

Door Height	Section Quantity	C-Channel Quantity	Track Brackets Per Side
6'-0" to 7'-0"	4	4	5
7'-6" to 8'-3"	5	5	6
8'-6" to 8'-9"	5	5	7
9'-0" to 9'-9"	6	6	7
10'-0" to 10'-6"	6	6	8
10'-9" to 11'-0"	7	7	8
11'-3" to 12'-3"	7	7	9
12'-6"	8	8	9
12'-9" to 14'-0"	8	8	10

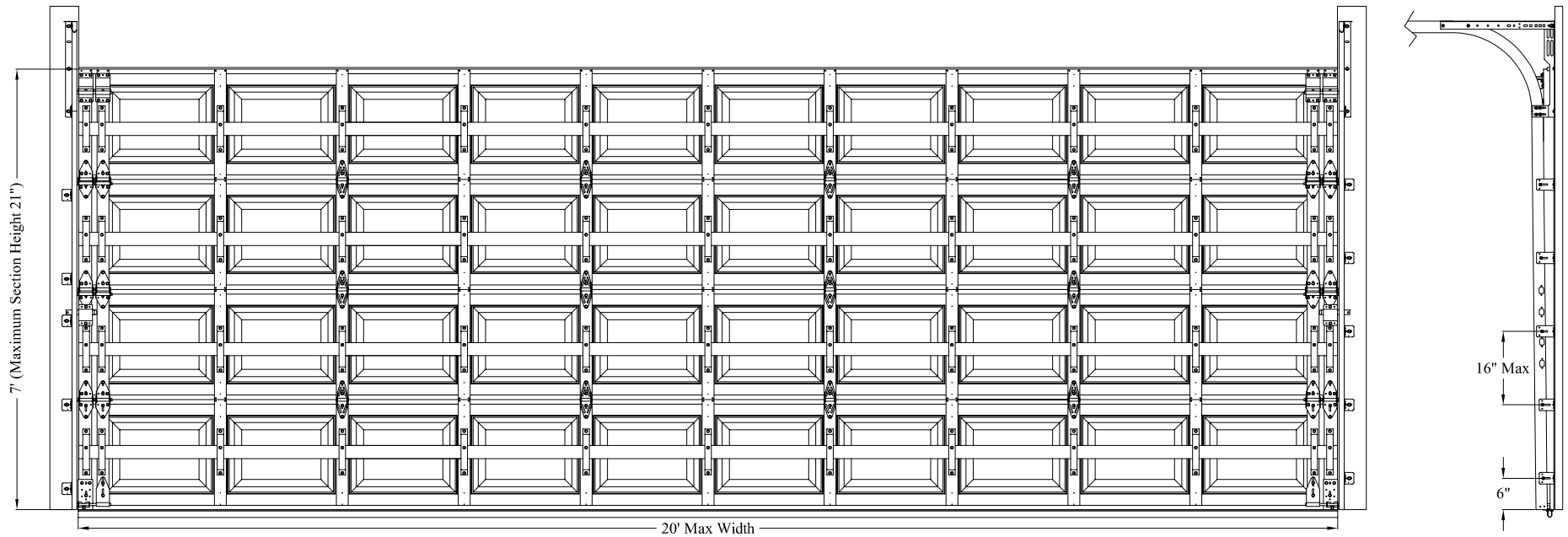
Note: Maximum door height is 14'. Consult Sheet 3 for C-Channel and Section Location Chart. Detail views shown on Sheet 2.

Model Numbers Available
410, 411, 430, 431, 450, 451

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED


John E. Scates, PE
2560 King Arthur Blvd. Ste 124-54
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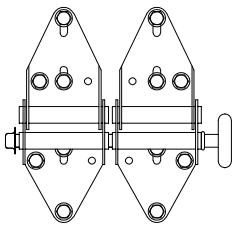
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



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. 500 Series doors not available.
5. Not all models available. Consult drawing for model references.
6. This drawing provides windload assembly details for the claimed size and pressures.

