species with specific gravity greater than or equal to 0.42 including spruce pine fir (SPF) and southern pine (SP).
See chart for minimum washer diameter. Washer diameters in chart are based on use of Spruce Pine Fir. Washers may be 10% smaller when Southern Pine is used.
See chart for minimum edge distance required. Lowest anchor to be greater than the minimum edge distance up from the floor and less than 10-inches from the floor.



FASTENER SPACING (inches)																						
2500 psi concrete				Filled CMU		DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																
ITW Tapcon				Simpson Strong-Tie																		
1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf
24	24	24	24	24	24	22'-9	18'-9	15'-11	13'-3	11'-4	9'-11	8'-10	7'-11	7'-3	6'-7	6'-0	5'-6	5'-0	4'-7	4'-3	3'-11	n/a	n/a
24	22	24	24	24	24	24'-3	20'-0	17'-0	14'-1	12'-1	10'-7	9'-5	8'-6	7'-8	7'-0	6'-4	5'-10	5'-4	4'-11	4'-6	4'-2	n/a	n/a
24	20	24	24	24	16	26'-6	21'-9	18'-6	15'-5	13'-3	11'-7	10'-3	9'-3	8'-5	7'-8	7'-0	6'-4	5'-10	5'-4	4'-11	4'-6	4'-3	3'-11
24	18	24	22	24	16	28'-10	23'-9	20'-2	16'-10	14'-5	12'-7	11'-2	10'-1	9'-2	8'-5	7'-7	6'-11	6'-5	5'-10	5'-4	4'-11	4'-7	4'-4
24	17	24	20	24	16	31'-9	26'-2	22'-3	18'-6	15'-10	13'-10	12'-4	11'-1	10'-1	9'-3	8'-4	7'-8	7'-0	6'-5	5'-11	5'-5	5'-1	4'-9
24	15	24	18	24	16	34'-3	28'-2	24'-0	20'-0	17'-1	15'-0	13'-4	12'-0	10'-10	10'-0	9'-0	8'-3	7'-7	6'-11	6'-4	5'-11	5'-6	5'-1
24	15	24	17	16	16	36'-3	29'-10	25'-4	21'-2	18'-1	15'-10	14'-1	12'-8	11'-6	10'-7	9'-7	8'-9	8'-0	7'-4	6'-9	6'-3	5'-10	5'-5
22	13	24	16	16	8	n/a	32'-3	27'-5	22'-10	19'-7	17'-1	15'-2	13'-8	12'-5	11'-5	10'-4	9'-5	8'-8	7'-11	7'-3	6'-9	6'-3	5'-10
21	13	24	15	16	8	n/a	33'-10	28'-9	24'-0	20'-6	18'-0	16'-0	14'-4	13'-1	12'-0	10'-10	9'-11	9'-1	8'-4	7'-8	7'-1	6'-7	6'-2
19	12	24	14	16	8	n/a	n/a	31'-4	26'-1	22'-5	19'-7	17'-5	15'-8	14'-3	13'-0	11'-10	10'-9	9'-11	9'-1	8'-4	7'-8	7'-2	6'-8
16	10	24	12	16	8	n/a	n/a	36'-0	30'-0	25'-8	22'-6	20'-0	18'-0	16'-4	15'-0	13'-7	12'-4	11'-5	10'-5	9'-7	8'-10	8'-3	7'-8
16	10	24	11	8	8	n/a	n/a	n/a	31'-9	27'-2	23'-9	21'-2	19'-0	17'-3	15'-10	14'-4	13'-1	12'-1	11'-0	10'-1	9'-4	8'-9	8'-2
14	8	24	10	8	8	n/a	n/a	n/a	35'-9	30'-8	26'-10	23'-10	21'-5	19'-6	17'-10	16'-2	14'-9	13'-7	12'-5	11'-5	10'-7	9'-10	9'-2
12	7	20	9	8	8	n/a	n/a	n/a	n/a	n/a	30'-11	27'-5	24'-8	22'-5	20'-7	18'-8	17'-0	15'-8	14'-4	13'-2	12'-2	11'-4	10'-7
11	7	20	8	8	8	n/a	n/a	n/a	n/a	n/a	31'-10	28'-3	25'-6	23'-2	21'-3	19'-2	17'-7	16'-2	14'-9	13'-7	12'-7	11'-8	10'-11
10	6	17	7	8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-0	28'-9	26'-2	24'-0	21'-8	19'-10	18'-3	16'-8	15'-4	14'-2	13'-2	12'-4
9	n/a	16	6	8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-0	29'-1	26'-8	24'-1	22'-0	20'-3	18'-6	17'-0	15'-9	14'-8	13'-9
8	n/a	13	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	30'-11	28'-0	25'-7	23'-6	21'-6	19'-9	18'-3	17'-0	15'-11
n/a	n/a	12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-4	29'-7	27'-3	24'-10	22'-10	21'-2	19'-8	18'-5

2500 psi concrete				Filled CMU		14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf
ITW Tapcon		ITW LDT		Titen HD	Wedge-All	DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																	
1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	FASTENER DIAMETER																	
1.75"	1.75"	2.5"	2.5"	2.75"	2.68"	EMBEDMENT LENGTH																	
1-1/8"	7/8"	1-1/2"	1"	1-1/8"	1-1/8"	WASHER DIAMETER																	
2-1/2"	2-1/2"	3"	3"	4"	4"	EDGE DISTANCE																	
508#	319#	859#	371#	480#	340#	FASTENER LOAD CAPACITY																	

Supporting structural elements shall be designed by a registered professional engineer for wind loads in addition to other loads. This drawing does not address the jamb/wall design, but only door attachment. Jamb/wall construction is shown only for illustration purposes. The building designer is responsible for ensuring that the jamb/wall is sufficient to carry the door live and static loads. This drawing does not address the spring pad connections. Registered professional engineer may approved an alternative design.

Manufacturer's installation instructions must be followed.
Maximum spacing shown in chart.
Lesser spacing may be used to avoid interference with door hardware and or fastening system, but not less than 6".
Load per jamb = 0.5 x door width x max positive pressure x door height.
8" CMU block walls shall comply with ASTM C90.
Use minimum 2000 psi grout or concrete when filling CMU.
CMU fastener spacing distance may vary +/-1".

Digitally signed by John E. Scates P.E.
Date: 2018.02.07 15:11:58 -06'00'

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
Florida P.E. # 51737
TXPE 56308, F-2203

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Professional Engineer's seal provided only for verification of windload construction details.

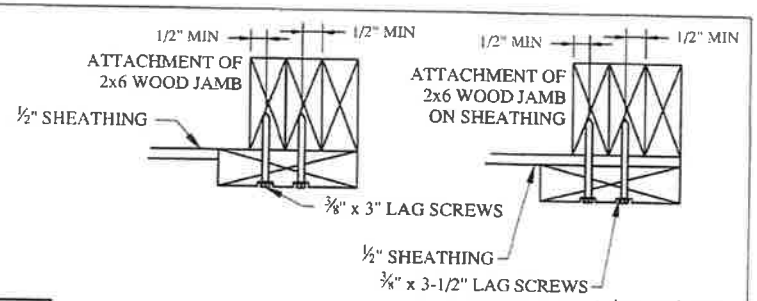
C.H.I. OVERHEAD DOORS

SCALE none
DATE 2-18-2015

Back Jamb Attachment Detail
Concrete Anchors

C.H.I. Drawing: BJA-101 | Rev.-07

Use SP values only if both structure and jamb are Southern Pine.
Use SPF values when Spruce-Pine-Fir is present in structure or jamb material.
Lesser spacing may be used to avoid interference with door hardware and or fastening system.
Maximum spacing shown in chart.
Lag screw: 3/8" diameter x 3" minimum long; must conform to ANSI/ASME B18.2.1
When applying back jambs over dry wall or other non structural wall covering,
use longer lags screws to insure 1-1/2" minimum embedment required.
Washer: 1-1/8" minimum outside diameter, must conform to ANSI B18.22.1 type A.
Pre-drill 1/4" diameter pilot holes for lag screw insertion. 1-1/2" minimum lag screw edge distance required.



