

INSTALLATION MANUAL FOR SELECTIVE PALLET RACK- ROLL FORMED

TABLE OF CONTENTS

<p>1.) PALLET RACK ASSEMBLY INSTRUCTIONS</p>	
<p>2.) UPRIGHT FRAMES</p> <ul style="list-style-type: none"> - Starting Point - Erecting the First Bay - Frame Square & Plumb - Plumb, Shim, & Anchor. - Continuing the Row 	<p>See Drawing Sheet #3 See Drawing Sheet #4 See Drawing Sheet #5 See Drawing Sheet #6 See Drawing Sheet #7</p>
<p>3.) BEAMS</p> <ul style="list-style-type: none"> - Teardrop w/ Safety Clip 	<p>See Drawing Sheet #8</p>
<p>4.) STRENGTHENING TIES</p> <ul style="list-style-type: none"> - Row Spacer -Wall Tie - Cross Aisle Tie 	<p>See Drawing Sheet #9 See Drawing Sheet #10 See Drawing Sheet# 11</p>
<p>5.) PALLET SUPPORTS</p> <ul style="list-style-type: none"> - Hat Channel type - Wire Mesh Deck . 	<p>See Drawing Sheet #12 See Drawing Sheet #13</p>
<p>6.) SPLICE KITS</p> <ul style="list-style-type: none"> - Bolted type 	<p>See Drawing Sheet #14</p>
<p>7.) ACCESSORIES</p> <ul style="list-style-type: none"> - Backstop Beams - Column Protector - End of Aisle Guard 	<p>See Drawing Sheet #15 See Drawing Sheet #16 See Drawing Sheet #17</p>

WARNING

INSTRUCTIONS FOR PALLET RACK ASSEMBLY ARE SET FORTH ON THESE PAGES. PROPER ASSEMBLY OF THE PALLET RACKING SYSTEM IS THE RESPONSIBILITY OF THE PURCHASER AND IS NOT COVERED BY ANY WARRANTY OF THE SELLER. THE BUYER IS CAUTIONED TO NOT SUBSTITUTE PARTS OR HARDWARE. SELLER DISCLAIMS ALL LIABILITY WITH RESPECT TO ANY SUBSTITUTION OF PARTS OR HARDWARE NOT APPROVED IN WRITING BY THE SELLER. THE INSTALLATION DETAIL DRAWINGS BELOW ARE INTENDED TO BE USED AS BASIC GUIDES TO THE INSTALLATION OF STANDARD COMPONENTS. DEPENDING UPON THE SPECIFICS OF THE PALLET RACK SYSTEM, THERE COULD BE LIMITATIONS REGARDING THE USE OF THESE STANDARD COMPONENTS AND/OR A REQUIREMENT FOR SPECIAL INSTALLATION TECHNIQUES.



**1800 CHURCHMAN AVE. NUE:
INDIANAPOLIS INDIANA
46205**

1r11SP?RAWINI.IASCONF?E:N11/i ANI? CONFAINS PROPRII:#RYIN?OPIM110N
Of /Mfi:Rifi HANI?LINI.EA:XCHANI.AE.: 1r1SI?RAWINI.IAS WANW ON 1rE:
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UNAU1r10RIZW COPYINI? Of 1r1S I?RAWINI.IASA VIOL,A110NOF 1rE: U.S.
COPYRII.AHf LAWS. ACCE:PfANCEOf 1r1SI?RAWINI.A LBE: CONSRU::ff?
AS AN MRffME:Nf Of 1rE:SE: ff:RMS.

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						ROLL fORMW SE:LE:C11VE: RACK INSf/LA110NMANUfi	
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						RYAN IMSON	7/26/2017
						SHE:E:fNO.	I Of 17
RE.V.	I?Aff					I?E:SCRIPTION	

SELECTIVE PALLET RACKING ASSEMBLY INSTRUCTIONS

Step 1 - Confirm the Receipt and Condition of Material

Confirm that all materials have been received and it is free of any damage from shipment. Confirm the material received against the information on the Bill of Lading and packing lists. Notify the shipper immediately of any shortages and/or product damage.

Step 2 - Review of the Installation Area

Determine or confirm the area the pallet racks will be installed. Review the installation area to determine if there are any obstructions such as building columns, pipes, lights, heat ducts, etc. to ensure a clear area for rack installation.

Step 3 - Laying out Your Rack System

Determine your specific rack layout. To do this you must determine your required aisle dimensions and the positioning of the rack. Using a chalk line, snap chalk lines to locate a starting point/line. This will be the location of the faces of upright frames on the aisle. (See Drawing Sheet #3)

Step 4 - Stand/Erect Your First Bay of Pallet Racking

Each pallet rack bay requires two upright frames.

Determine the required beam elevations. Next you mark the beam locations where you want your top of beam level to be on the upright frames. Then stand the first upright frame vertically using a forklift and/or wall if available to secure it in the vertical position. To attach the first beam level to the upright frames please perform the following steps. Carefully engage the first level beams into the face (teardrop holes) of the upright by inserting the beam connector studs into the teardrop holes on the upright frame column.

A safety locking device is installed on both ends of the beam located on the beam connector clips. (See Drawing Sheet #8) This is a spring actuated safety clip that should lock into place when the beam is positioned to where the connector pins line up with the teardrop holes. It is sometimes necessary to tap the top of the beam with a hammer to allow the safety clip to fully engage. When the clip is fully engaged it will be flush with the surface of the beam connector clip. It is important to confirm that all safety clips are engaged completely to prevent the beam(s) from coming disengaged during the loading and unloading of your pallet rack system.

Next you stand the second upright frame vertically. Carefully positioning the second upright next to the beams installed on the first upright you attach the load beams to the second upright as referenced above. This creates your first level. (See Drawing Sheet #4) Install additional beam levels from the lowest beam level to the highest beam level.

Step 5 - Plumbing, Leveling, and Anchoring the First Bay of Pallet Racking

The first pallet rack bay of each row must be properly anchored to the concrete floor to insure the proper placement of the rack according to your layout. Always confirm that the rack bay is square and plumb before anchoring. (See Drawing Sheet #5) Use shims as necessary to enable you to plumb the racking system. (See Drawing Sheet #6) Typical metal shims are available in **YS** and $\frac{3}{4}$ inch thickness. Certain pallet rack applications require larger than normal baseplates for capacity purposes and/or other reasons. Specialty shims are required in applications where shims must match up with the dimensions of specialty baseplates. Anchoring your rack is a critical step to securing your rack system in place and maintaining stated capacities. Confirm with your distributor the specifications of the anchors required for your particular application. Each of the upright frames have two (2) baseplates. Each baseplate has two (2) anchor holes for anchoring the upright to the concrete floor. In typical installations it is only necessary to install one (1) anchor in each baseplate. (See Drawing Sheet #6)

Step 6 - Install Remaining Bays of Pallet Racking


Follow the same procedure as Step 4 using the common upright frames for each consecutive bay. (See Drawing Sheet #7)

Step 7 - Accessories

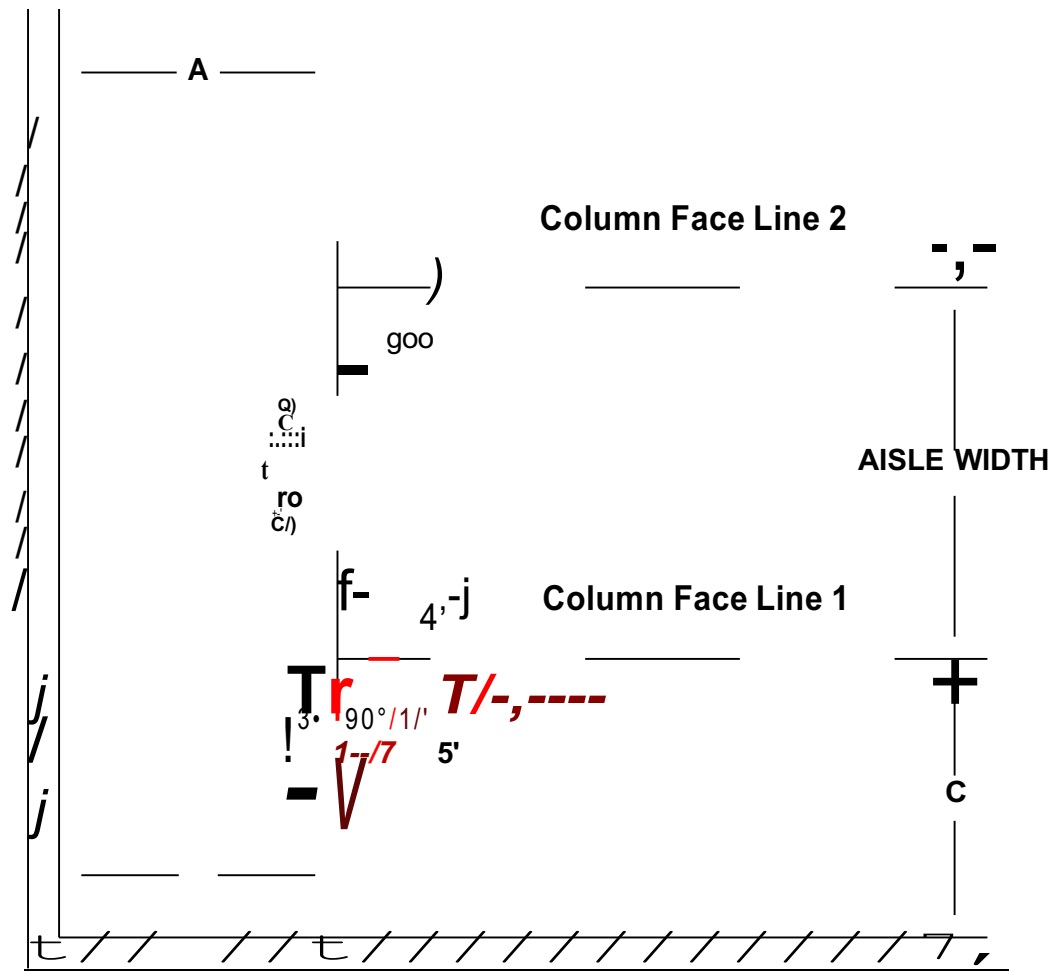
When row spacers or wall ties are required, each component must have two (2) nuts and bolts per connection. (See Drawings Sheets #9-#17) NOTE: We recommend that you do not fully tighten the nuts and bolts for these accessories until ensuring that the rack is plumb and level. Please review the bolt tightening specifications at the end of this document.

