

NOTE: Track configuration above the door opening does not affect the wind load rating of the door.

Door Height 8'-0" Shown  
See chart below for other door heights

Door Width 16'-2" Shown  
See chart below for other door widths

This product has been evaluated per ANSI/DASMA 108 for static air pressure.  
This product has been evaluated per ANSI/DASMA 115 for large missile impact and cyclic wind pressure.

Jamb bracket quantities shown are for use with grade 2 or better southern pine jambs. Supporting structural elements are to be designed by a registered professional engineer for specific wind loads.

Model Number	
HT_60 & 2_60 SERIES	HT_61 & 2_61 SERIES
HT_63 & 2_63 SERIES	HT_64 & 2_64 SERIES
HT_68 & 2_68 SERIES	HT_67 & 2_67 SERIES
HT_69 & 2_69 SERIES	HT_70 & 2_70 SERIES
HT_78 & 2_78 SERIES	HT_71 & 2_71 SERIES
HT_79 & 2_79 SERIES	HT_72 & 2_72 SERIES
HT_80 & 2_80 SERIES	HT_73 & 2_73 SERIES
HT_81 & 2_81 SERIES	HT_74 & 2_74 SERIES
HT_82 & 2_82 SERIES	HT_77 & 2_77 SERIES
HT_90 & 2_90 SERIES	HT_87 & 2_87 SERIES
HT_10 & 2_10 SERIES	

Door Height	Total No. of Sections	Total # of Struts (When lite section is the top section. If not see the notice at the right)	Jamb Brkts/Side
6'-0"	3	5	5
6'-0"	4	6	5
6'-3"	4	6	5
6'-6"	4	6	6
6'-9"	4	6	6
7'-0"	4	6	6
7'-3"	4	6	6
7'-6"	4	6	6
7'-6"	5	8	6
7'-9"	4	6	6
7'-9"	5	8	6
8'-0"	4	6	6
8'-0"	5	8	6

**NOTICE:** These drawings are a supplement to the installation instructions for a standard door and only covers those procedures that vary from standard door installation. If these specific procedures are not followed, the door may not perform as designed.

**NOTICE:** The lite section of this door may be replaced with a section with another lite style or a solid section. In either case the strut and stile configuration should remain the same.

**NOTICE:** Only one lite section per door is permitted. The lite section can be used anywhere except for the bottom section. If the lite section is not the top section then the struts must be located as shown in the STRUT CONFIGURATION on sheet 3 of 4.

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Door Widths Up To	Design Pressures		End Backers	Minimum Center		Minimum Center		Minimum Center		Impact Resistant
	+ psf	- psf		Stiles	Hinges	Stiles	Hinges	Stiles	Hinges	
10'-2"	38.0	-42.0	Single	4	2	3	1	3	1	YES
12'-2"	38.0	-42.0	Single	5	2	5	2	5	2	YES
14'-2"	38.0	-42.0	Single	6	4	5	2	7	3	YES
16'-2"	38.0	-42.0	Single	7	3	7	3	7	3	YES

This product is available in narrower sizes with the same PSF and constructed as shown.  
This product is designed and sold by PSF. The AHJ or Engineer of Record is responsible for determining the PSF required for any given site.

Maximum section height is 24 in.  
Maximum door height is 20 ft.  
All doors, even those above the tested height, are available with jamb brackets or commercial full angle. The maximum spacing of the jamb brackets/track clips should be maintained.

**IMPACT RESISTANT**

COMPLIES WITH IBC/IRC 2018 Professional Engineer seal provided only for verification of wind load construction details.

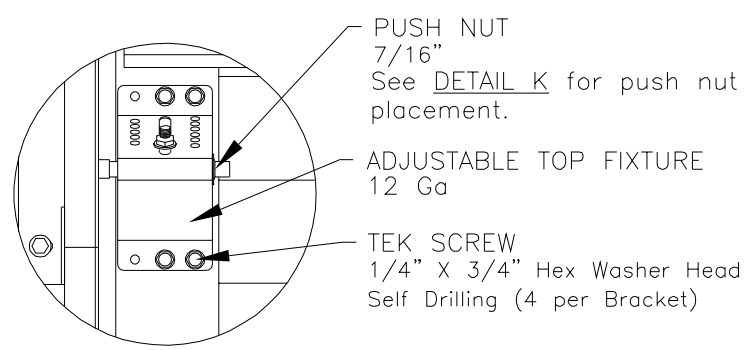
**DESCRIPTION:**  
16' 2" HT 600, 700 & 2000 SERIES W/IMPACT RESISTANT LITES & 800 SERIES WITHOUT LITES WIND LOAD SECTIONAL DOOR  
DESIGN PRESSURE +38.0/-42.0 PSF

