

Door Height	Section Quantity	C-Channel Quantity	Track Brackets Per Side	Angle Clips Per Side
7'-0" to 8'-0"	4	4	4	4
8'-9" to 10'-0"	5	5	5	5
10'-6" to 12'-0"	6	6	6	6
12'-3" to 14'-0"	7	7	7	7
14'-3" to 16'-0"	8	8	8	8
16'-3" to 18'-0"	9	9	9	9
18'-3" to 20'-0"	10	10	10	10
20'-3" to 22'-0"	11	11	11	11
22'-3" to 24'-0"	12	12	12	12

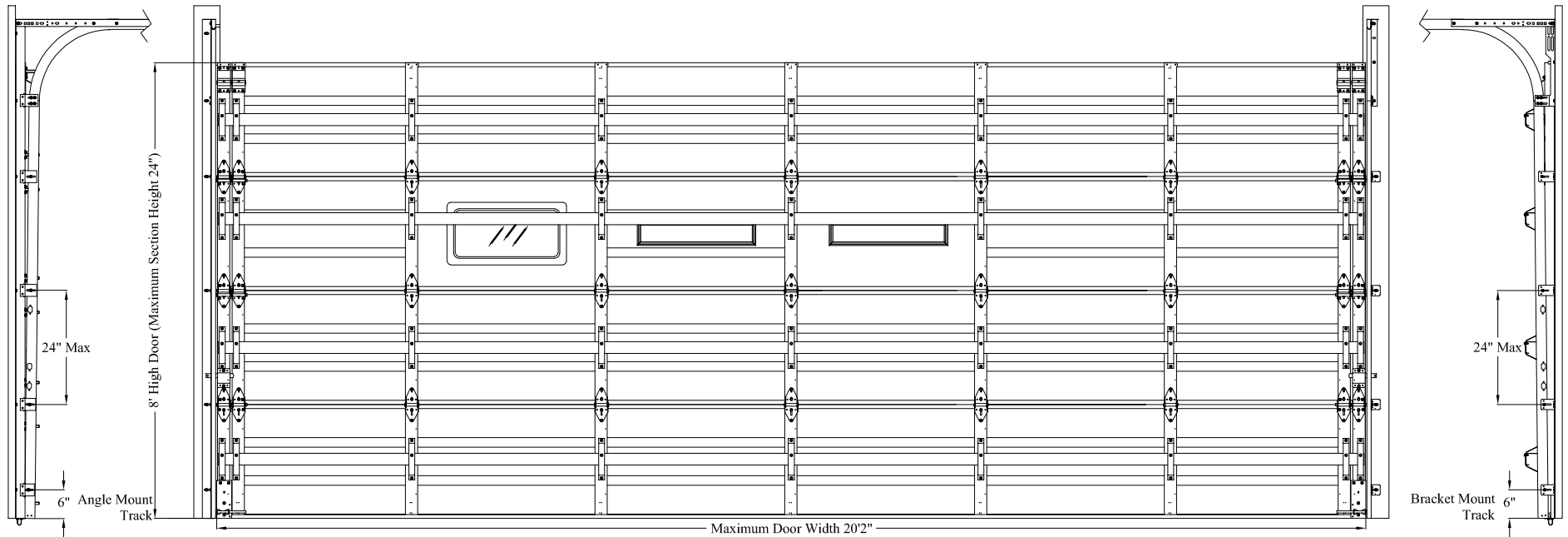
Note: Maximum door height is 24'. Detail views shown on Sheets 2-3. Consult Sheet 4 for C-Channel and Section Location Chart.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED


John E. Scates, PE
 2560 King Arthur Blvd. Ste 124-54
 Lewisville, TX 75056
 FL PE 51737
 TX PE 56308 / F-2203

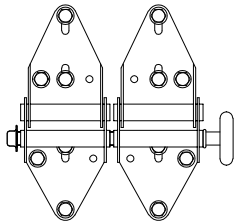
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Model Numbers Available
4500 Series
4400 Series



- NOTE:**
1. This product has been evaluated per ANSI/DASMA 108 and ASTM E330.
 2. This product complies with the requirements of the 2018 IBC/IRC.
 3. Doors with glazing not qualified for use in windborne debris regions.
 4. This drawing provides windload assembly details for the claimed size and pressures.

