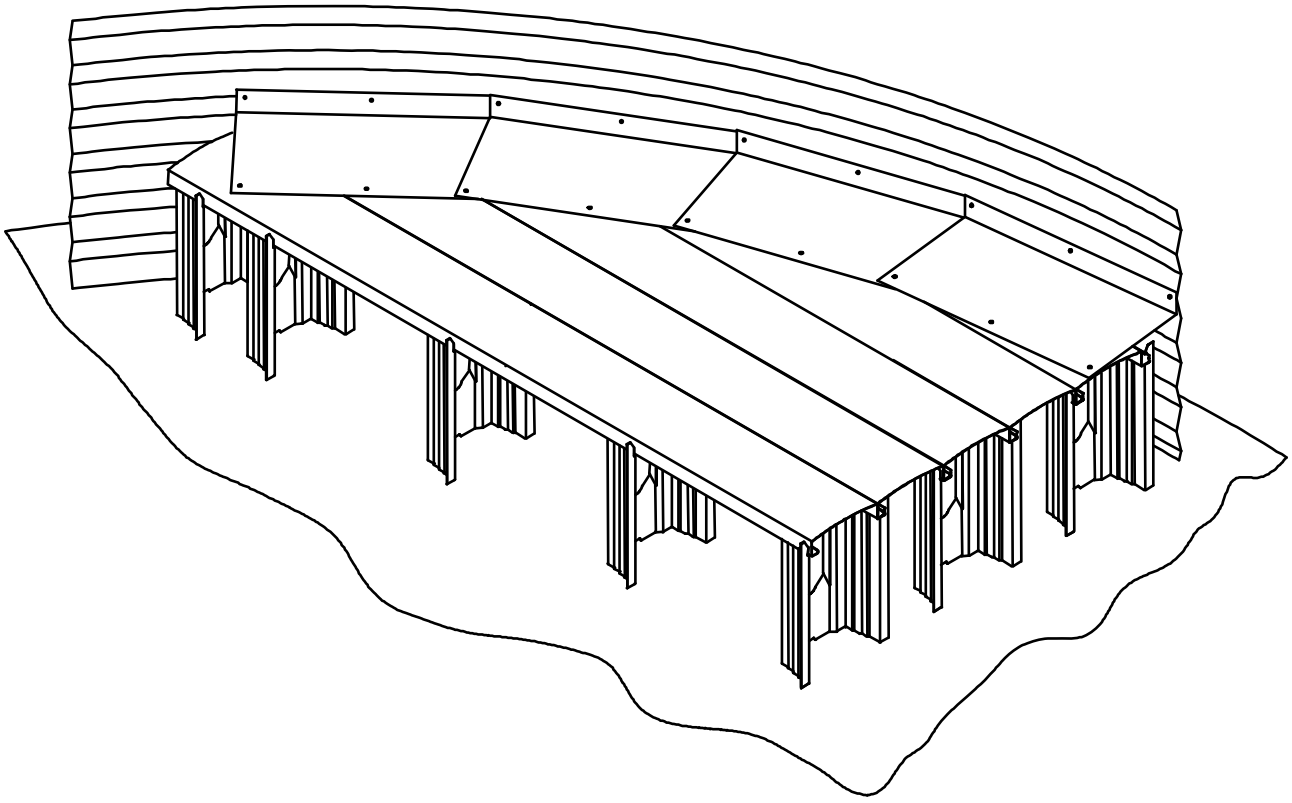
WESTEEL

Part Number: 198852
Revision: 9

FULL FLOOR AERATION SYSTEM

INSTALLATION AND STORAGE INSTRUCTIONS



IMPORTANT: DO NOT USE THIS MANUAL FOR A CIRC-AIR PIT INSTALLATION. USE ONLY FOR A FULL FLOOR INSTALLATION. THE CIRC-AIR INSTALLATION MANUAL IS FOUND IN THE CIRC-AIR HARDWARE PAILS

READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE BEGINNING INSTALLATION
EFFECTIVE DATE: February, 2010

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NEW IN THIS MANUAL

- New Limited Warranty, added roundness specs and cutout restriction note

LIMITED WARRANTY

Westeel Division of Vicwest Operating Limited Partnership ("Westeel") warrants products that it has manufactured and/or that are branded with its name (the "goods") subject to the following terms and limitations, (the "warranty"):

1. **Duration of Warranty.** The duration of the warranty is limited as follows:

Galvanized Bins	12 months
EasyCheck	12 months
EasyFlow	24 months
EasyAer	12 months
Floors	12 months
SeedStor-K Cones	
Paint	12 months
Structural	30 months
SeedStor Cones	
Paint	30 months
Structural	10 years
Retro/Econo Cones	
Structural	12 months
Paint	no warranty
Smooth Wall Bins	
Paint	30 months
Structural	10 years

The duration of the warranty will run from the date of purchase from a dealer or distributor authorized by Westeel (the "warranty period").

2. **Limitation of Remedies Replacement.** Within the warranty period, Westeel will replace the goods and/or original manufactured components thereof which are found, to Westeel's satisfaction, to be defective. Westeel is not responsible for direct, indirect, special, consequential, or any other damages of any kind, including personal injury to any individual, howsoever caused, including caused by transportation of the goods for repair or replacement

3. **Procedure for Obtaining Service.** In the event of a warranty claim, the purchaser must complete any and all information required by Westeel in order to properly assess or investigate the claim. Westeel will not be responsible for the removal of any of the goods found to be defective, or transportation charges to and from Westeel's authorized dealer or distributor, or for installation of any replacement goods and/or parts furnished under the warranty.

Limitations as to Scope of Warranty. The warranty does not extend to defects or damage caused, in whole or in part, by:

i. use of a kind and/or to a degree not reasonably expected to be made of the goods;

ii. improper storage of the goods both prior to and after purchase;

iii. damage caused by, or in the course of, installation or assembly;

iv. any use of the goods which is not an intended use as specified in Westeel's published product literature, or otherwise specified by Westeel in writing;

v. any equipment attached to or used in conjunction with the goods;

vi. any field modifications or substitutions to original bin components;

vii. inadequate ventilation or any other circumstance not in keeping with proper maintenance and/or use of the goods;

viii. Acts of God, accident, neglect or abuse of the goods by the purchaser and/or any other individual or entity; or

ix. Any use or installation inconsistent with Westeel's Standard Disclaimers.

4. **Limitations as to Manufacturer.** The warranty does not cover products sold by Westeel that are not manufactured by Westeel. In those circumstances, the purchaser is referred to the manufacturer of those products.

6. **Limitation of Implied Warranties and Other Remedies**. To the extent allowed by law, neither Westeel nor its dealers, nor any company affiliated with Westeel makes any warranties, representations, or promises as to the quality, performance, or freedom from defect of any Product covered by this Warranty.

WESTEEL HEREBY DISCLAIMS, TO THE EXTENT APPLICABLE, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. A PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THIS WARRANTY ARE THOSE SET FORTH IN THIS WARRANTY. IN NO EVENT WILL WESTEEL, ITS DEALERS, OR ANY COMPANY AFFILIATED WITH WESTEEL BE LIABLE FOR INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

Some jurisdictions do not allow waivers of certain warranties, so the above waivers may not apply to you. In that event, any implied warranties are limited in duration to ninety (90) days from delivery of the products. You may also have other rights which vary from jurisdiction to jurisdiction.

7. **Exclusive Warranty.** This warranty is the only warranty provided by Westeel and all other warranties and/or commitments, whether express or implied and no matter by whom made, statutory or otherwise, are subsumed and replaced by it and are of no legal effect. If any provision of the warranty is held by a court of competent jurisdiction to be void or unenforceable, in whole or in part, such provision shall be deemed severable and will not affect or impair the legal validity of any other provision of the warranty.

DISCLAIMERS

Foundation Design

The foundations for the stiffened bin models are based on 4000 lbs. per sq. ft. (192 kPa) soil bearing capacity. All foundation designs use 3000 lbs. per sq. in. (21 MPa) ultimate compressive strength (after 28 days) for concrete and 43,500 lbs. per sq. in. (300 MPa) re-bar. The foundation designs included in this manual are suggestions only, and will vary according to local soil conditions. Westeel will not assume any liability for results arising from their use.

IMPORTANT:Foundation should be uniform and level. Level should not vary by more than ¼" over a span of four feet under the bottom ring angle. Any variance from level must be shimmed under upright base assembly.

Method of Erection

The recommendations for erecting Westeel Grain Bins should be closely followed to achieve the full strength of the bin and to achieve adequate weather sealing. Warranty is void if the recommendations are not followed including but not limited to:

1. Wall sheets and/or uprights, which are not specified for a given tier, are used.
2. Foundations are found to be inadequate or out-of-level.
3. Anchor bolts (cast-in-place, drill-in, chemical type or other) are found to be inadequate.
4. Off-center loading or unloading is used. This does not apply to the use of approved side unloading systems.
5. Materials stored are not free-flowing or have a compacted bulk density greater than 55 lbs/ft^3 (880 kg/m^3).

If using Bin Jacks: Always lift on an upright. Choose a hoist with a suitable capacity for the expected empty bin deadload. Make sure the rated capacity of the hoist in not exceeded.

Design

These Westeel Grain Bins are designed for:

1. Non-corrosive, free-flowing materials up to 55 lbs/ft^3 (880 kg/m^3) average compacted bulk density.
2. Maximum horizontal wind speed of 94 mph (151 km/h).
3. Seismic zone 2a (U.B.C. 1997).
4. 15.0 lbs/ft^2 (.72 kPa) roof snow load.
   24.0 lbs/ft^2 (1.15 kPa) roof snow load when the optional roof stiffening rings are installed.
5. 4000 lbs. (17.8 kN) evenly distributed on peak ring for 15' – 24' bins.
   5000 lbs. (22.2 kN) evenly distributed on peak ring for 27' – 48' bins.

Site and Assembly

Unless otherwise specifically provided in writing, Westeel does not take responsibility for any defects or damages to any property, or injury to any persons, arising from or related to any site or assembly considerations, including but not limited to:

- Bin location and bin siting;
- Soil conditions and corresponding foundation requirements (note that the examples provided in manuals are for specifically stated soil conditions);
- Bin assembly (Westeel recommends the use of qualified bin installers; contact Westeel for information on installers in your area);
- Field modifications or equipment additions that effect the bin structure; and
- Interconnections with neighbouring structures.
- Compliance with all applicable safety standards, including but not limited to fall restraint systems (ladders or other systems). Local safety authorities should be contacted as standards vary between jurisdictions.

Critical Assembly Requirements

1. Local code and jurisdictional requirements that are applicable to the grain bin installation must be adhered to.
2. Foundations must be designed for the loads being imparted to them, and for local soil conditions. Westeel foundation guidelines are for a set of stated conditions and may not be applicable to local conditions.
3. A foundation must provide uniform and level support to the grain bin structure being supported. Surface imperfections causing gapping must be remedied. This may involve, but not be limited to - grouting under the bottom ring of a non-stiffened bin, and shimming under the uprights of a stiffened bin or under the legs of a hopper.
4. If extending an existing bin, ensure that the foundation is adequate for the increased loads that will be subjected to it.
5. If installing an existing bin on a hopper, ensure that the bin is designed for a hopper application, and that the foundation is capable of withstanding the substantial point loads that the hopper legs apply. If uprights are present, ensure that they are supported.
6. Ensure that the proper hardware is utilized for all bolted connections. Refer to the ‘Hardware “Where Used” Chart’ in the Installation Manual. If a shortage occurs do not substitute. Take the necessary steps to obtain the proper hardware. Ensure nuts are tightened to the required torque values as provided in the Installation Manual.
7. Refer to the appropriate Installation Manual to ensure a safe, proper structure, in particular but not exclusively for the wall sheet and upright layouts. **Do not deviate from the layouts provided.**
8. Ensure that an integral end-to-end connection exists between mating uprights. Successive uprights must not overlap.

9. Vertical tolerances between uprights and wall sheets is tight. This can be affected by “jacking” techniques, which can allow the tolerance to grow or shrink depending on the technique used. The gapping between successive uprights must be monitored to ensure that upright holes align with bin sheet holes.
10. When installing roof stiffening rings, and if it is necessary to shorten the stiffening ring tubes, shorten them as little as possible. Initially the nuts on the expanders should be centered and as close together as possible. When tightening, share the amount of take-up between expanders such that the nuts remain centered, and the amount of engagement between all expanders on the same ring is equalized.
11. Before anchoring the bin to the foundation, ensure that the bin is round. The maximum variation from perfect roundness is 0.75" on the radius (see details in "wall sheet and bottom angle " section of manual). Locate anchor bolts towards the outside of the anchor bolt holes (away from bin) to permit the incremental expansion that can occur with the initial filling.

Grain Bin Use

1. Do not off-center unload a grain bin. It is imperative to unload from the center of the bin first, until as much grain as possible has been removed, and only then proceed to unload from the next closest unload gate to the center. Continue utilizing the unload gates in succession from the center towards the outside. Gate control mechanisms should be clearly marked and interconnected to prevent an external gate from being opened first.
2. The only exception to center unloading is when a properly designed and installed side draw system is utilized. However, as bins tend to go out of round when employing side draws, the bin should be completely emptied before refilling.
3. When unloading a bin through a properly designed auger chute, the entry end of the auger should be pushed into the center of the bin before the auger is engaged. Slower rates of flow are preferable and should not exceed the capacity of an 8” auger.
4. Ensure that the inner door panels of grain bin doors are completely closed and latched before filling the grain bin.
5. Never enter a loaded grain bin for any reason. Grain can be a killer.

Product Storage

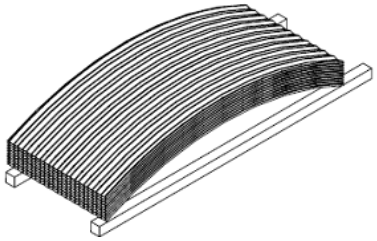
Rust on Galvanized Parts

1. White rust forms when moisture is allowed to collect on galvanized surfaces that have yet to develop the durable zinc oxide layer. This zinc oxide layer naturally occurs as the surface interacts with carbon dioxide, and is characterized over time by the dull grey appearance that weathered galvanized surfaces get.
2. Parts that are not well ventilated or well drained can collect water between surfaces and develop white rust.
3. White rust is not a structural concern if its development is stopped in the early stages. A light film or powdery residue can occur after a period of heavy rainfall or a short time of improper storage. If white rust has started to develop, separate parts and wipe off any moisture. Next, using a clean cloth, apply a thin layer of petroleum jelly or food-grade oil to the entire part.

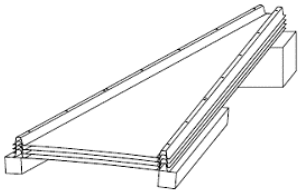
4. If moisture is left on parts, this white rust can become more aggressive and turn into red rust. Red rust can cause degradation in the material and become a structural concern. Any parts that have red rust should be replaced immediately.

Storage Guidelines

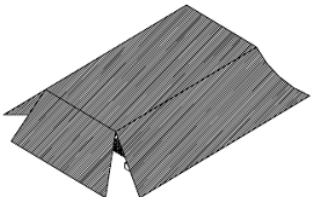
1. Keep all bundles dry before assembly of the bin. Start assembly as soon as possible. Do not lay bundles on the bare ground, raise all bundles 6" – 8" off the ground on wood blocks or timbers. Store curved wall sheets 'hump-up'. All other bundles material should be placed so that they are well sloped to promote good drainage.



2. Roof sheets must be elevated at least 12" at the small end of the sheets.



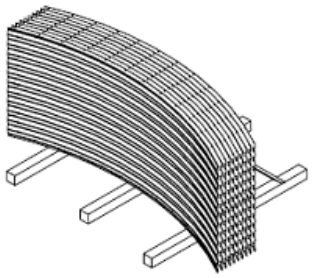
3. Temporary storage can be provided by erecting a simple framework supporting a waterproof tarp.



4. All bin boxes, ladder boxes and hardware boxes should be stored inside. These are not waterproof, and will deteriorate in normal weather conditions, allowing moisture to contact the parts inside.

If Parts Become Wet

1. If goods become submerged or wet, the bundles should be opened as soon as possible, sheets or material separated and dried. Keep separated until assembly. Brace goods properly so as to avoid damage or injury from material falling when in storage.



2. Any boxed goods that become wet should be dried and stored in a new box that is free of moisture.

3. In addition to wiping down wallsheets, a food-grade oil can also be applied with a clean, lint-free cloth. This will assist in preventing any further moisture from contacting the galvanizing on the steel. Due to safety concerns with installation and use, Westeel does not recommend the use of oil on other parts such as roof sheets and safety ladders.

IMPORTANT NOTES

1. In order to maintain your wall sheets in good condition separate sheets and allow air circulation between them. Store sheets in a dry place. Do not store sheets with sheet ends pointing upwards.
2. To keep an even pressure on walls, the bin must always be unloaded from the centre.
3. Contact local power officials for minimum power line clearance.
4. See "Disclaimers - Design" for materials which can be stored.
5. Tighten all bolts to the recommended torque setting (see Recommended Bolt Torques table in Appendix).
6. Do not locate grain bin close to high buildings, which might cause snow to fall onto or build up on the roof of the grain bin. Consider future expansion and allow space for loading and unloading of the bin. Your dealer and local government agricultural consultants can help you plan your storage system for maximum efficiency.