Step 8 - Tighten All Accessories

It is important to tighten all accessory nuts and bolts (row spacer, wall ties, etc.) and double check anchor connections to complete the pallet rack installation process. NOTE: Please see the bolt tightening specifications at the end of the instruction manual. Your selective pallet rack is now ready for loading of product. If you have any further questions, contact your local representative for assistance.

 <p>MATERIAL HANDLING EXCHANGE</p>	<p>IBOO CHURCHMAN AVrNUR INDIANAPOI15, INDIANA 46205</p>	<p>11-115DRAWINU 15CON#IDIN111/ AND CONTAIN5PROPRUARY INFOPMA110N</p>			<p>filLf: ROLL fORMW 5fLfC11Vf RACK IN5f/ILA110NMANU/1</p>	
		<p>Of MA11'R/1 HANDLINu fXCHANuf. fhI5 DRAWINU 15LOANW ON IHf</p>			<p>DRAWINU NO.</p>	
		<p>CONDIIION-THAf If 15 NOF W Bf RfPRODLK:W IN WHOLF, OP IN PPRf,</p>			<p>Rf-5RIM- A55fMBLY IN5-rRUC110N5</p>	
		<p>w111-1our fhf WRImN CON5fNr Of MA11'Rf/1 HANDLINu fXCHANuf.</p>			5C/f	5Izf
<p>UNAJfHORIZW COPYINU Of 11-115 DRAWINU 15A VIOLA110N Of fhf U.5.</p>			N/ A	A	RYAN MA50N	
<p>COPYRIUhf LAW5. AWPfANCf Of 11-115DRAWINU 5HALL Bf CON5-rRUC11'D</p>			DA11'		7/26/2017	
<p>A5 AN MRfMfNf Of fhf5f 11'RM5.</p>			RfV.	DA11'	Df5CRIP110N	
					5HfffNO.	
					2 Of 17	

STARTING POINT & CHALK LINES



Start first by designating an area to begin erecting your pallet rack.

Measure out a desired distance from a wall or column line in two (2) locations (A and B) and snap a chalk line (Start Line) this will be the end of your rack rows.

Measure out a desired distance perpendicular to the first two from a wall or column (C), mark this distance then check for square using the 3-4-5 method (in red) before snapping the chalk line (Column Face Line 1).

From Column Line 1 measure out a desired aisle width (left) mark this distance and again check for square before snapping the chalk line. Repeat this process until all rack row start points have been chalked out.



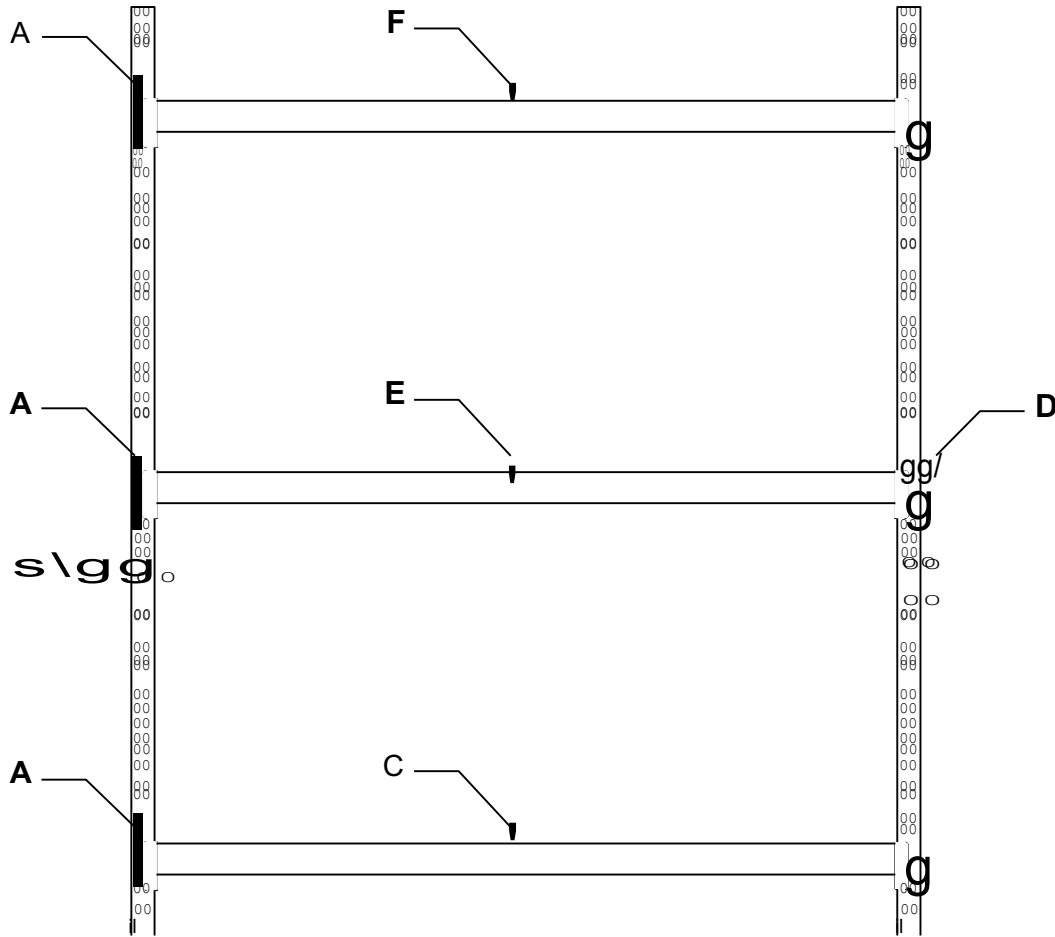
1800 CHURCHMAN AVrNuR
 INDIANAPOU5 INDIANA
 4620:5

11-115?RAWINu 15CONfif?N11? ANI? CONfAIN5PROPRUARY INfOPMA110N
 Of MA11'RI?I HANDLINu fXCHANuf, 11-115DRAWINu 15LOANW ON 1)-jf
 CONDfION-rHaf If 15Nor W Bf RfPRODLt:W IN WHaf, OP INPAR-r,
 w111-1our1r1f WRImN CON5fNr Of MA11'RI?I HANDLINu fXCHANuf.
 UNAl11-10RIZW COPYINu Of 11-115 DRAWINu 15A V1aA110NOf 1)-jf U.5,
 COPYRIuHf LAW5, AWPfANCf Of 11-115DRAWINu 5HAIL Bf CON5-rLLt:11'D
 A5 AN MRfMfNf Of 11-115f 11'RM5.

RV.	I?A11'	I?f5CRIP110N
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fI f: ROLL fORMW 5fLFC11Vf RACK IN5f?LA110NMANU?I				
DRAWINu NO. Rf-5RIM- 51AR1POINF & CHALK LINf5				
5C/f	51Zf	I?RAWN	DA11'	'!S!UrNO.
N/A	A	RYAN MA50N	7/26/2017	5 Of 17

STANDING/ERECTING YOUR FIRST BAY



Begin by marking the desired beam elevations on the first upright frame (A).