Max Size: 202" x 24' Design Pressure: +20.2/-22.8	 5700 NW 39th Street Riverside, MO 64150	DESCRIPTION: Wind Load Rated Commercial Pan Sectional Garage Door 20'2" Wide 4500 and 4400 Series Doors	
		DRAWING NUMBER: CO20A_20.2_22.8	REV: 00
DRAWN BY: DMK	DATE DRAWN: 7/11/22	REV DATE: 7/11/22	
SIZE: ANSI A	SCALE: NTS	SHEET: 1 of 4	

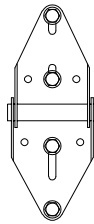


End Hinge

14 gauge galvanized steel double end hinges attached with four 1/4" x 3/4" screws and two 1/4" x 5/8" self tapping screws each.

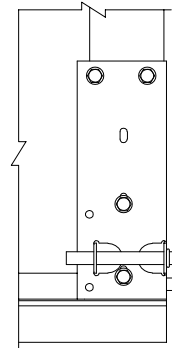
Roller

Minimum nylon roller or 10 ball steel roller with 7" stem and push nuts on all hinge rollers.



Center Hinge

14 gauge galvanized steel wide body hinge attached with four 1/4" x 3/4" screws.



End and Center Stiles

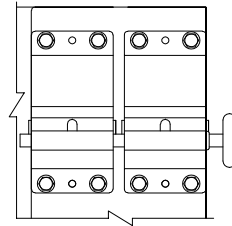
18 gauge galvanized steel stiles attached to section with two rivets on each end.

Bottom Bracket

13 gauge galvanized steel bottom bracket attached with four 1/4" x 5/8" self-tapping screws (push nut not required on roller).

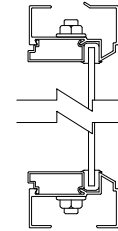
Bottom Weatherstrip

Aluminum extrusion with vinyl insert.



Top Fixture

12 gauge galvanized steel double top fixtures attached to door with four 1/4" x 5/8" self-tapping screws each (push nut not required on roller).

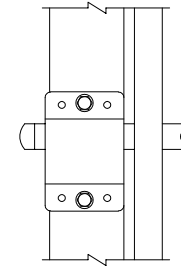


Full Vision Section (optional)

Section made up of .050" min wall extruded aluminum rails and .062" wall extruded aluminum stiles and assembled with 5/16" all-thread.

1/8" DSB annealed glass, 1/8" DSB tempered Glass, 1/4" annealed glass, 1/4" tempered glass, or 1/2" insulated glass comprised of (2) annealed DSB glass or (2) tempered DSB glass is held in place on all four sides with gasket and snap in aluminum clip.

Section shall be reinforced similar to the standard sections per location within the door with the strut(s) located over the hinges for strength and concealment.



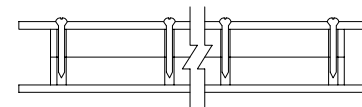
Locking Mechanism

Door requires (2) locking device(s) installed (inside slide lock shown, other lock types permitted) that engage both vertical tracks.



C-Channels


4" x 2 1/2" 16 gauge 50 ksi C-channel attached with one 1 1/4" wide 16 gauge strap and four 1/4" x 5/8" self-tapping screws per stile (minimum length is door width minus 2").

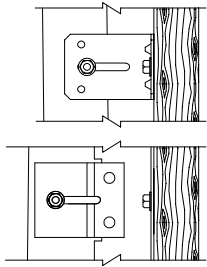


Windows (optional)

Windows available in sizes listed below. Frames are molded plastic.

