

IMPORTANT!! There is and Update in this Manual Refer to Page 7

# ALL SIZE PERFORATING

TRUSS

Grain Bin Aeration Flooring System  
with SYNTIRO Supports

## Supplement for SPliced FLOORS

42' - 54' Diameters



014/26/13

## Warranty

All Size Perforating Ltd. warrants each new All Size Flooring Systems, which includes a TRUSS Floor installed with SYTINRO Floor Supports, manufactured by it to be free from defects in material or workmanship for a period of four (4) years from and after the date of initial installation by or for the purchaser. If such a defect is found by the Manufacturer to exist within the applicable warranty period, the Manufacturer will, at its option, (a) replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement. The manufacturer does not cover labor costs associated with the replacement of the product.

### CONDITIONS AND LIMITATIONS

1. The product must be installed and operated in accordance with instructions published by the Manufacturer or Warranty will be void.
2. All TRUSS Floors must be properly installed with the SYNTIRO Flooring Supports in order for the four year Warranty period listed above to apply. Otherwise, individual TRUSS Floors and components thereof will only be warranted for a period of 1 year from and after the date of initial installation by or for the original purchaser. The All Size SYNTIRO Support Flooring System is only to be used with the All Size TRUSS Floor. Otherwise, no warranty will apply to the SYNTIRO Flooring Supports.
3. This product must be purchased from and installed by an authorized dealer or Certified Representative thereof or the Warranty will be void.
4. Malfunctions or damage resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under this Warranty.
5. This Warranty applies only to systems for the care of grain and feed. Other applications in industry or commerce are not covered by this Warranty.

The Manufacturer shall not be liable for any consequential or special damage which any purchaser may suffer or claim to suffer as a result of any defect in the product. "Consequential" or "special damages" as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs of operational inefficiencies.

THIS WARRANTY CONSTITUTES THE MANUFACTURER'S ENTIRE AND SOLE WARRANTY AND THE MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

All Size Dealers are NOT authorized to modify or extend the terms and conditions of this warranty in any manner or to offer or grant any other warranties for All Size products in addition to those terms expressly stated above.

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We would like to thank you for your recent ALL SIZE purchase. If a problem should arise your ALL SIZE dealer can supply you with the necessary information to help you.

## TABLE OF CONTENTS

<b>SPECIAL Consideration with Larger Spliced Floors</b>	4
Follow SAFETY instructions	4
Grain Bins with Sweeps or other Equipment	4
<b>NORMAL Support Chalkline Spacing Chart</b>	5
Standard Grain Bins ~ Recirculating Grain Bins	5
Marking Support Chalklines on Spliced Floors 42' - 78'	6
Group A: Floors with NORMAL Chalkline Spacing 18" or greater	7
Group B: Floors with NORMAL Chalkline Spacing 12" or greater	8
Group C: Floors with NORMAL Chalkline Spacing 9 - 11"	9
Start Center Support Rows Under Plank 1A (at Transition)	10
Add Support Rows at the Center Sump to the Unload	10 & 11
<b>Splices</b>	12
Support the Splices	12
Managing Longer Support Rows and Longer Planks	14
<b>Floor Diagram</b>	16 - 65
42' Floor	16 - 19
48' Floor	20 - 23
54' Floor	24 - 27
<b>SYNTIRO Support Count Chart</b>	28

## SPECIAL Considerations with Larger Spliced Floors

**Spliced Floors** are Floors whose diameters dictate that long Planks 42' - 78' come in two pieces, either for shipping or ease in handling.

Floors 42' and 48' diameters are available in either No-Splice or Two-Piece Planks.

Floors 54' -78' and larger are available only in spliced planks

### **FOLLOW SAFETY Instructions**

Carefully read all SAFETY messages in this Manual, your base **Construction Manual**, and on your equipment SAFETY signs. Follow recommended precautions and safe operating practices. Keep SAFETY signs in good condition.

#### **IMPORTANT!**

**Check all equipment for SAFETY Decals and their proper placement, BEFORE equipment is operated. NEVER use equipment if Decals are missing, improperly placed or damaged.**

#### **CAUTION!**

**The ALL SIZE TRUSS Floor and SYNTIRO Support System can be used for both commercial and Frm Grain Bins. Improper use of the Floor may cause Floor damage.**



**Steel SYNTIRO Supports are designed to carry the Floor Load. Any modifications to support or use of other manufacturer's supports on the TRUSS Floor Planks may cause Floor damage and will void Warranty. The ALL SIZE SYNTIRO Floor Support is only to be used with the ALL SIZE TRUSS Floor. Otherwise, the Warranty is void. Refer to the Warranty on the second page of this manual. Grain Bins using RECIRCULATING EQUIPMENT require more Floor Supports. Failure to follow proper procedures for installation may cause Floor Damage.**

#### **CAUTION!**

**The Warranty does not cover damage to the TRUSS Floor or SYNTIRO Supports from the use of another manufacturer's equipment.**

#### **CAUTION!**

##### **Grain Bins with Sweeps or Other Equipment**

**The warranty does not cover damage to the TRUSS Floor or SYNTIRO Supports from the use of another manufacturer's equipment.**



##### **Bin Sweeps in Grain Bins 42' (12,802) and 48' (14,630) diameter:**

Sweeps with center wheel supports must have Track Plates in the Floor to prevent point loading damage. (Supplied by Your Dealer)

##### **Bin Sweeps in Grain Bins 54' (16,459) diameter and larger:**

Additional Track Plates must be added to spread out the Wheel/Track contact loads at intermediate locations and around the perimeter. (Supplied by Your Dealer)

#### **IMPORTANT!**

**Failure to follow the above guidelines for additional Track Plates for Sweeps will void the Manufacturer's Warranty.**

**Failure to follow the above guidelines for additional Track Plates for Sweeps may cause damage to the Floor.**

# NORMAL Support Chalkline SPACING

**= SUPPORT ROW SPACING**

		STANDARD Grain Bins																						
Bin Diameter	Eave Height	11'	15'	18'	22'	26'	29'	33'	37'	40'	48'	51'	59'	62'	70'	73'	81'	84'	88'	95'	99'			
		44" Tiers	3	4	5	6	7	8	9	10	11	12-13	14	15-16	17	18-19	20	21-22	23	24	25-26	27		
	32" Rings	4	5	6	7	8	9	10	11	12	13	14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37
	42' [12 802]	34	30	27	26	25	25	24	23	23	22	21	20	19	18	18	17	16	16	15	15	15	14	14
	48' [14 630]	33	29	26	24	23	22	22	21	21	20	20	19	18	17	16	16	15	15	14	14	13	13	13
	54' [16 459]	31	27	24	22	21	20	20	19	19	18	18	17	17	16	15	15	14	14	13	13	12	12	12
	60' [18 288]	29	26	24	22	20	19	18	18	17	17	17	16	15	15	14	14	13	13	13	12	12	11	11
	72' [21 946]	27	24	22	20	18	17	16	15	15	15	15	14	14	13	13	12	12	12	11	11	11	10	10
	75' [22 860]	26	23	21	20	18	17	16	15	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10
	78' [23 774]	25	23	21	19	18	17	16	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10	10

↑

See page 8 and Figure 2.  
use 18" [457] CENTER  
Spacing Between Plank  
Splices.

↑

See Page 9 and Figure 3.  
Use 12" [305] CENTER  
Spacing Between Plank  
Splices.

↑

See Page 10 and Figure 4 [229]  
Use 9" [229] CENTER  
Spacing Between Plank  
Splices.

		RECIRCULATING Grain Bins										
Bin Diameter	Eave Height	11'	15'	18'	22'	26'	29'	33'	37'			
		44" Tiers	3	4	5	6	7	8	9	10		
	32" Rings	4	5	6	7	8	9	10	11	12	13	14
	42' [12 802]	34	30	27	24	22	20	18	17	16	15	14
	48' [14 630]	32	28	25	23	21	19	18	17	15	15	14
	54' [16 459]	30	27	24	22	20	19	17	16	15	14	13

↑

See page 8 and Figure 2.  
use 18" [457] CENTER  
Spacing Between Plank  
Splices.

↑

See Page 9 and Figure 3.  
Use 12" [305] CENTER  
Spacing Between Plank  
Splices.

English (inches) to Metric [mm] Conversion Table			
in. = mm	in. = mm	in. = mm	in. = mm
9 [229]	15 [381]	21 [533]	28 [711]
10 [254]	16 [406]	22 [559]	29 [737]
11 [280]	17 [432]	23 [584]	30 [762]
12 [305]	18 [457]	24 [610]	31 [787]
13 [330]	19 [483]	25 [635]	32 [813]
14 [356]	20 [508]	26 [660]	33 [838]
		27 [686]	34 [864]

**IMPORTANT!**

**Marking Support Chalklines on Spliced Floors 42' - 78'**

**Snap parallel Support Chalklines according to the instructions below and the Support Chalkline Spacing Chart on the next page.**

Spliced Floors have a "Center lane" - from the Fan Transition to the Unload - where a SPECIAL Chalkline spacing will usually differ from the NORMAL Chalkline spacing outside that area. This SPECIAL spacing positions **Support Rows on either side of the splice Plank.**

**CAUTION!**



***Spacing increments for Chalklines in this area will be at 9, 12 and under splice at 14 and 22 inches From Center chalkline Because Plank Splices are 36" apart. There should be a row of supports on either side of the spliced plank 4 Inches from spliced line and one row of supports 4 inches past the spliced line***

When 9" or 18" spacing is used, a row of Supports will fall **directly on the Centerline** between the Fan Transition and Center Sump.