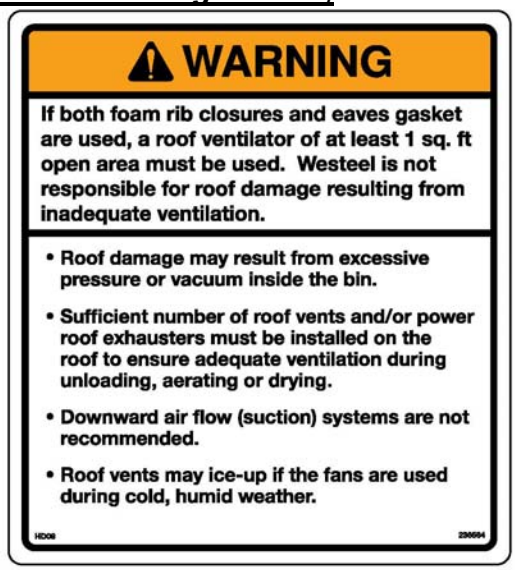
Shortages and Damaged Parts;

Report damaged parts or shortages immediately to the delivering carrier, followed by a confirming letter requesting inspection by the carrier, if required. Order any replacement parts immediately to ensure that assembly will not be held up by missing parts. All parts will be charged for and credit will be issued by party at fault - no credit will be issued if freight bill are signed as received in good condition.

Order Optional Equipment;

Optional equipment such as unloading augers, aeration equipment, anchor bolts, foundation sealant, external ladders, safety cage and platforms, etc., should all be on site and checked before assembly starts. Plan your installation in advance. For details, see assembly instructions supplied with optional equipment.

List of Warning Decals;



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Consistent with Westeel Limited's policy of continued research and development of our products, we reserve the right to modify or change information contained in this publication without notice.

IMPORTANT NOTES CONTINUED

1. Make sure bin is "circular" by measuring the inside diameter of several points. A 1" variation will not adversely affect installation of the floor. Greater variation may require field cutting of some planks.

2. Mark exact center of bin to aid in properly locating the unload auger tube.

3. See "Disclaimers - Design" for materials which can be stored.

4. Operating drying fans when bin is empty or near empty may cause movement of floor supports and/or floor planks, resulting in a weak or unstable floor structure. To test fan when bin is empty, cover fan inlet to block airflow and operate for a period of less than one minute only.

5. A smooth, flat and level concrete floor is critical to a successful installation. A maximum flatness variation of 1/4" over 4 ft is allowable.

6. Bins with uprights must be laid out to place fans and unloading tube between uprights.

7. This manual is for the installation of Full Floor. Please refer to the Round Pit manual for details on layout, concrete forming, and installation of these systems.

SHORTAGES AND DAMAGED PARTS

1. Report damaged parts or shortages immediately to the delivering carrier followed by a confirming letter requesting inspection by that carrier, if required.

2. Order necessary replacement parts immediately to ensure that erection will not be held up by missing parts. All parts will be charged for and credit will be issued by the party at fault-no credit will be issued if freight bills are signed as received in good condition.

LIST OF WARNINGS

ROOF

WARNING
If both foam rib closures and eaves gasket are used, a roof ventilator of at least 3 sq. ft. open area, must be used. Westeel is not responsible for roof damage resulting from inadequate ventilation.
-Roof damage can result from excessive pressure or vacuum inside the bin. -Sufficient number of roof vents and/or power roof exhausters must be installed on the roof to insure adequate ventilation during unloading, aerating or drying. -Downward air flow (suction) systems are not recommended. -Roof vents can ice up if the fans are used during cold, humid weather.

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MATERIAL LIST

	BIN DIA.	KIT NO.	PERF. SIZE	PLANK BUNDLE NO.	FLASHING 196621	FLASHING 196622	SPLICER 196772	HDWE. NO	SHIP. WT.
	144 – 148	196651	.050	N/A	28		-	196455	400
		196671	.094	N/A					405
	194 – 198	196652	.050	N/A	39		-	196454	751
		196672	.094	N/A					761
	1504 – 1508	196653	.050	196500		30	-	196455	464
		196673	.094	196515					470
	1804 – 1813	196654	.050	196501		36	-	196454	662
		196674	.094	196516					671
	2104 – 2113	196655	.050	196502		42	-	(2) 196455	892
		196675	.094	196517					903
	2404 – 2412	196656	.050	196503		48	-	(2) 196455	1156
		196676	.094	196518					1171
	2413 – 2416	196865	.094	196853					1468
	2704 – 2712	196657	.050	196504		54	-	(2) 196455	1457
		196677	.094	196519					1476
	2713 – 2716	196866	.094	196854					1851
	3004 – 3012	196658	.050	196505		60	-	(2) 196455	1790
		196678	.094	196520					1813
	3013 – 3016	196867	.094	196855					2279
30’ planks	3304 – 3310	196659	.050	196506		66	21	196454 196455 196458	2164
		196679	.094	196521					2191
	3311 – 3316	196868	.094	196856					2760
33’ planks	3304 – 3310	196663	.050	196510			-	196454 196455	2155
		196683	.094	196525					2183
	3311 – 3316	196872	.094	196860					2751
30’ planks	3604 – 3609	196660	.050	196507		72	32	196454 196455 196458	2569
		196680	.094	196522					2602
	3610 – 3616	196869	.094	196857					3282
36’ planks	3604 – 3609	196664	.050	196511			-	(2) 196454	2559
		196684	.094	196526					2592
	3610 – 3616	196873	.094	196861					3272
30’ planks	4204 – 4209	196661	.050	196508		84	47	(3) 196455 196458	3490
		196681	.094	196523					3535
	4210 – 4216	196870	.094	196858					4468
42’ planks	4204 – 4209	196665	.050	196512			-	(3) 196455	3472
		196685	.094	196527					3517
	4210 – 4215	196874	.094	196862					4451
30’ planks	4804 – 4809	196662	.050	196509		96	61	(2) 196454 196455 196458	4541
		196682	.094	196524					4600
	4810 – 4813	196871	.094	196859					5824
42’ planks	4804 – 4809	196666	.050	196513			36	(3) 196455 196458	4531
		196686	.094	196528					4590
	4810 – 4813	196875	.094	196863					5814
48’ planks	4810 – 4813	196876	.094	196877			-	196454 (2) 196455	5824

- Shaded area indicates 18 GA. planks

Floor Supports 196614 (2 lbs. each) are ordered separately from floor kits.

Hdwe. Pkg.	3/8” x 1” bolt 193802	3/8” nut 193729	3/8” washer 193733	#10 x 3/4” screw 900461	Instructions 198852
196454	85	85	85	180	1
196455	65	65	65	150	1
196458	10	10	110	220	1

PLANNING FLOOR LAYOUT

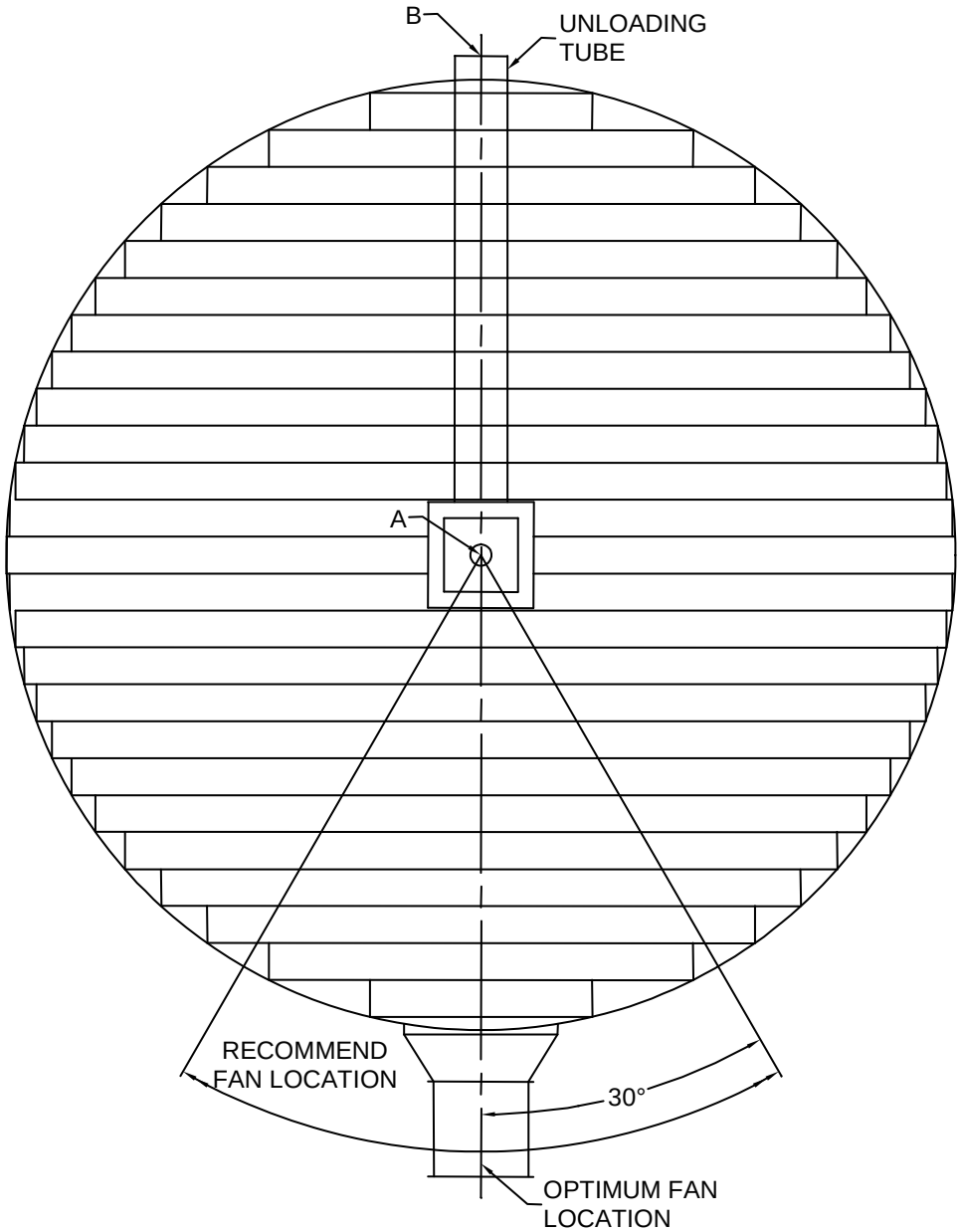
1. Determine and mark location of the exact center of bin (point A).

2. Determine where unload auger will exit the bin (point B).

   NOTE: For maximum grain drying efficiency the unload auger discharge hole should be located directly across from the fan. If two fans are used, they should be placed no more than 60 degrees apart and auger discharge hole should be located directly opposite point on wall halfway between the fans.

   IMPORTANT: <u>For bins with uprights, locate fan(s) and unloading auger between uprights.</u>

3. Mark a chalkline across the bin diameter joining point A and point B. The floor planks will be installed perpendicular to this main centerline while the floor supports will be placed on rows parallel to the main centerline.

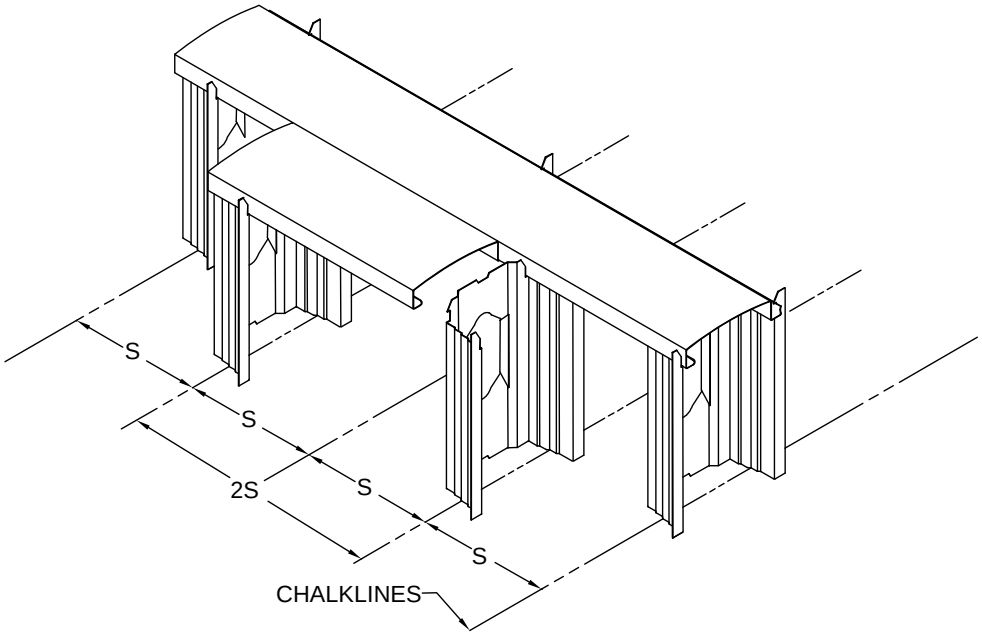


FAN LOCATION LAYOUT

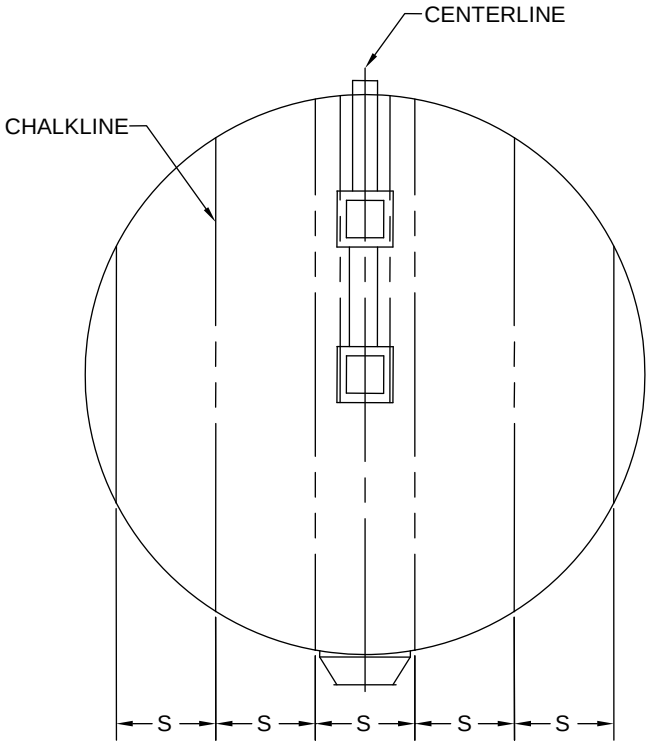
LAYOUT AND POSITIONING OF FLOOR SUPPORTS

1. Determine spacing according to the bin diameter and number of tiers. The number of floor supports required and maximum allowable spacing can be found on the Floor Assembly Detail page for the appropriate bin model. For most layout patterns, floor supports will alternate between adjacent planks of spacing "S" with a net spacing of "2 x S" between floor supports on the same plank (see Floor Assembly Detail for exceptions).

   Note: When recirculating devices are used, grain depth must not exceed 22 ft. The number and spacing of floor supports must be taken from the last column of the table on the appropriate Floor Assembly Detail page.



2. Layout chalklines for each row of floor supports parallel to main centerline of required spacing "S". The two chalklines adjacent to the main centerline will usually be situated at one-half spacing (S/2) on either side of centerline (see Floor Assembly Detail for exceptions). All other chalklines should be at full spacing "S".



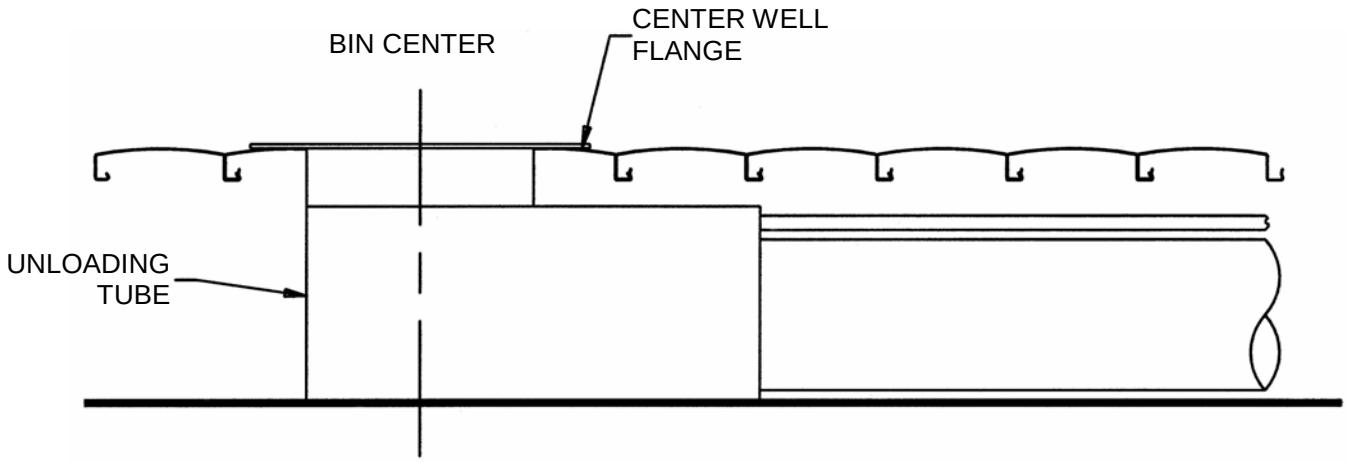
AUGER TUBE INSTALLATION

1. Position and install the unload auger as determined in "Planning Floor Layout". Center well should be located at exact center of bin and installed so that well flange is on top of floor planks. Adequate support must be provided on all four sides of the well in addition to support under the well.

2. Auger tube and control rod must be at least 3/8" below bottom flange of floor planks.

3. Any openings in the bin wall through which the auger tube and control rod pass must be bridged and sealed in an adequate manner.

4. Refer to the auger manufacturer's manual for further information.



FAN TRANSITION INSTALLATION

1. Disassemble collar from transition.

2. At fan location(s) determined previously, mark outline of fan transition so bottom of transition is flush with the top of bottom ring angle, and cut out hole(s) in wall sheet, allowing minimum clearance.