Max Size: 20' x 14' Design Pressure: +28.4/-28.4 PSF	 5700 NW 39th Street Riverside, MO 64150	DESCRIPTION: Wind Load Rated Residential Pan Sectional Garage Door 20' Wide 400 Series Doors ^{4,5}		
		DRAWING NUMBER: RO20A_28.4_28.4	REV: 00	
DRAWN BY: DMK	DATE DRAWN: 7/11/22	REV DATE: 7/11/22		
SIZE: ANSI A	SCALE: NTS	SHEET: 1 of 3		

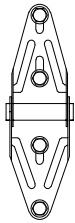


End Hinge

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.

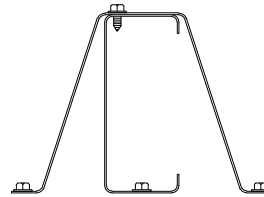
Roller

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



Center Hinge

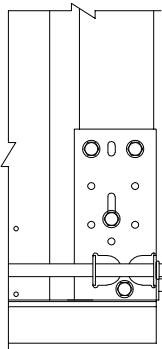
18 gauge galvanized steel narrow or wide body hinge attached with four 1/4" x 3/4" screws.



C Channels

6" 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.

Note: Screws must not attach to stiles at punched knockout locations, and reinforcement on lock section may be moved down to accommodate keyed lock.



End and Center Stiles

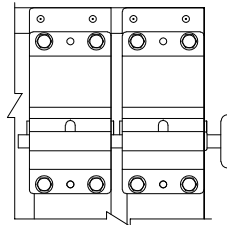
20 gauge galvanized steel stiles attached to section with two rivets or two #8 x 1/2" pan head sheet metal screw on each end.

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).

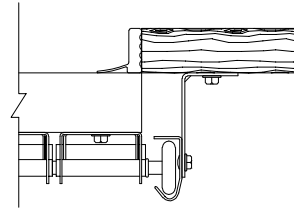
Bottom Weatherstrip

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).

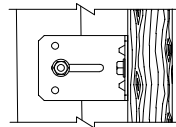


Wood Jambs

Vertical jambs are to be 2x6 Southern Yellow Pine (SYP) or better. Refer to DASMA TDS 161 or a licensed design professional for jamb configurations. Note: Preparation of jambs by others, and supporting structural elements must be capable of withstanding the rated windload.

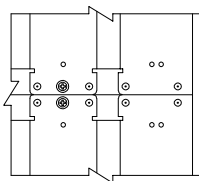
Stop Molding

Stop molding (attached with minimum 6D headed nails or screws) is required, or door must overlap jambs by 5/16".



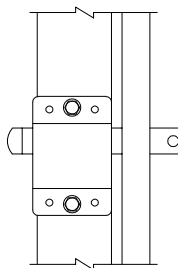
Track Brackets

2 1/4" wide x 12 gauge galvanized steel track bracket attached to wood jamb with one 5/16" x 1 5/8" wood lag screw and to vertical track with one 1/4" x 3/4" track bolt and nut. Note: Center distance between track brackets not to exceed 16".



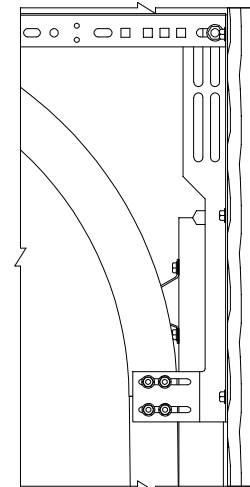
End Stile Reinforcement

Each double end stile requires a total of two #8 x 1/2" pan head screws located as shown between the pop rivets at the top and bottom of the stile.



Locking Mechanism

Doors must have either an electronic operator or locking device(s) installed (inside slide lock shown, other lock types permitted) that engage(s) both vertical tracks. Note: Extension spring doors require locking point on each side if no electronic operator is installed.



Flag Bracket

12 gauge galvanized steel flag bracket attached to wood jamb with three 5/16" x 1 5/8" wood lag screws 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.

Vertical Track

2" galvanized steel track with a minimum thickness of .060".