Spruce-Pine-Fir (SPF)

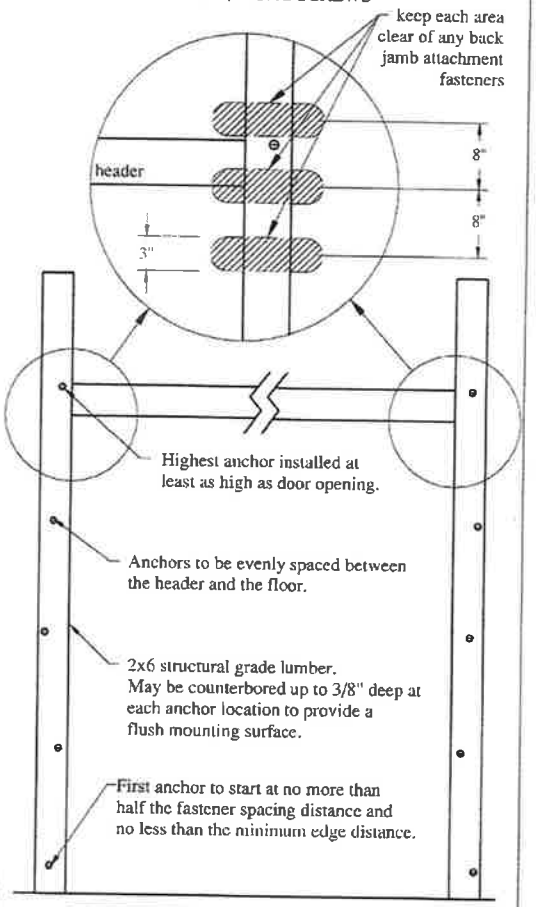
MAX LAG SCREW SPACING (Inches) FOR DOOR WIDTH (max) vs DESIGN PRESSURE

MAX WIDTH IN FEET	DESIGN PRESSURE IN POUNDS-PER-SQUARE-FEET (PSF)													
	12 PSF	15 PSF	18 PSF	21 PSF	24 PSF	27 PSF	30 PSF	33 PSF	36 PSF	39 PSF	42 PSF	46 PSF	50 PSF	53 PSF
≤ 9'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
10'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	21"
12'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	22"	20"	19"	18"
14'	24"	24"	24"	24"	24"	24"	24"	24"	22"	21"	19"	17"	16"	15"
15'	24"	24"	24"	24"	24"	24"	24"	23"	21"	19"	18"	16"	15"	14"
16'	24"	24"	24"	24"	24"	24"	24"	21"	20"	18"	17"	15"	14"	13"
18'	24"	24"	24"	24"	24"	23"	21"	19"	17"	16"	15"	13"	12"	12"
20'	24"	24"	24"	24"	24"	21"	19"	17"	16"	14"	13"	12"	11"	10"
22'	24"	24"	24"	24"	21"	19"	17"	15"	14"	13"	12"	11"	10"	9"
24'	24"	24"	24"	22"	20"	17"	16"	14"	13"	12"	11"	10"	9"	9"
26'	24"	24"	24"	21"	18"	16"	14"	13"	12"	11"	10"	9"	8"	8"
30'	24"	24"	21"	18"	16"	14"	12"	11"	10"	9"	9"	8"	7"	7"

Southern Pine (SP)

MAX LAG SCREW SPACING (Inches) FOR DOOR WIDTH (max) vs DESIGN PRESSURE

MAX WIDTH IN FEET	DESIGN PRESSURE IN POUNDS-PER-SQUARE-FEET (PSF)													
	12 PSF	15 PSF	18 PSF	21 PSF	24 PSF	27 PSF	30 PSF	33 PSF	36 PSF	39 PSF	42 PSF	46 PSF	50 PSF	53 PSF
≤ 10'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
12'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"
14'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	21"	20"
15'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	21"	19"	18"
16'	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	22"	20"	18"	17"
18'	24"	24"	24"	24"	24"	24"	24"	24"	22"	21"	19"	17"	16"	15"
20'	24"	24"	24"	24"	24"	24"	24"	22"	20"	19"	17"	16"	14"	14"
22'	24"	24"	24"	24"	24"	24"	22"	20"	18"	17"	16"	14"	13"	12"
24'	24"	24"	24"	24"	24"	22"	20"	18"	17"	15"	14"	13"	12"	11"
26'	24"	24"	24"	24"	23"	21"	19"	17"	15"	14"	13"	12"	11"	10"
30'	24"	24"	24"	23"	20"	18"	16"	15"	13"	12"	11"	10"	9"	9"



Digitally signed by John E. Scates P.E.
Date: 2018.02.07 15:11:28 -06'00'

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Southern Pine (SP) specific gravity = 0.55; load per anchor = 620 pounds.
Spruce-Pine-Fir (SPF) specific gravity = 0.42; load per anchor = 482 pounds.
Maximum load per jamb = 0.5 x (door height) x (door width) x (maximum positive pressure)
These charts do not address spring pad connections to the building.
Alternative design may be approved by a registered professional engineer.
Supporting structural elements shall be designed by a registered professional engineer for wind loads in addition to other loads.

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
Florida P.E. # 51737
TXPE 56308, F-2203

Professional Engineer's seal provided only for verification of windload construction details.

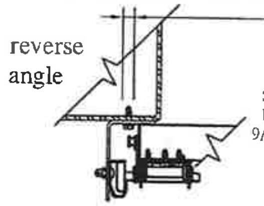
C.H.I. OVERHEAD DOORS

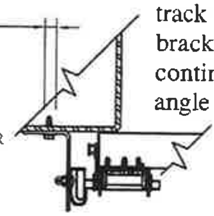
SCALE	none
DATE	4-25-2017

Back Jamb Attachment Detail
Lag Screw

C.H.I. Drawing: BJA-102 | Rev.-06

Self tapping screws (with steel)

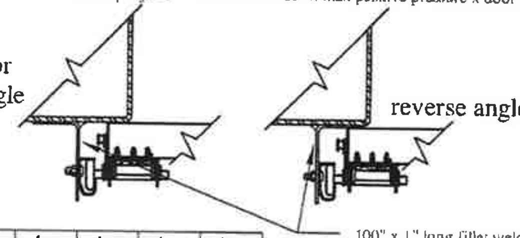




Screw: 1/4" dia x 3/4" self tapping screw; must conform to ANSI/ASME B18.2.1.
3/16" steel Jambs; allowable load per screw= 444 lbs.
Allowable load per screw; 12 gauge = 209 lbs.14 gauge = 143 lbs, and 16 gauge = 110 lbs.
Optional Washer: 9/16" O.D. minimum; must conform to ANSI B18.22.1 type A.
Washer not required if fastener head has minimum 9/16" outside diameter.
Lowest fastener to be within 10-inches of the floor
Maximum spacing shown in chart. Lesser spacing may be used to avoid interference with door component system.
Add holes to continuous angle as required to satisfy fastener spacing in these charts.
These charts do not address spring pad connections to the building.
Load per jamb = 0.5 x door width x max positive pressure x door height

.100" x 1" fillet welds

Welds performed by a Certified Welder or inspected by a Certified Welding Inspector to verify integrity of welds.
12 gauge or 3/16" steel Jambs; allowable load per weld= 1,272 lbs.
Use all necessary precautions when welding galvanized steel.
Welds to be evenly spaced between header and floor.
Lowest weld to be within 10-inches of the floor
Minimum of 3 welds per jamb required.
Fillet welds to have a straight or convex face surface.
Tack weld toe of angle at same spacing to prevent rotation of track angle.
Cracks and blemishes shall be ground to a smooth contour and checked to ensure soundness.
These charts do not address spring pad connections to the building.
Load per jamb = 0.5 x door width x max positive pressure x door height



.100" x 1" long fillet weld (E60XX Electrodes Min). Weld to be located vertically on angle at spacing specified in chart and tack weld toe of angle or track bracket at same spacing.

ATTACHMENT SPACING (inches)						DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																	
SCREWS	SCREWS	SCREWS	WELDS	SCREWS	WELDS																		
16 ga jamb	14 ga jamb	12 ga jamb	12 ga jamb	3/16" jamb	3/16" jamb	14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf
24	31	36	36	36	36	7'-10	6'-5	5'-6	4'-7	3'-11	3'-5	3'-0	n/a	n/a	n/a	n/a							
20	26	36	36	36	36	9'-5	7'-9	6'-7	5'-6	4'-8	4'-1	3'-8	n/a	n/a	n/a	n/a							
18	24	36	36	36	36	9'-11	8'-2	6'-11	5'-9	4'-11	4'-4	3'-10	n/a	n/a	n/a	n/a							
16	20	30	36	36	36	11'-9	9'-8	8'-3	6'-10	5'-10	5'-1	4'-7	4'-1	n/a	n/a	n/a							
14	18	26	36	36	36	13'-5	11'-1	9'-5	7'-10	6'-8	5'-10	5'-2	4'-8	4'-3	3'-11	n/a							
12	16	24	36	36	36	14'-11	12'-3	10'-5	8'-8	7'-5	6'-6	5'-9	5'-2	4'-9	4'-4	3'-11							
12	15	22	36	36	36	15'-8	12'-11	11'-0	9'-2	7'-10	6'-10	6'-1	5'-6	5'-0	4'-7	4'-1							
9	12	17	36	36	36	20'-5	16'-9	14'-3	11'-11	10'-2	8'-11	7'-11	7'-1	6'-6	5'-11	5'-4	4'-11	4'-6	4'-1	n/a	n/a	n/a	n/a
8	10	16	36	34	36	22'-4	18'-5	15'-8	13'-0	11'-2	9'-9	8'-8	7'-10	7'-1	6'-6	5'-10	5'-4	4'-11	4'-6	4'-2	n/a	n/a	n/a
7	10	14	36	31	36	24'-6	20'-2	17'-1	14'-3	12'-3	10'-8	9'-6	8'-6	7'-9	7'-1	6'-5	5'-11	5'-5	4'-11	4'-6	4'-2	3'-11	n/a
6	8	12	36	25	36	29'-10	24'-7	20'-10	17'-5	14'-11	13'-0	11'-7	10'-5	9'-6	8'-8	7'-10	7'-2	6'-7	6'-0	5'-6	5'-1	4'-9	4'-5
6	7	11	36	24	36	31'-5	25'-10	22'-0	18'-4	15'-8	13'-9	12'-2	11'-0	10'-0	9'-2	8'-3	7'-7	6'-11	6'-4	5'-10	5'-5	5'-0	4'-8
n/a	6	8	36	18	36	40'-10	33'-7	28'-7	23'-10	20'-5	17'-10	15'-10	14'-3	13'-0	11'-11	10'-9	9'-10	9'-0	8'-3	7'-7	7'-0	6'-6	6'-1
n/a	5	7	36	16	36	n/a	39'-2	33'-3	27'-9	23'-9	20'-9	18'-6	16'-7	15'-1	13'-10	12'-6	11'-5	10'-6	9'-7	8'-10	8'-2	7'-7	7'-1
n/a	n/a	6	36	12	36	n/a	n/a	41'-9	34'-10	29'-10	26'-1	23'-2	20'-10	19'-0	17'-5	15'-9	14'-4	13'-3	12'-1	11'-1	10'-3	9'-7	8'-11
n/a	n/a	5	32	11	32	n/a	n/a	n/a	39'-9	34'-0	29'-9	26'-6	23'-10	21'-8	19'-10	18'-0	16'-5	15'-1	13'-9	12'-8	11'-9	10'-11	10'-3
n/a	n/a	n/a	30	10	30	n/a	n/a	n/a	n/a	36'-4	31'-9	28'-3	25'-5	23'-1	21'-2	19'-2	17'-6	16'-1	14'-8	13'-6	12'-6	11'-8	10'-11
n/a	n/a	n/a	26	9	26	n/a	n/a	n/a	n/a	n/a	36'-8	32'-7	29'-4	26'-8	24'-5	22'-1	20'-2	18'-7	17'-0	15'-7	14'-5	13'-5	12'-7
n/a	n/a	n/a	24	8	24	n/a	n/a	n/a	n/a	n/a	n/a	35'-4	31'-9	28'-10	26'-6	24'-0	21'-11	20'-2	18'-5	16'-11	15'-8	14'-7	13'-8
n/a	n/a	n/a	16	5	16	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-10	30'-3	27'-7	25'-5	23'-6	21'-11	20'-6
n/a	n/a	n/a	14	n/a	14	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31'-7	29'-0	26'-11	25'-0	23'-5
n/a	n/a	n/a	12	n/a	12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31'-4	29'-2	27'-4
SCREWS	SCREWS	SCREWS	WELDS	SCREWS	WELDS	14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf
16 ga jamb	14 ga jamb	12 ga jamb	12 ga jamb	3/16" jamb	3/16" jamb	DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																	
ATTACHMENT SPACING (inches)																							
110#	143#	209#	1272#	444#	1272#																		
LOAD PER FASTENER (pounds)																							