Refer to the **Support Chalkline Spacing Chart** on the next page. It shows which spacing group (A,B or C) your Spliced Floor falls in. Locate that spacing group on page 8, 9 or 10. Follow the instructions there.

Between the Center Sump to the Unload Sidewall, a row of Supports is set as close as possible on each side of the Unload Auger.

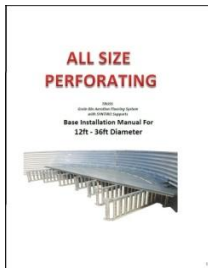
**After you have marked the SPECIAL Chalklines in the above "Center lane" area:** Resume marking Chalklines according to NORMAL spacing outside the Splice area. Use the NORMAL distance shown on the **Support Chalkline Spacing Chart**. Do this until you have marked the entire Floor area from sidewall to sidewall.

**CAUTION!**



**It is very important that the spacing specifications be followed. Failure to follow this instruction could result in Floor damage.**

When **all** Chalklines are drawn correctly according to the above guidelines and either **Figure 2, 3 or 4**, you are then ready to install Floor Supports as shown in the Base Floor Manual.



# FLOOR INSTALLTION MANUAL UPDATE



## When Installing Floors With Spliced Planks

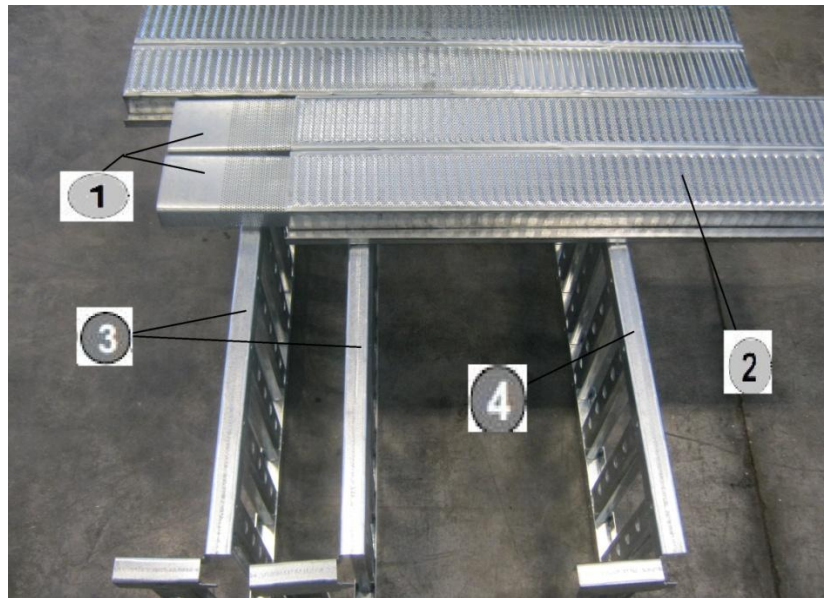
**CAUTION!**



When there is a spliced plank be sure to place another Row 16" From center Chalkline and another Row 20" from the center Chalkine. These rows help support the spliced plank use the **NORMAL** chalkline spacing from there on.  
See **Figure 1** on this page. Failure to do so can cause damage to floor and auger

Figure 1.

1	Splices
2	Split Plank
3	Syntiro support spaced 4" apart
4	Syntiro spaced at NORMAL Spacing From Closest Row at Splice Line

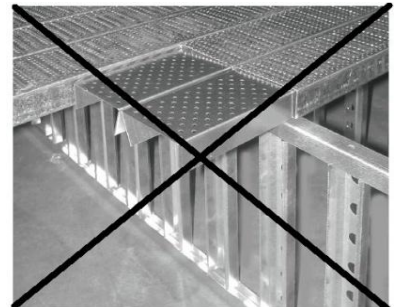


**CAUTION!**



**DO NOT** place the supports with only one row under the spliced board as in **Figure 2** of this page.

Figure 2.



**Group A**

**Floors with NORMAL Chalkline Spacing 18" (457) or greater:**

Requires one (1) Support Row on the Centerline (from the Transition

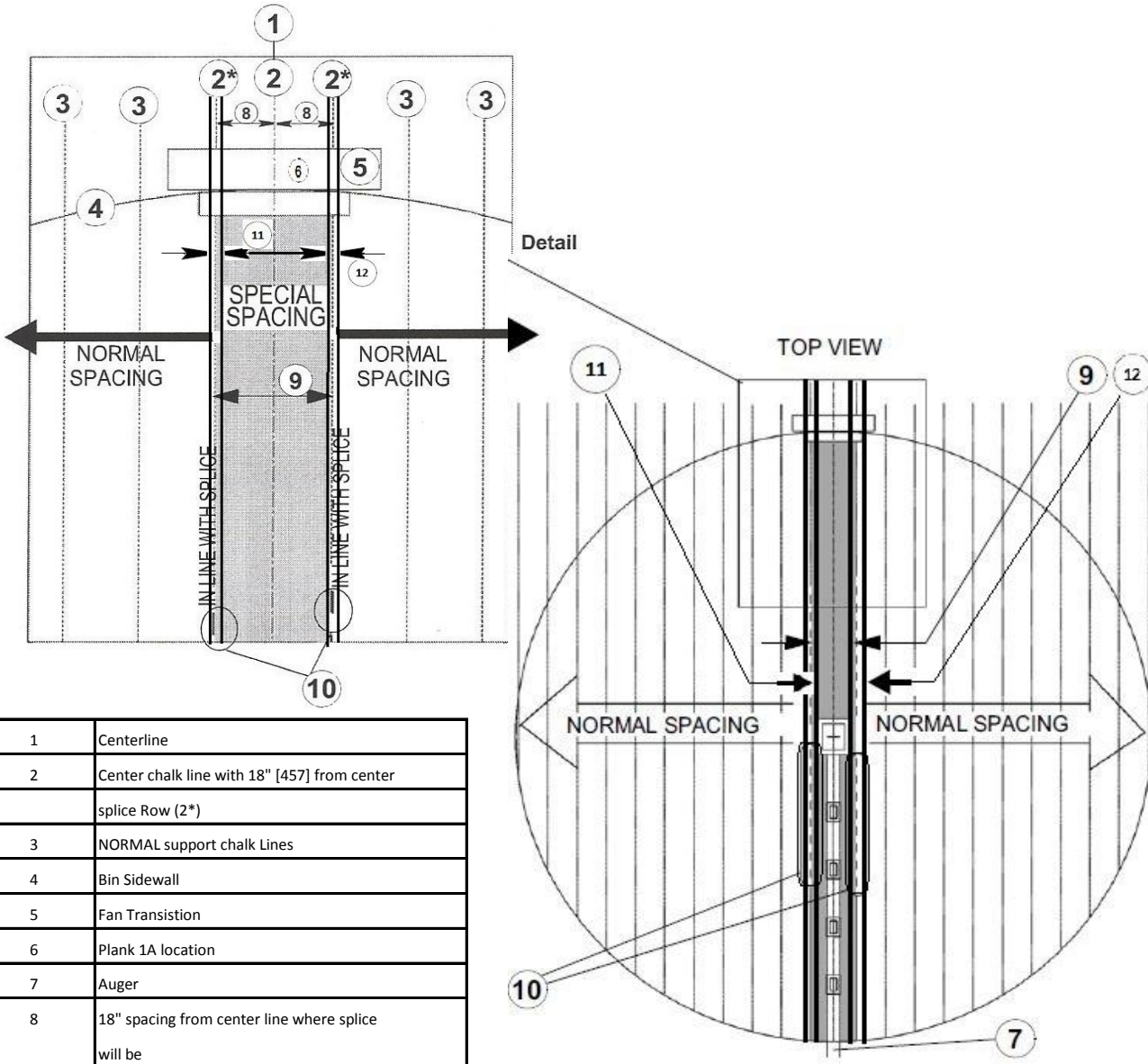
to the Center Sump), and on Chalkline on either side at 14" [406] (item 11) and at 22"[508] (item 12)

this locates two (2) Support Rows (Item 2\*) on either side of the splice plank 4 inches before the Splice line and 4 inches after the splice line.

See Figure 2.

From the Center Sump to the Unload exit, on most of these Floors there will be two (2) additional rows of supports one on each side of the unload

See the chart.