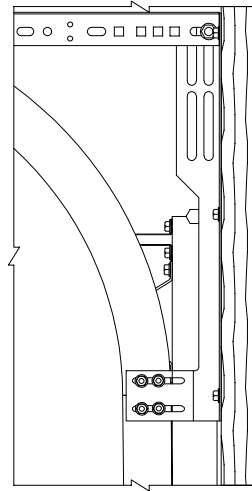
Frame	Max Daylight Opening	Fastener Pattern	Glazing Types
24x6	23-1/2" x 3-1/2"	#8-3/4" (10) total, (3) along each horizontal edge & (2) along each vertical edge	0.100" Polycarbonate
24x12	21-3/4" x 9-3/4"	#8-2" (16) total, (5) along each horizontal edge & (3) along each vertical edge	1/2" IG Consisting of (2) Pieces of 1/8" DSB Annealed or Tempered Glass With 1/4" Spacer

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Track Clips and Brackets

2 1/4" wide x 12 gauge galvanized steel track bracket attached to vertical track with one 1/4" x 3/4" track bolt and nut. 2 1/2" x 12 gauge galvanized steel track clip riveted to vertical angle and attached to vertical track with one 1/4" x 3/4" track bolt and nut.



Bracket Mount Track

Flag Bracket

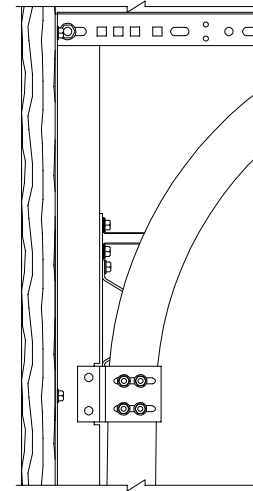
12 gauge galvanized steel flag bracket attached to jamb with three appropriate fasteners according to the jamb material and to the horizontal and vertical tracks with two 1/4" x 3/4" track bolts and nuts each.

Horizontal Track and Angle

Horizontal track and angle to suit with suitable back hang. Standard lift is shown, vertical lift and high lift are acceptable.

Vertical Track

2" galvanized steel track with a minimum thickness of .056" or 3" galvanized steel track with a minimum thickness of .096".



Angle Mount Track

Vertical Angle

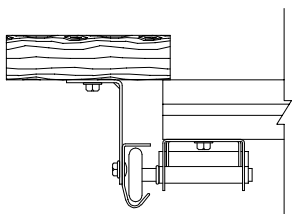
12 gauge galvanized steel angle attached to jamb with appropriate fasteners according to the jamb material at each track clip location as well as one 3" down from the top of the angle and one 3" up from the floor.

Horizontal Track and Angle

Horizontal track and angle to suit with suitable back hang. Standard lift is shown, vertical lift and high lift are acceptable.

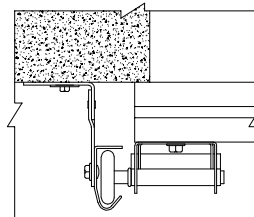
Vertical Track

2" galvanized steel track with a minimum thickness of .056" or 3" galvanized steel track with a minimum thickness of .096".



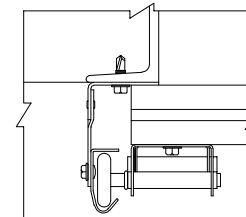
Wood Jamb

Vertical jamb is to be 2x6 Southern Yellow Pine (SYP) or better. Bracket or angle mounted track attached to jamb with 5/16" x 1 5/8" wood lag screws. Angle mount track to wood must have same number of fasteners and spacing as bracket mount detail. Minimum jamb overlap is 1/2".



Concrete Jamb


Vertical jamb is to be 2500 psi minimum concrete with bracket or angle mounted track secured to jamb with minimum 1/4" diameter Tapcon+ (PLUS) fasteners and 1" O.D. washers and minimum embedment of 2". The minimum edge distance required is 2 1/2" and the minimum jamb overlap is 1/2".



Steel Jamb


Vertical jamb is to be 3/16" minimum steel (may be back-filled with concrete but not required) with angle mounted track secured to jamb with minimum 5/16" Tek Self-Drilling screws. Minimum jamb overlap is 1/2".

Note: Preparation of jambs by others. Supporting structural elements must be capable of withstanding the rated windload. Refer to DASMA TDS 161 or a licensed design professional for additional jamb configurations.