Alternative design may be approved by a licensed professional engineer.

Supporting structural elements shall be designed by a licensed professional engineer for wind loads in addition to other loads.

This drawing does not address the jamb/wall design, but only door attachment. Jamb/wall construction is shown only for illustration purposes. The building designer is responsible for ensuring that the jamb/wall is sufficient to carry the door live and static loads.

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
Florida P.E. # 51737
TXPE 56308, F-2203

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John E. Scates P.E.
Date: 2018.02.07 15:11:13 -06'00'

Professional Engineer's seal provided only for verification of windload construction details.

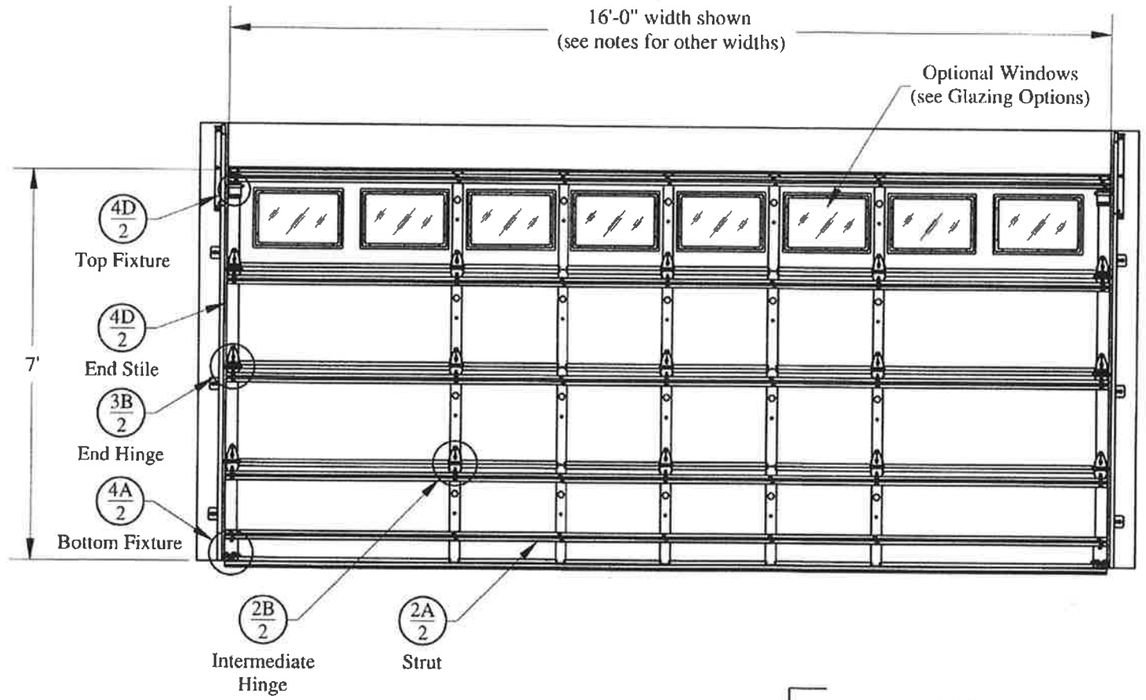
C.H.I. OVERHEAD DOORS

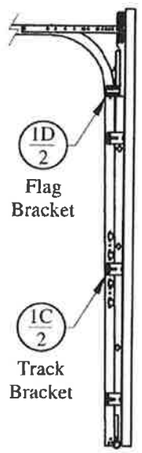
SCALE	none
DATE	2-18-2015

Steel Attachment Detail

C.H.I. Drawing: BJA-103 | Rev.-07

Glazing Options: (max daylight opening 39-3/8" x 12-1/2")
- 1/8" DSB
- 1/4" Tempered Glass or Polycarbonate
- 7/16" Insulated Glass w/opt for Tempered





door height	section quantity	strut quantity	trk brkt per side
6'-6" to 7'-0"	4	5	3
7'-6" to 8'-0"	5	6	4
8'-3" to 8'-9"	5	6	4
9'-0" to 10'-6"	6	7	5
10'-9" to 12'-3"	7	8	6
12'-6" to 14'-0"	8	9	7
14'-3" to 15'-9"	9	10	8
16'-0" to 17'-6"	10	11	9
17'-9" to 19'-3"	11	12	10
19'-6" to 20'-0"	12	13	11

Track bracket quantities shown are for use with grade 2 or better Southern Yellow Pine. Refer to Jamb Attachment Detail supplemental instructions for usage of alternate jamb materials.

Details for door heights up to 20'-0" are contained in the Supplemental Instructions, which are required in addition to this drawing for installation. Do not install door using only this drawing.

Supporting structural elements shall be designed by a registered professional engineer for wind loads shown on this drawing. If door is not electrically operated, a lock must be installed.

This door has been evaluated in accordance with ASTM E 330-2002 and ANSI/DASMA 108-2002, 108-2005 & 108-2012

Applicable wind speeds are dependent on building envelope and must be determined in compliance with relevant ASCE 7, IBC or IRC standards to meet regional and local requirements.

Maximum door height: 20'-00"

Glazing and door have not been tested for windborne debris.

Width	Design Pressure (PSF)	Stile Qty.
11'-00"	+32.3 / -35.9	2
12'-00"	+29.6 / -32.9	3
13'-00"	+27.3 / -30.4	3
14'-00"	+25.4 / -28.2	4
15'-00"	+23.7 / -26.3	4
16'-00"	+22.2 / -24.7	5

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Professional Engineer's seal provided only for verification of windload construction details

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
TXPE 56308, F-2203
Florida P.E. # 51737

C.H.I.

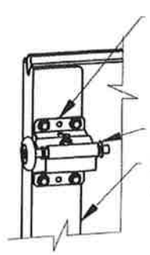
SCALE nts

DATE 05-25-2017

Models: 2X4X, 2X5X, 4X4X, 4X5X, 52XX, 59XX

C.H.I. Drawing: Z4-16-01306

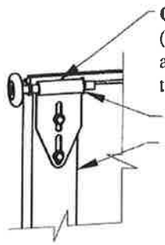
Details on some views may have been omitted for clarity.



Top Fixture
(.059) galvanized steel top fixture attached with four 1/4" x 3/4" screws.

push nut

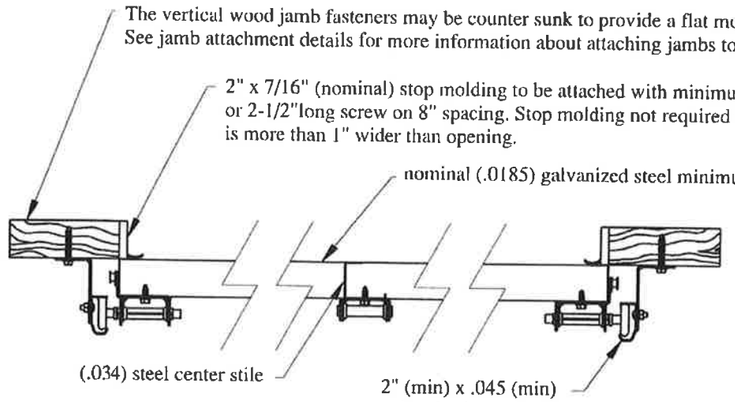
End Stile
(.034) steel end stile



Optional Top Fixture
(.109) galvanized steel top fixture attached with two 1/4" x 3/4" screws.

push nut

(.034) steel end stile



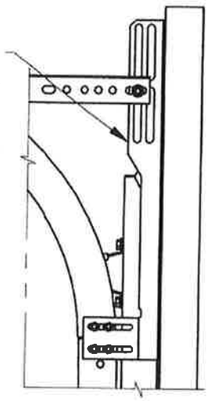
The vertical wood jamb fasteners may be counter sunk to provide a flat mounting surface. See jamb attachment details for more information about attaching jambs to structure.