**Figure 2.**

SPECIAL Spacing in center on either side of splice (42ft on 23" NORMAL spacing shown)



**Group B**

**Floors with NORMAL Chalkline spacing 12" - 17" (305 - 432):**

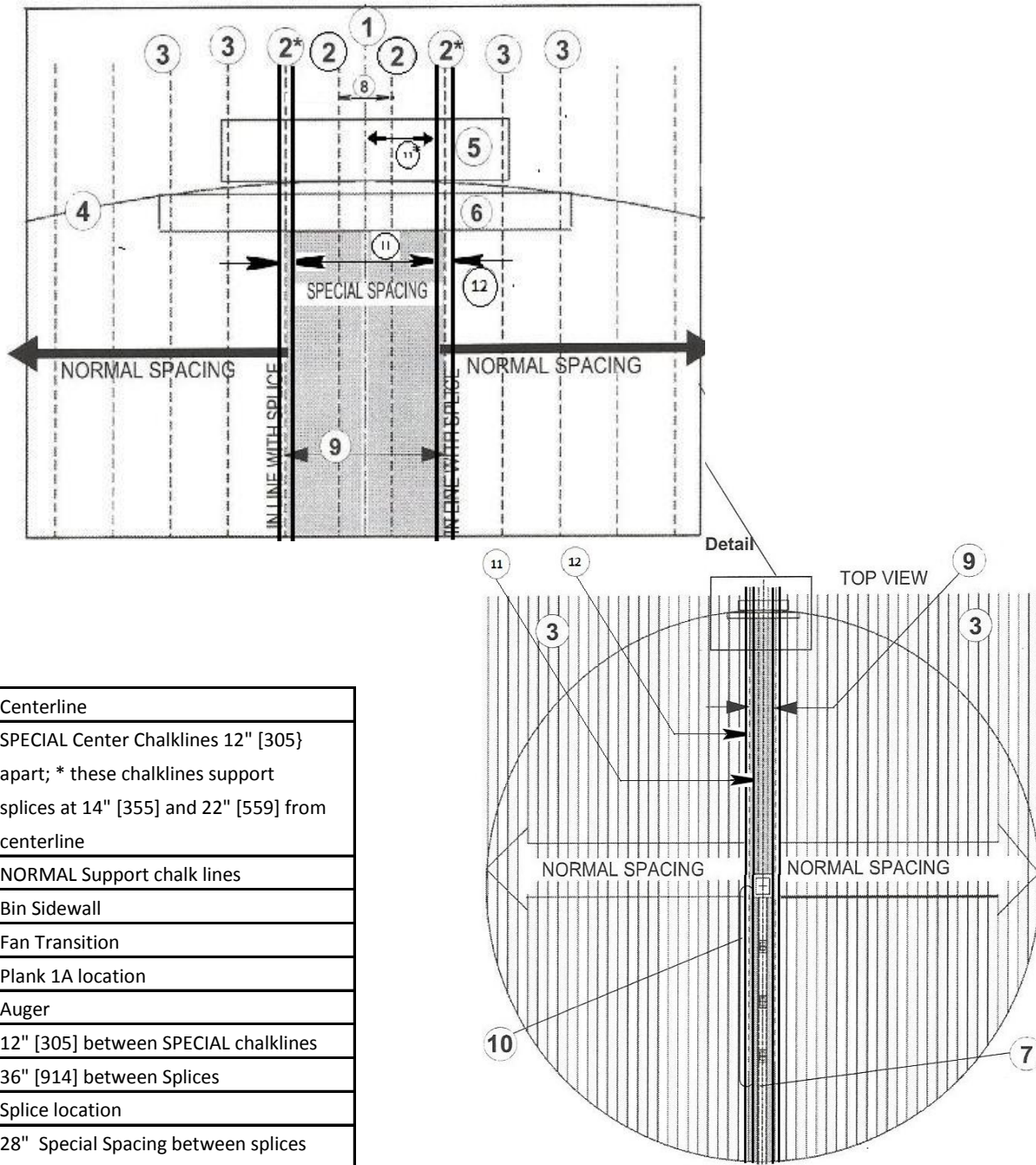
require two (2) center Support Rows spaced 12" apart and two (2) rows spaced at 14" [355] (Item 11) from centre line.

two (2) rows spaced at 22" [559] (Item 12) from centre line

This locates two (2) Support rows (Item 2\*) directly beside the Spliced planks 2" on either side of the splice plank

**See Figure 3** below. From the Center Sump to the Unload exit, there will be two (2) additional rows of

Supports - one on each side of the Unload as close as possible. See Chart on Page 12.



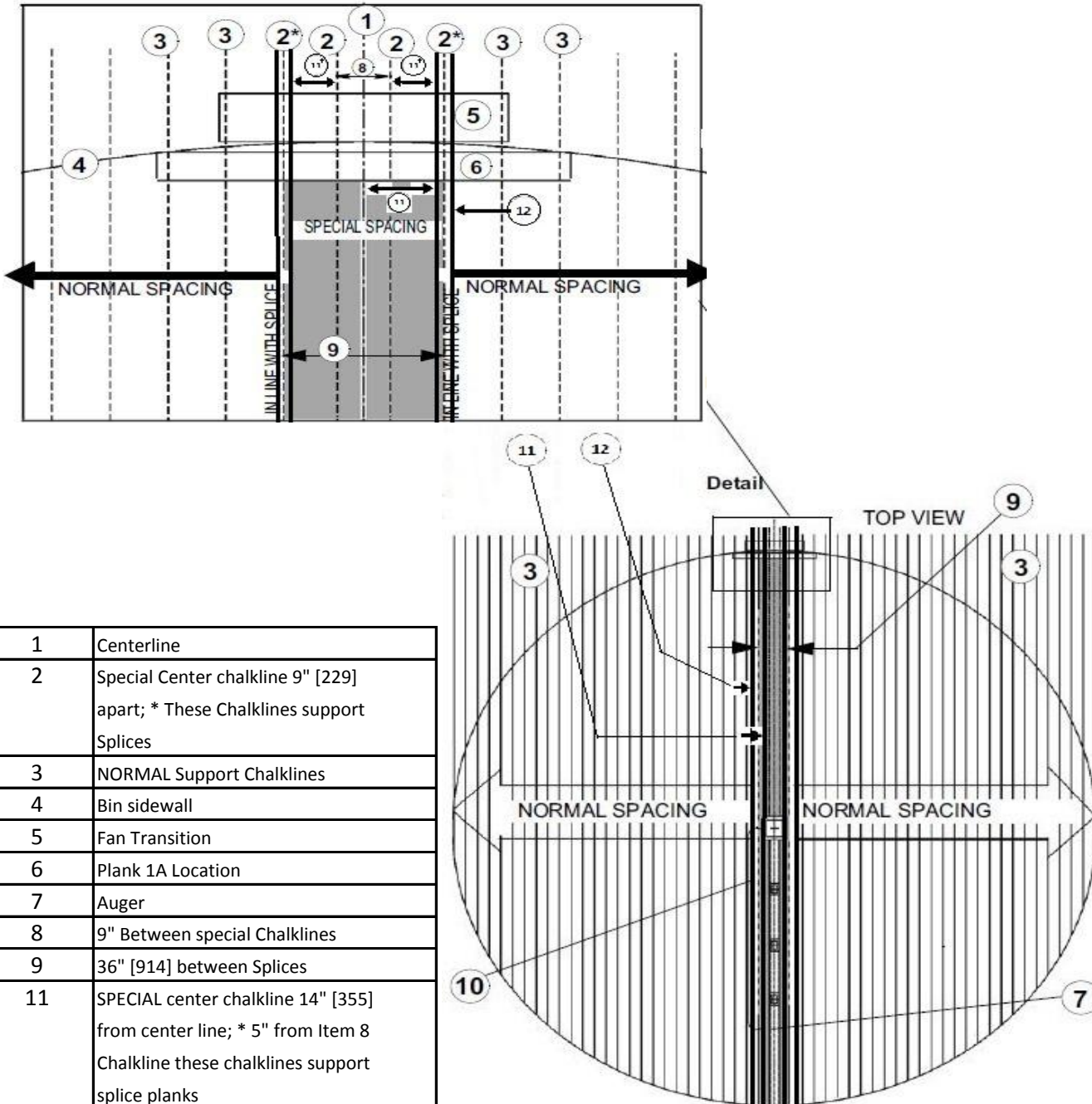
1	Centerline
2	SPECIAL Center Chalklines 12" [305] apart; * these chalklines support splices at 14" [355] and 22" [559] from centerline
3	NORMAL Support chalk lines
4	Bin Sidewall
5	Fan Transition
6	Plank 1A location
7	Auger
8	12" [305] between SPECIAL chalklines
9	36" [914] between Splices
10	Splice location
11	28" Special Spacing between splices 14" [355] From Centerline * these chalklines support splices
12	22" [559] support spacing from center line

**Figure 3.**  
SPECIAL spacing in center on either side of splice  
60ft on 13" spacing shown

**Group C**

**Floors with NORMAL Chalkline spacing 9" - 11" (229 - 280):**

require **five (5) center** Chalkline Support Rows spaced 9" apart. One row will be down the Centerline from the Fan Transition to the Center Sump. From chalkline (Item 2) measure 5" for the next support row (Item 2\*) under the Splices 2" on either side See **Figure 4** below. From the Center Sump to the Unload exit, there will be two (2) additional rows of Supports - one on each side of the Unload. See Details on Page 12.