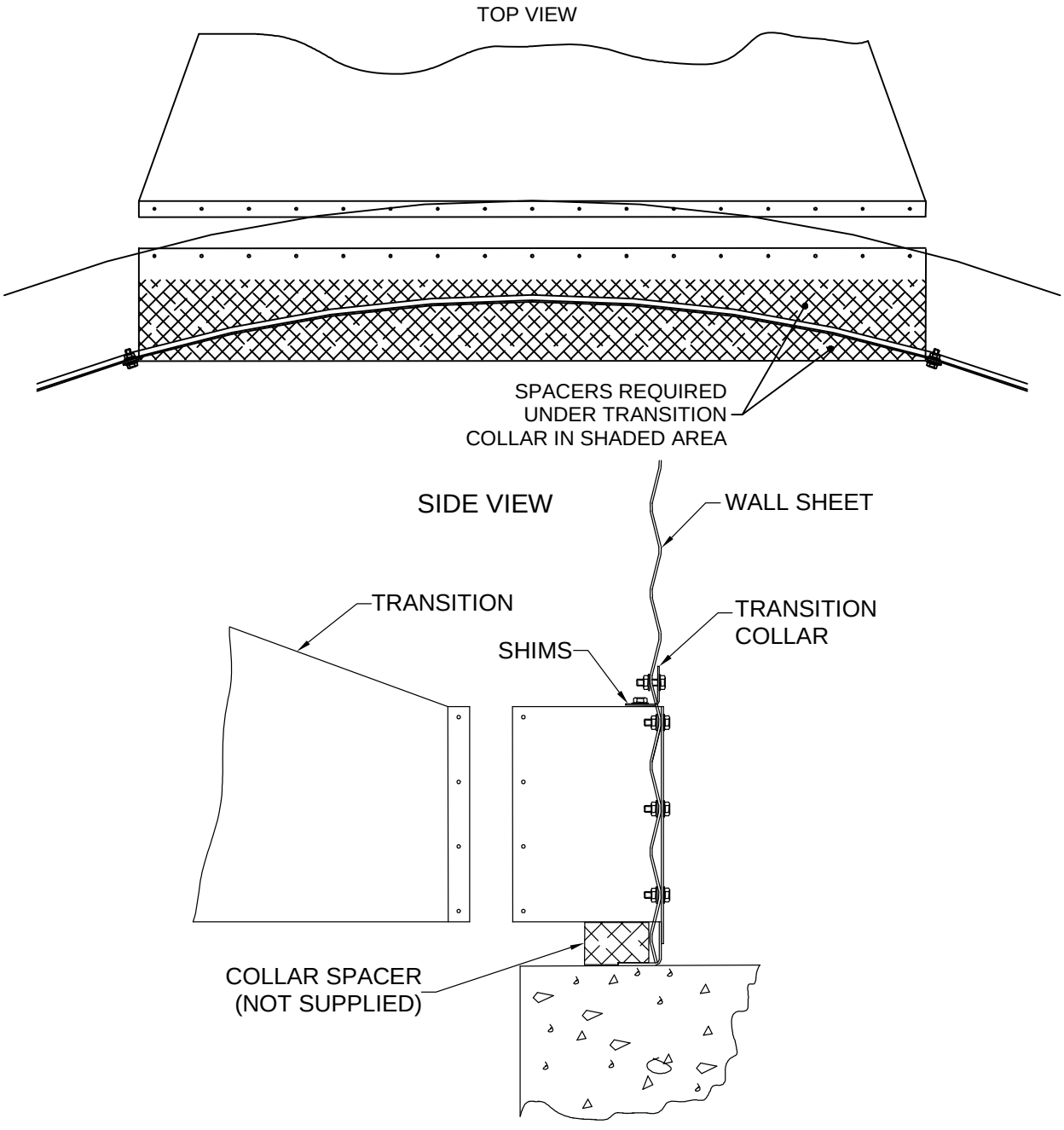
IMPORTANT: Do not cut through vertical wall seams or stiffeners.

3. Place spacers (not supplied) on foundation on both sides of wall sheet and insert fan transition collar.

4. Place steel shims (not supplied) between wall sheet and transition stiffeners to ensure proper load transfer to floor.

5. Drill holes to suit and fasten side flanges of transition to bin wall (hardware not supplied). Seal all gaps to prevent air leakage.

6. Reassemble transition to collar and seal.



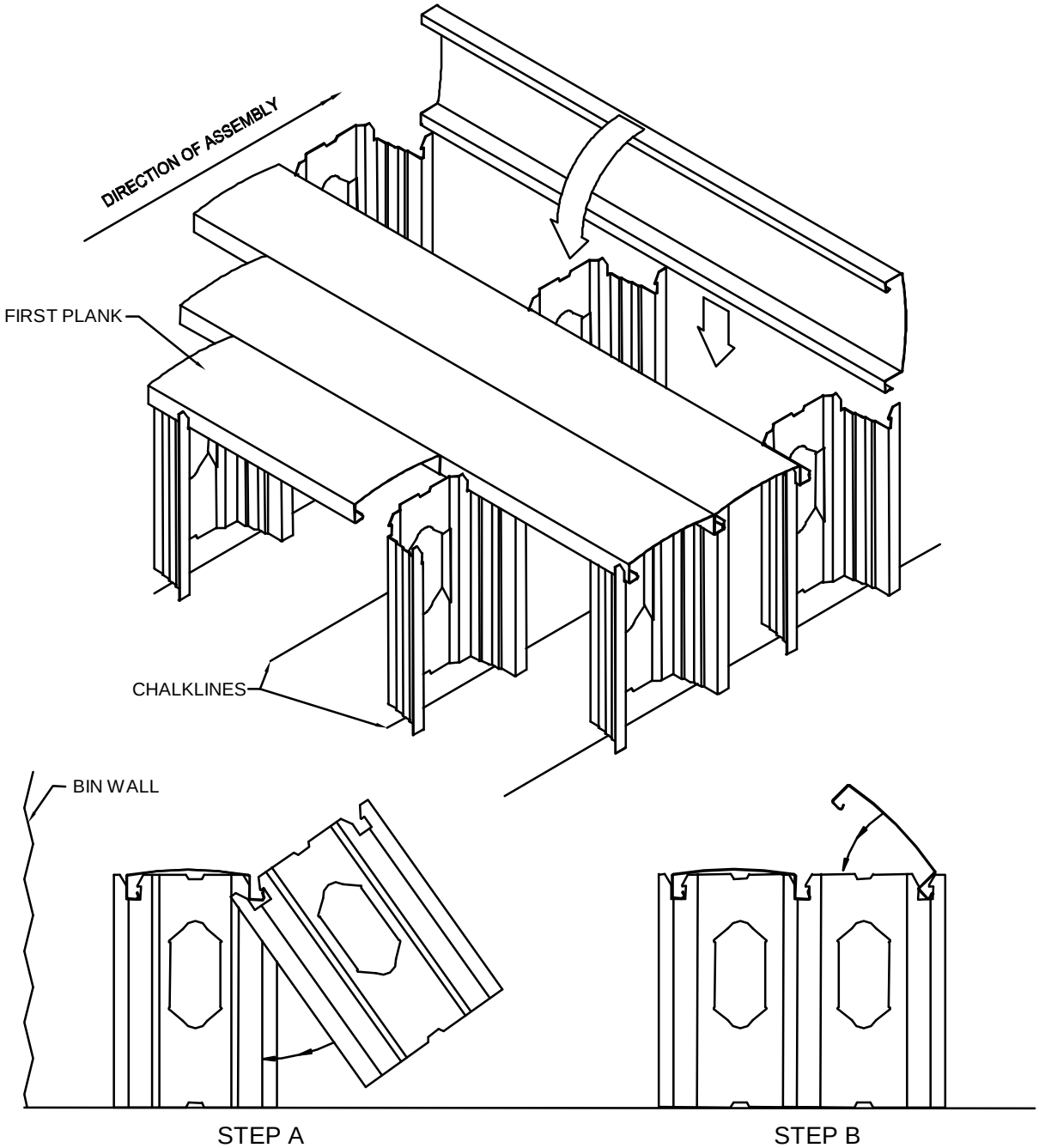
FLOOR PLANK TO SUPPORT ASSEMBLY

1. Place first row of floor supports on chalklines as per manual layout and snap plank into support.

2. Insert floor supports for second plank under the lip of the first plank (Step A).

3. Insert second plank vertically into previously installed supports. Rotate plank towards existing plank and snap planks together (Step B).

4. Repeat steps 2 and 3 for all successive planks.



FLOOR PLANK AND SUPPORT INSTALLATION

1. Floor plank lengths and the quantity of floor supports for each plank, for specified bin models, are listed in the Floor Assembly Details, pages 20 to 39.

2. Before commencing installation, lay out floor planks outside the bin in order from shortest to longest. This will simplify installation and ensure correct floor plank placement.

3. Unless otherwise stated in the Floor Assembly Details, the normal floor support spacing on any given plank should be two chalkline spaces with floor supports staggered on adjacent planks. Extra floor supports may be required at less than normal spacing to limit end plank overhang to 12" or 6" for taller bins. These floor supports are included in quantities listed.

   NOTE: To ensure correct spacing throughout the bin, always locate centre of support over chalkline.

4. Use pressure treated wood spacers on ends of first and last plank to constrain floor and ensure that floor is centered in the bin (see figure 1). Leave spacer in the bin after assembly.

5. Splice joints are necessary on some 33' diameter and larger floors as indicated in the Floor Assembly Details. At all such joints, fasten a splicer flashing on top of the plank using 4 self-drilling screws and place a floor support directly underneath (see figure 2). In many cases, this joint occurs at the standard floor support location above the chalkline. Where this is not the case, extra floor supports are included. Alternate splice joints on either side of main centerline.

6. When the centre of the bin is reached, the floor planks must be field cut to fit around the auger well. The well flange should be installed above floor surface and the well shimmed so that the weight bears directly onto the concrete floor.

7. On layouts calling for floor supports down the main centerline, two floor supports should be placed as close as possible on either side of the auger tube and staggered between floor planks.

8. On internally stiffened bins and bins severely "out-of-round", field trimming of some floor planks may be required.

Figure 1

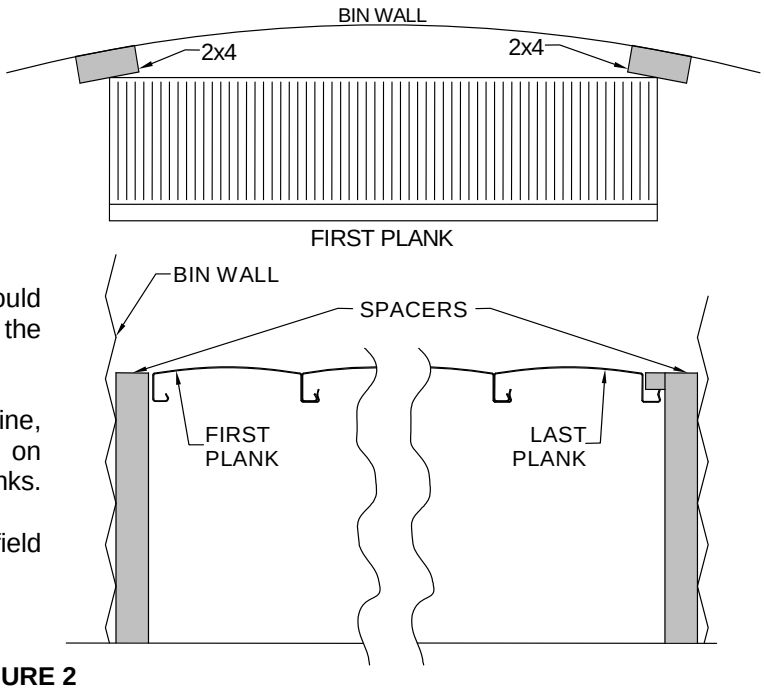
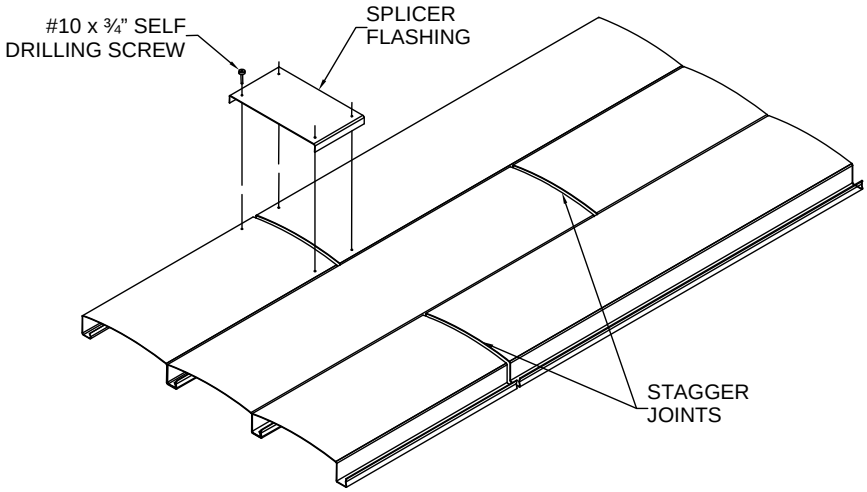


FIGURE 2
SPLICER FLASHING INSTALLATION
(FOR SOME 33' & LARGER FLOORS)



NOTE: PLACE FLOOR SUPPORTS DIRECTLY BELOW SPLICE

FLASHING INSTALLATION

1. After all the floor planks have been installed, flashing pieces are bolted to the bin wall. Install flashing so that the sweep wheel “steps up” as shown below.

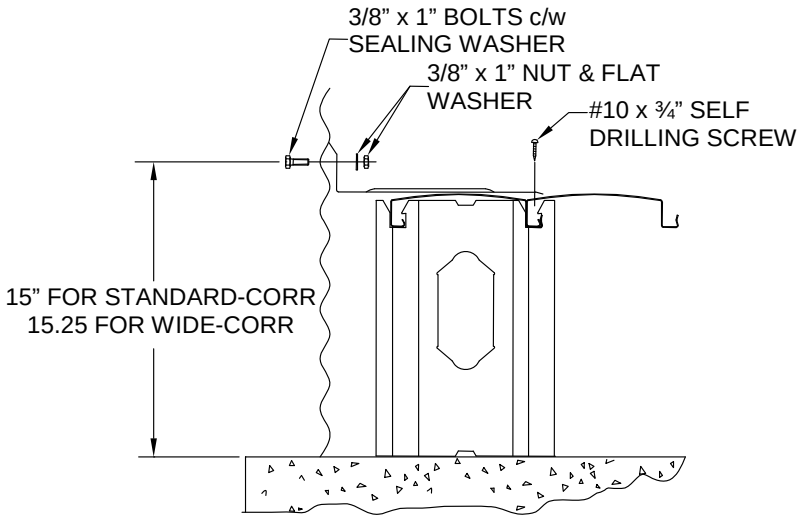
2. All Westeel Wide-corr bins have pre-punched holes to accommodate this flashing. As well, 3/8” bolts and nuts are supplied with the bin . The flashing will need to be field-drilled at the vertical wall seam holes.

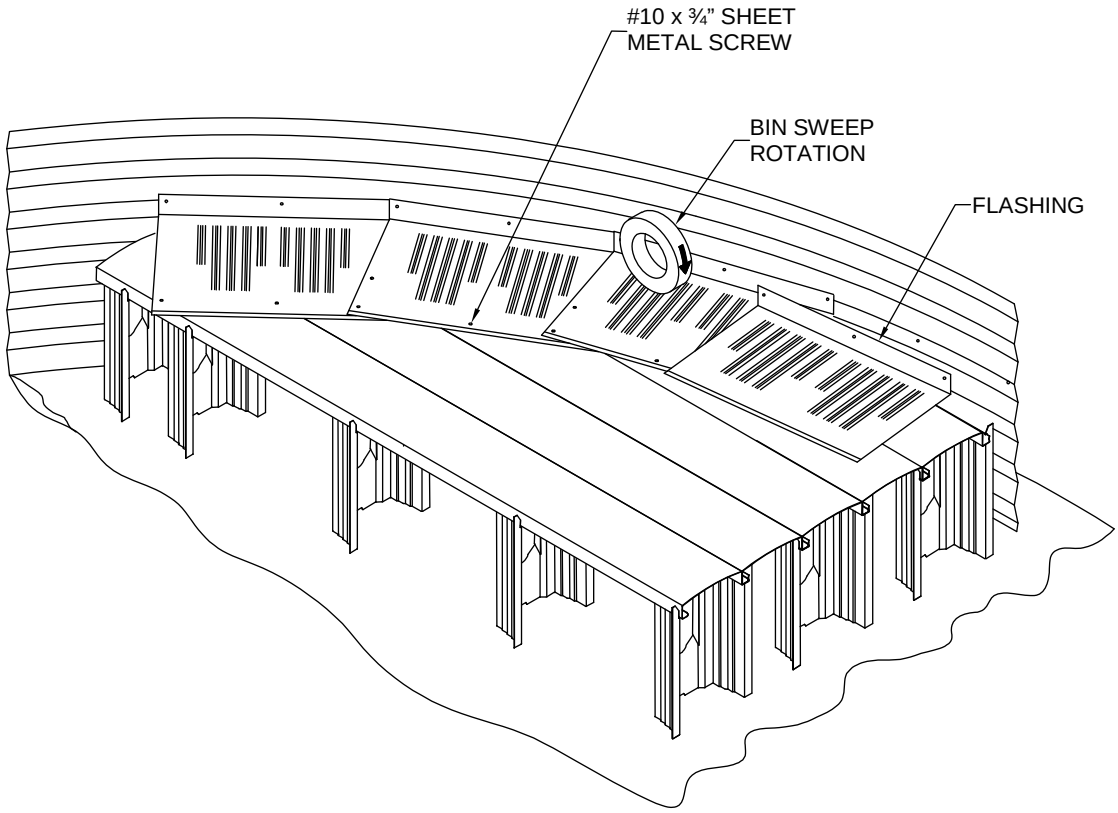
3. Westeel 14’ and 19’ diameter bins will require field-drilling of all flashing holes through the valley of the wall sheet. The last piece of flashing will also require field-drilling.