**DRAWING NO.:** WLTl-0600-0194-08-38-42L **REV.** A

**DRAWN BY:** MVS **DATE DRAWN:** 10/25/18 **REV. DATE:** 3/1/22

**MODEL(S):** See Sheet 3 **SHEET: 1 OF 4**

320 Sycamore  
Wauseon, Ohio 43567  
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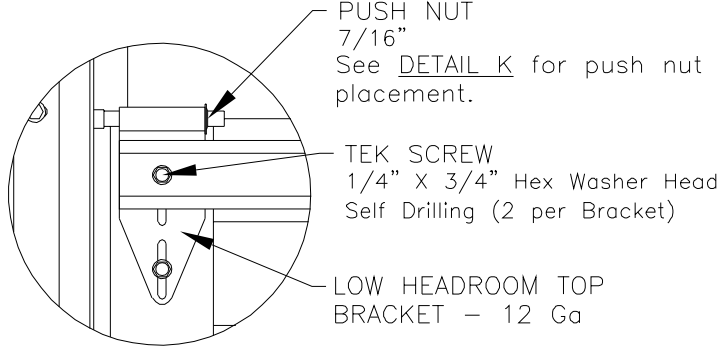


**DETAIL A**

PUSH NUT  
7/16"  
See DETAIL K for push nut placement.

ADJUSTABLE TOP FIXTURE  
12 Ga

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (4 per Bracket)

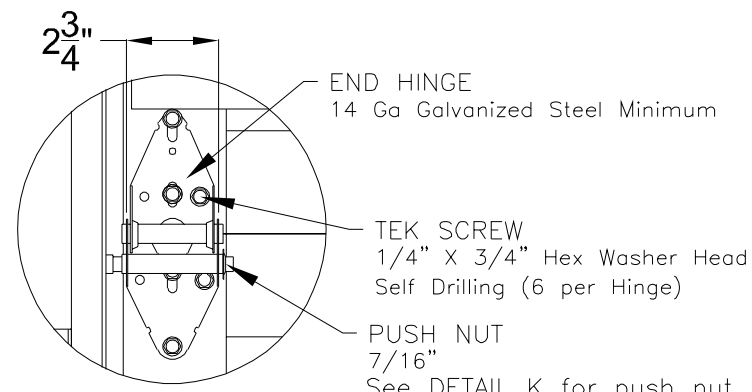


**LOW HEADROOM TOP BRACKET**

PUSH NUT  
7/16"  
See DETAIL K for push nut placement.

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (2 per Bracket)

LOW HEADROOM TOP BRACKET - 12 Ga

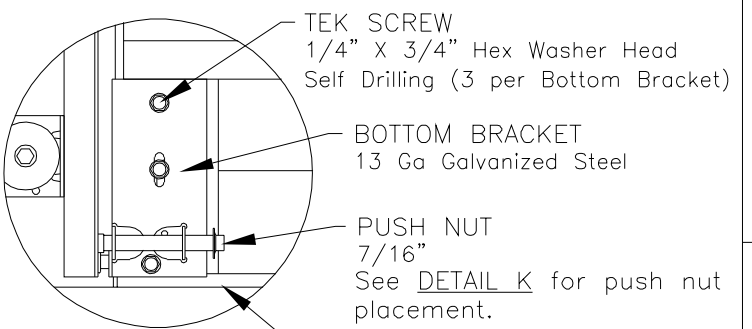


**DETAIL B**

END HINGE  
14 Ga Galvanized Steel Minimum

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (6 per Hinge)

PUSH NUT  
7/16"  
See DETAIL K for push nut placement.



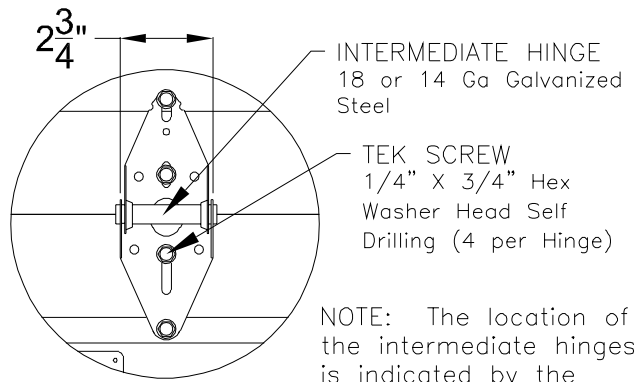
**DETAIL C**

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (3 per Bottom Bracket)

BOTTOM BRACKET  
13 Ga Galvanized Steel

PUSH NUT  
7/16"  
See DETAIL K for push nut placement.