1	Centerline
2	Special Center chalkline 9" [229] apart; * These Chalklines support Splices
3	NORMAL Support Chalklines
4	Bin sidewall
5	Fan Transition
6	Plank 1A Location
7	Auger
8	9" Between special Chalklines
9	36" [914] between Splices
11	SPECIAL center chalkline 14" [355] from center line; * 5" from Item 8 Chalkline these chalklines support splice planks
12	22" [508] support spacing from center chalkline

**Figure 4.**

SPECIAL spacing in Center: Chalklines 9" apart  
72' on 11" Standard Spacing Shown

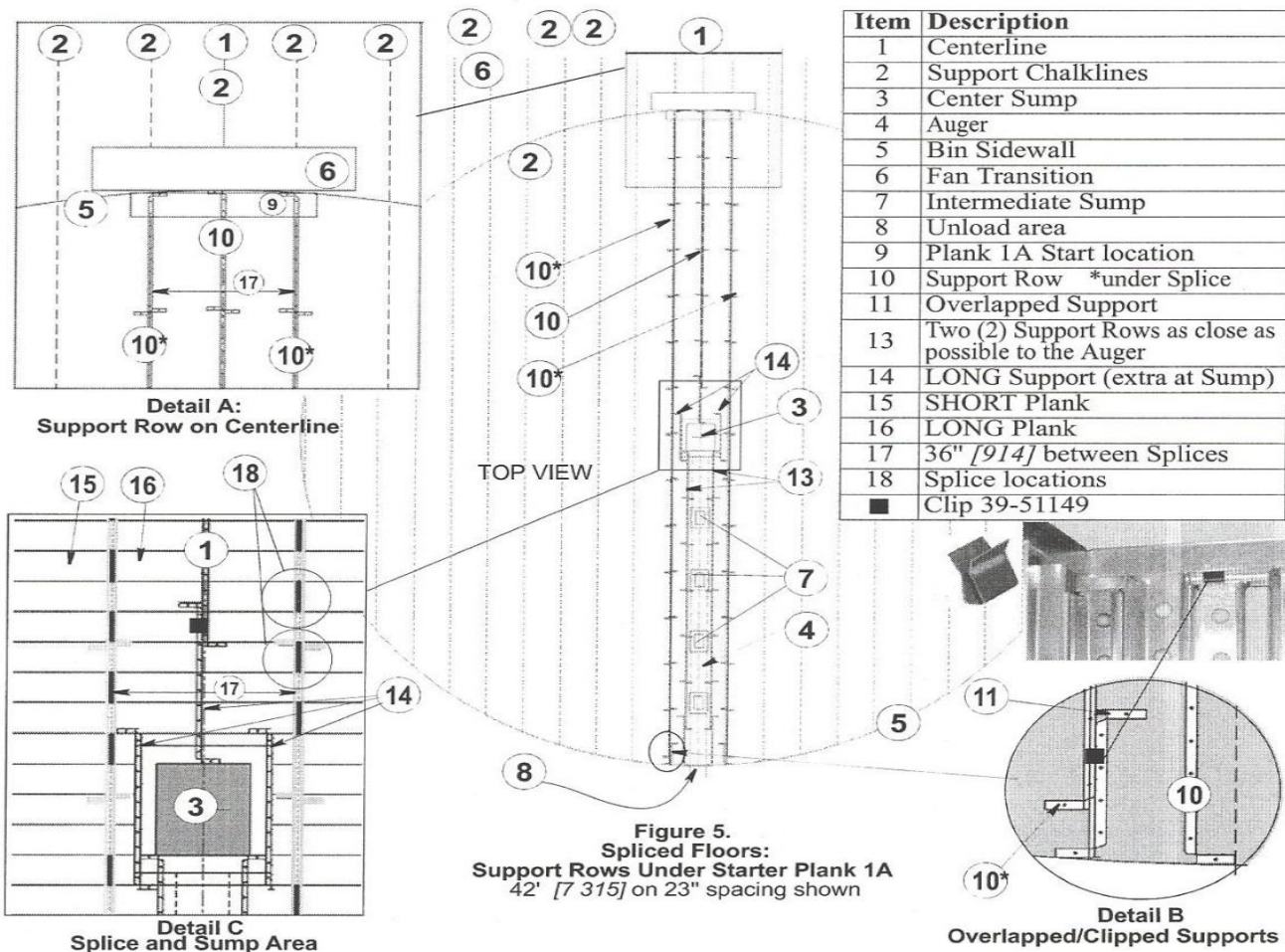
**Start Center Support Rows under Plank 1A (at Transition)**

Tilt the Support Row upright and set it on one of the Chalklines in the "center lane."  
 Extend this row wall-to-wall. Refer to your diameter Diagram on Pages 16-60 of this Supplement.

All Center rows under Plank #1A will be full-length from bin wall to bin wall, with the exception of those which stop at the Center Sump. **Clip overlapped Supports** together at the top as shown in Details B and C, **Figure 5**.

**IMPORTANT!** Finish ALL SUPPORT ROWS in the "Center lane." Finish any additional rows that fall under Plank 1A.

Extend the middle Support Rows to the Center Sump. Between the Center Sump and Unload, the amount of extra support needed is determined the NORMAL Chalkline Spacing of the floor.



**CAUTION!**



**Add Support Rows at the Center Sump to the Unload**

*Additional Auger Support is required on larger Spliced Floors. Use the following Chart to determine additional Auger Support Row treatments according to your Floor's NORMAL Support Spacing. Failure to follow this instruction could cause damage to the floor and/or Auger.*

### Sump/Auger Support Rows determined by NORMAL Support Row Spacing

Eave Height	11'	15'	18'		22'	26'	29'		33'	37'	40'	48'	51'	55'-59'	62'	66'	70'-73'	77'	81'-84'	88'	92'-95'	99'	
44" Tiers	3	4	5		6	7	8		9	10	11	12-13	14	15-16	17	18	19-20	21	22-23	24	25-26	27	
32" Rings	4	5	6	7	8	9	10	11	12	13	14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37
42' [12 802]	34	30	27	26	25	25	24	23	23	22	21	20	19	18	18	17	16	16	15	15	15	14	14
48' [14 630]	33	29	26	24	23	22	22	21	21	20	20	19	18	17	16	16	15	15	14	14	13	13	13
54' [16 459]	31	27	25	22	21	20	20	19	19	18	18	17	17	16	15	15	14	14	13	13	12	12	12
60' 18 288]	29	26	24	22	20	19	18	18	17	17	17	16	15	15	14	14	13	13	13	12	12	11	11
72' [21 946]	27	24	22	20	18	17	16	15	15	15	14	14	13	13	12	12	12	12	11	11	11	10	10
75' [22 860]	26	23	21	20	18	17	16	15	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10
78' [23 774]	25	23	21	19	18	17	16	15	14	14	14	13	13	12	12	12	11	11	11	10	10	10	10

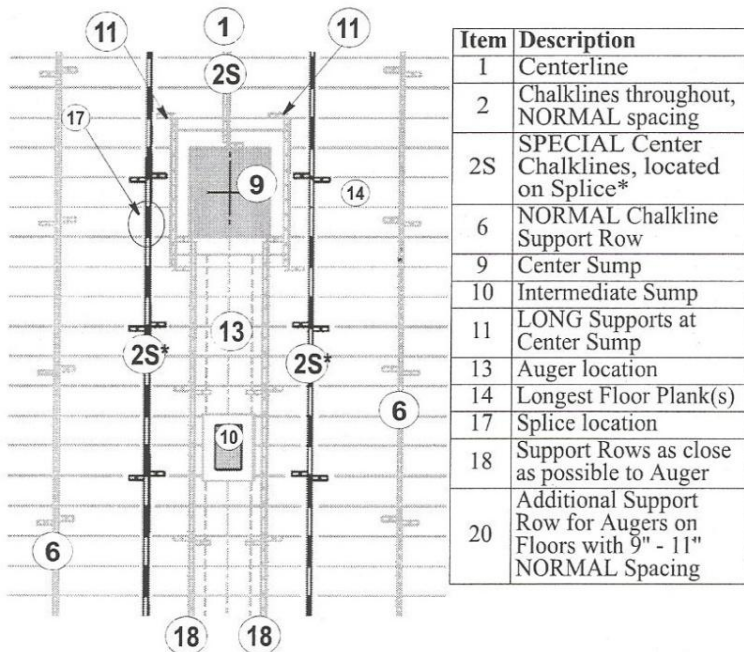
If your floor falls within the **WHITE** (unshaded) area of Spacing 18" (457) or greater, refer to **Figures 28-29** on Page 26 of the Base Floor Manual.

If your floor falls within the middle **SHADED** area of Spacing 12" - 17"(305-432) place a full row of Supports along each side of the Auger (Item 18), as close as possible to the Auger, from the Center Sump to the Unload area. See **Figure 6**.

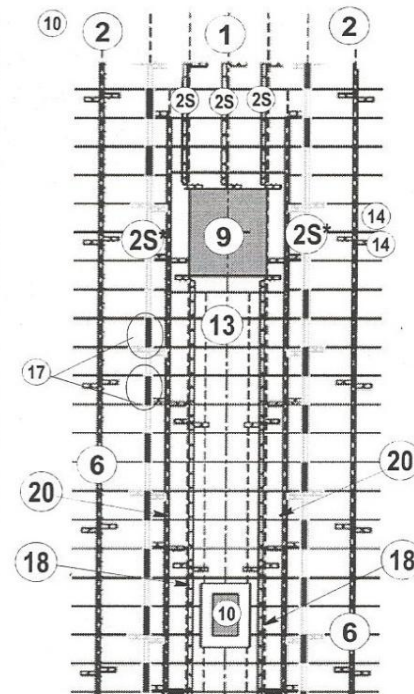
If your Floor falls within the **DARK** area with Spacing 11" (279) or less, place a full row of Supports along each side of the Auger (Item 18), as close as possible to the Auger.