4. Fasten flashing to wall using a 3/8” bolt, washer and nut at each hole. Tighten all bolts firmly, but do not overtighten.

5. Flashing pieces must be field-cut to form a close fit around any bin stiffeners and must cover any opening in the floor greater than 1/32” wide.

6. After flashing has been bolted to bin wall it must be secured to floor planks using #10 x 3/4” self-drilling screws. Four screws are provided for each flashing piece. They should be driven along the edge of the flashing toward the bin center, where each of the sections overlap (and through the center of each slit section, if applicable).





14' FLOOR ASSEMBLY DETAIL

NOTES:

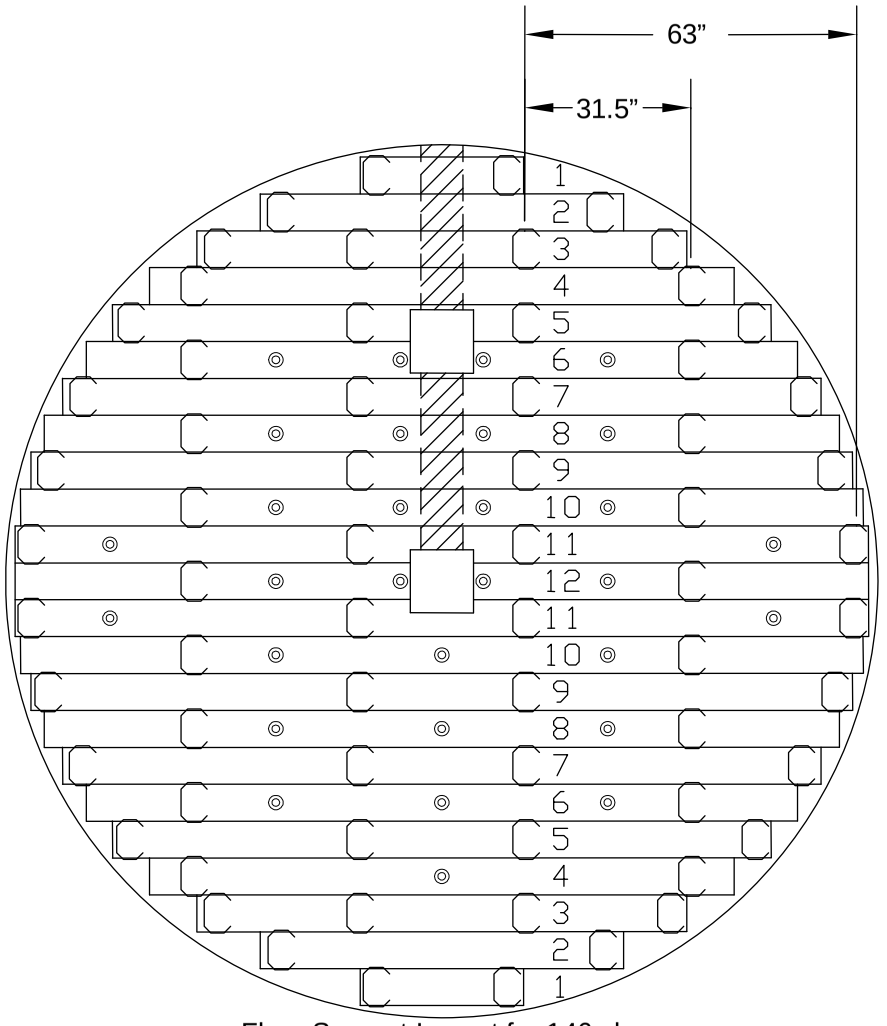
1. With standard layout, each pair of supports on the two chalklines adjacent to main centerline are placed under same floor plank. Stagger all other supports between adjacent floor planks, as illustrated.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12”.

3. When a recirculating device is used, grain depth must not be above the eave for a 148 or exceed 22’; extra supports must be added to standard layout to limit support spacing to 15¾” within the center circular area approximately 10 ft. in diameter. See last column in table.

PLANK NO.	QTY.	LENGTH (IN)	NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODELS	
			144–148	144–148
			S=31.5”	RECIRULATOR DEPTH 22’ MAX S=31.5”/15.75”
1	2	31	2	2
2	2	69	2	2
3	2	93	4	4
4	2	111	2	3/2
5	2	125	4	4
6	2	135	2	5/6
7	2	144	4	4
8	2	151	2	5/6
9	2	156	4	4
10	2	160	2	5/6
11	2	162	4	6
12	1	162	2	6
TOTAL NO. SUPPORTS			66	96

When two values listed, second number refers to supports on auger tube side of floor.



Floor Support Layout for 146 shown;
for other bin models refer to chart
◎ Extra supports required when recirculator is used

19' FLOOR ASSEMBLY DETAIL

NOTES:

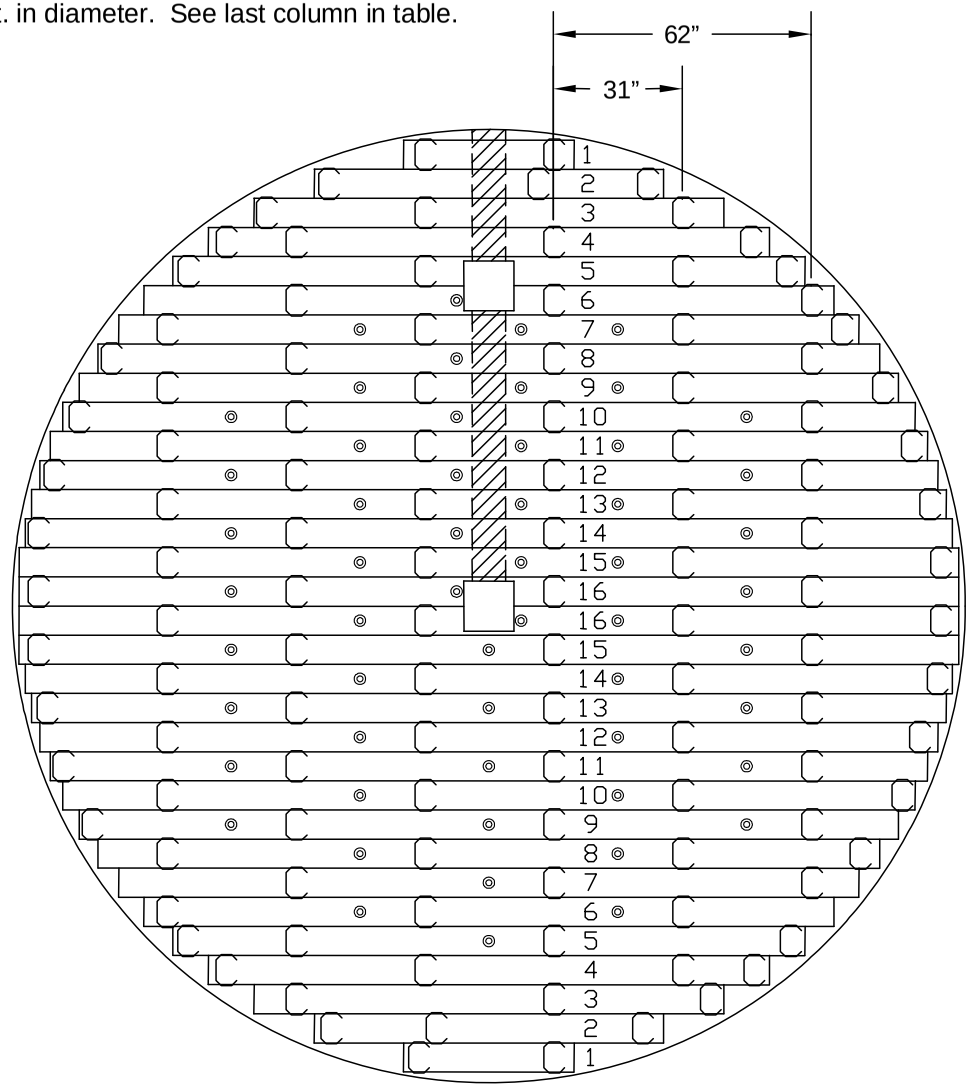
1. With standard layout, stagger all supports between adjacent floor planks, as illustrated.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12”.

3. When a recirculating device is used, grain depth must not be above the eave for a 198 or exceed 22’; extra supports must be added to standard layout to limit support spacing to 15½” within center circular area approximately 13 ft. in diameter. See last column in table.

PLANK NO.	QTY.	LENGTH (IN)	NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODELS	
			194–198	194–198
			S=31”	RECIRULATOR DEPTH 22’ MAX S=31”/15.5”
1	2	41	2	2
2	2	84	3	3
3	2	113	3	3
4	2	135	4	4
5	2	152	3	5/4
6	2	166	3	5/4
7	2	178	4	4/6
8	2	188	4	6/5
9	2	197	4	7
10	2	205	4	6/7
11	2	211	4	7
12	2	216	4	6/7
13	2	220	4	7
14	2	223	4	6/7
15	2	226	4	7
16	2	226	4	7
TOTAL NO. SUPPORTS			116	172

When two values listed, second number refers to supports on auger tube side of floor.



Floor Support Layout for 196;
For other bin models refer to charts
◎ Extra supports required when recirculator is used

15' FLOOR ASSEMBLY DETAIL

NOTES:

1. With standard layout for bin models 1504 – 1505, each pair of supports on the two chalk lines adjacent to main centerline are placed under the same floor plank. Stagger all other supports between adjacent floor planks, as shown.

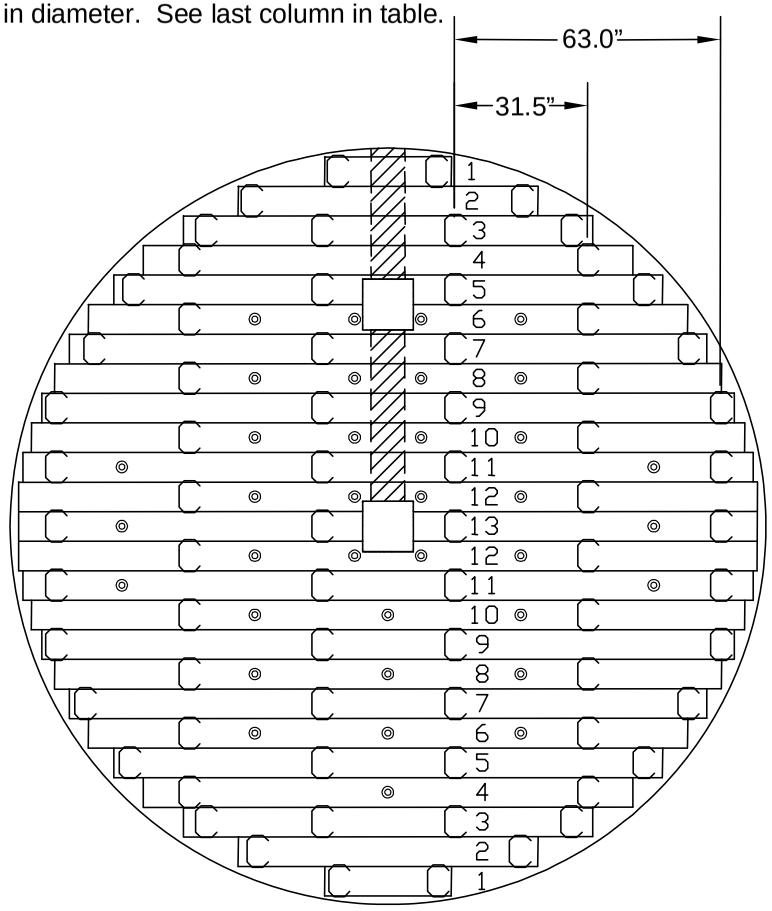
2. For bin models 1506 and larger, stagger all supports between adjacent floor planks.

3. Supports are required at various locations around perimeter of bin at less than standard spacing "S" to limit maximum end-of-plank overhang to 12" for bin models up to 1507 and approximately 6" for other bin models.

4. When a recirculating device is used, grain depth must not be above the eave for a 1506 or exceed 22'; extra supports must be added to the standard 1504 – 1505 layout to limit support spacing to 15¾" within center area approximately 10½ ft. in diameter. See last column in table.

			NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODELS			
			1504–1505	1506–1507	1508	1504–1506
PLANK NO.	QTY.	LENGTH (IN)	S=31.5"	S=28.5"	S=23"	RECIRCULATOR DEPTH 22' MAX S=31.5"/15.75"
1	2	30	2	2	2	2
2	2	71	2	3	2	2
3	2	97	4	3	4	4
4	2	116	2	4	4	3/2
5	2	130	4	4	4	4
6	2	142	2	3	4	5/6
7	2	151	4	3	4	4
8	2	158	2	4	4	5/6
9	2	164	4	4	4	4
10	2	169	2	4	4	5/6
11	2	173	4	4	4	6
12	2	175	2	4	4	6
13	1	175	4	4	4	6
TOTAL NO. SUPPORTS			72	88	92	108

When two values listed, second number refers to supports on auger tube side of floor.



Floor Support Layout for 1504–1505;
For other bin models refer to chart
◎ Extra supports required when recirculator is used

18' FLOOR ASSEMBLY DETAIL

NOTES:

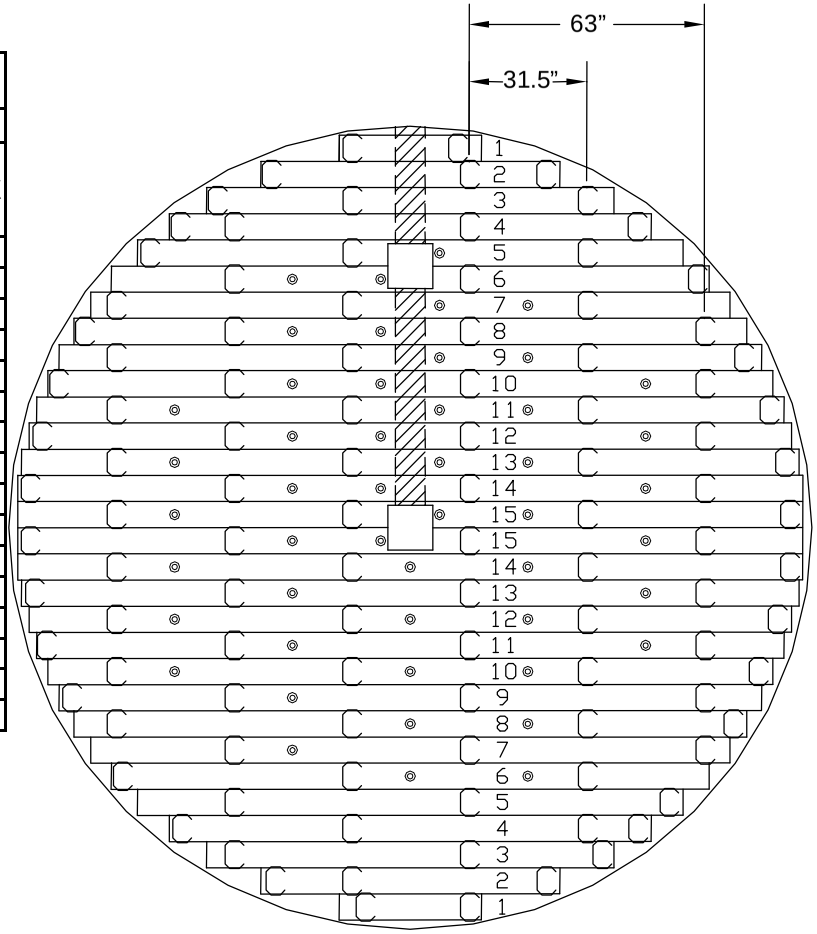
1. With standard layouts, stagger all supports between adjacent floor planks, as illustrated in typical layout for 1804.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12” for bin models up to 1806 and approximately 6” for other bin models.

3. When a recirculating device is used, grain depth must not be above the eave for an 1806 or exceed 22’; extra supports must be added to standard 1804 layout to limit support spacing to 15¾” within center area approximately 15 ft. in diameter. See last column in table.

			NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODELS					
			1804–1805	1806	1807–1808	1809–1810	1811–1813	1804–1806
PLANK NO.	QTY.	LENGTH (IN)	S=31.5”	S=28”	S=23”	S=21”	S=18”	RECIRULATOR DEPTH 22’ MAX S=31.5”/15.75”
1	2	38	2	2	2	2	3	2
2	2	80	3	3	3	3	4	3
3	2	109	3	4	4	4	5	3
4	2	129	4	4	4	5	5	4
5	2	146	3	4	5	5	6	3/4
6	2	160	3	5	5	5	6	5
7	2	171	3	5	5	5	6	5/4
8	2	180	4	4	5	5	6	6
9	2	188	4	4	5	5	6	6/5
10	2	194	4	5	5	5	6	7
11	2	200	4	5	5	5	6	6/7
12	2	204	4	5	5	6	6	7
13	2	208	4	5	5	6	6	6/7
14	2	210	4	5	5	6	6	7
15	2	210	4	5	5	6	6	7
TOTAL NO. SUPPORTS			106	130	136	146	166	155

When two values listed, second number refers to supports on auger tube side of floor.