Next stand upright frame following the instructions on Sheet #2 Step 4 (B).

Attach the lowest beam level (both front and rear beams) to the standing upright by placing the beam clip pins into the teardrop holes and allowing it to seat until the safety clip engages fully (C).

Stand the second upright frame and connect it to the beam following the steps described above (D).

Finally begin installing the additional beam levels (both front and rear) from lowest to tallest (E & F).

IMPORTANT: Before anchoring the upright frames to the floor ensure that the bay is square and the upright frames are plumb. (See Drawing Sheet #5)

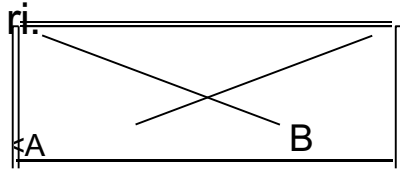


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11-115 DRAWING INFORMATION CONTAINS PROPRIETARY INFORMATION OF MATERIAL HANDLING EXCHANGE, 11-115 DRAWING IS LOANED ON 1-11-15 CONDITION HAS BEEN REPRODUCED IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF MATERIAL HANDLING EXCHANGE. UNLESS OTHERWISE NOTED, THIS DRAWING IS A COPY OF THE ORIGINAL DRAWING. ALL RIGHTS RESERVED. 11-115 DRAWING IS A COPY OF THE ORIGINAL DRAWING. ALL RIGHTS RESERVED.

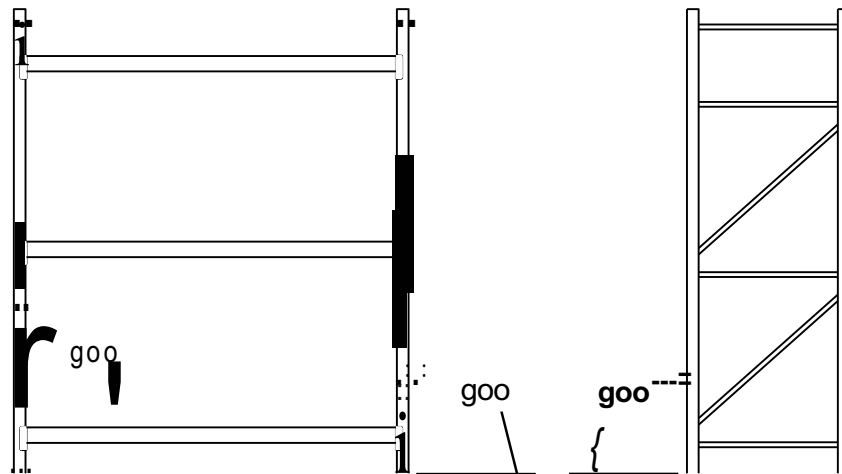
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			DRAWING NO. Rf-5RIM-11R5f BAY		
			5C/1f	51Zf	1?RAWN
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RV.	1?A11'	1?5CRIP110N			7/26/2017
					4 Of 17

FRAME & BAY SQUARE & PLUMB




To square a bay make sure that dimensions A and B are equivalent.

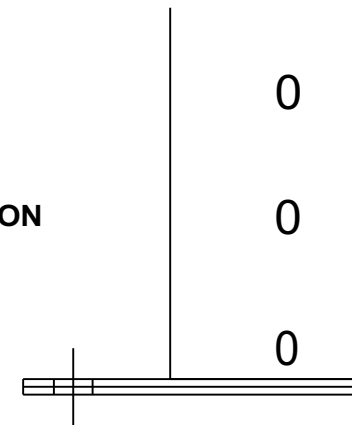
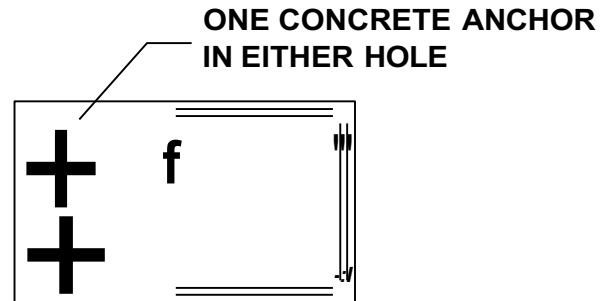
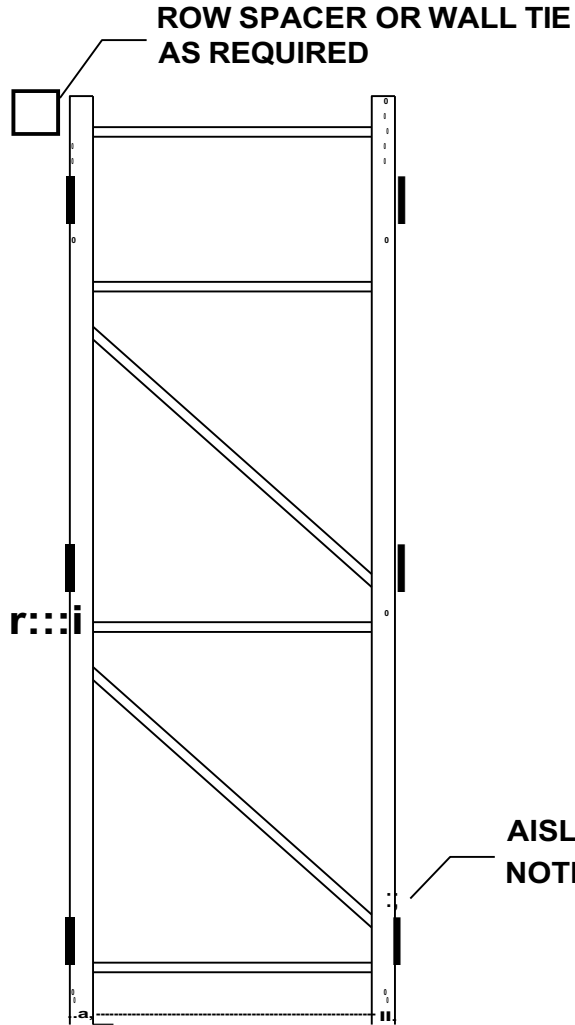
To ensure that upright columns are plumb and vertical shims may be required. Place shims under the baseplate (See Drawing Sheet #5) as required to ensure that the upright columns are




plumb and the load beams are level.

	1800 CHURCHMAN AVrNuR INDIANAP0U5 INDIANA 4620:5	11-1151?RAWINu 15CONfif?N11? ANI? CONfAIN5PROPRUARY INfOPMA110N Of MA11'RIPf HANDLINu fXCHANuf, 11-115DRAWINu 15LOANW ON 1)-jf CONDfION-rHaf If 15Nor W Bf RfPRODLt:W IN WHaf, OP INPAR-r, w111-1our1r1f WRImN CON5fNr Of MA11'RIPf HANDLINu fXCHANuf. UNAlf11-10RIZW COPYINu Of 11-115DRAWINu 15A VlaA110NOf 1)-jf U.5, COPYRIuHf LAW5, KCPfANCf Of 11-115DRAWINu 5HAIL Bf CON5-rLLt:11'D A5 AN MRfMfNf Of 11-115f 11'RM5.				fl f: ROLL fORMW 5flfC11Vf RKK IN5f?ILA110NMANUf/
		DRAWINu NO. Rf-5RIM- fRAMf 50Im & PLUMB				
		SC/f N/ A	5IZf A	I?RAWN RYAN MASON	DA11' 7/26/2017	'fSfUrNO. 0 Of 17
		RVf.	I?A11'	I?f5CRIP110N		