BOTTOM SEAL

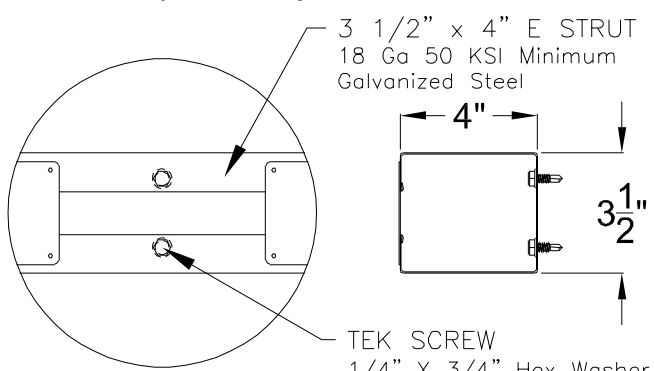


**DETAIL D**

INTERMEDIATE HINGE  
18 or 14 Ga Galvanized Steel

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (4 per Hinge)

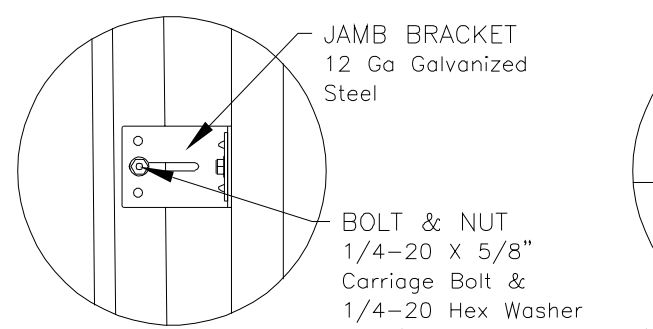
NOTE: The location of the intermediate hinges is indicated by the toggle lock dimples at the top of each section.



**DETAIL E**

3 1/2" x 4" E STRUT  
18 Ga 50 KSI Minimum Galvanized Steel

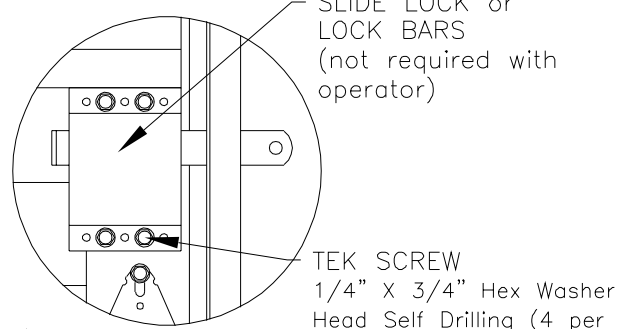
TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (2 per End & Intermediate Stiles)



**DETAIL F**

JAMB BRACKET  
12 Ga Galvanized Steel

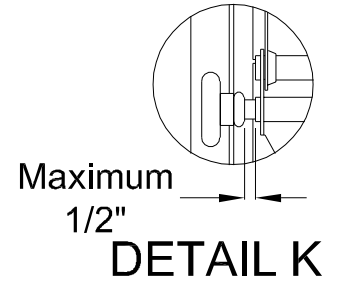
BOLT & NUT  
1/4-20 X 5/8" Carriage Bolt & 1/4-20 Hex Washer Nut (1 per Jamb Bracket)



**DETAIL G**

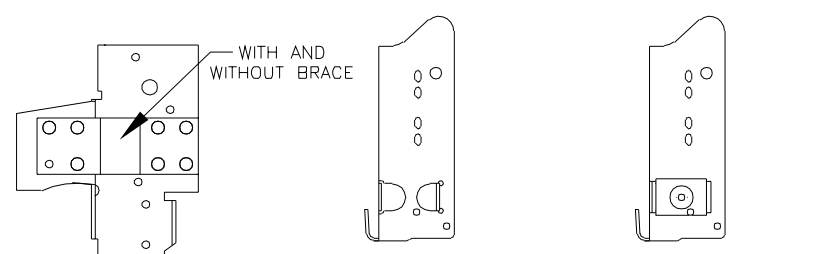
SLIDE LOCK or LOCK BARS  
(not required with operator)

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (4 per Slide Lock)



Maximum  
1/2"  
**DETAIL K**

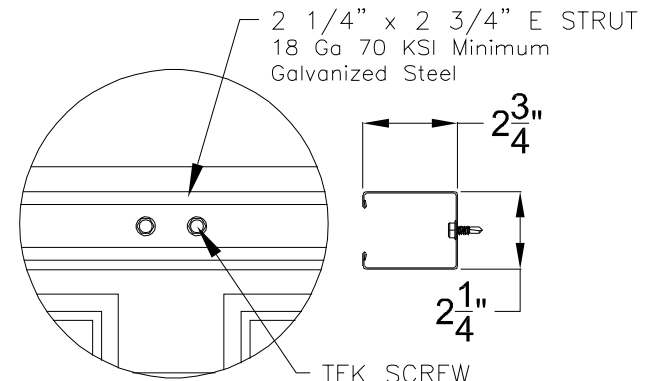
There should be a space of maximum 1/2" between the roller hub and the outside edge of the roller holder which is set by the push nut.