2" x 7/16" (nominal) stop molding to be attached with minimum 8d nail or 2-1/2"long screw on 8" spacing. Stop molding not required when door is more than 1" wider than opening.

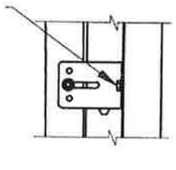
nominal (.0185) galvanized steel minimum

(.034) steel center stile

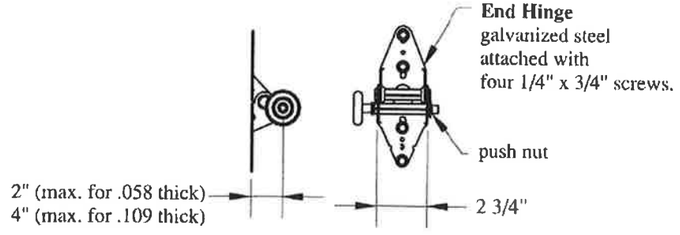
2" (min) x .045 (min) galvanized steel track



Flag Bracket
(.086) galvanized steel flag bracket attached to wood jamb with three 5/16" x 1-5/8" wood lag screws, to horizontal track with two 1/4" x 5/8" track bolts and nuts and to vertical track with two 1/4" x 5/8" track bolts and nuts.



Track Bracket
(.102) galvanized steel track bracket attached to wood jamb with one 5/16" x 1-5/8" wood lag screw per bracket and attached to vertical track with one 1/4" x 5/8" track bolt and nut or two 1/4" x 11/32" rivets.

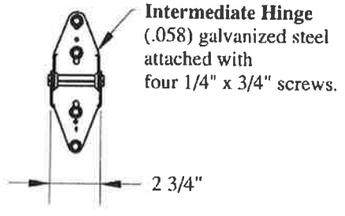


End Hinge
galvanized steel attached with four 1/4" x 3/4" screws.

push nut

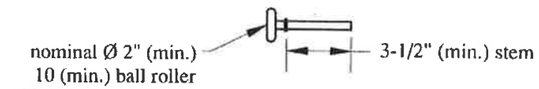
2" (max. for .058 thick)
4" (max. for .109 thick)

2 3/4"



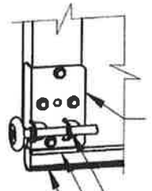
Intermediate Hinge
(.058) galvanized steel attached with four 1/4" x 3/4" screws.

2 3/4"



nominal Ø 2" (min.)
10 (min.) ball roller with nylon or steel tire.

3-1/2" (min.) stem

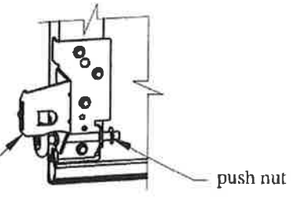


Bottom Bracket
(.102) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.

Vinyl weatherstrip

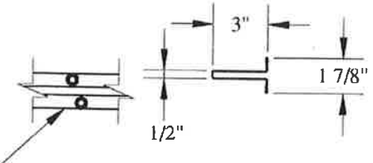
push nut

Aluminum extrusion



push nut

Optional Bottom Bracket
(.109) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.



3"

1 7/8"

1/2"

Strut
(.051) 50 ksi galvanized steel 3" strut attached with two 1/4" x 3/4" screws per stile.

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
TXPE 56308, F-2203
Florida P.E. # 51737

JOHN E. SCATES
LICENSE
No. 51737
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Professional Engineer's seal provided only for verification of windload construction details

C.H.I. OVERHEAD DOORS

SCALE nts
DATE 05-25-2017

Models: 2X4X, 2X5X, 4X4X, 4X5X, 52XX, 59XX

C.H.I. Drawing: Z4-16-01306

>10° Roof Slope / Residential Applications

C.H.I. Wind Zone	ASCE 7-05 Exp B MPH	ASCE 7-10 Exp B MPH	Pressure (PSF) by Door Width						
			8' x 7'	9' x 7'	10' x 7'	12' x 7'	14' x 7'	15' x 7'	≥ 16' x 7'
Zone 1	90	116	12.9/-14.7	12.8/-14.5	12.7/-14.3	12.5/-14.1	12.4/-13.9	12.3/-13.8	12.3/-13.7
Zone 2	100	129	16.0/-18.1	15.8/-17.9	15.7/-17.7	15.5/-17.4	15.3/-17.1	15.2/-17.0	15.2/-16.9
Zone 3	110	142	19.3/-21.9	19.1/-21.6	19.0/-21.4	18.7/-21.0	18.5/-20.7	18.4/-20.6	18.3/-20.4
Zone 4	120	155	23.0/-26.1	22.8/-25.8	22.6/-25.5	22.3/-25.0	22.0/-24.6	21.9/-24.5	21.8/-24.3
Zone 5	130	168	27.0/-30.6	26.7/-30.2	26.5/-29.9	26.2/-29.3	25.9/-28.9	25.7/-28.7	25.6/-28.5
Zone 6	140	181	31.3/-35.5	31.0/-35.1	30.8/-34.7	30.4/-34.0	30.0/-33.5	29.8/-33.3	29.7/-33.1
Zone 7	150	194	35.9/-40.8	35.6/-40.2	35.3/-39.8	34.8/-39.1	34.4/-38.5	34.3/-38.2	34.1/-38.0
Zone 8	156/*160	201/*206	38.6/-43.8	38.3/-43.3	38.0/-42.8	*39.7/-44.4	*39.2/-43.8	*39.0/-43.5	*38.8/-43.3
Zone 9	166	214	43.9/-49.8	43.6/-49.3	43.3/-48.7	42.7/-47.8	42.2/-47.1	42.0/-46.8	41.8/-46.6

*the higher Exp B values apply to doors greater than 10' wide

≤10° Roof Slope / Commercial Applications

C.H.I. Wind Zone	ASCE 7-05 Exp B MPH	ASCE 7-10 Exp B MPH	Pressure (PSF) by Door Width						
			8' x 8'	9' x 8'	10' x 8'	12' x 8'	14' x 8'	15' x 8'	≥ 16' x 8'
Zone 1	90	116	11.7/-13.3	11.6/-13.1	11.6/-13.0	11.4/-12.7	11.3/-12.6	11.2/-12.5	11.2/-12.4
Zone 2	100	129	14.5/-16.4	14.4/-16.2	14.3/-16.0	14.1/-15.7	13.9/-15.5	13.8/-15.4	13.8/-15.3
Zone 3	110	142	17.5/-19.9	17.4/-19.6	17.3/-19.4	17.0/-19.0	16.8/-18.8	16.7/-18.6	16.7/-18.5
Zone 4	120	155	20.9/-23.6	20.7/-23.3	20.5/-23.1	20.3/-22.7	20.0/-22.3	19.9/-22.2	19.8/-22.1
Zone 5	130	168	24.5/-27.7	24.3/-27.4	24.1/-27.1	23.8/-26.6	23.5/-26.2	23.4/-26.0	23.3/-25.9
Zone 6	140	181	28.4/-32.2	28.2/-31.7	28.0/-31.4	27.6/-30.8	27.3/-30.4	27.1/-30.2	27.0/-30.0
Zone 7	150	194	32.6/-36.9	32.3/-36.4	32.1/-36.0	31.7/-35.4	31.3/-34.9	31.1/-34.7	31.0/-34.5
Zone 8	154	199	34.3/-38.8	34.0/-38.3	33.7/-37.9	33.3/-37.2	32.9/-36.7	32.7/-36.5	32.6/-36.2
Zone 9	166	214	39.8/-45.0	39.4/-44.4	39.1/-44.0	38.6/-43.2	38.2/-42.5	38.0/-42.3	37.8/-42.0

General Notes

-Exp B values are to nearest miles-per-hour (MPH)

-Pressure values are pounds-per-square-foot (PSF)

-Positive pressure signifies pressure acting inward to the building

-Negative pressure signifies pressure acting outward from the building

-Enclosed structure classification with 2' of the door in the end zone

-60' x 40' building size (larger buildings may require higher negative PSF)

-30' Mean Roof Height (MRH), see chart for differing MRH and Exp values

-Greater door heights require lower PSF values to meet same MPH

ASCE 7-05 notes

-Importance Factor of 1.00

-Utilizes nominal / basic wind speeds

ASCE 7-10 notes

-Risk Catergory II

-Utilizes ultimate wind speeds

Mean Roof Height (MRH) / Exposures (Exp)

MRH	Exp B	Exp C	Exp D
15'	100%	90%	82%
20'	100%	88%	80%
25'	100%	86%	78%
30'	100%	84%	77%
35'	97%	83%	76%
40'	95%	81%	75%
45'	94%	80%	74%
50'	92%	80%	74%
55'	91%	79%	73%
60'	90%	78%	73%

These percentages reduce Exp B wind speeds to approximate MPH for mean roof heights shown in MRH column.