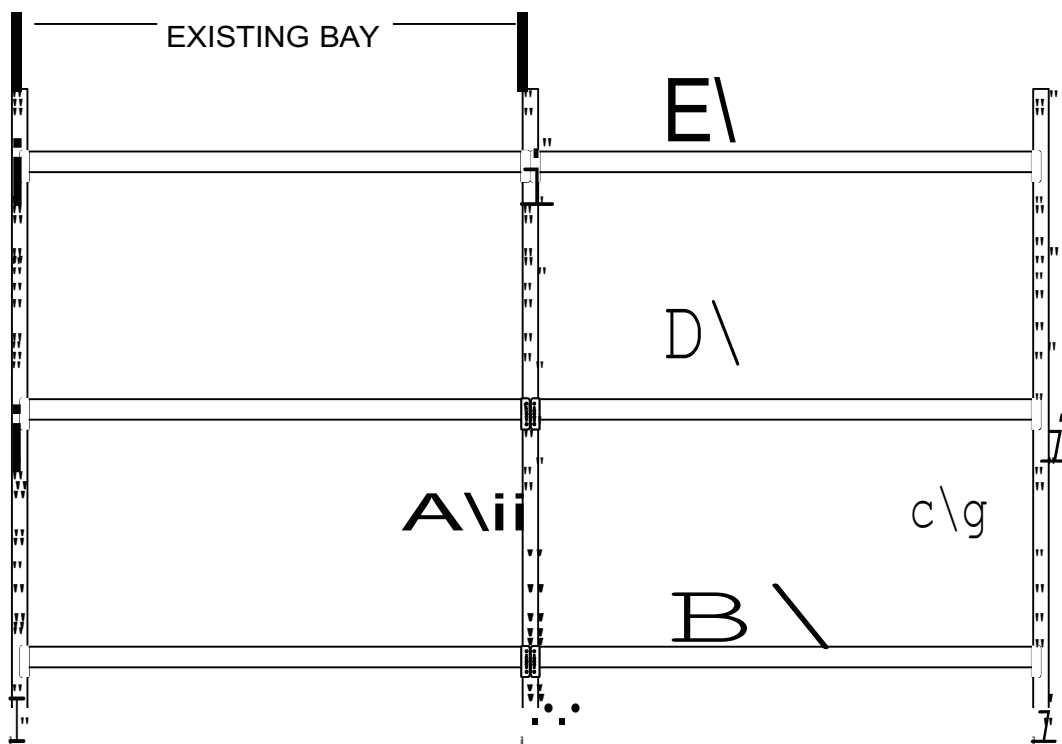
PLUMB, SHIM, & ANCHOR



SHIM AS REQUIRED _____;

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					DRAWINu NO. Rf-5RIM- PLUMB 5HIMANCHOR	
					5C/If 51Zf I?RAWN DA11' 5HfffNO. N/ A A RYAN MA50N 7/26/2017 6 Of 17	
		RV.	I?A11'	I?f5CRIP110N		

CONTINUING THE ROW



Begin by identifying the existing common upright frame (A).


Attach the lowest beam level (both front and rear beams) to the standing upright by placing the beam clip pins into the teardrop holes and allowing it to seat until the safety clip engages fully (B).

Stand the next upright frame and connect it to the beam following the steps described above (C).

Finally, begin installing the additional beam levels (both front and rear) from lowest to tallest (D & E).

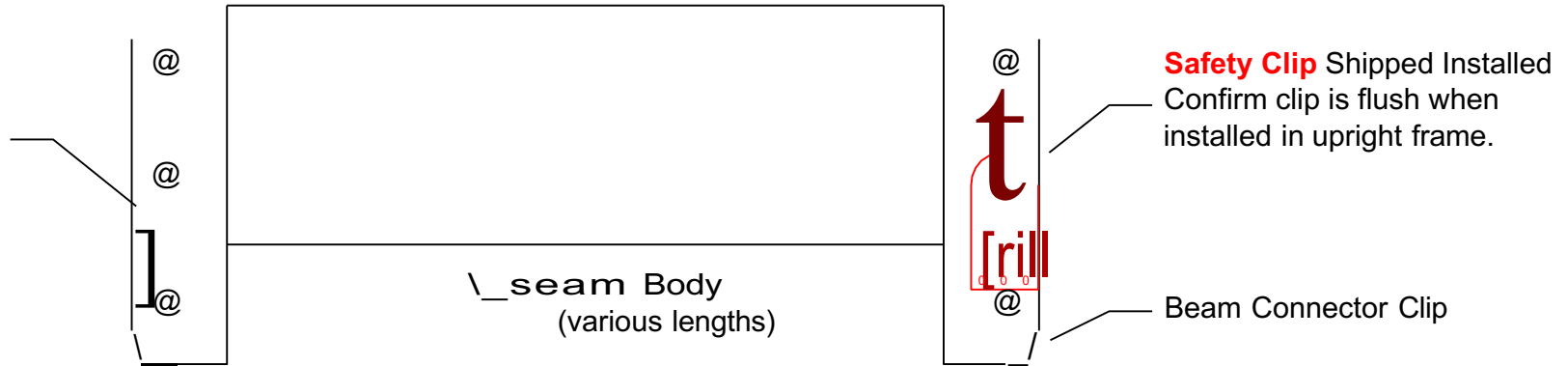
Repeat this process until the row has the desired number of bays.

IMPORTANT: Before anchoring the upright frames to the floor ensure that the bay is square and the upright frames are plumb. (See Drawing Sheet #5)

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									<p>DRAWINu NO. Rf-5RIM- CONfINuINu 1r1f ROW</p>	
						5C/f	5IZf	I?RAWN	DA11'	'!S!UrNO.
						N/ A	A	RYAN MA50N	7/26/2017	1 Of 17
						RfV.	I?A11'	I?5CRIP110N		

TEARDROP BEAMS & SAFETY CLIPS

!!WARNING!!
 Safety clip should be present on both ends of the beam. Contact your supplier immediately if safety clips are missing from your beams.




To Install Beam and Engage Safety Clip:

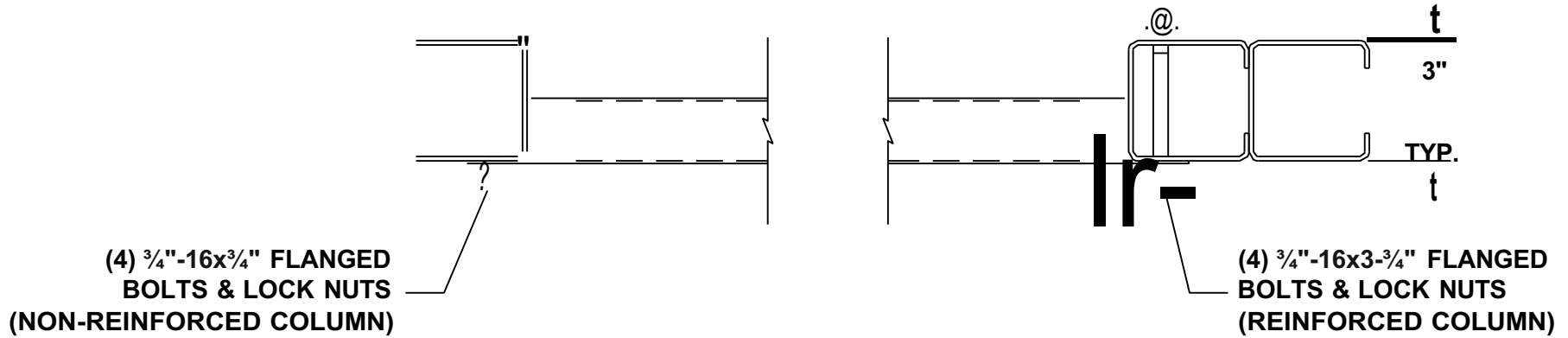
Engage the beam connector studs into the teardrop holes on the face of the upright column. Push the pallet rack beam down until the safety pin "clicks" into position. Tap top of beam with rubber mallet if necessary to confirm that the safety clip "clicks" into place and that it is flush with the face of the beam connector clip.

To Disengage Safety Clip and Uninstall Beam:

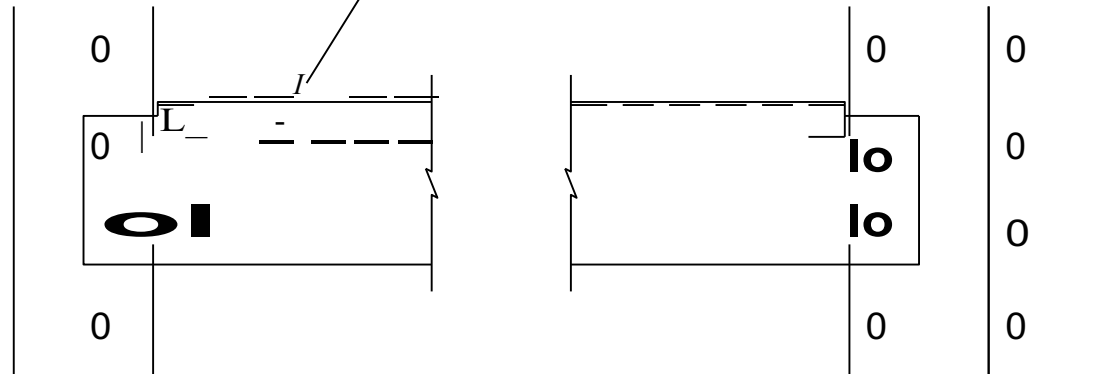
Confirm that the rack bay you are working on and the bays on either side are completely unloaded before attempting to remove any beams from the rack system. Disengage the safety clip at each end of the beam approximately $\frac{1}{4}$ " by pulling back at the upper edge of the safety clip with your fingers or a flat head screwdriver. The safety clip is designed to be pulled back approximately $\frac{3}{4}$ ". Excessive force applied to the safety clip may damage the locking mechanism. Confirm that both safety clips are disengaged before attempting to remove the beam. Move the beam upward by pushing up from the bottom of the beam close to the connector clip. Repeat this process on the other end of the beam and lift the beam out of the upright columns.