RESIDENTIAL & LIGHT COMMERCIAL  
For Low Headroom With 2" Track and Single End Stiles

COMMERCIAL  
For Standard, High & Vertical Lift With 2" Track and Single End Stiles

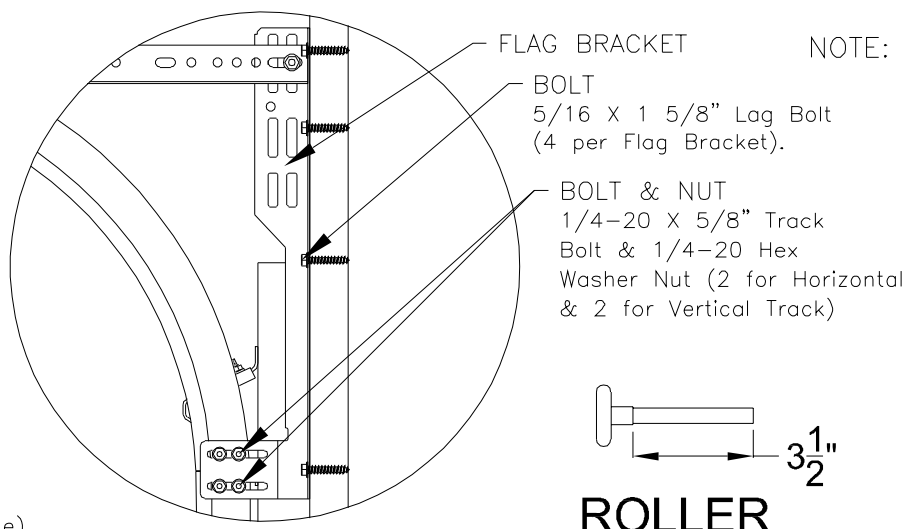
COMMERCIAL  
For Standard, High & Vertical Lift With 3" Track and Single End Stiles



**DETAIL J**

2 1/4" x 2 3/4" E STRUT  
18 Ga 70 KSI Minimum Galvanized Steel

TEK SCREW  
1/4" X 3/4" Hex Washer Head Self Drilling (1 per End Stile & 2 per Intermediate Stile)

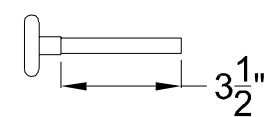


**DETAIL H**

FLAG BRACKET

BOLT  
5/16 X 1 5/8" Lag Bolt (4 per Flag Bracket).

BOLT & NUT  
1/4-20 X 5/8" Track Bolt & 1/4-20 Hex Washer Nut (2 for Horizontal & 2 for Vertical Track)

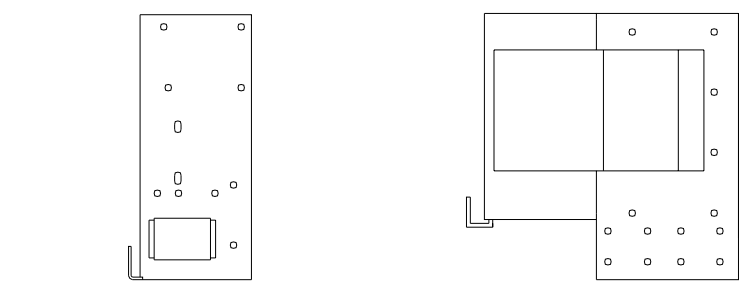


**ROLLER**

2" Diameter Nominal Eleven Ball Nylon or Ten Ball Steel with a Minimum Workable Shaft Length Shown.

NOTE: Details on some views omitted for clarity.  
Double end stiles and end hardware may be provided on wider or heavier doors.

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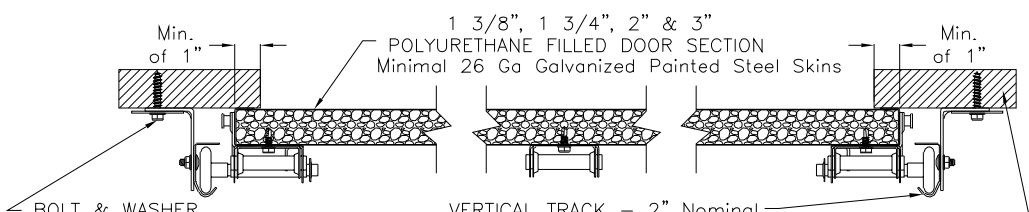


COMMERCIAL HEAVY DUTY  
For Standard, High & Vertical Lift With 3" Track and Double End Stiles

COMMERCIAL HEAVY DUTY  
For Low Headroom With 3" Track and Double End Stiles

**ALTERNATE BOTTOM BRACKETS**

NOTE: The bottom bracket tested (shown in DETAIL C) is the lightest bracket available.



1 3/8", 1 3/4", 2" & 3" POLYURETHANE FILLED DOOR SECTION  
Minimal 26 Ga Galvanized Painted Steel Skins

BOLT & WASHER  
5/16" X 1 5/8" Lag Bolt & 2" O.D. x 7/16" I.D. Flat Washer  
NOTE: Jamb bracket must be in direct contact with the 2x6 (No drywall allowed).  
NOTE: The flat washer is not required for angle mount.