Floor Support Layout for 1804–1805;
For other bin models refer to chart
◎ Extra supports required when recirculator is used

21' FLOOR ASSEMBLY DETAIL

NOTES:

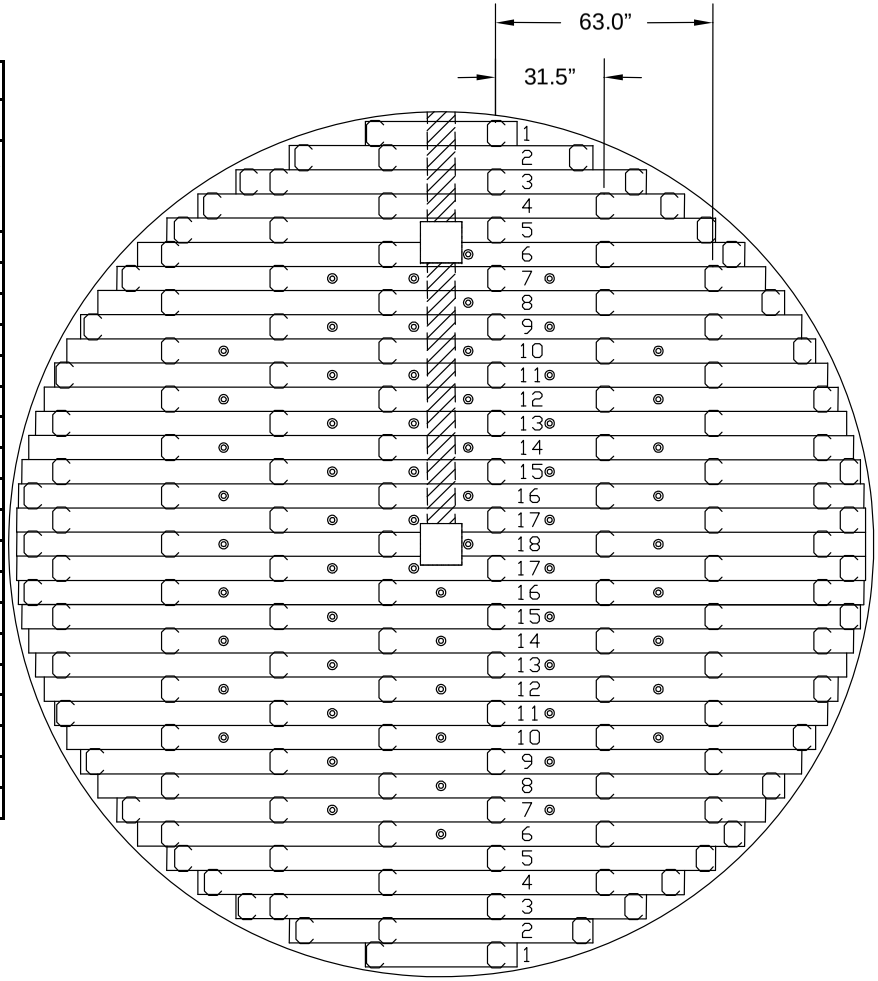
1. With standard layouts, stagger all supports between adjacent floor planks, as illustrated in typical layout for 2104.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12” for bin model up to 2106 and approximately 6” for other bin models.

3. When a recirculating device is used, grain depth must not be above the eave for a 2106 or exceed 22’; extra supports must be added to the standard 2104 layout to limit support spacing to 15¾” within center area approximately 15 ft. in diameter. See last column in table.

			NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODEL						
PLANK NO.	QTY.	LENGTH (IN)	2104	2105	2106	2107–2108	2109–2110	2111–2113	2104–2106
			S=31.5”	S=30”	S=24”	S=22”	S=20”	S=17”	RECIRCULATOR DEPTH 22’ MAX S=31.5”/15.75”
1	2	44	2	2	2	3	3	2	2
2	2	88	3	3	3	3	4	4	3
3	2	119	4	4	4	4	4	5	4
4	2	141	4	4	5	5	5	6	4
5	2	159	4	4	5	5	5	6	4
6	2	176	4	4	5	6	6	7	5
7	2	188	4	4	6	6	6	7	6/7
8	2	199	4	4	6	5	7	7	5
9	2	209	4	4	5	6	6	7	6/7
10	2	217	4	4	5	6	6	7	7
11	2	224	4	4	5	6	6	7	6/7
12	2	230	4	5	6	6	6	7	7
13	2	235	4	5	6	6	7	7	6/7
14	2	239	4	5	6	6	7	8	7
15	2	243	5	5	6	6	7	8	7/8
16	2	245	5	5	6	6	7	8	8
17	2	246	5	5	6	6	7	8	8
18	1	246	5	5	6	6	7	8	8
TOTAL NO. SUPPORTS			141	147	181	188	205	230	203

When two values listed, second number refers to supports on auger tube side of floor.



Floor Support Layout for 2104;
For other bin models refer to chart.
◎Extra supports required when recirculator is used

24' FLOOR ASSEMBLY DETAIL

NOTES:

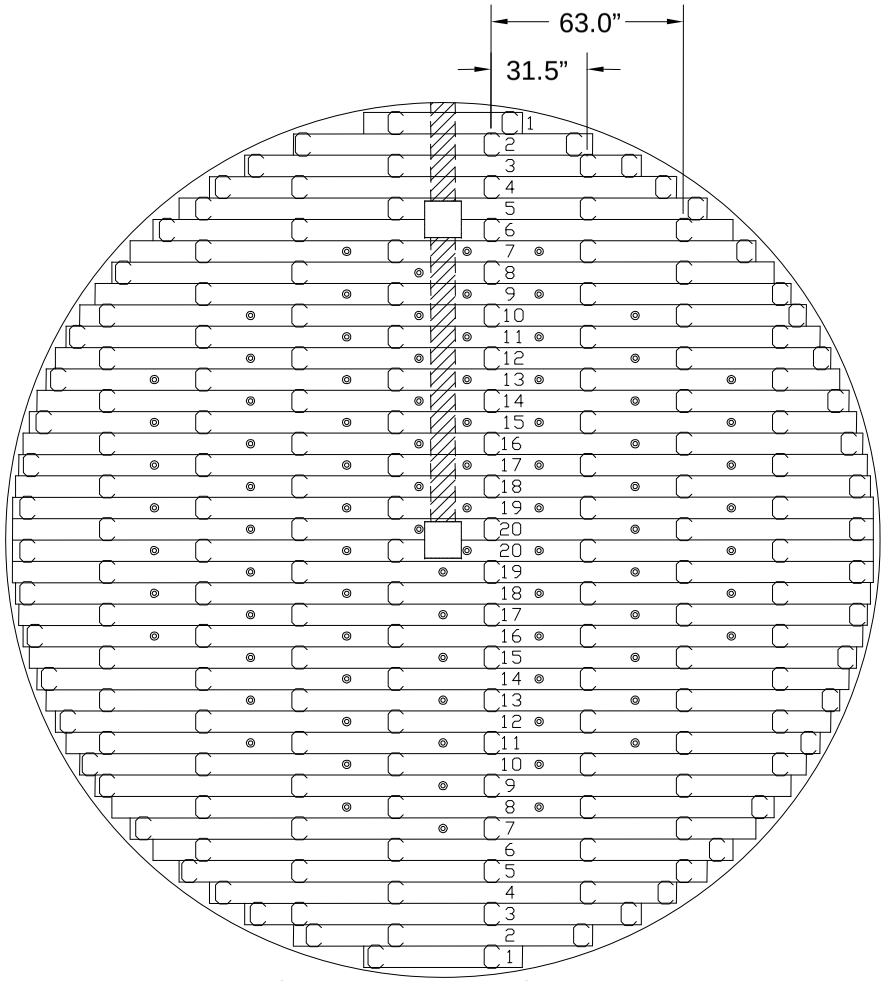
1. With standard layouts, stagger all supports between adjacent floor planks, as illustrated in typical layout for a 2404.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12” for bin models up to 2405 and approximately 6” for other bin models.

3. When a recirculating device is used, grain depth must not be above the eave for a 2406 or exceed 22’; extra supports must be added to the standard 2404 layout to limit support spacing to 15¾” within center area approximately 17 ft. in diameter. See last column in table.

			NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODELS						
PLANK NO.	QTY.	LENGTH (IN)	2404 S=31.5”	2405 S=28”	2406 S=23”	2407–2408 S=21”	2409–2410 S=18”	2411–2416* S=16”	2404–2406 RECIRCULATOR DEPTH 22' MAX S=31.5”/15.75”
1	2	52	2	2	3	3	3	3	2
2	2	98	3	3	4	4	4	5	3
3	2	130	4	4	4	5	5	6	4
4	2	153	4	4	5	5	6	6	4
5	2	173	4	5	5	6	6	7	4
6	2	190	4	4	6	6	7	7	4
7	2	205	4	4	6	7	7	8	5/7
8	2	217	4	5	6	7	7	8	6/5
9	2	228	4	5	7	7	8	9	5/7
10	2	238	5	5	7	7	7	8	7/8
11	2	247	5	5	6	7	8	8	8
12	2	254	5	5	6	7	8	9	7/8
13	2	260	5	5	6	7	8	9	8/10
14	2	266	5	5	6	7	8	9	7/8
15	2	271	5	5	7	7	8	9	8/10
16	2	275	5	6	7	7	8	9	9/8
17	2	278	5	6	7	7	8	9	8/10
18	2	280	5	6	7	7	8	9	9/8
19	2	282	5	6	7	7	8	9	8/10
20	2	282	5	6	7	7	8	9	10/8
TOTAL NO.			176	192	238	254	280	312	262

When two values listed, second number refers to supports on auger tube side of floor.
*Bin models 2413–2416 use 18 Ga.– .094 planks.



Floor Support Layout for 2404;
For other bin models refer to chart.
⊙Extra supports required when recirculator is used

27' FLOOR ASSEMBLY DETAIL

NOTES:

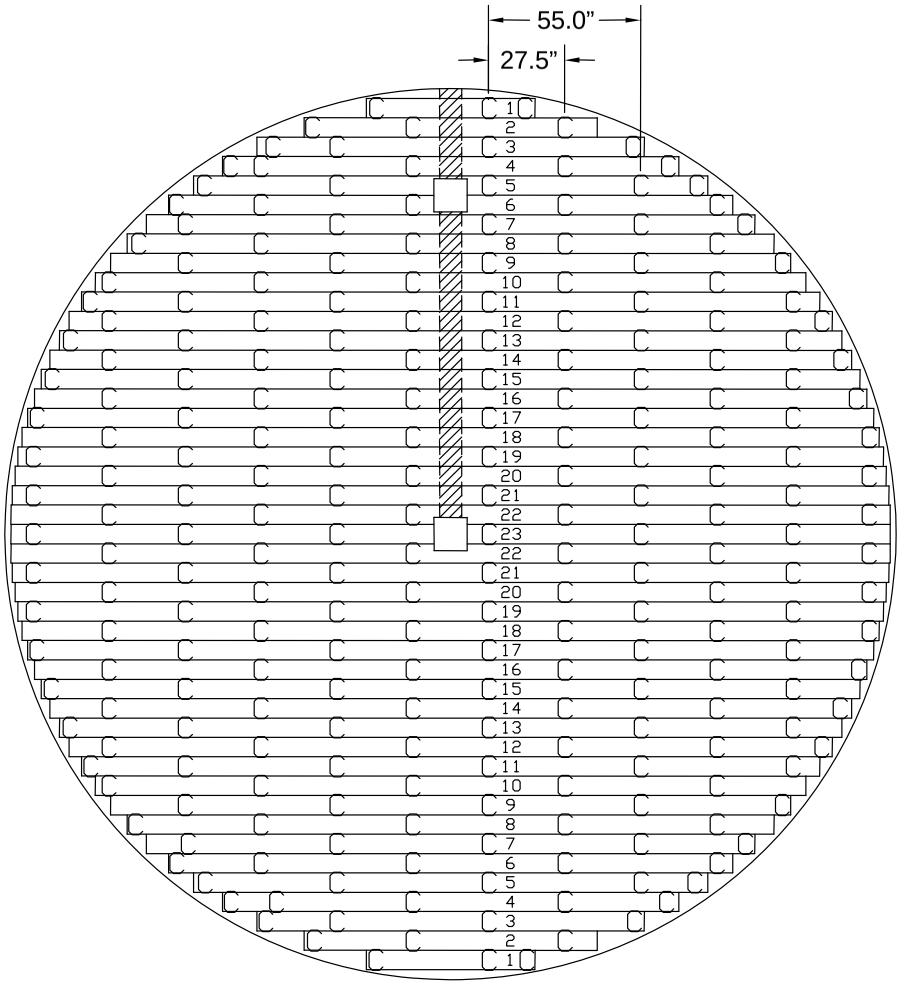
1. With standard layouts, stagger all supports between adjacent floor planks, as illustrated in typical layout for a 2704.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12” for bin models up to 2704 and approximately 6” for other bin models.

3. When a recirculating device is used, grain depth must not be above the eave for a 2706 or exceed 22’; extra supports must be added to the standard layout to limit support spacing to 15½” within center area approximately 19 ft. in diameter. See last column in table and page 23 for general layout for the supports.

PLANK NO.	QTY.	LENGTH (IN)	NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODELS					
			2704	2705–2706	2707	2708–2709	2710–2716*	2704–2706
			S=27.5”	S=22”	S=20”	S=17”	S=15”	RECIRCULATOR DEPTH 22’ MAX S=31”/15.5”
1	2	61	3	3	3	3	3	3
2	2	106	3	4	4	5	5	3
3	2	140	4	5	5	6	6	4
4	2	165	5	5	6	6	7	4
5	2	186	5	6	6	7	8	5
6	2	204	5	6	7	7	8	4
7	2	220	5	7	7	8	9	5
8	2	234	5	7	7	8	9	7/8
9	2	246	5	7	8	9	10	8
10	2	257	5	7	8	9	10	7/8
11	2	267	6	8	8	9	10	8
12	2	276	6	8	8	10	11	7/8
13	2	283	6	7	8	9	10	8
14	2	290	6	7	8	9	10	9/10
15	2	296	6	7	8	9	10	8
16	2	301	6	8	8	10	11	10/11
17	2	306	6	8	8	10	11	9
18	2	310	6	8	8	10	11	10/11
19	2	313	6	8	9	10	11	9
20	2	315	6	8	9	10	11	10/11
21	2	317	6	8	9	10	11	9
22	2	318	6	8	9	10	11	11
23	1	318	6	8	9	10	11	9
TOTAL NO. SUPPORTS			240	308	331	378	417	332

When two values listed, second number refers to supports on auger tube side of floor.
*Bin models 2713–2716 use 18 Ga.–.094 planks.



Floor Support Layout for 2704;
For other bin models refer to chart.

30' FLOOR ASSEMBLY DETAIL

NOTES:

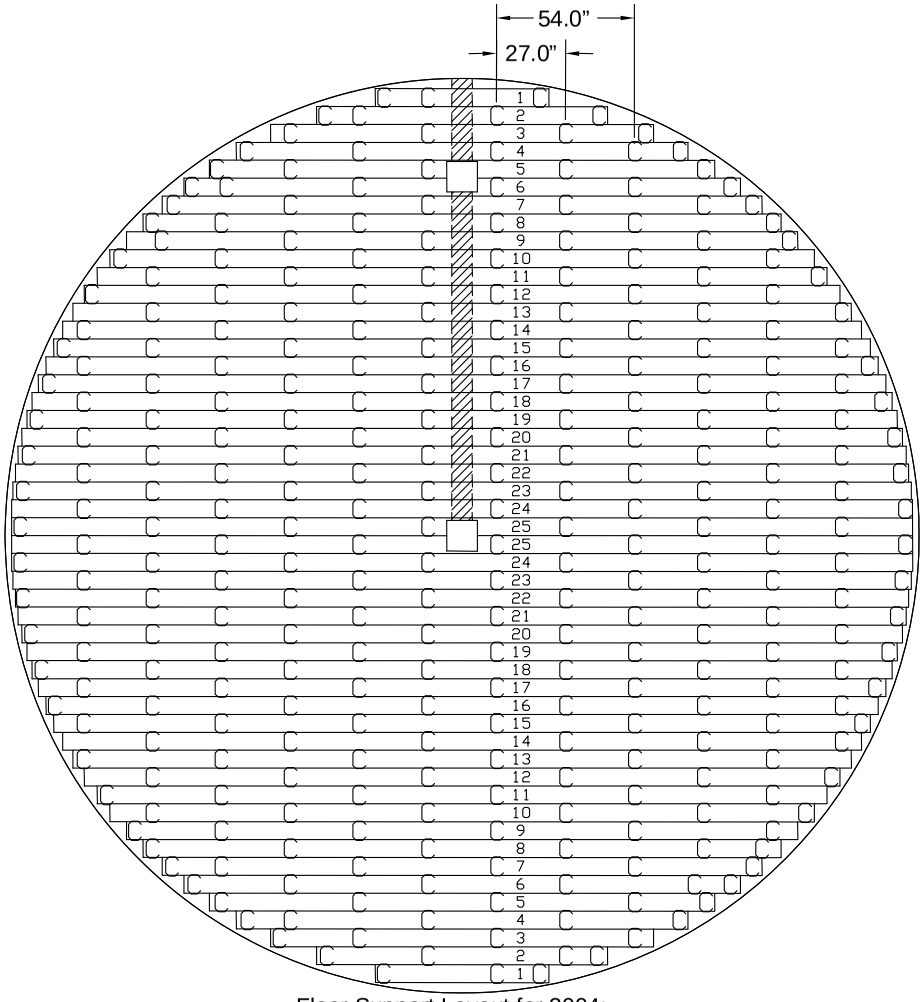
1. With standard layouts, stagger all supports between adjacent floor planks, as illustrated in typical layout for a 3004.