 MATERIAL HANDLING EXCHANGE	1800 CHURCHMAN AVrNuR INDIANAP0U5 INDIANA 4620:5	11-115?RAWINu 15CONH?N11? ANI? CONFAIN5PROPRUARY INOPMA110N Of MA11'RI/I HANDLINu fXCHANuf, 11-115DRAWINu 15LOANW ON 1)-jf CONDIFION-rHaf If 15Nor W Bf RfPRODLt:W IN WHaf, OP INPAR-r, w111-1our1r1f WRImN CON5fNr Of MA11'RIP/ HANDLINu fXCHANuf. UNAI11-10RIZW COPYINu Of 11-115 DRAWINu 15A ViaA110Nof 1)-jf U.5, COPYRIuHf LAW5, AWPfANcf Of 11-115DRAWINu 5HAIL Bf CON5-rLLt:11'D A5 AN MRfMfNf Of 11-115f 11'RM5.					fl f: ROLL fORMW 5flfC11Vf RACK IN5f/1LA110NMANU/I				
		DRAWINu NO. Rf-5RIM- BfAM5									
		5C/f	5IZf	I?RAWN	DA11'	'!S!UrNO.					
		N/ A	A	RYAN MA50N	7/26/2017	8 Of 17					
RV.	I?A11'	I?5CRIP110N									

ROW SPACER INSTALLATION

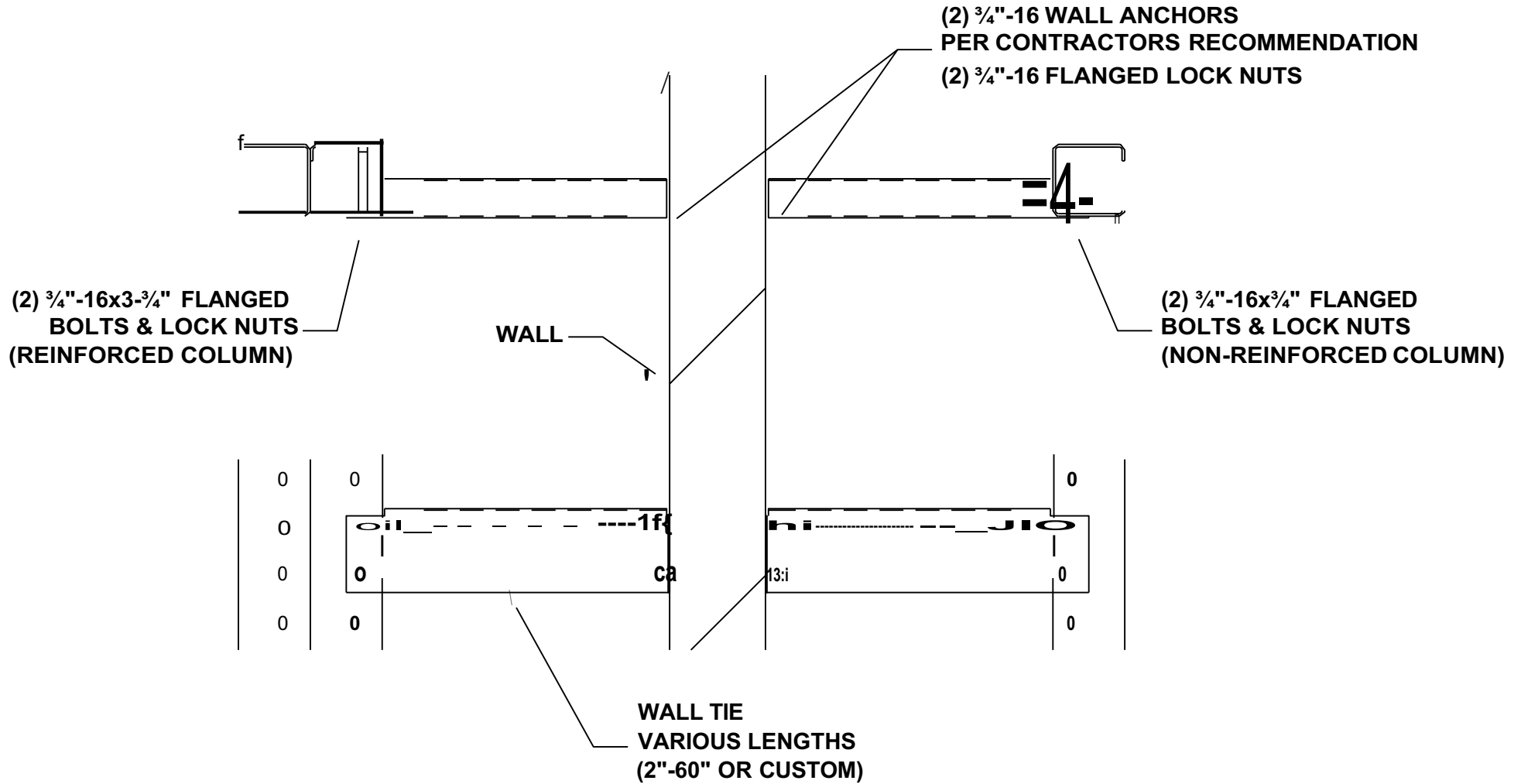



**J-STYLE ROW SPACER
VARIOUS LENGTHS
(2"-60" OR CUSTOM)**



 MATERIAL HANDLING EXCHANGE	1800 CHURCHMAN AVrNuR INDIANAP0U5 INDIANA 4620:5	11-115?RAWINu 15CONfif?N11/1 ANI? CONfAIN5PROPRUARY INFOPMA110N Of MA11'RI/1 HANDLINu fXCHANuf, 11-115DRAWINu 15LOANW ON 1)-jf CONDIfION-rHaf If 15Nor W Bf RfPRODLt:W IN WHaf, OP INPAR-r, w111-1our1r1f WRImN CON5fNr Of MA11'RI/1 HANDLINu fXCHANuf. UNAl11-10RIZW COPYINu Of 11-115 DRAWINu 15A ViaA110NOf 1)-jf U.5, COPYRIuHf LAW5, AWPfANcf Of 11-115DRAWINu 5H/IL Bf CON5-rRLt:11'D A5 AN MRffMfNf Of 11-115f 11'RM5.				fl f: ROLL fORMW 5flfC11Vf RACK IN5f/1LA110NMANU/1 DRAWINu NO. Rf-5RIM- ROWPACfR	
RV.	I?A11'	I?f5CRIP110N	5C/If N/ A	5IZf A	I?RAWN RYAN MA50N	DA11' 7/26/2017	'.S!UrNO. 9 Of 17