VERTICAL TRACK - 2" Nominal 13 Ga Galvanized Steel tested. 3" Nominal 13 Ga is also approved as an alternate.

WOOD JAMB  
The vertical wood jamb fasteners may be counter sunk to provide a flat mounting surface. See jamb attachment details on sheet 3 for attaching jamba to the structure.

**IMPACT RESISTANT**

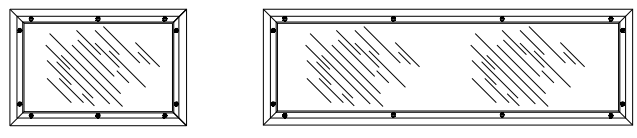
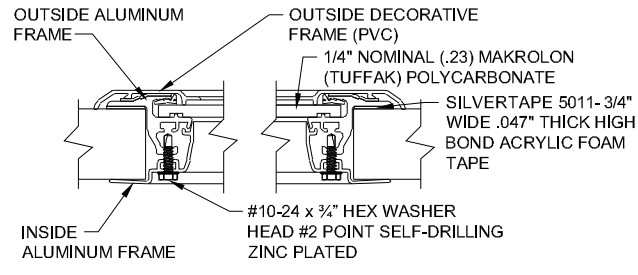


<b>DESCRIPTION:</b> 16' 2" HT 600, 700 & 2000 SERIES W/IMPACT RESISTANT LITES & 800 SERIES WITHOUT LITES WIND LOAD SECTIONAL DOOR DESIGN PRESSURE +38.0/-42.0 PSF	
<b>DRAWING NO.:</b> WLTI-0600-0194-08-38-42L	<b>REV.:</b> A
<b>DRAWN BY:</b> MVS	<b>DATE DRAWN:</b> 10/25/18
<b>MODEL(S):</b> See Sheet 3	<b>REV. DATE:</b> 3/1/22
<b>SHEET: 2 OF 4</b>	

# MODEL NUMBERS AND IMPACT LITE OPTIONS

MODEL NUMBERS AVAILABLE	LITE OPTIONS AVAILABLE				
	CARRIAGE HOUSE	RANCH	STANDARD	LARGE COMMERCIAL 24 x 12	SMALL COMMERCIAL 24 x 6
HT_10 & 2_10 SERIES	X	X	X		
HT_60 & 2_60 SERIES	X				
HT_61 & 2_61 SERIES	X				
HT_63 & 2_63 SERIES	X				
HT_64 & 2_64 SERIES	X				
HT_67 & 2_67 SERIES	X				
HT_68 & 2_68 SERIES	X				
HT_69 & 2_69 SERIES	X				
HT_70 & 2_70 SERIES		X			
HT_71 & 2_71 SERIES		X			
HT_72 & 2_72 SERIES		X			
HT_73 & 2_73 SERIES		X			
HT_74 & 2_74 SERIES		X			
HT_78 & 2_78 SERIES		X			
HT_79 & 2_79 SERIES		X			
HT_80 & 2_80 SERIES			X		
HT_81 & 2_81 SERIES			X		
HT_82 & 2_82 SERIES			X		
HT_87 & 2_87 SERIES			X		
HT_90 & 2_90 SERIES			X		
American Tradition 900/9000 SERIES					
	38 1/2" x 12 1/2"	38 1/2" x 10 1/2"	17 1/2" x 10 1/2"		
	DAY LIGHT OPENING (DLO) - WIDE x TALL				

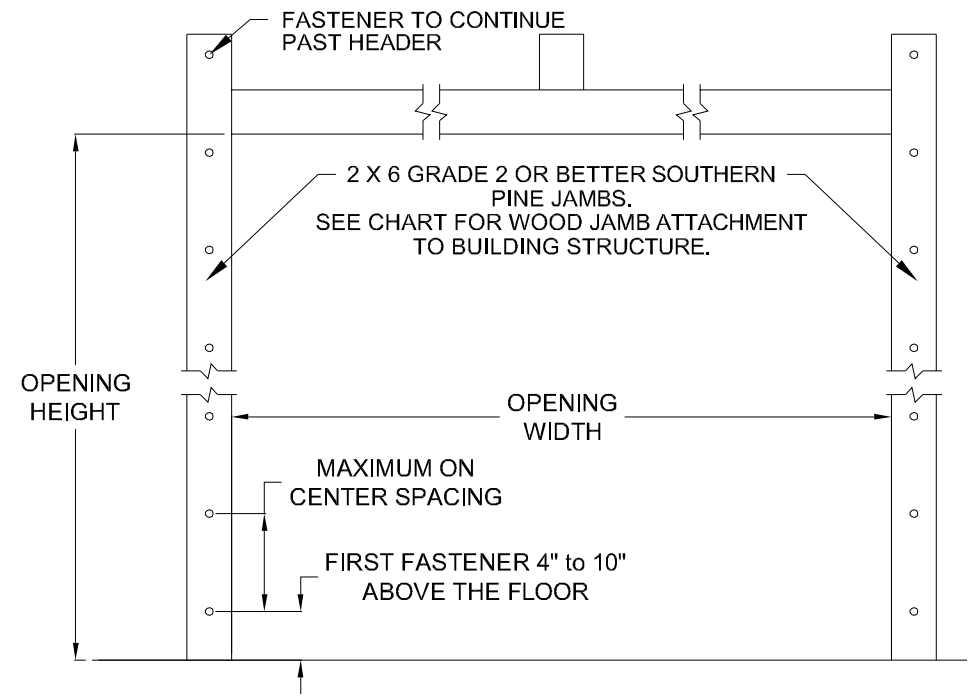
NOTE: IMPACT LITES NOT AVAILABLE IN 800 SERIES DOORS.