**Also** place another full row of Supports **between** that row and the next Chalkline row.

See Item 20. **Figure 7** Make sure there is one row placed 16" from center line and one row placed 20" From center line to support the spliced planks see page 7 Figure 1 of this supplement



**Figure 6.**  
Auger Support Rows  
(48' with 20" spacing)



**Figure 7.**  
TWO Additional Auger Support Rows  
(72' with 11" spacing)

When you have assembled Support Rows for all the Chalklines under Plank 1A, running from the Fan Transition Sidewall to the Unload Sidewall, proceed to **Step 4: Set two(2) Support Half Circles around the Sidewall"** on Pages 17-19 in the Base Manual.

## Splices

### IMPORTANT!

**ALTERNATE (STAGGER) Two-Piece Long and Short Planks (36" from one side of the Grain Bin to the other) so the Splices are not next to each other. Failure to do this could cause damage to the Floor. See Figures 8 and 9.**

### CAUTION!

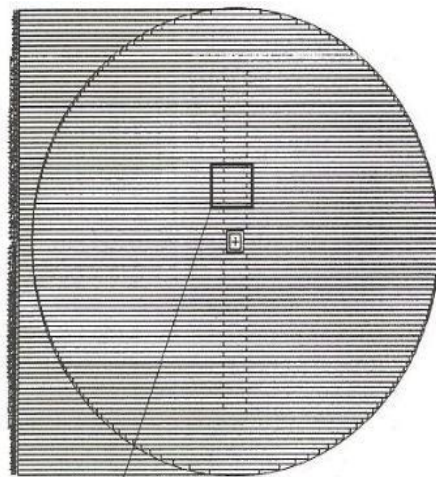


### SUPPORT THE SPLICES

**Under Two-Piece Planks, place 1 row of Supports 16" from center chalkline and 1 Row at 20" (where ends of the Short and Long Plank butt together). See Figure 8.**

**Failure to follow this rule will result in Floor damage.**

1	Splices
2	spliced plank
3	Syntiro Support
4	Syntiro support under each spliced plank one at 16" from center chalkline and one at 20" from center chalkline



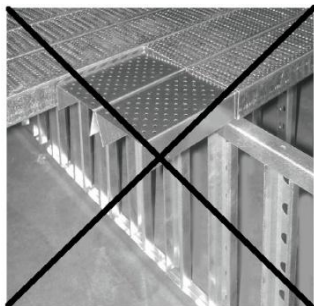
Full Floor Top View  
(54' Floor shown)



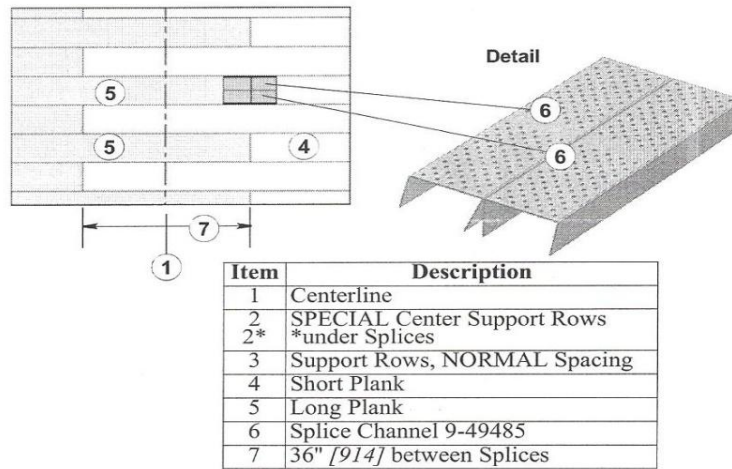
Figure 8.

Support Row Under Splice

Wrong Installation: ----->



A Floor **Splice Channel** is 11 7/8" long. At **all** Splice points, center a pair of Floor Splice Channels **inside** the Planks to **join** the butted Floor Planks. See **Figure 9**.

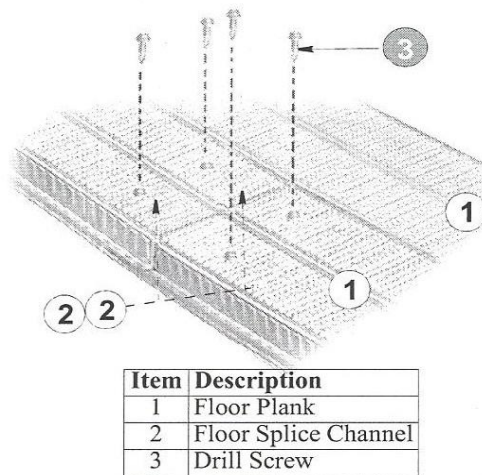


**Figure 9.**  
Splice Channel Placement in Typical Staggered Splice (Top View)

**IMPORTANT!**

**ALTERNATE (STAGGER) Two-Piece Long and Short Planks (36" from one splice to the other) so the Splices are not next to each other. Failure to do this could cause damage to the Floor.**

Floor Drill Screws per Plank are used from above to secure each Splice Channel. See **Figure 10**.

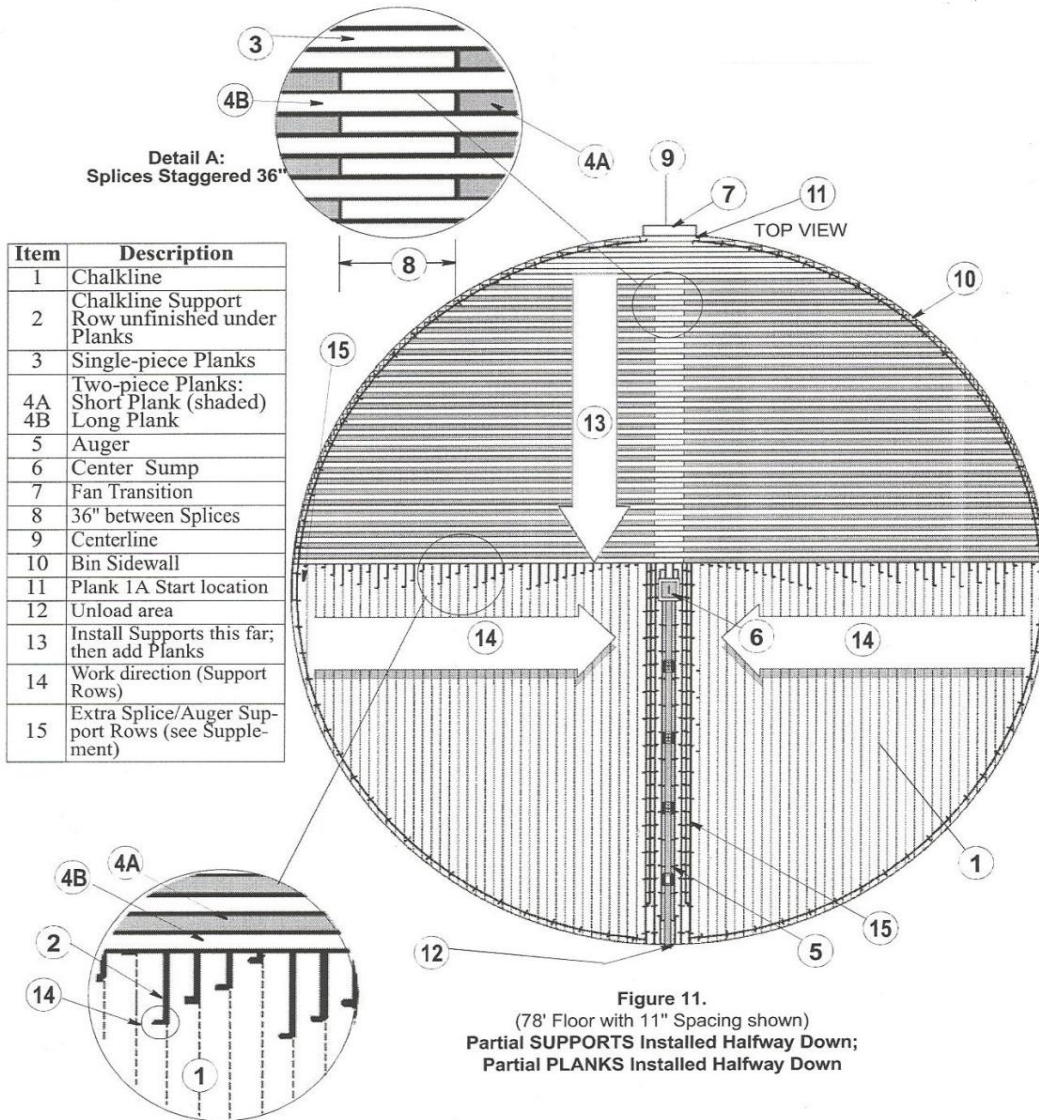


**Figure 10.**  
Secure the Splice

### Managing Longer Support Rows and Longer Planks

It may be beneficial to install **only the first half** of each Support row running toward the Unload end **before** starting Plank installation. Installing the first half of the Planks onto the Supports is also an option. See **Figure 11**.

Avoid getting "walled in" by finished Support rows at the Sidewall. It is recommended that you assemble and stand Support Rows **from the outside and move toward the center** (Item 16 arrow).