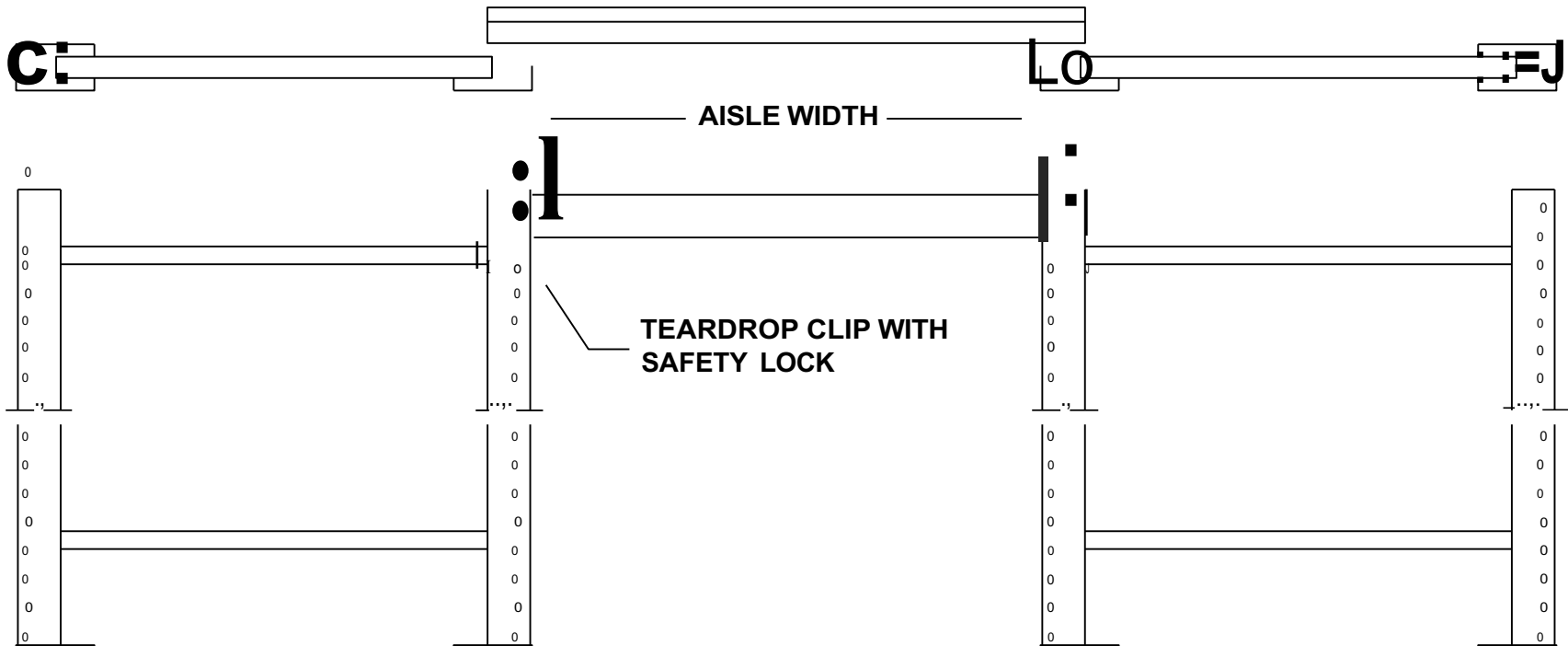
WALL TIE INSTALLATION




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			RV.	?A11'	?f5CRIP110N	5C/?f N/ A	5IZf A

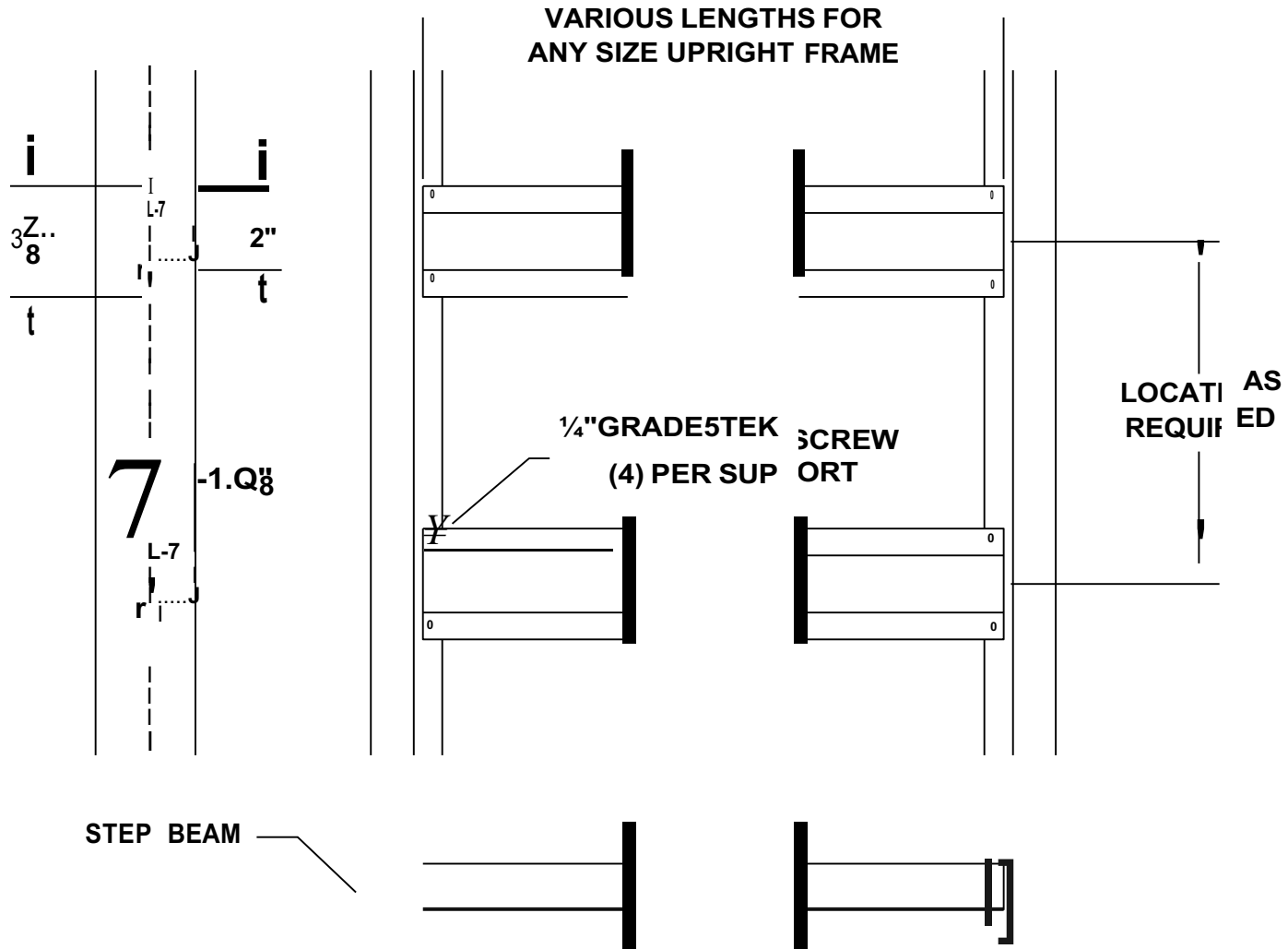
CROSS-AISLE TIE INSTALLATION


Cross Aisle Ties are used for similar reasons to row spacers. They are often used in applications where very tall but narrow rack needs extra rigidity. Installing a cross aisle tie follows many of the same steps as installing a teardrop beam (see sheet #8) as they use the same clip. Cross aisle ties should always be installed at or very near the top of the uprights and always above the top most beam level. Due to the method of installation it may be necessary to push the uprights apart to get the cross aisle tie installed. As a result cross aisle ties should be installed after the bays have been plumbed, squared, and anchored.



	1800 CHURCHMAN AVrNuR INDIANAP0U5 INDIANA 4620:5	11-1151?RAWINu 15CONfif?N11/1 ANI? CONfAIN5PROPRUARY INFOPMA110N Of MA11'RI/1 HANDLINu fXCHANuf, 11-115DRAWINu 15LOANW ON 1)-jf CONDIfION-rHaf If 15Nor W Bf RfPRODLt:W IN WHaf, OP INPAR-r, w111-1our1r1f WRImN CON5fNr Of MA11'RI/1 HANDLINu fXCHANuf. UNAl111-10RIZW COPYINu Of 11-115 DRAWINu 15A ViaA110NOf 1)-jf U.5, COPYRIuHf LAW5, AWPfANcf Of 11-115DRAWINu 5HAIL Bf CON5-rRLt:11'D A5 AN MRfMfNf Of 11-115f 11'RM5.				fl f: ROLL fORMW 5flfC11Vf RACK IN5f/1LA110NMANU/1 DRAWINu NO. Rf-5RIM- CR055-AI5Lf 11f
						5C/1f N/ A 51Zf A 1?RAWN RYAN MA50N DA11' 7/26/2017 'S!UrNO. II Of 17
				RV.	1?A11'	1?f5CRIP110N

HAT CHANNEL PALLET SUPPORT INSTALLATION



 MATERIAL HANDLING EXCHANGE	1800 CHURCHMAN AVENUE INDIANAPOLIS, INDIANA 46205	11-115 DRAWING CONSTRUCTION INFORMATION CONTAINS PROPRIETARY INFORMATION OF MA11 RIPPING HANDLING EXCHANGE, 11-115 DRAWING IS LOANED ON 1-YEAR CONDITIONAL BASIS FOR PRODUCTION USE ONLY, OPERATIONAL, WITHIN THE WORKING CONSTRUCTION OF MA11 RIPPING HANDLING EXCHANGE. UNLESS OTHERWISE SPECIFIED IN THIS DRAWING, ALL DIMENSIONS ARE IN INCHES. COPY RIGHTS LAWS, APPLICABLE TO 11-115 DRAWING SHALL BE CONSIDERED TO APPLY. ALL MATERIALS OF 11-115 11-RM5.									
								FILE: ROLL FORMWORK RACK IN 5' LA 110N MANU 1			
								DRAWING NO. RF-5RIM-HAICHANNEL			
							5C/1f N/A	51Zf A	1?RAWN RYAN MA50N	DA11' 7/26/2017	'SUrNO. 12 Of 17

WIRE MESH DECK INSTALLATION

SET IN FOR EASY INSTALLATION
OR TEK SCREW IN PLACE FOR
ADDITIONAL RIDGITY

VARIOUS WIDTHS FOR USE
WITH ANY LENGTH BEAM


VARIOUS STYLES AVAILABLE
(WATERFALL STYLE SHOWN)