NOTE: 10 SCREWS USED. NOTE: 12 SCREWS USED.

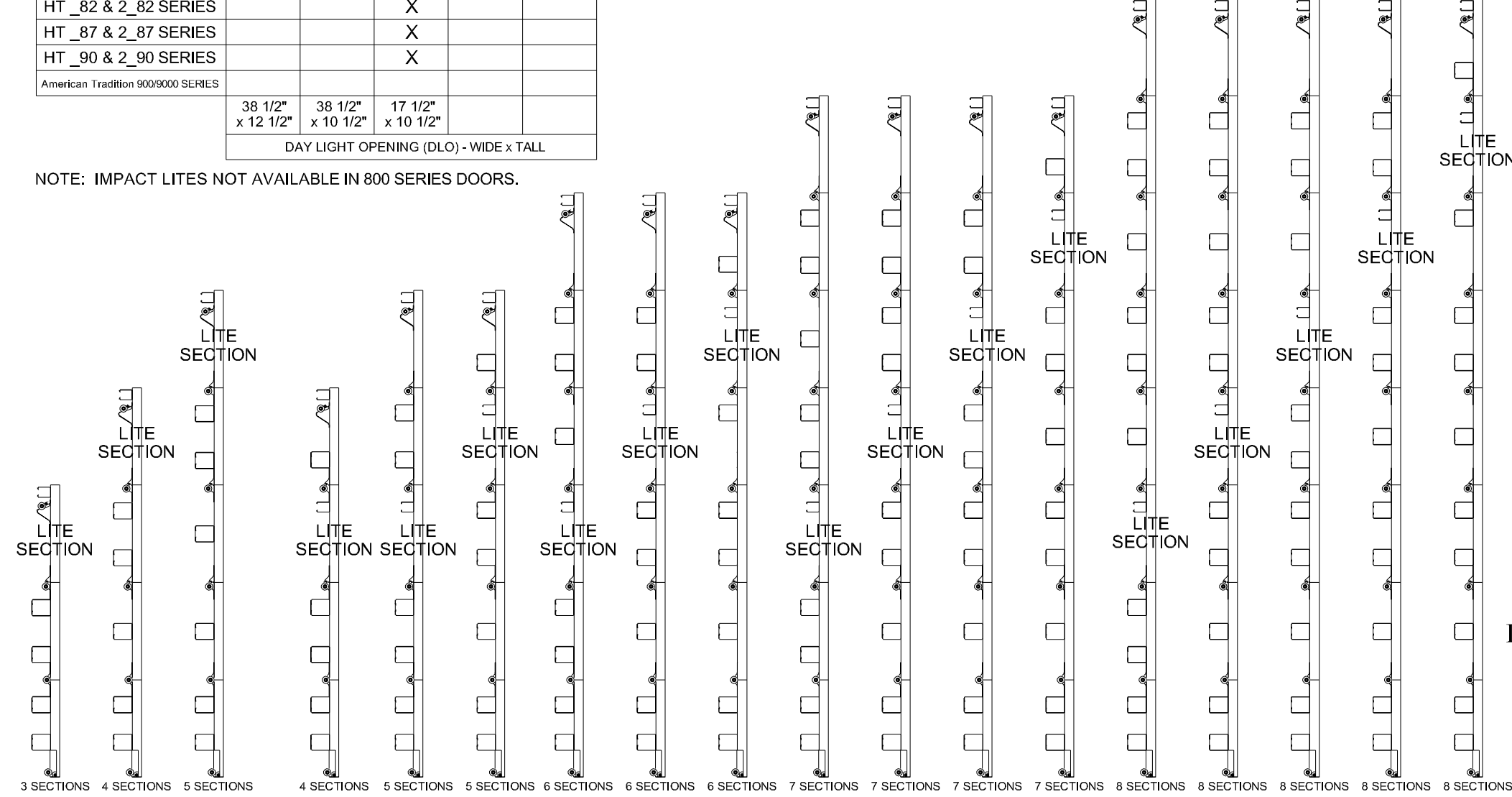
## GLAZING DETAIL

NOTE: ALL GLAZING IS IMPACT RESISTANT MAKROLON (TUFFAK) GENERAL PURPOSE OR UV RESISTANT POLYCARBONATE WITH A 1/4 NOMINAL (.23) THICKNESS.