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		<p>SIZE: ANSI A</p>	<p>SCALE: NTS</p>	<p>SHEET: 2 of 3</p>	

C-Channel and Sections Location Chart

Door Height	Section Heights	C-Channel Locations	Track Brackets
6 - 0	18 18 18 18	8.25 26.25 44.25 62.25	5
6 - 3	21 18 18 18	9.75 29.25 47.25 65.25	5
6 - 6	21 18 18 21	9.75 29.25 47.25 66.75	5
6 - 9	21 21 18 21	9.75 30.75 50.25 69.75	5
7 - 0	21 21 21 21	9.75 30.75 51.75 72.75	5
7 - 6	18 18 18 18 18	8.25 26.25 44.25 62.25 80.25	6
7 - 9	21 18 18 18 18	9.75 29.25 47.25 65.25 83.25	6
8 - 0	21 18 18 18 21	9.75 29.25 47.25 65.25 84.75	6
8 - 3	21 21 18 18 21	9.75 30.75 50.25 68.25 87.75	6
8 - 6	21 21 18 21 21	9.75 30.75 50.25 69.75 90.75	7
8 - 9	21 21 21 21 21	9.75 30.75 51.75 72.75 93.75	7
9 - 0	18 18 18 18 18 18	8.25 26.25 44.25 62.25 80.25 98.25	7
9 - 3	21 18 18 18 18 18	9.75 29.25 47.25 65.25 83.25 101.25	7
9 - 6	21 21 18 18 18 18	9.75 30.75 50.25 68.25 86.25 104.25	7
9 - 9	21 21 21 18 18 18	9.75 30.75 51.75 71.25 89.25 107.25	7
10 - 0	21 21 21 21 18 18	9.75 30.75 51.75 72.75 92.25 110.25	8
10 - 3	21 21 21 21 21 18	9.75 30.75 51.75 72.75 93.75 113.25	8
10 - 6	21 21 21 21 21 21	9.75 30.75 51.75 72.75 93.75 114.75	8
10 - 9	21 18 18 18 18 18 18	9.75 29.25 47.25 65.25 83.25 101.25 119.25	8
11 - 0	21 21 18 18 18 18 18	9.75 30.75 50.25 68.25 86.25 104.25 122.25	8
11 - 3	21 21 21 18 18 18 18	9.75 30.75 51.75 71.25 89.25 107.25 125.25	9
11 - 6	21 21 21 21 18 18 18	9.75 30.75 51.75 72.75 92.25 110.25 128.25	9
11 - 9	21 21 21 21 21 18 18	9.75 30.75 51.75 72.75 93.75 113.25 131.25	9
12 - 0	21 21 21 21 21 21 18	9.75 30.75 51.75 72.75 93.75 114.75 134.25	9
12 - 3	21 21 21 21 21 21 21	9.75 30.75 51.75 72.75 93.75 114.75 135.75	9
12 - 6	21 21 18 18 18 18 18 18	9.75 30.75 50.25 68.25 86.25 104.25 122.25 140.25	9
12 - 9	21 21 21 18 18 18 18 18	9.75 30.75 51.75 71.25 89.25 107.25 125.25 143.25	10
13 - 0	21 21 21 21 18 18 18 18	9.75 30.75 51.75 72.75 92.25 110.25 128.25 146.25	10
13 - 3	21 21 21 21 21 18 18 18	9.75 30.75 51.75 72.75 93.75 113.25 131.25 149.25	10
13 - 6	21 21 21 21 21 21 18 18	9.75 30.75 51.75 72.75 93.75 114.75 134.25 152.25	10
13 - 9	21 21 21 21 21 21 21 18	9.75 30.75 51.75 72.75 93.75 114.75 135.75 155.25	10
14 - 0	21 21 21 21 21 21 21 21	9.75 30.75 51.75 72.75 93.75 114.75 135.75 156.75	10

NOTE:

- 7. Sequential section heights left to right as stacked from floor to ceiling.
- 8. Individual c-channel locations in inches from bottom of door.
- 9. Section stacking order may be changed to accommodate window section placement or other factors. C-channel locations shall be adjusted accordingly.

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