For Use With Drawing Number
Z4-16-01306

Strut Placement

	Door Height									
Section Number	6'-6" to 7'-0"	7'-6" to 8'-0"	8'-3" to 8'-9"	9'-0" to 10'-6"	10'-9" to 12'-3"	12'-6" to 14'-0"	14'-3" to 15'-9"	16'-0" to 17'-6"	17'-9" to 19'-3"	19'-6" to 20'-0"
12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A
11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B
10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B
9	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B 1 at Detail C
8	N/A	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
7	N/A	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
6	N/A	N/A	N/A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
5	N/A	1 at Detail A	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C
4	1 at Detail A	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
3	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
2	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B	1 at Detail B
1	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C	1 at Detail B 1 at Detail C

Push Nut Detail (use on all rollers)

use 3/8" I. D. on bottom fixture roller stem
use 7/16" I. D. on end hinge and top fixture roller stems

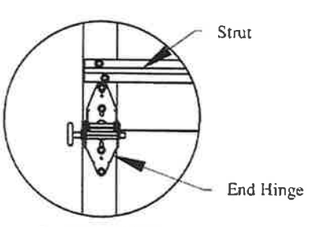
Push nut: Slide roller into fixture and tap push nut onto roller stem using 1/2" socket and hammer. Leave 1/8" to 1/4" space between push nut and fixture.

Track Bracket Spacing

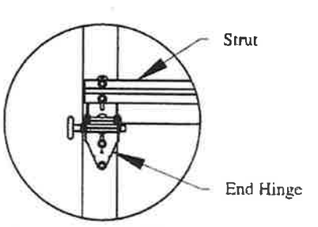
Track bracket spacing shown for doors up to four sections high. Additional door sections may be added for maximum door height depicted on line drawing. Track brackets must be added (per track) for each section and spaced at a distance not greater than the corresponding section height (see line drawing for required quantities).

Strut Placement Concerning Windows

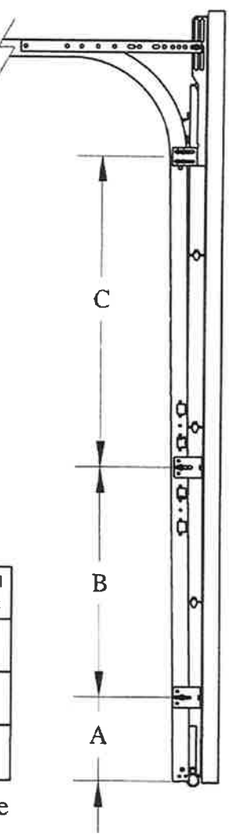
Where a strut crosses a window, it is acceptable to move the strut from a position of "Strut above hinge" down to "Strut on top half of the hinge".



Strut above hinge



Strut on top half of hinge

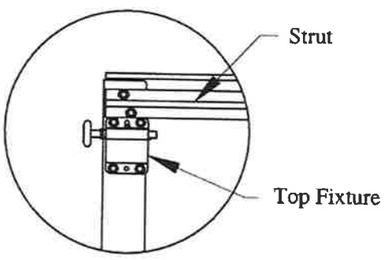


	Nominal Spacing
C	38"
B	28"
A	10"

+/-3" tolerance

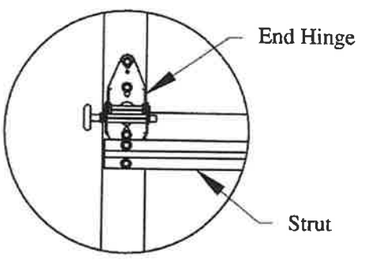
For Use With Drawing Number
Z4-16-01306

Strut Placement Detail



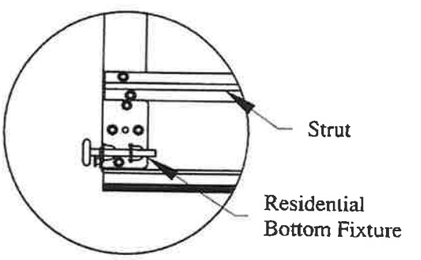
Strut above top fixture

Detail A



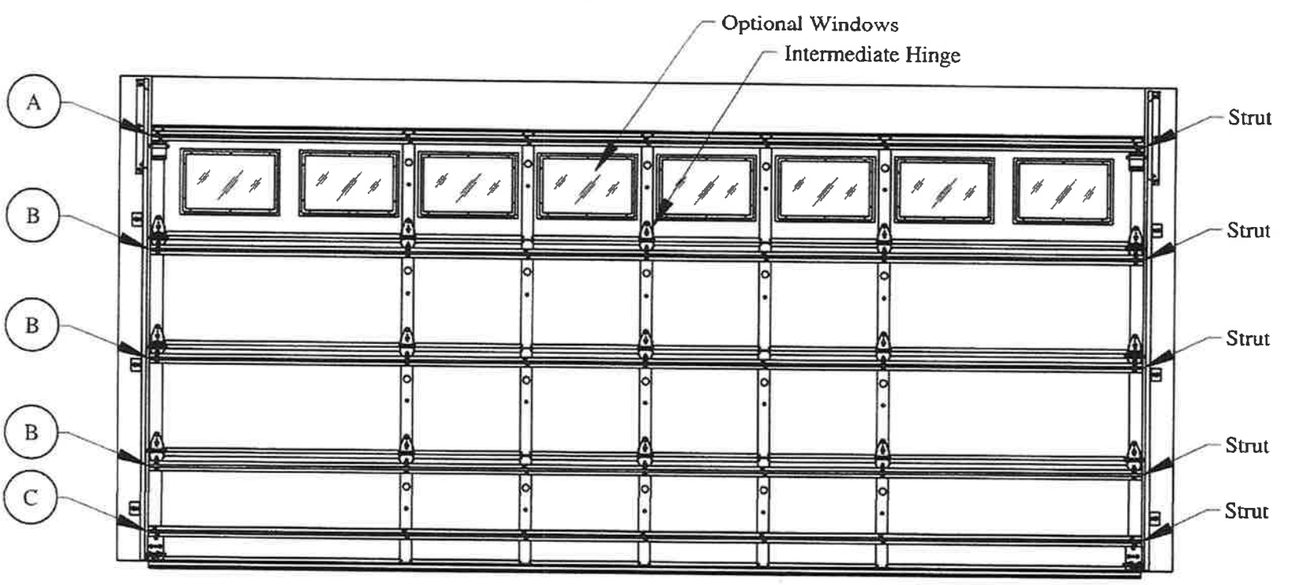
Strut on bottom half of hinge

Detail B



Strut above bottom fixture

Detail C



5 Struts

Use SP values only if both structure and jamb are Southern Pine.
Use SPF values when Spruce-Pine-Fir is present in structure or jamb material.
Lesser spacing may be used to avoid interference with door hardware and or fastening system.
Maximum spacing shown in chart.
Lag screw: 3/8" diameter x 3" minimum long; must conform to ANSI/ASME B18.2.1
When applying back jambs over dry wall or other non structural wall covering,
use longer lags screws to insure 1-1/2" minimum embedment required.
Washer: 1-1/8" minimum outside diameter, must conform to ANSI B18.22.1 type A.
Pre-drill 1/4" diameter pilot holes for lag screw insertion. 1-1/2" minimum lag screw edge distance required.

Spruce-Pine-Fir (SPF)

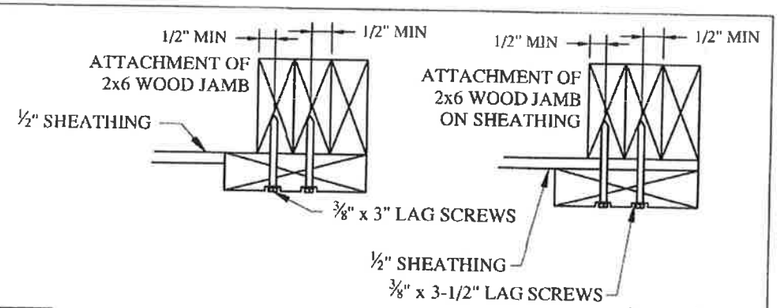
MAX LAG SCREW SPACING (Inches) FOR DOOR WIDTH (max) vs DESIGN PRESSURE