WOOD JAMB ATTACHMENT						
Building Structure	Fastener Type	Minimum Embedment	Minimum Edge Distance	Minimum on Center Spacing	Maximum on Center Spacing	Allowable Tension Load
Min. 2500 PSI to 4000 PSI Concrete	Tapcon + (PLUS) 1/4" w/ 1" OD washer	2"	2.50"	5.00"	21"	551
Southern Pine	3/8" Lag w/ 1 1/8" OD washer	1.50"	1.50"	1.50"	24"	620
Spruce Pine Fir	3/8" Lag w/ 1 1/8" OD washer	1.50"	1.50"	1.50"	18"	482

NOTE: 2X6 mounted to the wall must be Southern Pine Grade 2 or better.



## STRUT CONFIGURATION

IMPACT RESISTANT

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Professional Engineer seal provided only for verification of wind load construction details.

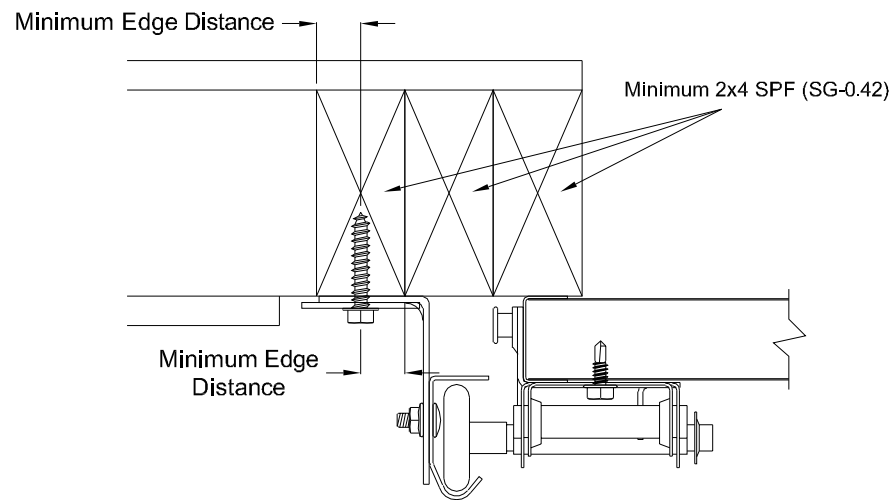
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DESIGN PRESSURE +38.0/-42.0 PSF

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**DRAWN BY:** MVS **DATE DRAWN:** 10/25/18 **REV. DATE:** 3/1/22

**MODEL(S):** See Sheet 3 **SHEET: 3 OF 4**

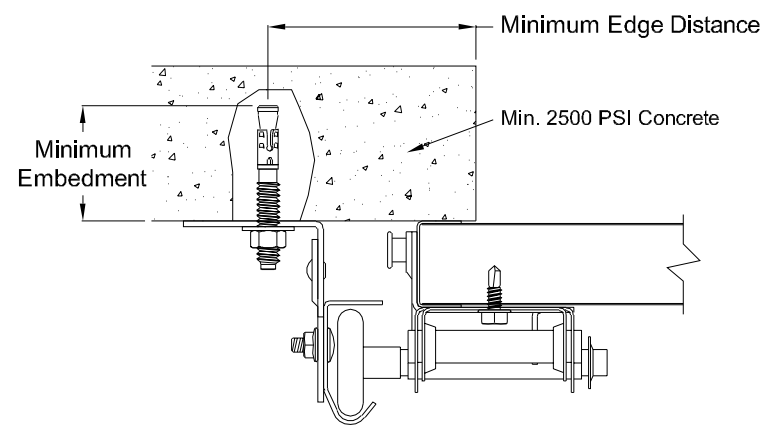
320 Sycamore  
Wauseon, Ohio 43567  
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### Direct Wood Mounting Detail

Bracket Mount Shown, Reverse and Continuous Angle Mount Also Approved As Alternate.