VARIOUS LENGTHS FOR
ANY SIZE UPRIGHT FRAME

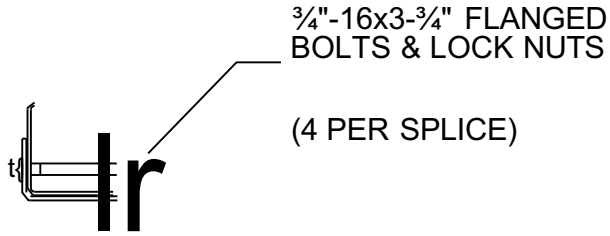
VARIOUS STYLES AVAILABLE
(FLAT STYLE SHOWN)



STEP BEAM

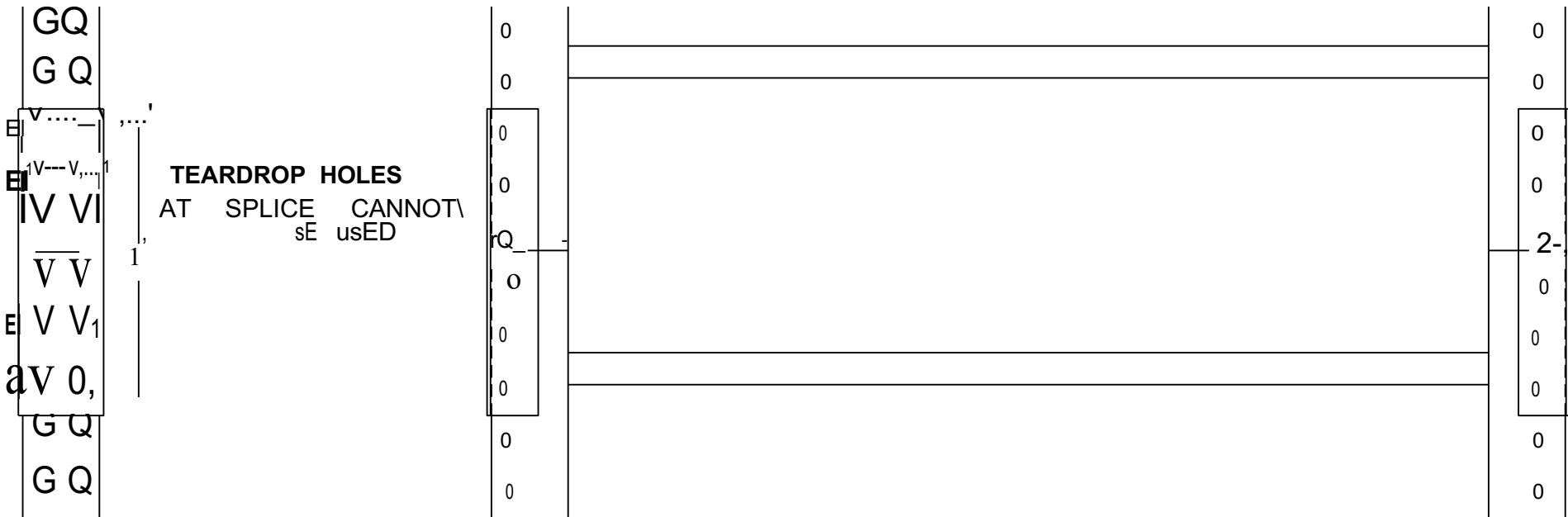
 <p>MATERIAL HANDLING EXCHANGE</p>	<p>1800 CHURCHMAN AVrNuR INDIANAP0U5 INDIANA 4620:5</p>	<p>11-115?RAWINu 15CONfif?N11? ANI? CONfAIN5PROPRUARY INfOPMA110N Of MA11'RI?I HANDLINu fXCHANuf, 11-115DRAWINu 15LOANW ON 1)-jf CONDfION-rHaf If 15Nor W Bf RfPRODLt:W IN WHaf, OP INPAR-r, w111-1our1r1f WRImN CON5fNr Of MA11'RIfI HANDLINu fXCHANuf. UNAIJ11- 10RIZW COPYINu Of 11-115 DRAWINu 15A VLaA110NOF 1)-jf U.5. COPYRluHf LAW5, AWPfANCF Of 11-115DRAWINu 5HAIL Bf CON5-rRLt:11'D A5 AN MRffMfNf Of 11-1f5f 11'RM5.</p>				<p>fI f: ROLL fORMW 5fLFC11Vf RACK IN5f?LA110NMANU?I DRAWINu NO. Rf-5RIM- WIRf M?ti DfCK</p>			
		RV.	I?A11'	I?f5CRIP110N	5C?If N/A	5Izf A	I?RAWN RYAN MA50N	DA11' 7/26/2017	'tiffNO. 15 Of 17

BOLTED COLUMN SPLICE INSTALLATION

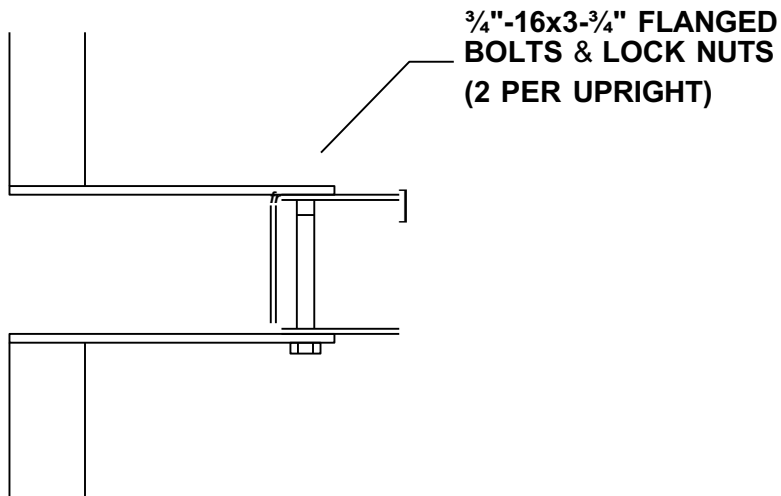


Bolted column Splices are used in applications where additional storage is needed but the only direction to expand is upward.

While it is recommended to plan for the need to expand upward from the beginning acquiring oversized uprights at installation so the only parts required for expansion upwards will be beams we understand that budgets need to be met and offer this as an option. Bolted column splices allow you to add additional height to the upright frame allowing for additional beam levels.

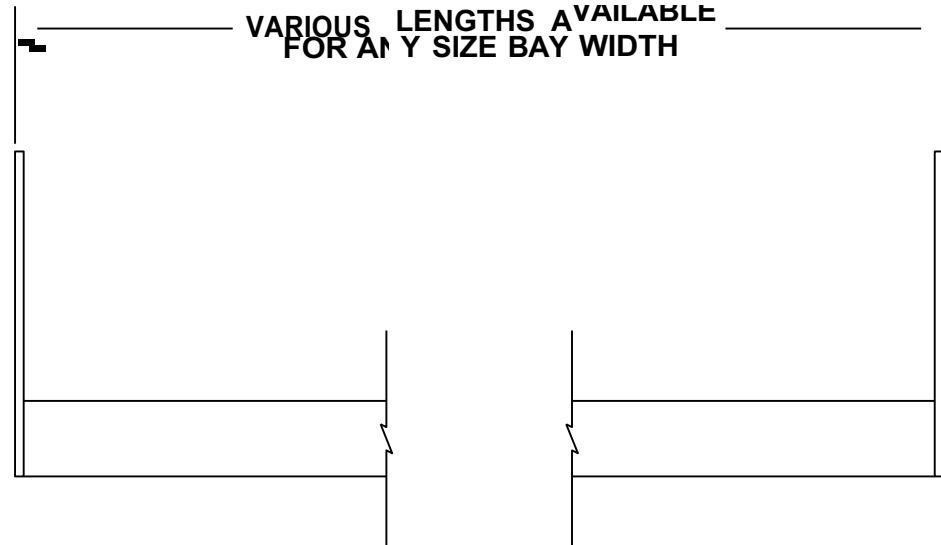
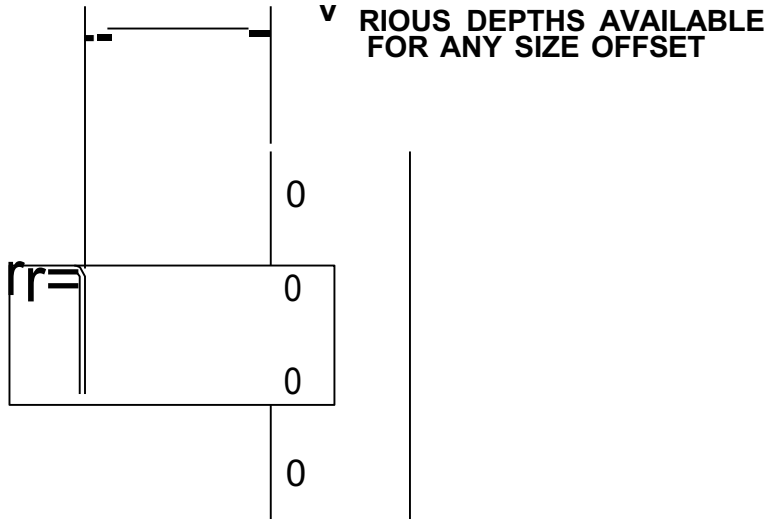