**42' FLOOR**

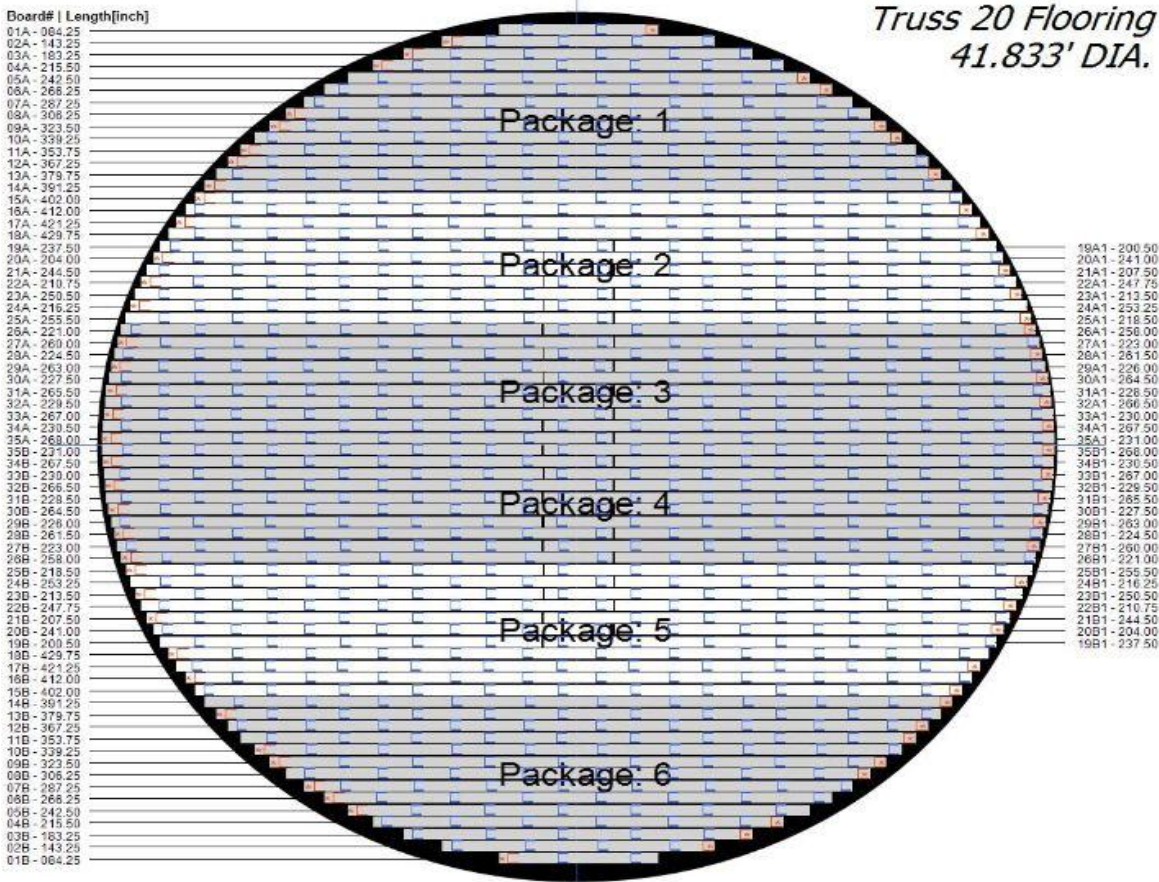
Total Planks per Grain Bin = See **Figure 12**.

Floor Screw Kit Part Number: 9-15994

The last three digits of the Plank Part No. indicate length of the Plank in inches. Plank Numbers 19 thru 35 are two pieces.

**IMPORTANT!**

**Study and follow the steps for Support installation (Pages 13-22) and the steps for Plank installation (Pages 23-27) of the Base Floor Manual.**



Single plank

Two-Piece Planks

Splices are placed 36" [914] apart, staggered left and right on adjacent Planks.

Single plank

Figure 12.  
Planks on 42' [12802] Dia.  
Floor (Top View)

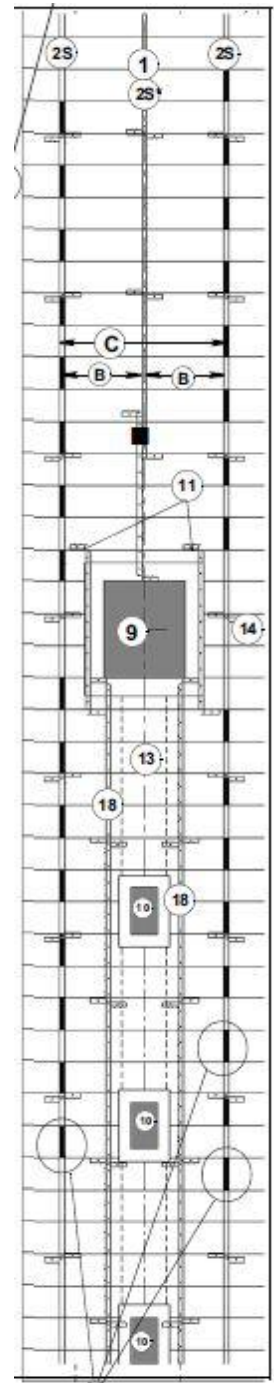
Note: All edge supports MUST be within 6 Inches of wall.

		NORMAL Chalkline Support Spacing																					
Eave Height (feet)		11'	15'	18'	22'	26'	29'	33'	37'	40'	44'-48'	51'	55'-59'	62'	66'	70'-73'	77'	81'-84'	88'	92'-95'			
Measurements in INCHES	44" TIERS	3	4	5	6	7	8	9	10	11	12-13	14	15-16	17	18	19-20	21	22-23	24	25-26			
	32" RINGS	4	5	6	7	8	9	10	11	12	13	14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36
Standard Bin C-C		34	30	27	26	25	25	24	23	23	22	21	20	19	18	18	17	16	16	15	15	15	14
		Group A: 18" SPECIAL Center Spacing (Page 6).										Group B: 12" SPECIAL Center Spacing (Page 7).											
Recirculating Bin		34	30	27	24	22	20	18	17	16	15	14											
		Group A: 18" SPECIAL Center Spacing (Page 6).						Group B: 12" SPECIAL Center Spacing (Page 7).															
		Support Counts																					
STANDARD Bin	LONG	221	237	257	263	265	265	277	285	285	295	305	315	329	343	343	368	382	382	402	402	402	426
	SHORT	6	12	12	8	12	12	14	14	14	14	12	16	12	16	16	14	16	16	14	14	14	16
RECIRCULATING Bin	LONG	221	237	257	277	295	315	343	368	382	402	426											
	SHORT	6	12	12	14	14	16	16	14	16	14	16											



### 42' Diameter Floor Numbers and Plank Measurements

Package	#1 1 of 6 Length	#2 2 of 6 Length	#3 3 of 6 Length	#4 4 of 6 Length	#5 5 of 6 Length	#6 6 of 6 Length
18A	429.75					18B - 429.75
17A	421.25					17B - 421.25
16A	412.00					16B - 412.00
15A	402.00					15B - 402.00
14A	391.25	25A - 255.50	35A - 268.00	35B1- 268.00	25B1- 255.50	14B - 391.25
13A	379.75	25A1- 218.50	35A1- 231.00	35B - 231.00	25B - 218.50	13B - 379.75
12A	367.25	24A - 216.25	34A - 230.50	34B1- 230.50	24B1- 216.25	12B - 367.25
11A	353.75	24A1- 253.25	34A1- 267.50	34B - 267.50	24B - 253.25	11B - 353.75
10A	339.25	23A - 250.50	33A - 267.00	33B1- 267.00	23B1- 250.50	10B - 339.25
9A	323.50	23A1- 213.50	33A1- 230.00	33B - 230.00	23B - 213.50	9B - 323.50
8A	306.25	22A - 210.75	32A - 229.50	32B1- 229.50	22B1- 210.75	8B - 306.25
7A	287.25	22A1- 247.75	32A1- 266.50	32B - 266.50	22B - 247.75	7B - 287.25
6A	266.25	21A - 244.50	31A - 265.50	31B1- 265.50	21B1- 244.50	6B - 266.25
5A	242.50	21A1- 207.50	31A1- 228.50	31B - 228.50	21B - 207.50	5B - 242.50
4A	215.50	20A - 204.00	30A - 227.50	30B1- 227.50	20B1- 204.00	4B - 215.50
3A	183.25	20A1- 241.00	30A1- 264.50	30B - 264.50	20B - 241.00	3B - 183.25
2A	143.25	19A - 237.50	29A - 263.00	29B1- 263.00	19B1- 237.50	2B - 143.25
1A	84.25	19A1- 200.50	29A1- 226.00	29B - 226.00	19B - 200.50	1B - 84.25
			28A - 224.50	28B1- 224.50		
			28A1- 261.50	28B - 261.50		
			27A - 260.00	27B1- 260.00		
			27A1- 223.00	27B - 223.00		
			26A - 221.00	26B1- 221.00		
			26A1- 258.00	26B - 258.00		
Pkg. length [ft]	(Total length 27324.50 inch / 2277.04 ft)					
	323.60	405.50	409.42	409.42	405.50	323.60
Pkg. weight [lb]	(Total weight 3529.41 lb)					
	501.59	628.53	634.60	634.60	628.53	501.59
Splice qty. (Total splices 34)						
	0	7	10	10	7	0
APCalc 2.9.5						