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C-Channel and Sections Location Chart																										
Door Height	Section Heights												C-Channel Locations					Track Bkts/Clips								
7-0	21	21	21	21									10.5	31.5	52.5	73.5			4							
7-3	24	21	21	21									12	34.5	55.5	76.5			4							
7-6	24	24	21	21									12	36	58.5	79.5			4							
7-9	24	24	24	21									12	36	60	82.5			4							
8-0	24	24	24	24									12	36	60	84			4							
8-9	21	21	21	21	21								10.5	31.5	52.5	73.5	94.5		5							
9-0	24	21	21	21	21								12	34.5	55.5	76.5	97.5		5							
9-3	24	24	21	21	21								12	36	58.5	79.5	101		5							
9-6	24	24	24	21	21								12	36	60	82.5	104		5							
9-9	24	24	24	24	21								12	36	60	84	107		5							
10-0	24	24	24	24	24								12	36	60	84	108		5							
10-6	21	21	21	21	21	21							10.5	31.5	52.5	73.5	94.5	115.5	6							
10-9	24	21	21	21	21	21							12	34.5	55.5	76.5	97.5	118.5	6							
11-0	24	24	21	21	21	21							12	36	58.5	79.5	101	121.5	6							
11-3	24	24	24	21	21	21							12	36	60	82.5	104	124.5	6							
11-6	24	24	24	24	21	21							12	36	60	84	107	127.5	6							
11-9	24	24	24	24	24	21							12	36	60	84	108	130.5	6							
12-0	24	24	24	24	24	24							12	36	60	84	108	132	6							
12-3	21	21	21	21	21	21	21						10.5	31.5	52.5	73.5	94.5	115.5	136.5	7						
12-6	24	21	21	21	21	21	21						12	34.5	55.5	76.5	97.5	118.5	139.5	7						
12-9	24	24	21	21	21	21	21						12	36	58.5	79.5	101	121.5	142.5	7						
13-0	24	24	24	21	21	21	21						12	36	60	82.5	104	124.5	145.5	7						
13-3	24	24	24	24	21	21	21						12	36	60	84	107	127.5	148.5	7						
13-6	24	24	24	24	24	21	21						12	36	60	84	108	130.5	151.5	7						
13-9	24	24	24	24	24	24	21						12	36	60	84	108	132	154.5	7						
14-0	24	24	24	24	24	24	24						12	36	60	84	108	132	156	7						
14-3	24	21	21	21	21	21	21	21					12	34.5	55.5	76.5	97.5	118.5	139.5	160.5	8					
14-6	24	24	21	21	21	21	21	21					12	36	58.5	79.5	101	121.5	142.5	163.5	8					
14-9	24	24	24	21	21	21	21	21					12	36	60	82.5	104	124.5	145.5	166.5	8					
15-0	24	24	24	24	21	21	21	21					12	36	60	84	107	127.5	148.5	169.5	8					
15-3	24	24	24	24	24	21	21	21					12	36	60	84	108	130.5	151.5	172.5	8					
15-6	24	24	24	24	24	24	21	21					12	36	60	84	108	132	154.5	175.5	8					
15-9	24	24	24	24	24	24	24	21					12	36	60	84	108	132	156	178.5	8					
16-0	24	24	24	24	24	24	24	24					12	36	60	84	108	132	156	180	8					
16-3	24	24	21	21	21	21	21	21	21				12	36	58.5	79.5	101	121.5	142.5	163.5	184.5	9				
16-6	24	24	24	21	21	21	21	21	21				12	36	60	82.5	104	124.5	145.5	166.5	187.5	9				
16-9	24	24	24	24	21	21	21	21	21				12	36	60	84	107	127.5	148.5	169.5	190.5	9				
17-0	24	24	24	24	24	21	21	21	21				12	36	60	84	108	130.5	151.5	172.5	193.5	9				
17-3	24	24	24	24	24	24	21	21	21				12	36	60	84	108	132	154.5	175.5	196.5	9				