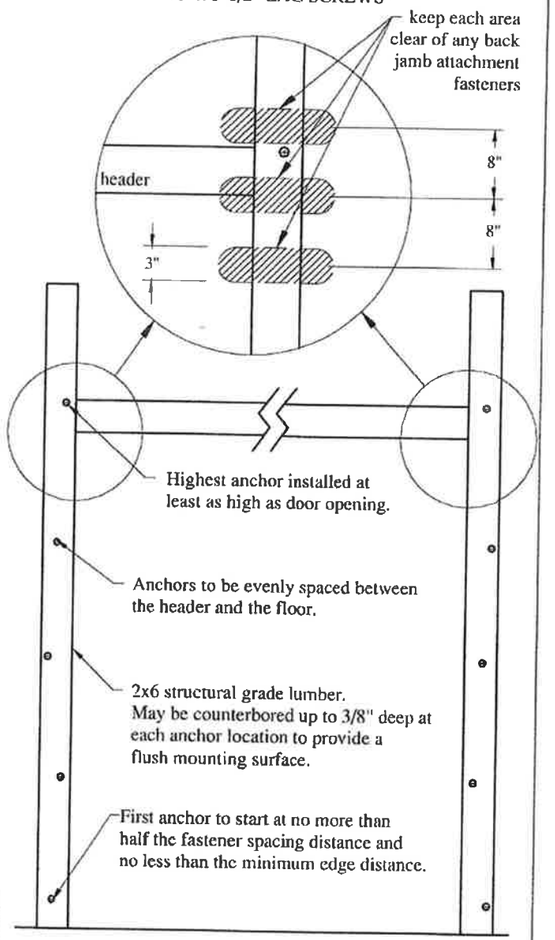
MAX WIDTH IN FEET	DESIGN PRESSURE IN POUNDS-PER-SQUARE-FEET (PSF)													
	12 PSF	15 PSF	18 PSF	21 PSF	24 PSF	27 PSF	30 PSF	33 PSF	36 PSF	39 PSF	42 PSF	46 PSF	50 PSF	53 PSF
≤ 9'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
10'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	21"
12'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	22"	20"	19"	18"
14'	24"	24"	24"	24"	24"	24"	24"	24"	22"	21"	19"	17"	16"	15"
15'	24"	24"	24"	24"	24"	24"	24"	23"	21"	19"	18"	16"	15"	14"
16'	24"	24"	24"	24"	24"	24"	24"	21"	20"	18"	17"	15"	14"	13"
18'	24"	24"	24"	24"	24"	23"	21"	19"	17"	16"	15"	13"	12"	12"
20'	24"	24"	24"	24"	24"	21"	19"	17"	16"	14"	13"	12"	11"	10"
22'	24"	24"	24"	24"	21"	19"	17"	15"	14"	13"	12"	11"	10"	9"
24'	24"	24"	24"	22"	20"	17"	16"	14"	13"	12"	11"	10"	9"	9"
26'	24"	24"	24"	21"	18"	16"	14"	13"	12"	11"	10"	9"	8"	8"
30'	24"	24"	21"	18"	16"	14"	12"	11"	10"	9"	9"	8"	7"	7"

Southern Pine (SP)

MAX LAG SCREW SPACING (Inches) FOR DOOR WIDTH (max) vs DESIGN PRESSURE

MAX WIDTH IN FEET	DESIGN PRESSURE IN POUNDS-PER-SQUARE-FEET (PSF)													
	12 PSF	15 PSF	18 PSF	21 PSF	24 PSF	27 PSF	30 PSF	33 PSF	36 PSF	39 PSF	42 PSF	46 PSF	50 PSF	53 PSF
≤ 10'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
12'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"
14'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	21"	20"
15'	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	21"	19"	18"
16'	24"	24"	24"	24"	24"	24"	24"	24"	24"	23"	22"	20"	18"	17"
18'	24"	24"	24"	24"	24"	24"	24"	24"	22"	21"	19"	17"	16"	15"
20'	24"	24"	24"	24"	24"	24"	24"	22"	20"	19"	17"	16"	14"	14"
22'	24"	24"	24"	24"	24"	24"	22"	20"	18"	17"	16"	14"	13"	12"
24'	24"	24"	24"	24"	24"	22"	20"	18"	17"	15"	14"	13"	12"	11"
26'	24"	24"	24"	24"	23"	21"	19"	17"	15"	14"	13"	12"	11"	10"
30'	24"	24"	24"	23"	20"	18"	16"	15"	13"	12"	11"	10"	9"	9"





Digitally signed by John E. Scates P.E.
Date: 2018.02.07 15:11:28 -06'00'

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Southern Pine (SP) specific gravity = 0.55; load per anchor = 620 pounds.
Spruce-Pine-Fir (SPF) specific gravity = 0.42; load per anchor = 482 pounds.
Maximum load per jamb = 0.5 x (door height) x (door width) x (maximum positive pressure)
These charts do not address spring pad connections to the building.
Alternative design may be approved by a registered professional engineer.
Supporting structural elements shall be designed by a registered professional engineer for wind loads in addition to other loads.

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
Florida P.E. # 51737
TXPE 56308, F-2203

Professional Engineer's seal provided only for verification of windload construction details.

C.H.I. OVERHEAD DOORS

SCALE none
DATE 4-25-2017

Back Jamb Attachment Detail
Lag Screw

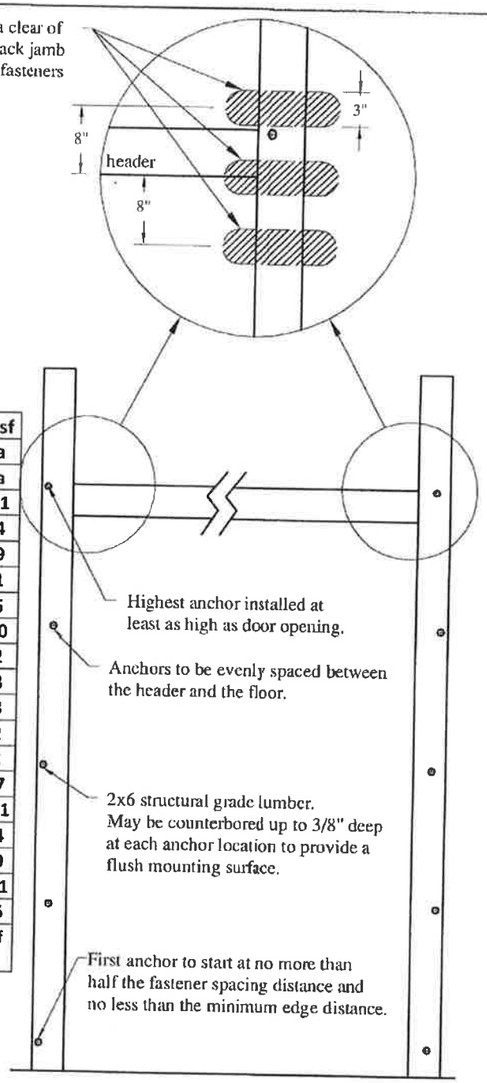
C.H.I. Drawing: BJA-102 | Rev.-06

Anchor: ITW Tapcon or Tapcon LDT or Simpson Strong-Tie.
ITW Ramset/ Redhead Tapcon, 1/4" diameter, minimum 3.5" long with washer that conforms to ANSI B18.22.1 type B.
ITW Ramset/ Redhead Large Diameter Tapcon, 3/8" diameter, minimum 4" long with washer that conforms to ANSI B18.22.1 type B.
Simpson Titen HD, 3/8" diameter, minimum 4" long with washer that conforms to ANSI B18.22.1 type B.
Simpson Wedge-All, 3/8" diameter, minimum 4" long with washer that conforms to ANSI B18.22.1 type B.
When applying back jambs over dry wall or other non structural wall covering, use longer fasteners to insure minimum embedment required.
This chart applies to wood species with specific gravity greater than or equal to 0.42 including spruce pine fir (SPF) and southern pine (SP).
See chart for minimum washer diameter. Washer diameters in chart are based on use of Spruce Pine Fir. Washers may be 10% smaller when Southern Pine is used.
See chart for minimum edge distance required. Lowest anchor to be greater than the minimum edge distance up from the floor and less than 10-inches from the floor.

FASTENER SPACING (inches)						DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																
2500 psi concrete				Filled CMU																		
ITW Tapcon				Simpson Strong-Tie																		
1/4"	1/4"	3/8"	3/8	3/8"	3/8"	14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf
24	24	24	24	24	24	22'-9	18'-9	15'-11	13'-3	11'-4	9'-11	8'-10	7'-11	7'-3	6'-7	6'-0	5'-6	5'-0	4'-7	4'-3	3'-11	n/a	n/a
24	22	24	24	24	24	24'-3	20'-0	17'-0	14'-1	12'-1	10'-7	9'-5	8'-6	7'-8	7'-0	6'-4	5'-10	5'-4	4'-11	4'-6	4'-2	n/a	n/a
24	20	24	24	24	16	26'-6	21'-9	18'-6	15'-5	13'-3	11'-7	10'-3	9'-3	8'-5	7'-8	7'-0	6'-4	5'-10	5'-4	4'-11	4'-6	4'-3	3'-11
24	18	24	22	24	16	28'-10	23'-9	20'-2	16'-10	14'-5	12'-7	11'-2	10'-1	9'-2	8'-5	7'-7	6'-11	6'-5	5'-10	5'-4	4'-11	4'-7	4'-4
24	17	24	20	24	16	31'-9	26'-2	22'-3	18'-6	15'-10	13'-10	12'-4	11'-1	10'-1	9'-3	8'-4	7'-8	7'-0	6'-5	5'-11	5'-5	5'-1	4'-9
24	15	24	18	24	16	34'-3	28'-2	24'-0	20'-0	17'-1	15'-0	13'-4	12'-0	10'-10	10'-0	9'-0	8'-3	7'-7	6'-11	6'-4	5'-11	5'-6	5'-1
24	15	24	17	16	16	36'-3	29'-10	25'-4	21'-2	18'-1	15'-10	14'-1	12'-8	11'-6	10'-7	9'-7	8'-9	8'-0	7'-4	6'-9	6'-3	5'-10	5'-5
22	13	24	16	16	8	n/a	32'-3	27'-5	22'-10	19'-7	17'-1	15'-2	13'-8	12'-5	11'-5	10'-4	9'-5	8'-8	7'-11	7'-3	6'-9	6'-3	5'-10
21	13	24	15	16	8	n/a	33'-10	28'-9	24'-0	20'-6	18'-0	16'-0	14'-4	13'-1	12'-0	10'-10	9'-11	9'-1	8'-4	7'-8	7'-1	6'-7	6'-2
19	12	24	14	16	8	n/a	n/a	31'-4	26'-1	22'-5	19'-7	17'-5	15'-8	14'-3	13'-0	11'-10	10'-9	9'-11	9'-1	8'-4	7'-8	7'-2	6'-8
16	10	24	12	16	8	n/a	n/a	36'-0	30'-0	25'-8	22'-6	20'-0	18'-0	16'-4	15'-0	13'-7	12'-4	11'-5	10'-5	9'-7	8'-10	8'-3	7'-8
16	10	24	11	8	8	n/a	n/a	n/a	31'-9	27'-2	23'-9	21'-2	19'-0	17'-3	15'-10	14'-4	13'-1	12'-1	11'-0	10'-1	9'-4	8'-9	8'-2
14	8	24	10	8	8	n/a	n/a	n/a	35'-9	30'-8	26'-10	23'-10	21'-5	19'-6	17'-10	16'-2	14'-9	13'-7	12'-5	11'-5	10'-7	9'-10	9'-2
12	7	20	9	8	8	n/a	n/a	n/a	n/a	n/a	30'-11	27'-5	24'-8	22'-5	20'-7	18'-8	17'-0	15'-8	14'-4	13'-2	12'-2	11'-4	10'-7
11	7	20	8	8	8	n/a	n/a	n/a	n/a	n/a	31'-10	28'-3	25'-6	23'-2	21'-3	19'-2	17'-7	16'-2	14'-9	13'-7	12'-7	11'-8	10'-11
10	6	17	7	8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-0	28'-9	26'-2	24'-0	21'-8	19'-10	18'-3	16'-8	15'-4	14'-2	13'-2	12'-4
9	n/a	16	6	8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-0	29'-1	26'-8	24'-1	22'-0	20'-3	18'-6	17'-0	15'-9	14'-8	13'-9
8	n/a	13	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	30'-11	28'-0	25'-7	23'-6	21'-6	19'-9	18'-3	17'-0	15'-11
n/a	n/a	12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-4	29'-7	27'-3	24'-10	22'-10	21'-2	19'-8	18'-5
2500 psi concrete				Filled CMU		14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf

ITW Tapcon		ITW LDT		Titen HD	Wedge-All	DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)
1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	FASTENER DIAMETER
1.75"	1.75"	2.5"	2.5"	2.75"	2.68"	EMBEDMENT LENGTH
1-1/8"	7/8"	1-1/2"	1"	1-1/8"	1-1/8"	WASHER DIAMETER
2-1/2"	2-1/2"	3"	3"	4"	4"	EDGE DISTANCE
508#	319#	859#	371#	480#	340#	FASTENER LOAD CAPACITY

keep each area clear of any back jamb attachment fasteners



Supporting structural elements shall be designed by a registered professional engineer for wind loads in addition to other loads. This drawing does not address the jamb/wall design, but only door attachment. Jamb/wall construction is shown only for illustration purposes. The building designer is responsible for ensuring that the jamb/wall is sufficient to carry the door live and static loads. This drawing does not address the spring pad connections. Registered professional engineer may approved an alternative design.

Manufacturer's installation instructions must be followed.
Maximum spacing shown in chart.
Lesser spacing may be used to avoid interference with door hardware and or fastening system, but not less than 6".
Load per jamb = 0.5 x door width x max positive pressure x door height.
8" CMU block walls shall comply with ASTM C90.
Use minimum 2000 psi grout or concrete when filling CMU.
CMU fastener spacing distance may vary +/-1".

Digitally signed by John E. Scates P.E.
Date: 2018.02.07 15:11:58 -06'00'

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
Florida P.E. # 51737
TXPE 56308, F-2203

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Professional Engineer's seal provided only for verification of windload construction details.

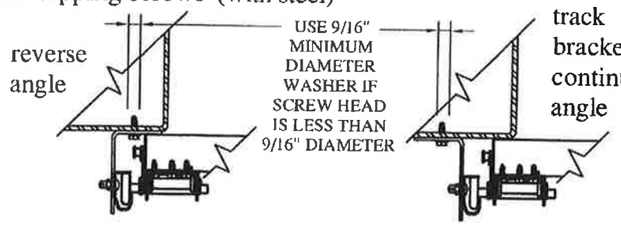
C.H.I. OVERHEAD DOORS

SCALE none
DATE 2-18-2015

Back Jamb Attachment Detail
Concrete Anchors

C.H.I. Drawing: BJA-101 | Rev.-07

Self tapping screws (with steel)

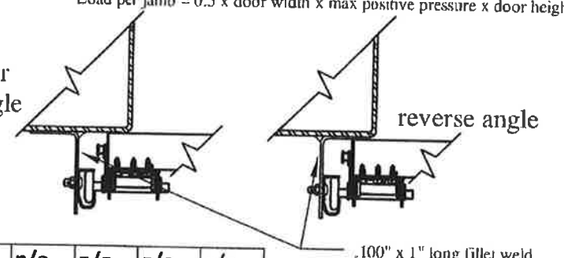


Screw: 1/4" dia x 3/4" self tapping screw; must conform to ANSI/ASME B18.2.1.
3/16" steel Jambs; allowable load per screw= 444 lbs.
Allowable load per screw; 12 gauge = 209 lbs,14 gauge = 143 lbs, and 16 gauge = 110 lbs.
Optional Washer: 9/16" O.D. minimum; must conform to ANSI B18.22.1 type A.
Washer not required if fastener head has minimum 9/16" outside diameter.
Lowest fastener to be within 10-inches of the floor
Maximum spacing shown in chart. Lesser spacing may be used to avoid interference with door component system.
Add holes to continuous angle as required to satisfy fastener spacing in these charts.
These charts do not address spring pad connections to the building.
Load per jamb = 0.5 x door width x max positive pressure x door height

ATTACHMENT SPACING (inches)						DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)															
SCREWS 16 ga jamb	SCREWS 14 ga jamb	SCREWS 12 ga jamb	WELDS 12 ga jamb	SCREWS 3/16" jamb	WELDS 3/16" jamb	14psf	17psf	20psf	24psf	28psf	32psf	36psf	40psf	44psf	48psf	53psf	58psf	63psf	69psf	75psf	81psf	87psf	93psf
24	31	36	36	36	36	7'-10	6'-5	5'-6	4'-7	3'-11	3'-5	3'-0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20	26	36	36	36	36	9'-5	7'-9	6'-7	5'-6	4'-8	4'-1	3'-8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
18	24	36	36	36	36	9'-11	8'-2	6'-11	5'-9	4'-11	4'-4	3'-10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
16	20	30	36	36	36	11'-9	9'-8	8'-3	6'-10	5'-10	5'-1	4'-7	4'-1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
14	18	26	36	36	36	13'-5	11'-1	9'-5	7'-10	6'-8	5'-10	5'-2	4'-8	4'-3	3'-11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12	16	24	36	36	36	14'-11	12'-3	10'-5	8'-8	7'-5	6'-6	5'-9	5'-2	4'-9	4'-4	3'-11	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12	15	22	36	36	36	15'-8	12'-11	11'-0	9'-2	7'-10	6'-10	6'-1	5'-6	5'-0	4'-7	4'-1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
9	12	17	36	36	36	20'-5	16'-9	14'-3	11'-11	10'-2	8'-11	7'-11	7'-1	6'-6	5'-11	5'-4	4'-11	4'-6	4'-1	n/a	n/a	n/a	n/a
8	10	16	36	34	36	22'-4	18'-5	15'-8	13'-0	11'-2	9'-9	8'-8	7'-10	7'-1	6'-6	5'-10	5'-4	4'-11	4'-6	4'-2	n/a	n/a	n/a
7	10	14	36	31	36	24'-6	20'-2	17'-1	14'-3	12'-3	10'-8	9'-6	8'-6	7'-9	7'-1	6'-5	5'-11	5'-5	4'-11	4'-6	4'-2	3'-11	n/a
6	8	12	36	25	36	29'-10	24'-7	20'-10	17'-5	14'-11	13'-0	11'-7	10'-5	9'-6	8'-8	7'-10	7'-2	6'-7	6'-0	5'-6	5'-1	4'-9	4'-5
6	7	11	36	24	36	31'-5	25'-10	22'-0	18'-4	15'-8	13'-9	12'-2	11'-0	10'-0	9'-2	8'-3	7'-7	6'-11	6'-4	5'-10	5'-5	5'-0	4'-8
n/a	6	8	36	18	36	40'-10	33'-7	28'-7	23'-10	20'-5	17'-10	15'-10	14'-3	13'-0	11'-11	10'-9	9'-10	9'-0	8'-3	7'-7	7'-0	6'-6	6'-1
n/a	5	7	36	16	36	n/a	39'-2	33'-3	27'-9	23'-9	20'-9	18'-6	16'-7	15'-1	13'-10	12'-6	11'-5	10'-6	9'-7	8'-10	8'-2	7'-7	7'-1
n/a	n/a	6	36	12	36	n/a	n/a	41'-9	34'-10	29'-10	26'-1	23'-2	20'-10	19'-0	17'-5	15'-9	14'-4	13'-3	12'-1	11'-1	10'-3	9'-7	8'-11
n/a	n/a	5	32	11	32	n/a	n/a	n/a	39'-9	34'-0	29'-9	26'-6	23'-10	21'-8	19'-10	18'-0	16'-5	15'-1	13'-9	12'-8	11'-9	10'-11	10'-3
n/a	n/a	n/a	30	10	30	n/a	n/a	n/a	n/a	36'-4	31'-9	28'-3	25'-5	23'-1	21'-2	19'-2	17'-6	16'-1	14'-8	13'-6	12'-6	11'-8	10'-11
n/a	n/a	n/a	26	9	26	n/a	n/a	n/a	n/a	n/a	36'-8	32'-7	29'-4	26'-8	24'-5	22'-1	20'-2	18'-7	17'-0	15'-7	14'-5	13'-5	12'-7
n/a	n/a	n/a	24	8	24	n/a	n/a	n/a	n/a	n/a	n/a	35'-4	31'-9	28'-10	26'-6	24'-0	21'-11	20'-2	18'-5	16'-11	15'-8	14'-7	13'-8
n/a	n/a	n/a	16	5	16	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32'-10	30'-3	27'-7	25'-5	23'-6	21'-11	20'-6
n/a	n/a	n/a	14	n/a	14	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31'-7	29'-0	26'-11	25'-0	23'-5
n/a	n/a	n/a	12	n/a	12	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31'-4	29'-2	27'-4
SCREWS 16 ga jamb	SCREWS 14 ga jamb	SCREWS 12 ga jamb	WELDS 12 ga jamb	SCREWS 3/16" jamb	WELDS 3/16" jamb	DOOR WIDTH (feet and inches) at a given DESIGN PRESSURE (PSF)																	
ATTACHMENT SPACING (inches)																							
110#	143#	209#	1272#	444#	1272#																		
LOAD PER FASTENER (pounds)																							