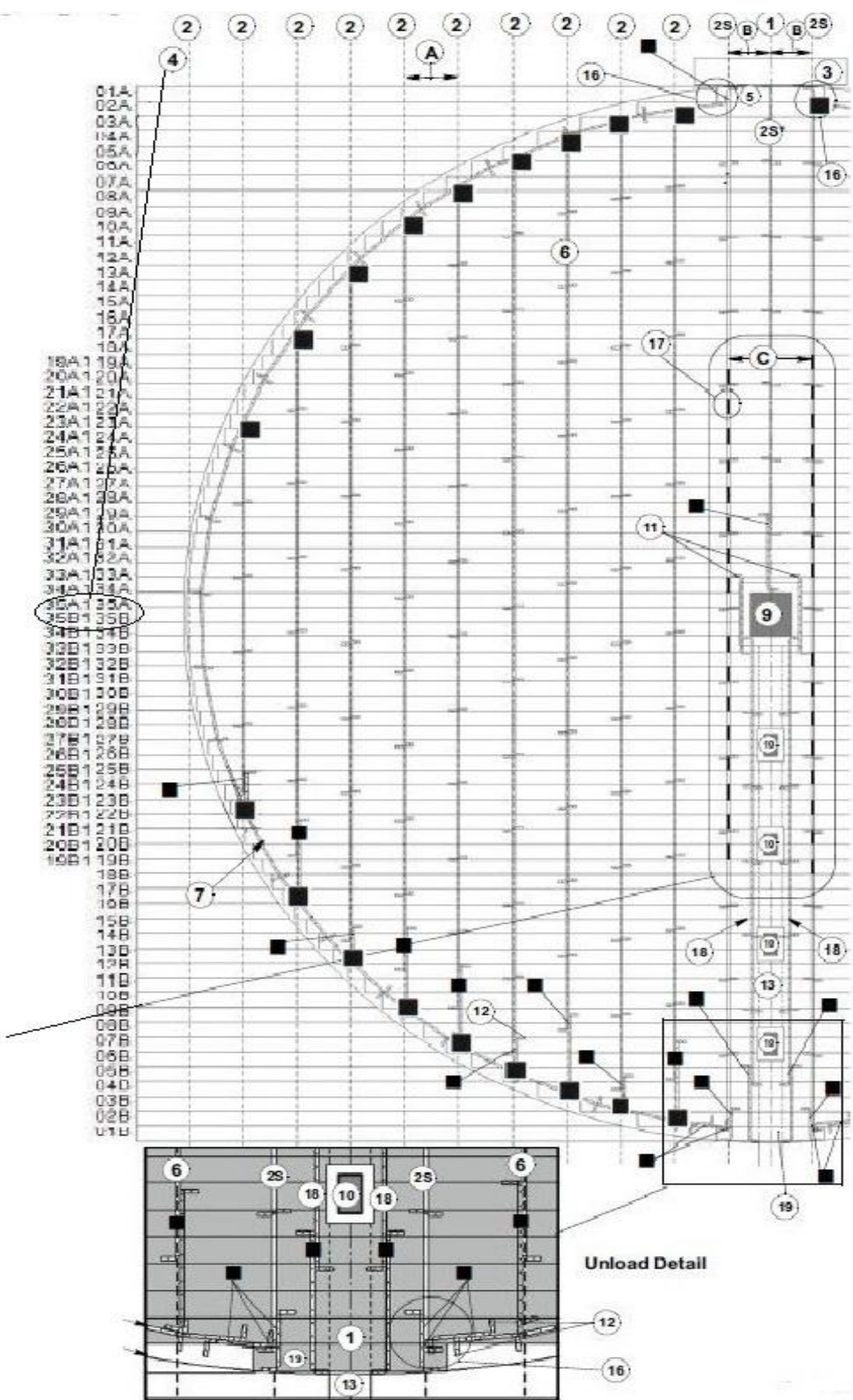


**Figure 13.**  
Splice and sump detail

**CAUTION!**



**Make sure there are a row of supports under each spliced plank 16" from center chalk line and 24" from center chalk line on both sides of the auger. Refer to Page 7, 8, 9 and 10 on the Install update page**

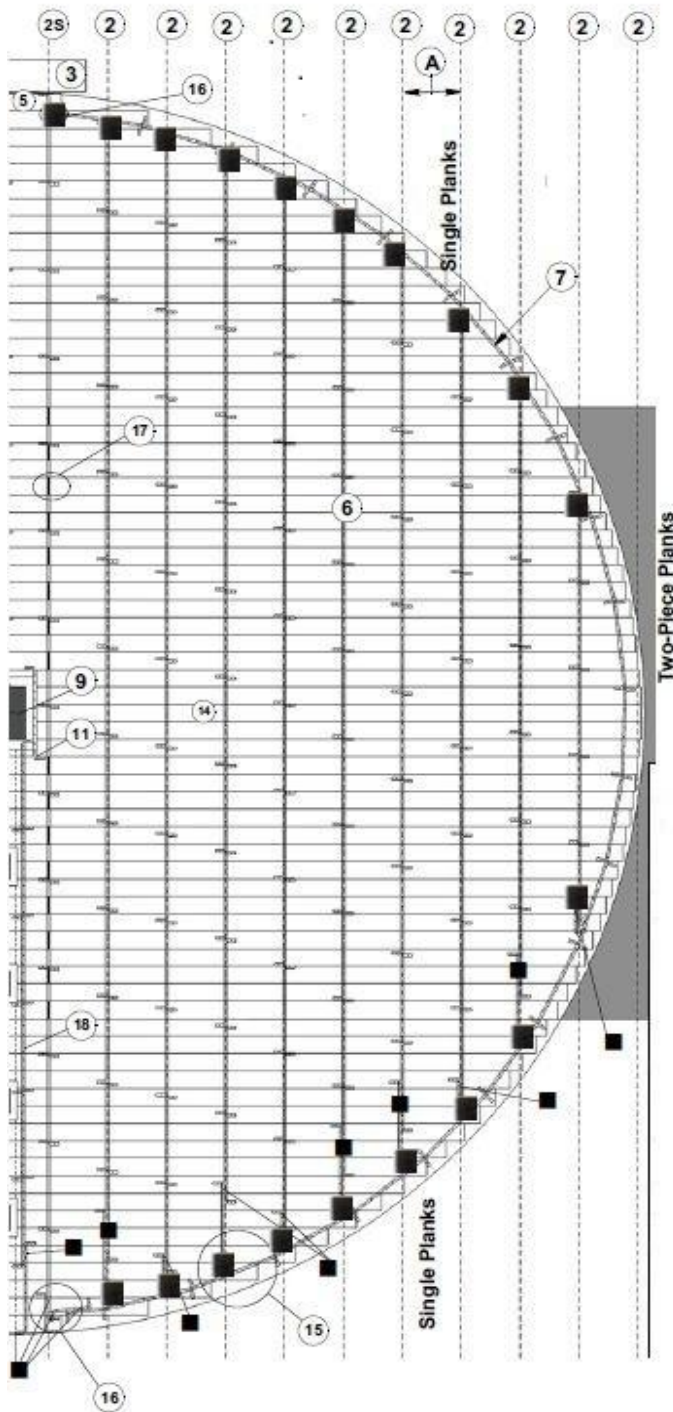


**IMPORTANT!**  
Clip overlapped Supports together at the top, as far back as possible on the Support Leg.



**CAUTION!**  
**ALTERNATE (STAGGER)** Long and Short Planks (from one side of the Grain Bin to the other) so the Splices are not next to each other. Failure to do this could cause damage to the Floor.

Place a Row of supports at 16" and 20" from Centerline so that the splice is supported on both sides of the plank. Refer to page 7 and 8 of this manual (Install UPDATE)



**Figure 14. 42' [12 802] Dia. Floor Overview, Top View, Right Half 23' [584] Support Spacing Example shown (12-Ring Bin); See the Chart on Page 5 or 16 of this Manual for Support Spacing for your height Bin**

A	Chalkline = Normal Spacing See <b>Standard Chalkline Support Spacing chart</b> for YOUR HEIGHT of Bin.
B	Special Cneter Chalkline 18" shown
C	36" spacing between splices
1	Cneterline
2	Chlalklines Throughout, NORMALspacing
2S	SPECIAL Center CHALKLINES, REFER TO PAGE 7 installation update and page 8
3	Transiton/Fan Location
4	Plank numbers
5	Plank 1A start with this plank against Side Wall
6	Syntiro Support Row on NORMAL Chalkline
7	Outer half Circle of Syntiro Supports
8	Bin Sidewall
9	Center Sump area
10	Intermediate Sump Area
11	LONG Support at Center Sump (2)
12	SHORT Support
13	Auger
14	Center Plank (Spliced)
15	Support Row end Treatmenta
16	Support Row Clipped top and bottom to half circle at Fan Transition
17	Splice Location
18	Support Row as close as possible to Auger
19	Final Plank 1B at Unload