17-6	24	24	24	24	24	24	24	21	21				12	36	60	84	108	132	156	178.5	199.5	9				
17-9	24	24	24	24	24	24	24	24	21				12	36	60	84	108	132	156	180	202.5	9				
18-0	24	24	24	24	24	24	24	24	24				12	36	60	84	108	132	156	180	204	9				
18-3	24	24	24	21	21	21	21	21	21	21			12	36	60	82.5	104	124.5	145.5	166.5	187.5	208.5	10			
18-6	24	24	24	24	24	24	24	21	21	21	21		12	36	60	84	107	127.5	148.5	169.5	190.5	211.5	10			
18-9	24	24	24	24	24	24	24	21	21	21	21		12	36	60	84	108	130.5	151.5	172.5	193.5	214.5	10			
19-0	24	24	24	24	24	24	24	21	21	21	21		12	36	60	84	108	132	154.5	175.5	196.5	217.5	10			
19-3	24	24	24	24	24	24	24	24	21	21	21		12	36	60	84	108	132	156	178.5	199.5	220.5	10			
19-6	24	24	24	24	24	24	24	24	24	21	21		12	36	60	84	108	132	156	180	202.5	223.5	10			
19-9	24	24	24	24	24	24	24	24	24	24	21		12	36	60	84	108	132	156	180	204	226.5	10			
20-0	24	24	24	24	24	24	24	24	24	24	24		12	36	60	84	108	132	156	180	204	228	10			
20-3	24	24	24	24	21	21	21	21	21	21	21		12	36	60	84	107	127.5	148.5	169.5	190.5	211.5	232.5	11		
20-6	24	24	24	24	24	21	21	21	21	21	21		12	36	60	84	108	130.5	151.5	172.5	193.5	214.5	235.5	11		
20-9	24	24	24	24	24	24	21	21	21	21	21		12	36	60	84	108	132	154.5	175.5	196.5	217.5	238.5	11		
21-0	24	24	24	24	24	24	24	21	21	21	21		12	36	60	84	108	132	156	178.5	199.5	220.5	241.5	11		
21-3	24	24	24	24	24	24	24	24	21	21	21		12	36	60	84	108	132	156	180	202.5	223.5	244.5	11		
21-6	24	24	24	24	24	24	24	24	24	21	21		12	36	60	84	108	132	156	180	204	226.5	247.5	11		
21-9	24	24	24	24	24	24	24	24	24	24	21		12	36	60	84	108	132	156	180	204	228	250.5	11		
22-0	24	24	24	24	24	24	24	24	24	24	24		12	36	60	84	108	132	156	180	204	228	252	11		
22-3	24	24	24	24	24	21	21	21	21	21	21	21		12	36	60	84	108	130.5	151.5	172.5	193.5	214.5	235.5	12	
22-6	24	24	24	24	24	24	21	21	21	21	21	21		12	36	60	84	108	132	154.5	175.5	196.5	217.5	238.5	12	
22-9	24	24	24	24	24	24	24	24	24	21	21	21		12	36	60	84	108	132	156	178.5	199.5	220.5	241.5	262.5	12
23-0	24	24	24	24	24	24	24	24	24	21	21	21		12	36	60	84	108	132	156	180	202.5	223.5	244.5	265.5	12
23-3	24	24	24	24	24	24	24	24	24	24	21	21		12	36	60	84	108	132	156	180	204	226.5	247.5	268.5	12
23-6	24	24	24	24	24	24	24	24	24	24	21	21		12	36	60	84	108	132	156	180	204	228	250.5	271.5	12
23-9	24	24	24	24	24	24	24	24	24	24	24	21		12	36	60	84	108	132	156	180	204	228	252	274.5	12
24-0	24	24	24	24	24	24	24	24	24	24	24	24		12	36	60	84	108	132	156	180	204	228	252	276	12

- NOTE:**
 5. Sequential section heights left to right as stacked from floor to ceiling.
 6. Individual c-channel locations in inches from bottom of door.
 7. Section stacking order may be changed to accommodate window section placement or other factors. C-channel locations shall be adjusted accordingly.
 8. 18" tall sections may be used (4500 series doors).

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