2. Supports are required at various locations around perimeter of bin at less than standard spacing “S” to limit maximum end-of-plank overhang to 12” for bin models up to 3004 and approximately 6” for other bin models.

3. When a recirculating device is used, grain depth must not be above the eave for a 3006 or exceed 22’; extra supports must be added to the standard layout to limit support spacing to 15¼” within center area approximately 21 ft. in diameter. See last column in table and page 25 for general layout for the supports.

			NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODEL					
PLANK NO.	QTY.	LENGTH (IN)	3004 S=27”	3005–3007 S=22”	3008 S=19”	3009 S=17”	3010–3016* S=15”	3004–3006 RECIRCULATOR DEPTH 22’ MAX S=30.5”/15.25”
1	2	68	3	3	3	3	4	3
2	2	114	4	4	4	5	5	3
3	2	150	4	5	5	6	6	4
4	2	177	5	6	6	7	7	4
5	2	198	5	6	7	7	8	5
6	2	218	6	7	7	8	9	5
7	2	235	6	7	8	8	9	5
8	2	250	6	7	8	9	10	7
9	2	263	6	8	8	9	10	7/6
10	2	276	6	8	9	10	11	8
11	2	286	6	8	9	10	11	7/8
12	2	296	6	8	9	10	11	9
13	2	305	6	8	9	10	11	10/9
14	2	313	6	8	9	10	11	9/11
15	2	320	7	8	9	10	11	10/9
16	2	326	7	8	9	10	11	9/11
17	2	332	7	8	9	10	12	10/9
18	2	337	7	8	10	11	12	9/11
19	2	341	7	8	10	11	12	10/9
20	2	345	7	9	10	11	12	9/11
21	2	348	7	9	10	11	12	10/11
22	2	350	7	9	10	11	12	11
23	2	352	7	9	10	11	12	10/11
24	2	353	7	9	10	11	12	11
25	2	353	7	9	10	11	12	11
TOTAL NO. SUPPORTS			304	374	416	460	506	398

When two values listed, second number refers to supports on auger tube side of floor.
*Bin models 3013–3016 use 18 Ga.–.094 planks.



Floor Support Layout for 3004;
For other bin models refer to chart.

33' FLOOR ASSEMBLY

1. With all standard layouts up to 3304 bin model, the two chalklines on either side of the main centreline should be spaced at 12" from centreline to line up with floor plank splice locations. Mark all other chalklines at standard spacing "S" specified in table.

2. For bin models 3305 – 3307 mark first chalkline 12" away from one side of main centreline. Mark all other chalklines relative to first chalkline at standard spacing "S" specified in table. See Fig. 33.2.

3. For bin models 3308 – 3316 use normal chalkline pattern with two middle lines spaced a distance "S/2" from main centreline and all other chalklines at standard spacing "S" specified in table. See Fig. 33.3.

4. Unless otherwise noted, stagger all supports between adjacent floor planks, as illustrated in Fig. 33.1.

5. Where floor plank splices do not line up with a chalkline, additional supports are included and must be installed directly under each splice as illustrated in Figs. 33.2 and 33.3.

6. Where the clean-out auger prevents a column from being placed on the main centreline, two columns should be placed as close to each other as possible on either side of auger tube, but staggered from plank to plank as illustrated in Fig. 33.1.

7. Supports are required at various locations around bin perimeter at less than standard spacing "S" to limit maximum end-of-plank overhang to 12" for bin models up to 3304 and approximately 6" for all other bin models.

8. When a re-circulating device is used, grain depth must not be above the eave of a 3306 or exceed 22'; extra supports must be added to the standard layout to limit support spacing to 14½" within centre area approximately 21 ft. in diameter. See last column in table and page 25 for general layout for the supports.

For various bin models, refer to support requirements on pages 30 and 31.

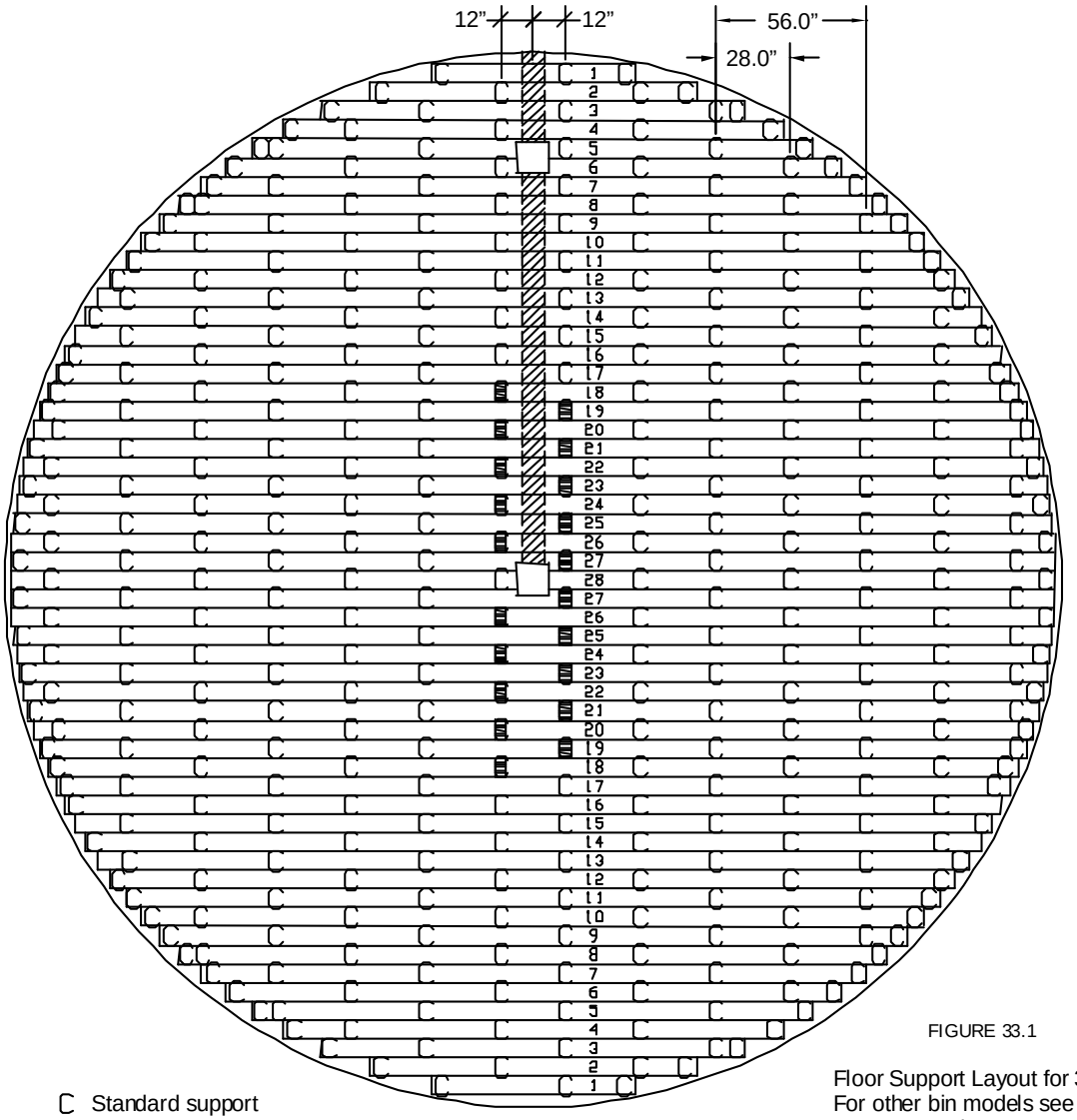


FIGURE 33.1

Floor Support Layout for 3304;
For other bin models see
pages 28 and 29.

SUPPORT REQUIRED - 33'

PLANK NO.	QTY.	LENGTH (in) max. 30' plank	LENGTH (in) max. 33' plank	NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODEL					
				3304	3305	3306–3307	3308–3309	3310–3316*	3304–3306
				S=28"	S=21"	S=19"	S=16.5"	S=14"	RECIRCULATOR DEPTH 22' MAX S=29"/14.5"
1	2	76	76	3	3	3	4	4	3
2	2	122	122	4	4	5	5	6	4
3	2	158	158	5	5	6	6	7	4
4	2	187	187	5	6	6	7	8	5
5	2	209	209	6	7	7	8	9	5
6	2	230	230	6	7	8	8	10	6
7	2	248	248	6	7	8	9	10	6
8	2	264	264	7	8	8	9	11	6
9	2	279	279	7	8	9	10	11	7
10	2	292	292	7	8	9	10	12	8/7
11	2	304	304	7	9	9	11	12	8/9
12	2	315	315	7	9	10	11	13	9
13	2	325	325	7	9	10	11	13	8/9
14	2	334	334	7	9	10	11	13	10
15	2	342	342	7	9	9	11	13	11/12
16	2	349	349	7	9	10	11	13	10
17	2	356	356	8	9	10	11	13	11/12
18	2	169 193	362	8	10	11	13	15	10
19	2	172 196	368	8	9	10	13	15	11/12
20	2	174 198	373	8	11	11	13	15	10
21	2	176 200	377	8	10	11	13	15	11/12
22	2	178 202	380	8	11	11	13	15	12
23	2	180 203	383	8	10	11	13	15	11/12
24	2	180 205	385	8	11	12	13	15	12
25	2	182 205	387	8	10	11	13	15	11/12
26	2	182 207	389	8	11	12	13	15	12
27	2	183 206	389	8	10	11	13	15	12
28	1	194 195	389	8	11	12	12	14	12
TOTAL NO. SUPPORTS				380	469	508	578	670	485

When two values listed, second number refers to supports on auger tube side of floor.

*Bin Models 3311–3316 use 18 Ga.–.094 planks.

33' FLOOR ASSEMBLY DETAIL

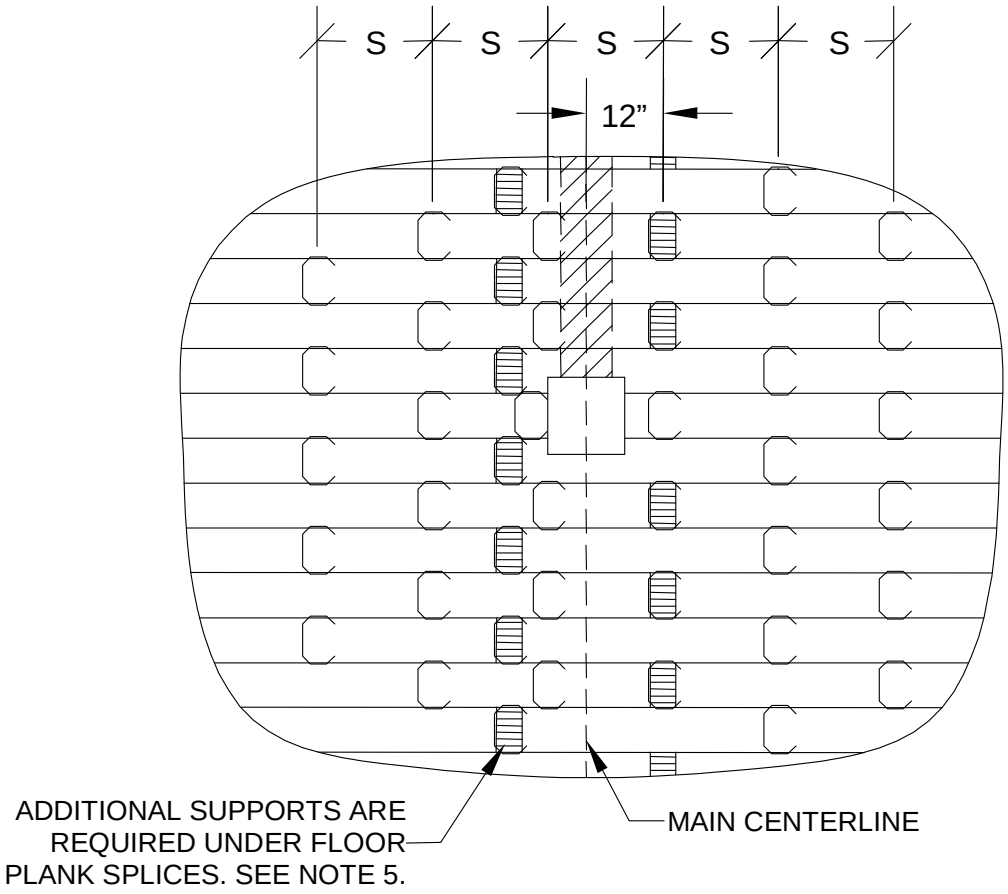


FIGURE 33.2: Support Orientation – 3305 to 3307

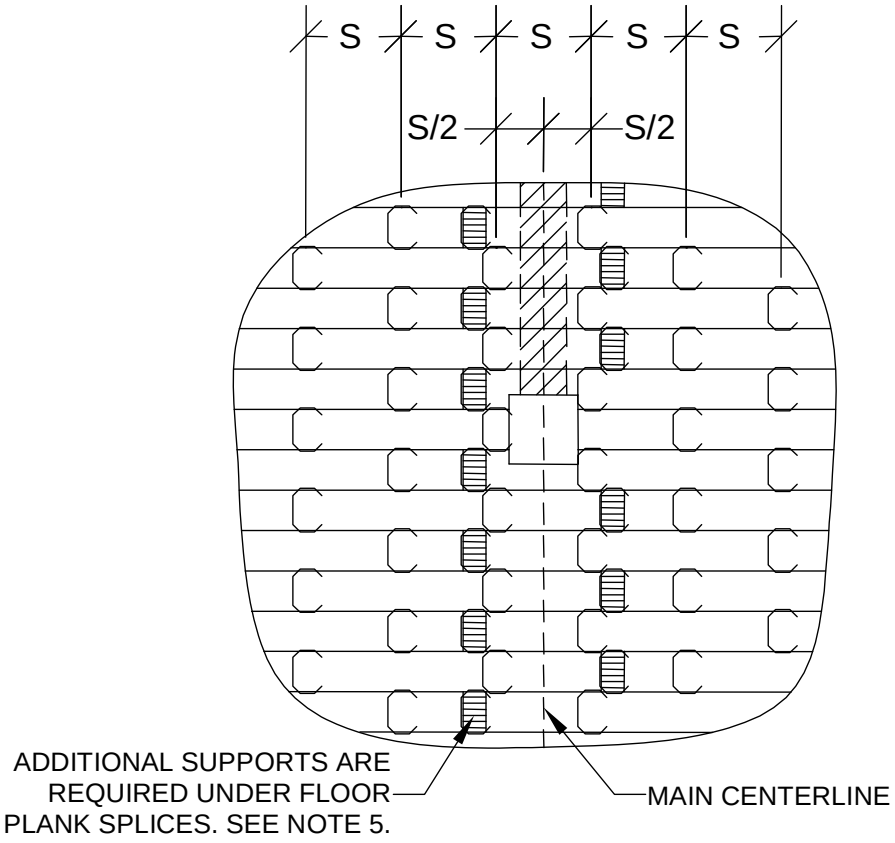


FIGURE 33.3: Support Orientation – 3308 to 3316

36' FLOOR ASSEMBLY

1. With all standard layouts up to 3604, the two chalklines on either side of the main centreline should be spaced at 12" from centreline to line up with floor plank splice locations. Mark all other chalklines at standard spacing "S" specified in table.

2. For bin models 3605 – 3607 mark first chalkline 12" away from one side of main centreline. Mark all other chalklines relative to first chalkline at standard spacing "S" specified in table. See Figure 36.2.

3. For bin models 3608 – 3616 use normal chalkline pattern with two middle lines spaced a distance "S/2" from main centreline and all other chalklines at standard spacing "S" specified in table. See Fig. 36.3.

4. Unless otherwise noted, stagger all supports between adjacent floor planks, as illustrated in Fig. 36.1.

5. Where floor plank splices do not line up with a chalkline, additional supports are included and must be installed directly under each splice as illustrated in Figs. 36.2 and 36.3.

6. Where the clean-out auger prevents a column from being placed on the main centreline, two columns should be placed as close to each other as possible on either side of auger tube, but staggered from plank to plank as illustrated in Fig. 36.3.

7. Supports are required at various locations around bin perimeter at less than standard spacing "S" to limit maximum end-of-plank overhang to 12" for bin models up to 3604 and approximately 6" for all other bin models.

8. When a re-circulating device is used, grain depth must not be above the eave of a 3606 or exceed 22'; extra supports must be added to the standard layout to limit support spacing to 13¾" within centre area approximately 21 ft. in diameter. See last column in table and page 25 for general layout for the supports.

For various bin models, refer to support requirements on pages 33 and 34.