.100" x 1" fillet welds

Welds performed by a Certified Welder or inspected by a Certified Welding Inspector to verify integrity of welds.
12 gauge or 3/16" steel Jambs; allowable load per weld= 1,272 lbs.
Use all necessary precautions when welding galvanized steel.
Welds to be evenly spaced between header and floor.
Lowest weld to be within 10-inches of the floor
Minimum of 3 welds per jamb required.
Fillet welds to have a straight or convex face surface.
Tack weld toe of angle at same spacing to prevent rotation of track angle.
Cracks and blemishes shall be ground to a smooth contour and checked to ensure soundness.
These charts do not address spring pad connections to the building.
Load per jamb = 0.5 x door width x max positive pressure x door height



.100" x 1" long fillet weld (E60XX Electrodes Min). Weld to be located vertically on angle at spacing specified in chart and tack weld toe of angle or track bracket at same spacing.

Alternative design may be approved by a licensed professional engineer.

Supporting structural elements shall be designed by a licensed professional engineer for wind loads in addition to other loads.

This drawing does not address the jamb/wall design, but only door attachment. Jamb/wall construction is shown only for illustration purposes. The building designer is responsible for ensuring that the jamb/wall is sufficient to carry the door live and static loads.

John E. Scates, P.E.
2560 King Arthur, Ste 124-54
Lewisville, TX 75056
Florida P.E. # 51737
TXPE 56308, F-2203

JOHN E. SCATES LICENSE No. 51737 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by John E. Scates P.E.
Date: 2018.02.07 15:11:13 -06'00'

Professional Engineer's seal provided only for verification of windload construction details.

C.H.I. OVERHEAD DOORS

SCALE none

DATE 2-18-2015

Steel Attachment Detail

C.H.I. Drawing: BJA-103 | Rev.-07

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto www.myfloridalicense.com. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

dbpr STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CRC1329903 ISSUED: 07/28/2018
RESIDENTIAL CONTRACTOR
PIERCE, MITCHELL ORLAN
QUALITY GARAGE DOOR SERVICES

Signature
LICENSED UNDER CHAPTER 489, FLORIDA STATUTES
EXPIRATION DATE: AUGUST 31, 2020

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 7/23/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
J.W. Edens & Company
P.O. Box 278
Titusville FL 32781-0278

CONTACT NAME: Kimberly Bacon
PHONE (A/C, No, Ext): (321) 383-4554 **FAX (A/C, No):** (321) 383-4523
E-MAIL ADDRESS: kbacon@jwedens.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Southern Owners Insurance Co.	
INSURER B: Progressive Express Ins. Co.	10193
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Pierce, Inc., DBA: Quality Garage Door Services
1429 Chaffee Dr. Ste 1
Titusville FL 32780

COVERAGES **CERTIFICATE NUMBER:** CL1972308754 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC OTHER:			72697829	7/21/2019	7/21/2020	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS HIRED AUTOS X SCHEDULED AUTOS NON-OWNED AUTOS			065815190	2/28/2019	2/28/2020	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Uninsured motorist BI-single limit	$ 500,000 $ $ $ $ 100,000
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE AGGREGATE	$ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER
(407) 240-2222
City of Belle Isle
1600 Nela Ave.
Belle Isle, FL 32809

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
J. Wayne Edens/KIM

JIMMY PATRONIS
CHIEF FINANICAL OFFICER

STATE OF FLORIDA
DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

*** * CERTIFICATE OF ELECTION TO BE EXEMPT FROM FLORIDA WORKERS' COMPENSATION LAW * ***

CONSTRUCTION INDUSTRY EXEMPTION

This certifies that the individual listed below has elected to be exempt from Florida Workers' Compensation law.

EFFECTIVE DATE: 2/5/2018 **EXPIRATION DATE:** 2/5/2020

PERSON: PIERCE MITCHELL O

FEIN: 371604049

BUSINESS NAME AND ADDRESS:

PIERCE INC.

QUALITY GARAGE DOOR SERVICES

116 S. PARK AVE

TITUSVILLE FL 32796

SCOPE OF BUSINESS OR TRADE:

Licensed Residential Contractor

Machinery or Equipment Erection or Repair NOC & Drivers

IMPORTANT: Pursuant to Chapter 440.05(14), F.S., an officer of a corporation who elects exemption from this chapter by filing a certificate of election under this section may not recover benefits or compensation under this chapter. Pursuant to Chapter 440.05(12), F.S., Certificates of election to be exempt... apply only within the scope of the business or trade listed on the notice of election to be exempt. Pursuant to Chapter 440.05(13), F.S., Notices of election to be exempt and certificates of election to be exempt shall be subject to revocation if, at any time after the filing of the notice or the issuance of the certificate, the person named on the notice or certificate no longer meets the requirements of this section for issuance of a certificate. The department shall revoke a certificate at any time for failure of the person named on the certificate to meet the requirements of this section.

2018 - 2019

BREVARD COUNTY BUSINESS TAX RECEIPT
SUBJECT TO COUNTY ZONING RESTRICTIONS
TAX RECEIPT SHOULD BE DISPLAYED ON PREMISES

ACCOUNT NO.
885050192

THE PERSON(S), OR ENTITY BELOW:
QUALITY GARAGE DOOR SERVICES
116 S PARK AV
TITUSVILLE, FL 32796

BUSINESS PERIOD: **October 01, 2018 - September 30, 2019**
EXPIRES: **SEPTEMBER 30, 2019**

ISSUED PURSUANT AND SUBJECT TO FLORIDA STATUTES AND BREVARD COUNTY CODE ISSUANCE DOES NOT CERTIFY COMPLIANCE WITH ZONING OR OTHER LAWS.
BUSINESS TAX RECEIPT IS SUBJECT TO REVOCATION FOR ZONING VIOLATIONS, AND / OR FAILURE TO MAINTAIN REGULATORY PRE-REQUISITES AS REQUIRED FOR BUSINESS CLASSIFICATION(S), OR SUBSEQUENT ACTIVITIES. NOTIFY TAX COLLECTOR UPON CLOSING OF BUSINESS.
A PERMIT IS REQUIRED TO ADVERTISE (Including with signage) "GOING OUT OF BUSINESS".

LISA CULLEN, CFC, Brevard County Tax Collector
P O Box 2500, Titusville, Florida 32781-2500
(321) 264-6969 or (321) 633-2199

UPON A CHANGE OF OWNERSHIP OR LOCATION, BUSINESS TAX RECEIPT SHOULD BE TRANSFERRED WITHIN 30 DAYS

LOCATION:
116 S PARK AV
CITY OF TITUSVILLE, FL 32796

OWNED BY:
PIERCE INC

BUSINESS CLASSIFICATIONS, DISCLAIMERS, AND RELATED FEES:

EXEMPTIONS: 0.00

300505	CERT. RESIDENTIAL CONTR.
590501	HAZ WASTE GEN. SURCHARGE
820005	RECEIPT AMT
300301	GARAGE DOOR CONTRACTOR
600	CITY RESTRICTIONS APPLY

Receipt Fee	37.00
Hazardous Waste Fee	50.00
Zoning Application Fee	0.00
Building Occupancy Review Fee	0.00
Fire Prevention Fee	0.00
Late Penalty	0.00
NSF Fee	0.00
Transfer Fee	0.00

Paid 000-19-00000725 10/01/2018 87.00

MAIN OFFICE: 400 South St., 6th Floor, Titusville, FL 32780

BRANCH OFFICES:
Merritt Island Office, 1605 N. Courtenay Pkwy
Melbourne Office, 1515 Sarno Road
Palm Bay Office, 450 Cogan Dr. SE
Titusville Office, 800 Park Ave.
Indian Harbour Beach Office, 240 E. Eau Gallie Blvd.
Viera Office, 2725 Judge Fran Jamieson Way, #A108, Viera, FL 32940