BACKSTOP BEAM INSTALLATION

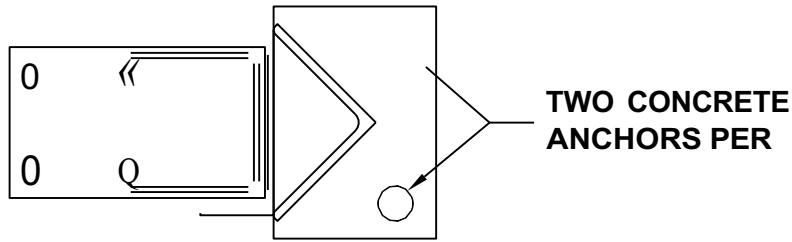


Backstop beams are used in applications where it is dangerous or detrimental to seat a pallet too far back in the bay, such as a single row application with workers on the floor opposite the load side of the bay.

Backstop beams are designed to have an offset (depth) that accommodates your pallet size and are installed about a foot above the beam level. These beams act as a hard stop for fork truck operators so as to avoid loading the pallet too far to the back of the bay.

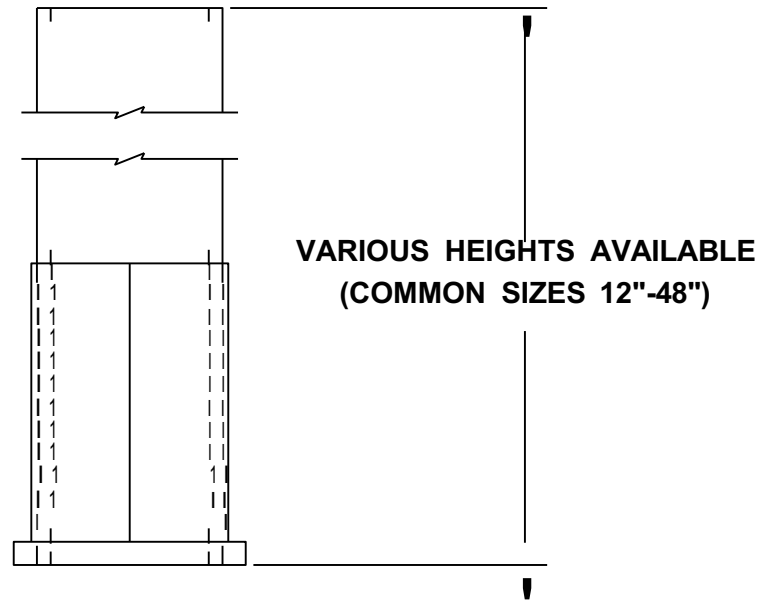
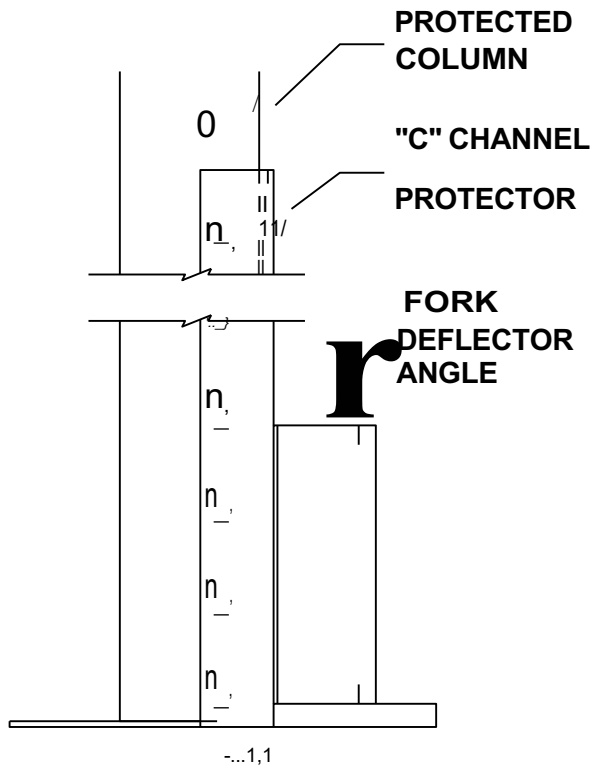


COLUMN PROTECTOR INSTALLATION



Column protectors are often used in applications where racking is dense and fork truck maneuvering is difficult. In such environments accidents do happen.

Column protectors bear the brunt of such accidents so that the upright column remain undamaged and maintains their optimal load ratings, reducing the need to replace damaged frames, or in a worst case scenario catastrophic system failure.

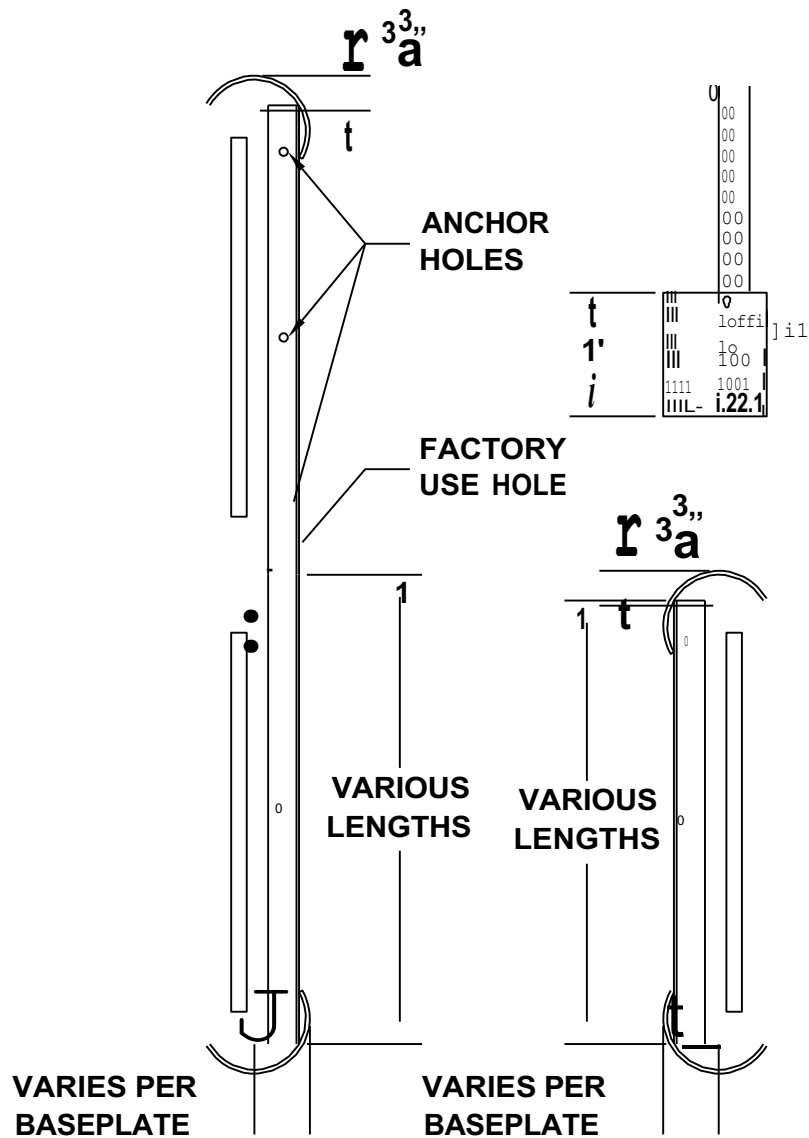


1800 CHURCHMAN AVE. N.E.
INDIANAPOLIS INDIANA
46205

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				11/11/11	ROLL FORMWORK SELECTION CHECK INSTALLATION MANUAL
				11/11/11	11/11/11
				11/11/11	11/11/11
				11/11/11	11/11/11
REV.	DATE	DESCRIPTION	SCALE	SIZE	DATE
			N/A	A	7/12/2011
				RYAN IMSON	16 OF 17

END OF AISLE GUARD INSTALLATION



End of aisle guards are often used in applications where there are narrow aisles with high speed traffic or narrow turns.

Unlike column protectors end of aisle guards protect the entire exposed upright frame at the end of a row of rack. This protects from not just frontal collisions but also collisions with the side of the upright frames. Keeping the upright frames free of damage will ensure they maintain their optimal load ratings.