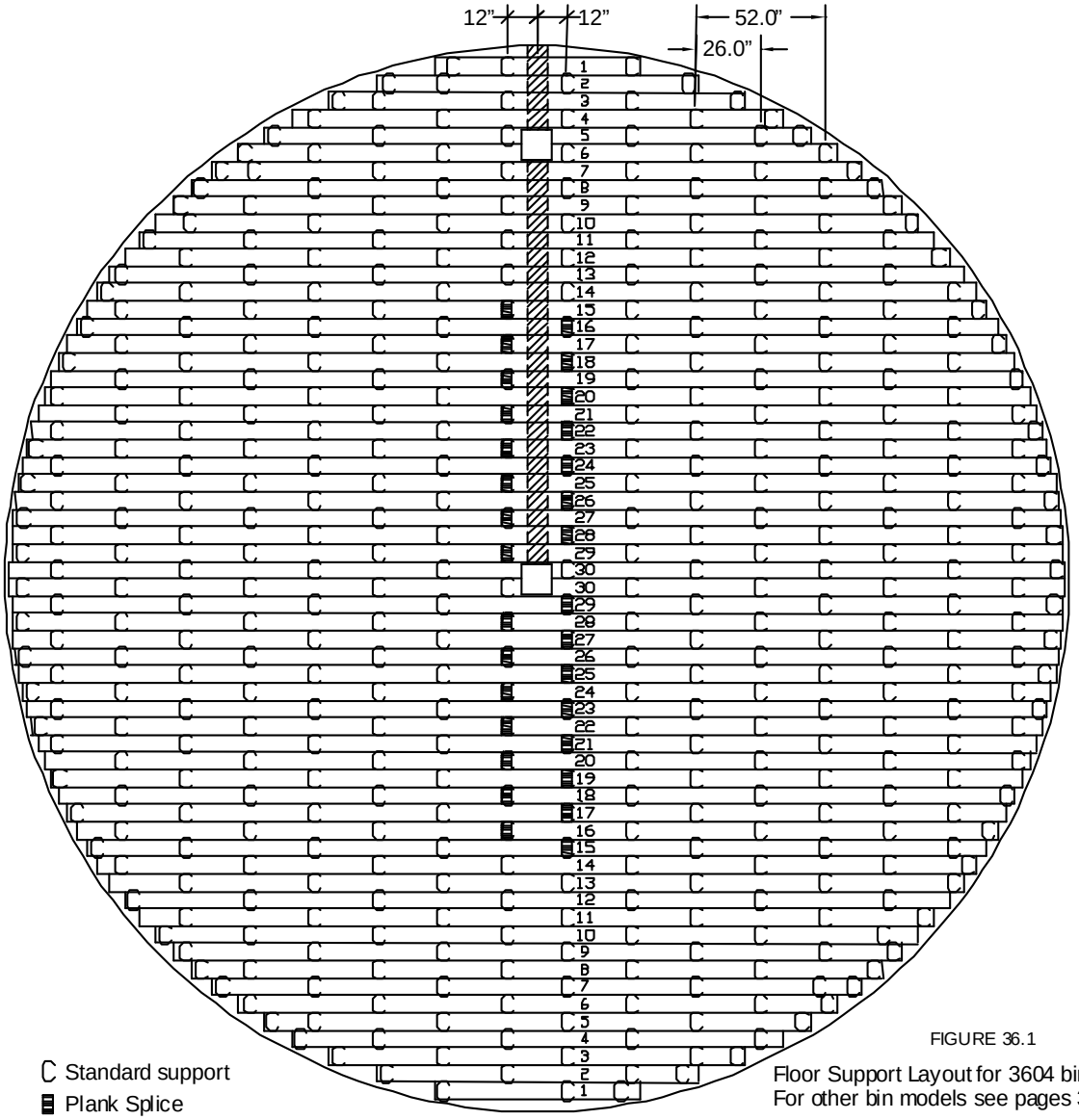


FIGURE 36.1

Floor Support Layout for 3604 bin model;
For other bin models see pages 33 and 34.

SUPPORT REQUIRED - 36'

PLANK NO.	QTY.	LENGTH (in) max. 30' plank	LENGTH (in) max.36' plank	NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODEL					
				3604	3605	3606–3607	3608–3609	3610–3616*	3604–3606
				S=26"	S=21"	S=18.5"	S=16"	S=13.5"	RECIRCULATOR DEPTH 22' MAX S=27.5"/13.75"
1	2	83	83	3	4	4	4	4	3
2	2	130	130	4	5	5	6	6	4
3	2	168	168	5	6	6	7	8	5
4	2	198	198	5	6	7	8	9	5
5	2	221	221	6	7	7/8	8	10	6
6	2	242	242	6	7	8	9	10	6
7	2	262	262	7	8	9	10	11	6
8	2	279	279	7	8	9	10	12	7
9	2	294	294	7	9	9/10	11	12	7
10	2	308	308	7	9	10	11	13	6
11	2	321	321	7	9	11	12	13	7
12	2	333	333	7	9	10/11	12	14	7
13	2	345	345	7	10	11	12	14	8/10
14	2	355	355	8	10	11	13	15	9/10
15	2	169 193	363	8	11	12	14	16	10
16	2	174 198	372	8	10	12	14	16	10/11
17	2	177 201	379	8	11	12	14	16	11/13
18	2	181 205	386	8	10	11	14	16	12/11
19	2	184 208	392	8	11	12	14	16	11/13
20	2	187 211	398	8	10	11	14	16	12/11
21	2	189 213	403	8	11	13	14	17	11/13
22	2	192 216	408	9	10	12	15	17	12/13
23	2	194 218	412	9	12	13	15	17	13
24	2	195 220	415	9	11	12	15	17	12/13
25	2	197 221	419	9	12	13	15	17	13
26	2	198 223	421	9	11	12	15	17	12/13
27	2	200 223	423	9	12	13	15	17	13
28	2	200 224	424	9	11	12	15	17	12/13
29	2	200 224	424	9	12	13	15	17	13
30	2	210 216	426	9	11	12	14	16	13
TOTAL NO. SUPPORTS				446	566	625	730	832	564

When two values listed, second number refers to supports on auger tube side of floor.

*Bin models 3610–3616 use 18 Ga.–.094 planks.

36' FLOOR ASSEMBLY

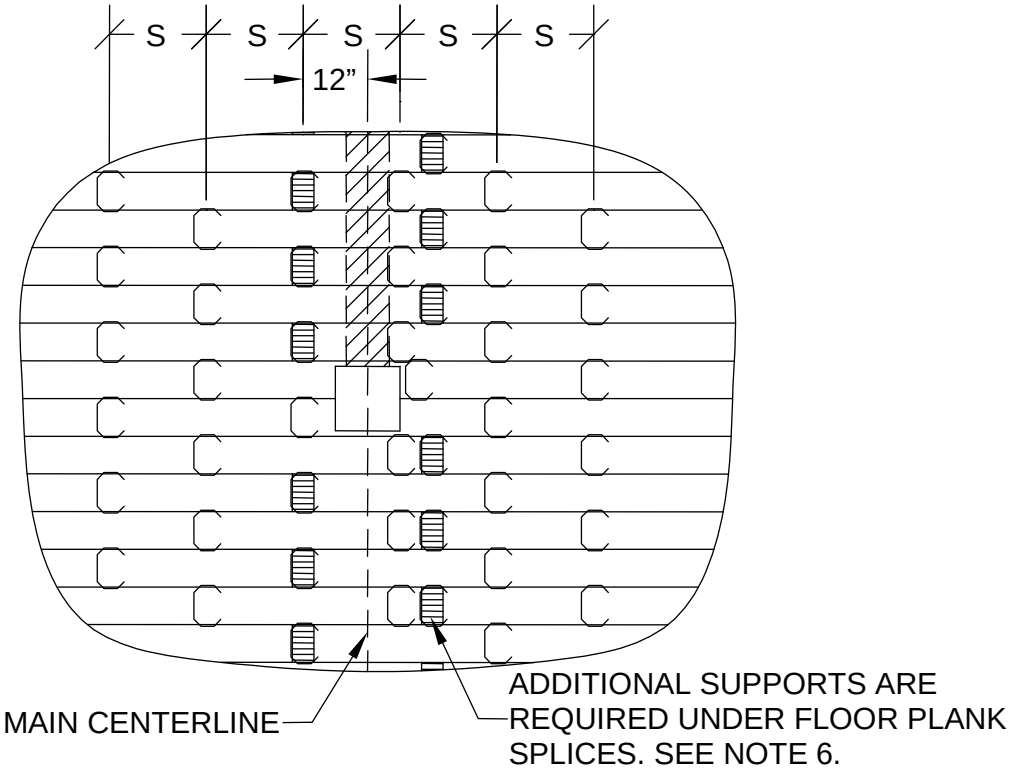


FIGURE 36.2: Support Orientation – 3604 to 3607

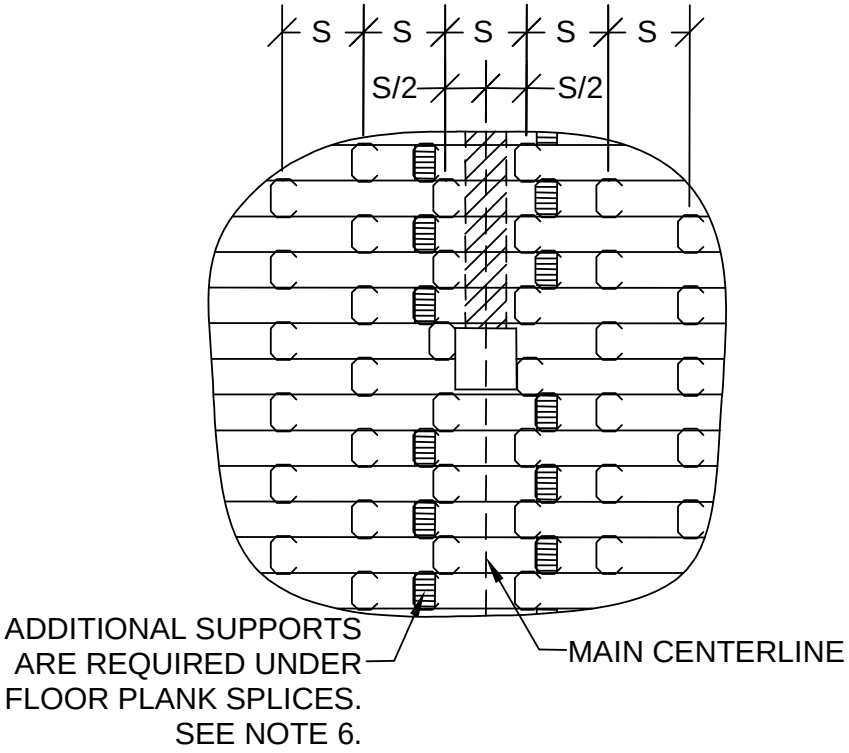


FIGURE 36.3:
Support Orientation – 3608 to 3616

42' FLOOR ASSEMBLY

1. For all standard layouts except 4205 and 4206, the two chalklines on either side of the main centreline should be spaced at 12" from centreline to line up with floor plank splice locations. Mark all other chalklines at standard spacing "S" specified in table.

2. For bin models 4205 and 4206 mark first chalkline 12" away from one side of main centreline. Mark all other chalklines relative to first chalkline at standard spacing "S" specified in table. See Fig. 42.2.

3. Unless otherwise noted, stagger all supports between adjacent floor planks, as illustrated in Fig. 42.1.

4. For bin models 4204 – 4206 each pair of supports on the two middle chalklines should be placed under the same plank. For bin models 4207 and larger choose main centreline and one adjacent chalkline. See Fig. 42.3.

5. Where floor plank splices do not line up with a chalkline, additional supports are included and must be installed directly under each splice as illustrated in Fig. 42.2.

6. Where the clean-out auger prevents a column from being placed on the main centreline, two columns should be placed as close to each other as possible on either side of auger tube, but staggered from plank to plank as illustrated in Fig. 42.3.

7. Supports are required at various locations around bin perimeter at less than standard spacing "S" to limit maximum end-of-plank overhang to 12" for bin models up to 4204 and approximately 6" for all other bin models.

8. When a re-circulating device is used, grain depth must not be above the eave of a 4206 exceed 22'; extra supports must be added to the standard layout to limit support spacing to 12¾" within centre area approximately 21 ft. in diameter. See last column in table and page 25 for general layout for the supports.

For various grain depths, refer to support requirements on pages 36 and 37.

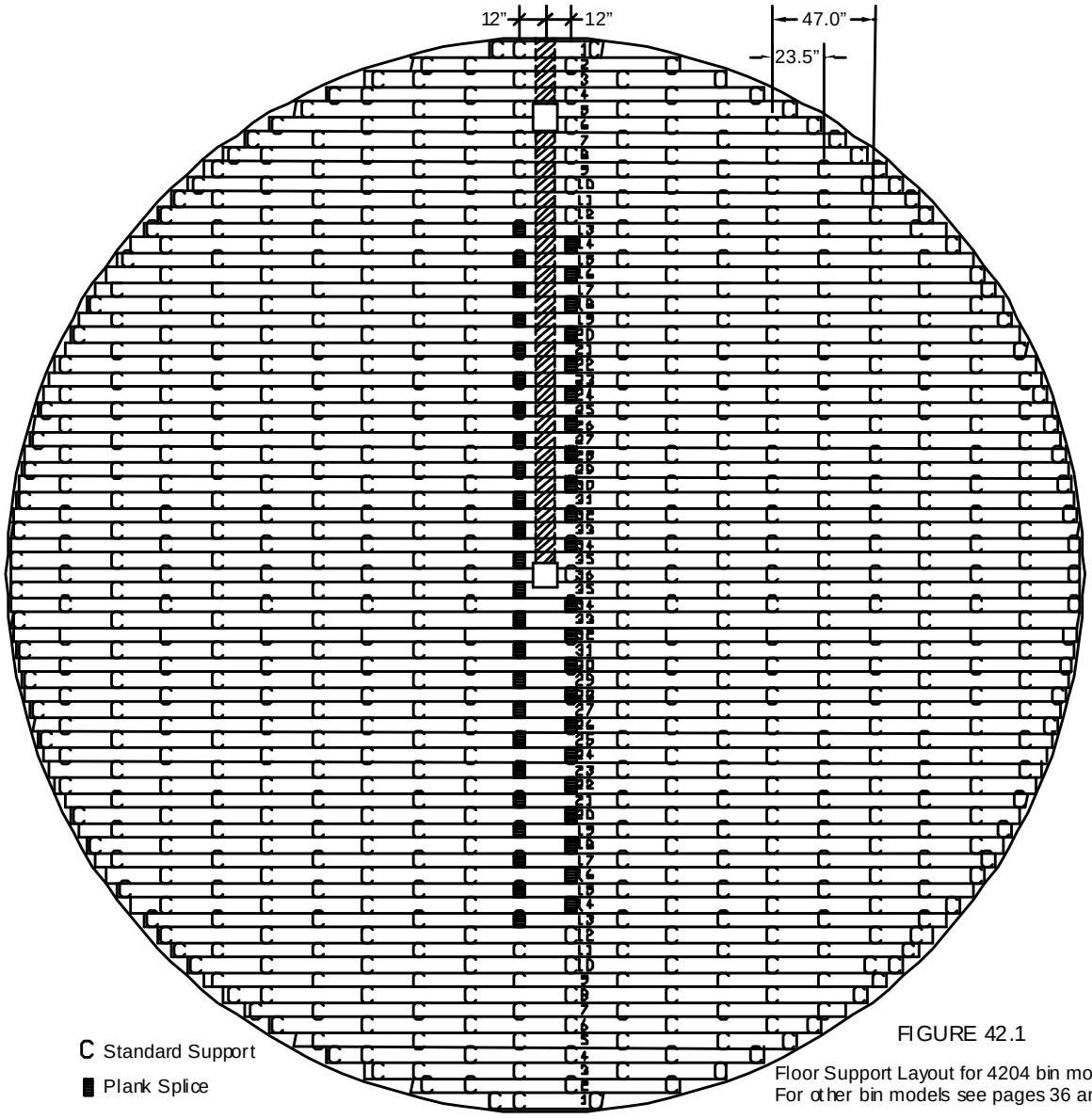


FIGURE 42.1

Floor Support Layout for 4204 bin model;
For other bin models see pages 36 and 37

SUPPORT REQUIRED - 42'

PLANK NO.	QTY.	LENGTH (in) max. 30' plank	LENGTH (in) max. 42' plank	NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODEL					
				4204	4205	4206	4207–4208	4209–4215*	RECIRCULATOR DEPTH 22' MAX S=25.5"/12.75"
				S=23.5"	S=20"	S=18"	S=15.5"	S=13"	
1	2	53	53	3	4	4	4	4	3
2	2	124	124	4	4	4	6	7	4
3	2	169	169	5	6	6	7/8	7/8	5
4	2	204	204	6	6	6	9	10	6
5	2	233	233	6	8	8	9/10	10/11	6
6	2	257	257	7	8	8	10	12	6
7	2	279	279	7	9	10	10/11	12/13	7
8	2	299	299	8	8	10	12	13	8
9	2	317	317	8	10	11	11/12	13/14	8
10	2	333	333	9	10	10	13	15	8
11	2	348	348	9	10	12	12/13	14/15	8
12	2	360	360	9	10	11	14	16	8
13	2	175 199	374	9	12	12	13/14	15/16	8
14	2	181 205	386	9	11	13	14	17	8
15	2	187 211	398	9	12	13	14/15	16/17	9
16	2	192 216	408	9	13	13	15	18	9
17	2	197 221	418	10	12	14	14/15	17/18	9
18	2	201 225	426	10	12	12	15	18	10/9
19	2	205 229	434	10	12	14	14/15	17/18	11/12
20	2	209 233	442	10	13	13	16	18	12
21	2	212 236	448	10	12	14	15/16	17/18	12/13
22	2	216 240	456	10	13	14	16	19	13
23	2	219 243	462	10	12	14	15/16	18/19	14/15
24	2	221 245	466	11	13	14	16	19	13
25	2	224 248	472	11	13	14	16/17	18/19	14/15
26	2	226 250	476	11	13	15	17	19	15
27	2	228 252	480	11	14	14	16/17	19/20	14/15
28	2	230 254	484	11	13	15	17	20	15
29	2	232 256	488	11	14	14	16/17	19/20	14/15
30	2	233 257	490	11	13	15	17	20	15
31	2	234 258	492	11	14	15	16/17	19/20	14/15
32	2	235 259	494	11	13	15	17	20	15
33	2	236 260	496	11	14	15	16/17	19/20	16/17
34	2	237 261	498	11	13	15	17	20	15
35	2	237 261	498	11	14	15	17	20	17
36	1	249 249	498	11	12	14	17	20	15
TOTAL NO. SUPPORTS				649	788	858	985	1146	760

When two values listed, second number refers to supports on auger tube side of floor.

*Bin models 4210–4216 use 18 Ga.–.094 planks.