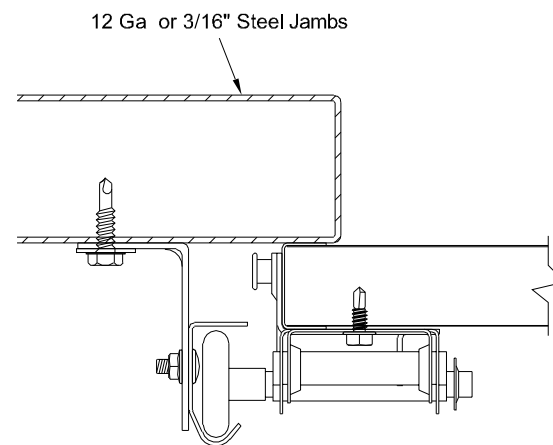
- 439 lbs. per anchor allowable load
- 5/16" Dia. Lag Screw w/1-1/8" O.D. Flat Washer (shall conform to ANSI/ASME standard B18.2.1)
- Minimum Screw Length: Spruce-Pine-Fur (SPF) - 2-1/2"  
Southern Pine - 1-5/8"
- Minimum Edge Distance: 1/2"
- Maximum on Center Spacing: 17"



### Direct Concrete Mounting Detail

Continuous Angle Clip Mount Shown, Bracket and Reverse Continuous Angle Mount Also Approved As Alternate.

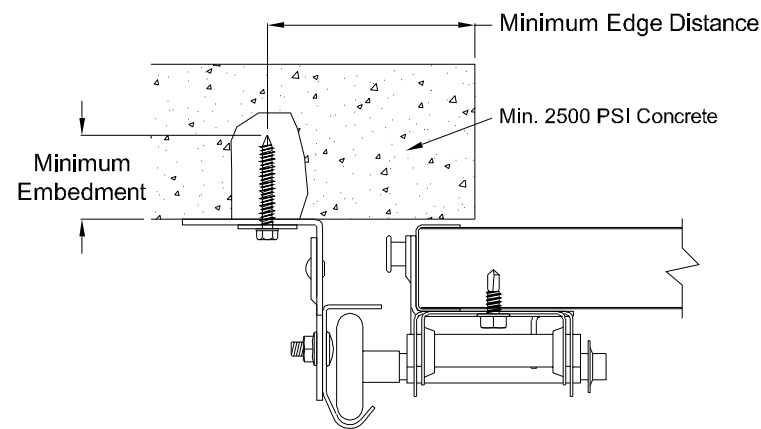
- 831 lbs. per anchor allowable load
- 3/8" Dia. Ankr-Tite CCAT w/1-1/8" O.D. Flat Washer (by Wej-It Fastening Systems)
- Minimum Embedment: 2-5/8"
- Minimum Edge Distance: 2-1/2"
- Minimum on Center Spacing: 6"
- Maximum on Center Spacing: 24"



### Direct Steel Mounting Detail

Bracket Mount Shown, Reverse and Continuous Angle Mount Also Approved As Alternate.

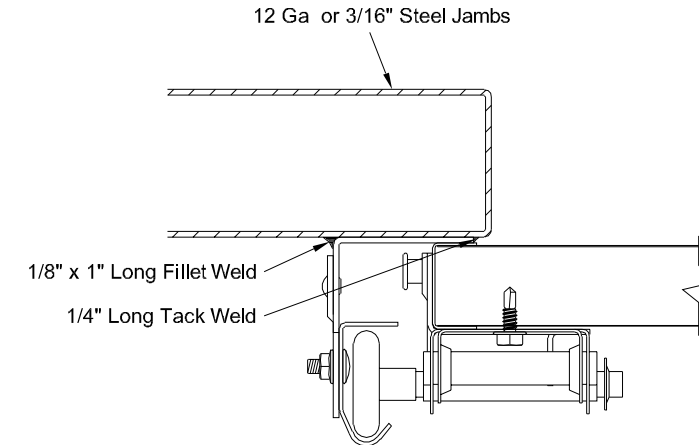
- 232 lbs. per anchor allowable load - 12 Ga Ste569el
- lbs. per anchor allowable load - 3/16" Ga Steel
- 5/16"-12 Tek Self-Drilling Screw w/9/16" O.D. Flat Washer
- 12 Ga Maximum on Center Spacing: 9"
- 3/16" Maximum on Center Spacing: 22"



### Direct Concrete Mounting Detail

Continuous Angle Clip Mount Shown, Bracket and Reverse Continuous Angle Mount Also Approved As Alternate.

- 562 lbs. per anchor allowable load
- 1/4" Dia. Concrete Self-Tapping & Wedge Anchor w/1" O.D. Flat Washer (Includes Tapcon+ (by ITW), Wedge-Bolt+ (by Powers Fasteners) & Red Head TruBolt wedge anchor (by ITW))
- Minimum Embedment: 2"
- Minimum Edge Distance: 2-1/2"
- Minimum on Center Spacing: 5"
- Maximum on Center Spacing: 22"



### Direct Steel Mounting Detail

Reverse Continuous Angle Clip Mount Shown, Continuous Angle Mount Also Approved As Alternate.

- 1272 lbs. per anchor allowable load
- 1/8" Nom. x 1" Long Fillet and 1/4" Long Tack Weld (E60xx Electrodes Min.)
- Welds performed by a certified welder or inspected by a certified welding inspector to verify integrity of the welds.
- Maximum on Center Spacing: Apply welds at each roller location not to exceed 24"

**IMPACT RESISTANT**

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