42' FLOOR ASSEMBLY DETAIL

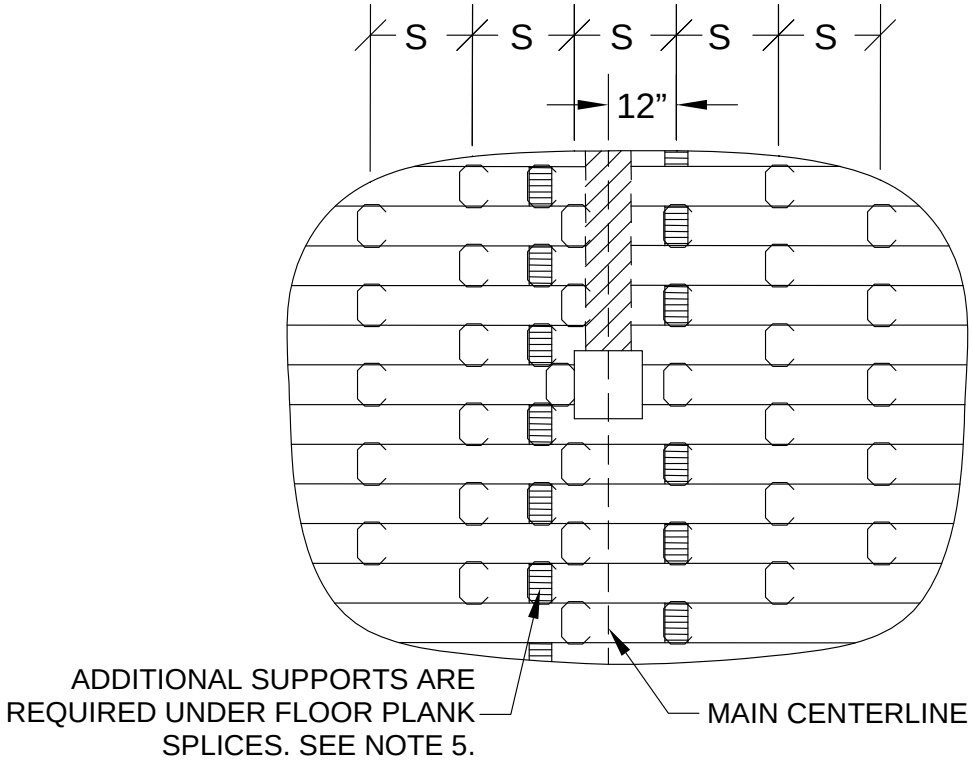


FIGURE 42.2: Support Orientation – 4204 and 4206

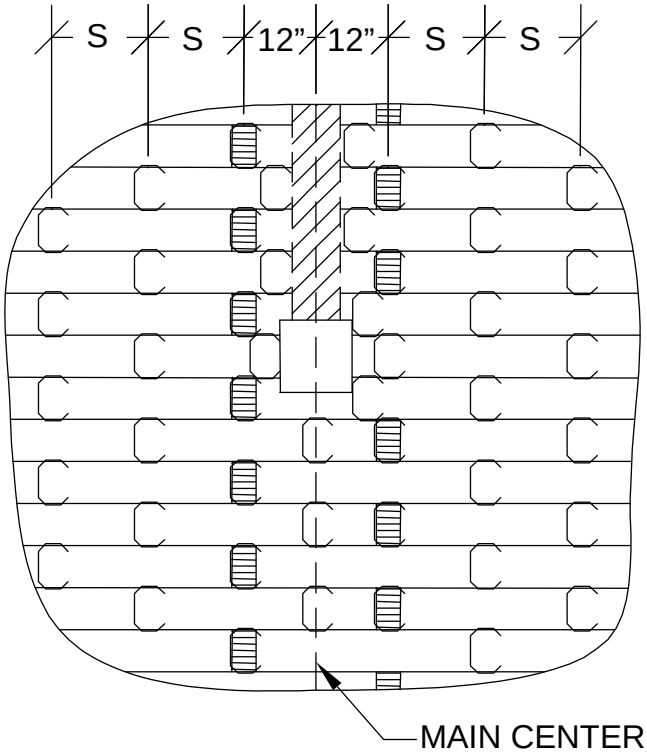


FIGURE 42.3: Support Orientation – 4207 to 4215

48’ FLOOR ASSEMBLY

1. For bin models 4804 – 4806 mark first chalkline 12” away from one side of main centreline. Mark all other chalklines relative to first chalkline at standard spacing “S” specified in table. See Fig. 48.2.

2. For bin models 4807 – 4813, the two chalklines on either side of the main centerline should be spaced at 12” from centerline to line up with floor plank splice locations. Mark all other chalklines at standard spacing “S” specified in table. See Fig. 48.3.

3. Unless otherwise noted, stagger all supports between adjacent floor planks, as illustrated in Fig. 48.1.

4. For bin models 4804 – 4806 each pair of supports on the two middle chalklines should be placed under the same plank. For 4807 – 4813 choose main centerline and one adjacent chalkline. See Figs 48.2 and 48.3.

5. Where floor plank splices do not line up with a chalkline, additional supports are included and must be installed directly under each splice as illustrated in Fig. 48.2.

6. Where the clean-out auger prevents a column from being placed on the main centreline, two columns should be placed as close to each other as possible on either side of auger tube, but staggered from plank to plank as illustrated in Fig. 48.3.

7. Supports are required at various locations around bin perimeter at less than standard spacing “S” to limit maximum end-of-plank overhang to 6” for all bin models.

8. When a re-circulating device is used, grain depth must not be above the eave for a 4806 or exceed 22’; extra supports must be added to the standard layout to limit support spacing to 12½” within centre area approximately 21 ft. in diameter. See last column in table and page 25 for general layout for the supports.

For various grain depths, refer to support requirements on page 39.

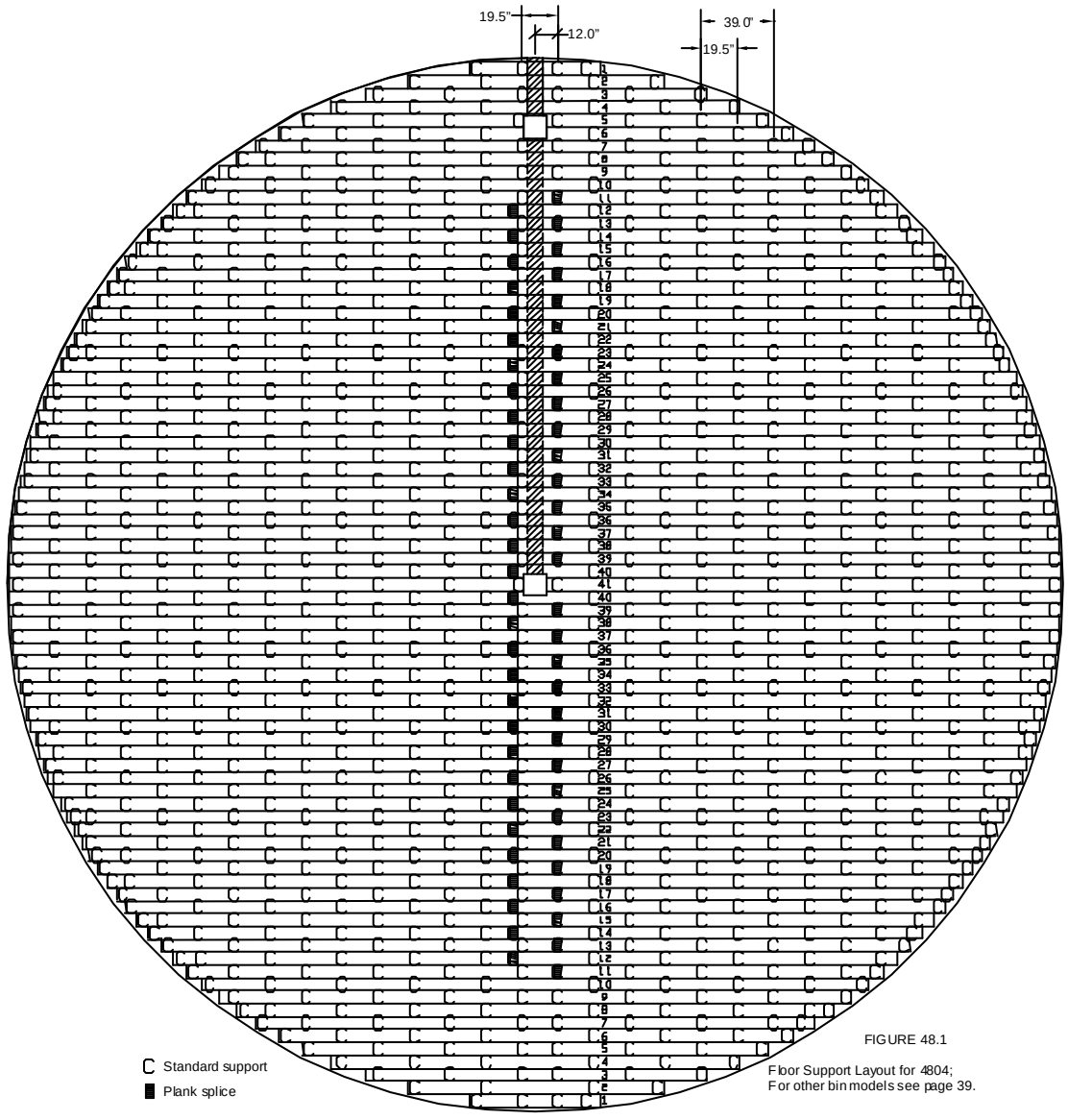


FIGURE 48.1
Floor Support Layout for 4804;
For other bin models see page 39.

SUPPORT REQUIRED - 48'

PLANK NO.	QTY.	PLANK LENGTH (in)			NUMBER OF SUPPORTS REQUIRED FOR GIVEN BIN MODEL					
					4804	4805–4806	4807–4808	4809	4810–4813*	4804–4806
		30' = 361" Max	42' = 500" Max	48'= 570" Max	S=19.5"	S=17.5"	S=15"	S=12.5"	S=11"	RECIRCULATOR DEPTH 22' MAX S=25"/12.5"
1	2	71	71	71	4	4	4	5	5	3
2	2	139	139	139	4	4	6/7	6/7	7/8	4
3	2	185	185	185	6	8	8	9	10	5
4	2	221	221	221	6	8	8/9	10/11	11/12	6
5	2	252	252	252	8	10	10	12	13	7
6	2	279	279	279	8	9	10/11	12/13	14/15	7
7	2	303	303	303	10	10	12	14	16	8
8	2	324	324	324	10	10	12/13	14/15	16/17	8
9	2	343	343	343	10	12	14	16	17	8
10	2	361	361	361	10	12	13/14	15/16	17/18	9
11	2	177 201	378	378	12	12	15	17	19	9
12	2	184 208	392	392	12	13	14/15	17/18	19/20	9
13	2	191 215	406	406	12	14	16	18	20	9
14	2	198 222	420	420	13	14	15/16	18/19	20/21	9
15	2	204 228	432	432	13	14	17	19	21	9
16	2	210 234	444	444	13	15	16/17	19/20	21/22	10
17	2	215 239	454	454	14	15	17	20	23	10
18	2	220 244	464	464	14	15	17/18	20/21	22/23	10
19	2	225 249	474	474	14	16	18	21	23	10
20	2	230 254	484	484	15	16	17/18	20/21	23/24	10
21	2	234 258	492	492	14	16	19	21	24	11
22	2	238 262	500	500	15	17	17/18	20/21	24/25	11
23	2	242 266	242 266	508	15	16	18	21	25	12/11
24	2	245 269	245 269	514	15	16	18/19	21/22	24/25	13/14
25	2	249 273	249 273	522	14	16	19	22	24	14
26	2	252 276	252 276	528	15	17	18/19	21/22	25/26	13/14
27	2	254 278	254 278	532	15	16	19	22	24	14
28	2	257 281	257 281	538	15	17	18/19	22/23	25/26	15/16
29	2	259 283	259 283	542	16	16	19	22	26	14
30	2	262 286	262 286	548	15	17	19/20	23/24	25/26	16/17
31	2	264 288	264 288	552	16	16	20	22	26	17
32	2	265 289	265 289	554	15	17	19/20	23/24	25/26	16/17
33	2	267 291	267 291	558	16	17	20	23	26	17
34	2	268 292	268 292	560	15	17	19/20	23/24	25/26	16/17
35	2	270 294	270 294	564	16	18	20	24	27	17
36	2	271 295	271 295	566	15	17	19/20	23/24	26/27	16/17
37	2	272 296	272 296	568	16	18	20	24	27	17
38	2	272 296	272 296	568	15	17	19/20	23/24	26/27	18/19
39	2	273 297	273 297	570	16	18	20	24	27	17
40	2	273 297	273 297	570	15	17	20	24	27	19
41	1	285 285	285 285	285 285	16	18	20	24	27	17
TOTAL NO. SUPPORTS					1040	1152	1317	1543	1736	950

Notes:
1. When two support quantities are listed, second number refers to supports on auger tube side of floor.
2. *Bin models 4810–4813 use 18 Ga.–.094 planks.
3. For 48' Max floor, planks 1 thru 20 and plank 41 are in lift 2; planks 21 thru 40 are in lift 1

48' FLOOR ASSEMBLY DETAIL

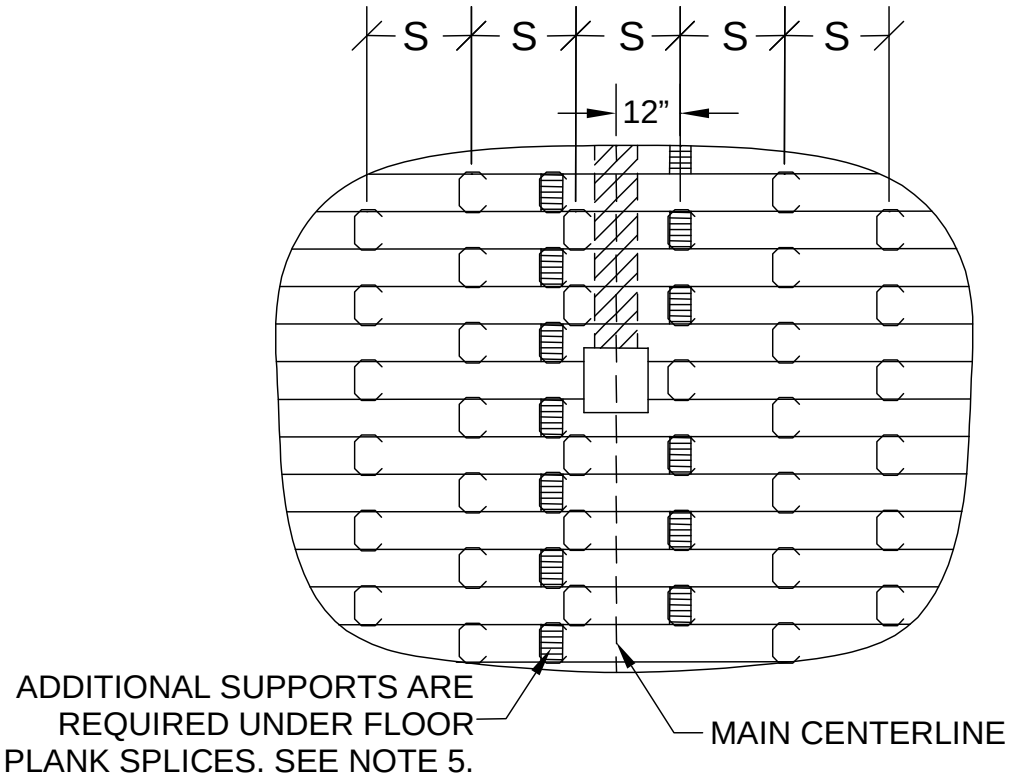


FIGURE 48.2: Support Orientation – 4804 to 4807

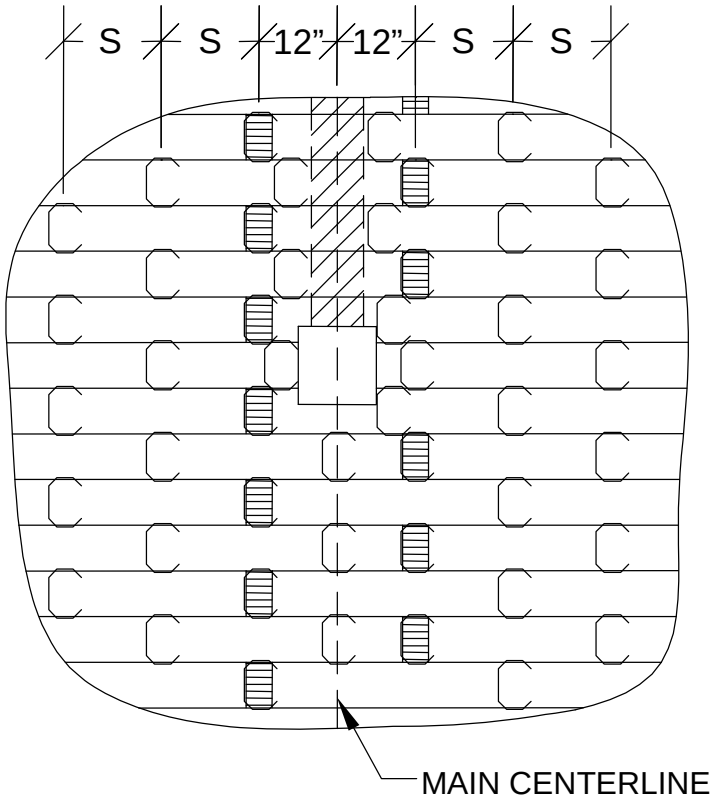


FIGURE 48.3: Support Orientation – 4808 to 4813

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