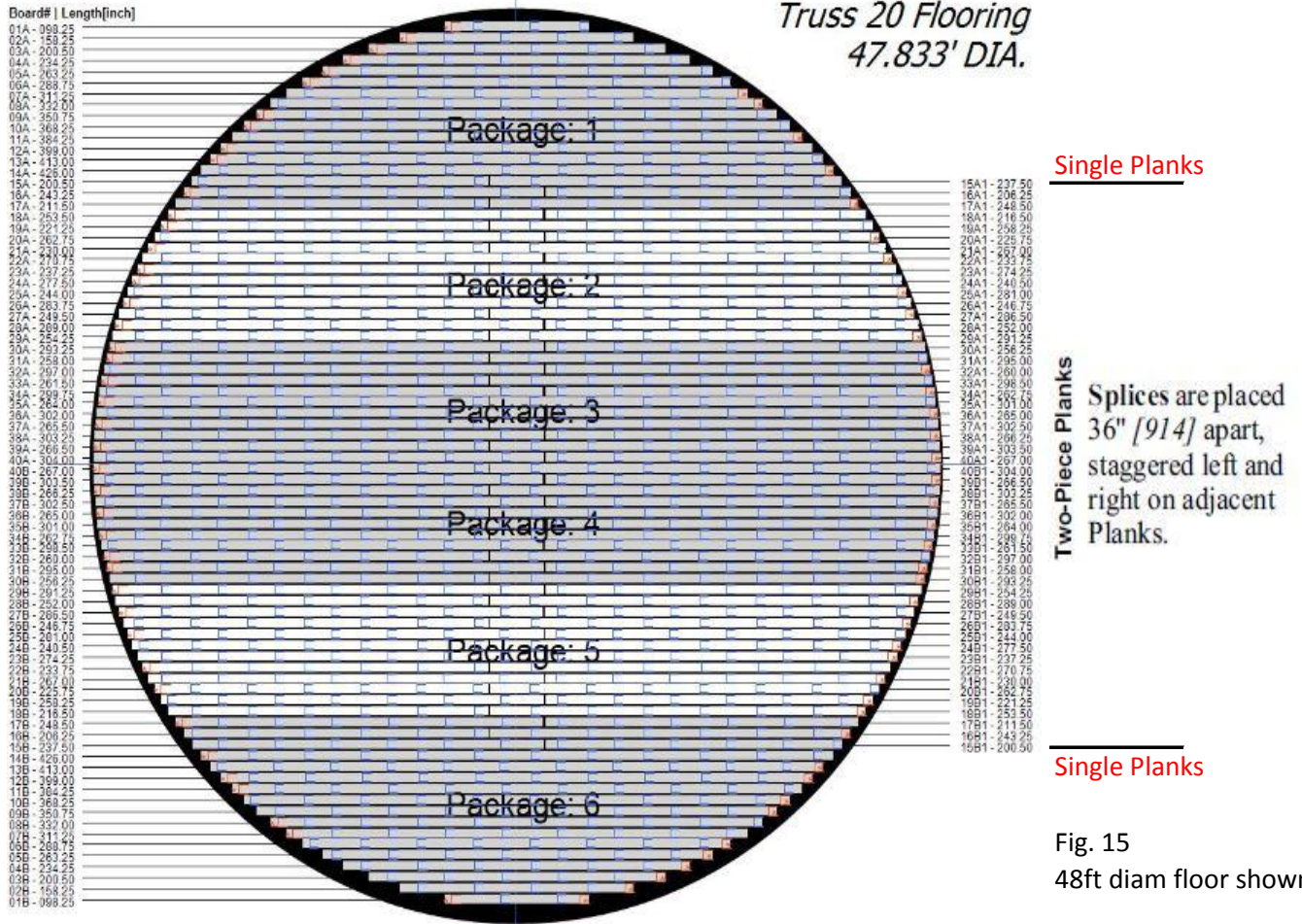
**48' Floor**

Total Planks per Grain Bin = 80. See Figure 15.

Plank Numbers 15 thru 40 are two pieces Planks

**IMPORTANT!**

**Study and follow the steps for Support installation (Pages 13-22) and the steps for Plank installation (Pages 23-27) of the Base Floor Manual.**



**Single Planks**

**Two-Piece Planks** Splices are placed 36" [914] apart, staggered left and right on adjacent Planks.

**Single Planks**

Fig. 15  
48ft diam floor shown

Note: All edge supports MUST be within 6 inches of wall.

		<b>NORMAL Chalkline Support Spacing</b>																					
<b>Eave Height (feet)</b>		11'	15'	18'	22'	26'	29'	33'	37'	40'	44'-48'	51'	55'-59'	62'	66'	70'-73'	77'	81'-84'	88'	92'-95'			
Measurements in INCHES	44" TIERS	3	4	5	6	7	8	9	10	11	12-13	14	15-16	17	18	19-20	21	22-23	24	25-26			
	32" RINGS	4	5	6	7	8	9	10	11	12	13	14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36
Standard Bin C-C		34	30	27	26	25	24	23	23	22	21	20	19	18	18	17	16	16	15	15	15	14	
		Group A: 18" SPECIAL Center Spacing (Page 6).										Group B: 12" SPECIAL Center Spacing (Page 7).											
Recirculating Bin		34	30	27	24	22	20	18	17	16	15	14											
		Group A: 18" SPECIAL Center Spacing (Page 6).							Group B: 12" SPECIAL Center Spacing (Page 7).														
		<b>Support Counts</b>																					
STANDARD Bin	LONG	221	237	257	263	265	265	277	285	285	295	305	315	329	343	343	368	382	382	402	402	402	426
	SHORT	6	12	12	8	12	12	14	14	14	14	12	16	12	16	16	14	16	16	14	14	14	16
RECIRCULATING Bin	LONG	221	237	257	277	295	315	343	368	382	402	426											
	SHORT	6	12	12	14	14	16	16	14	16	14	16											

### 48' Diameter Floor Numbers and Plank Measurements detail

Package	#1 1 of 6	#2 2 of 6	#3 3 of 6	#4 4 of 6	#5 5 of 6	#6 6 of 6
	Length	Length	Length	Length	Length	Length
17A - 211.50	29A - 254.25	40A - 304.00	40B1- 304.00	29B1- 254.25	17B1- 211.50	
17A1- 248.50	29A1- 291.25	40A1- 267.00	40B - 267.00	29B - 291.25	17B - 248.50	
16A - 243.25	28A - 289.00	39A - 266.50	39B1- 266.50	28B1- 289.00	16B1- 243.25	
16A1- 206.25	28A1- 252.00	39A1- 303.50	39B - 303.50	28B - 252.00	16B - 206.25	
15A - 200.50	27A - 249.50	38A - 303.25	38B1- 303.25	27B1- 249.50	15B1- 200.50	
15A1- 237.50	27A1- 286.50	38A1- 266.25	38B - 266.25	27B - 286.50	15B - 237.50	
14A - 426.00	26A - 283.75	37A - 265.50	37B1- 265.50	26B1- 283.75	14B - 426.00	
13A - 413.00	26A1- 246.75	37A1- 302.50	37B - 302.50	26B - 246.75	13B - 413.00	
12A - 399.00	25A - 244.00	36A - 302.00	36B1- 302.00	25B1- 244.00	12B - 399.00	
11A - 384.25	25A1- 281.00	36A1- 265.00	36B - 265.00	25B - 281.00	11B - 384.25	
10A - 368.25	24A - 277.50	35A - 264.00	35B1- 264.00	24B1- 277.50	10B - 368.25	
9A - 350.75	24A1- 240.50	35A1- 301.00	35B - 301.00	24B - 240.50	9B - 350.75	
8A - 332.00	23A - 237.25	34A - 299.75	34B1- 299.75	23B1- 237.25	8B - 332.00	
7A - 311.25	23A1- 274.25	34A1- 262.75	34B - 262.75	23B - 274.25	7B - 311.25	
6A - 288.75	22A - 270.75	33A - 261.50	33B1- 261.50	22B1- 270.75	6B - 288.75	
5A - 263.25	22A1- 233.75	33A1- 298.50	33B - 298.50	22B - 233.75	5B - 263.25	
4A - 234.25	21A - 230.00	32A - 297.00	32B1- 297.00	21B1- 230.00	4B - 234.25	
3A - 200.50	21A1- 267.00	32A1- 260.00	32B - 260.00	21B - 267.00	3B - 200.50	
2A - 158.25	20A - 262.75	31A - 258.00	31B1- 258.00	20B1- 262.75	2B - 158.25	
1A - 98.25	20A1- 225.75	31A1- 295.00	31B - 295.00	20B - 225.75	1B - 98.25	
	19A - 221.25	30A - 293.25	30B1- 293.25	19B1- 221.25		
	19A1- 258.25	30A1- 256.25	30B - 256.25	19B - 258.25		
	18A - 253.50			18B1- 253.50		
	18A1- 216.50			18B - 216.50		

Pkg. length [ft] (Total length 35829.50 inch / 2985.79 ft)  
 464.60                      512.25                      516.04                      516.04                      512.25                      464.60

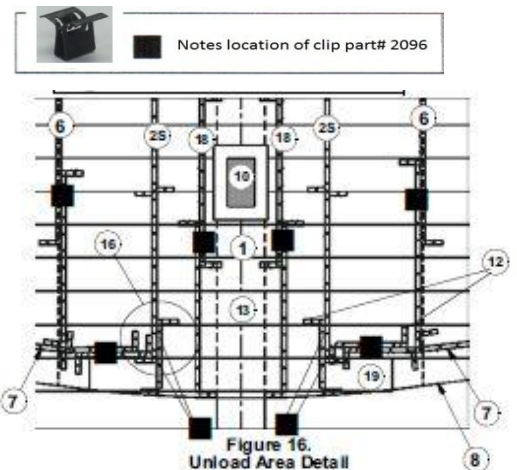
Pkg. weight [lb] (Total weight 6049.21 lb)  
 941.29                      1037.82                      1045.50                      1045.50                      1037.82                      941.29

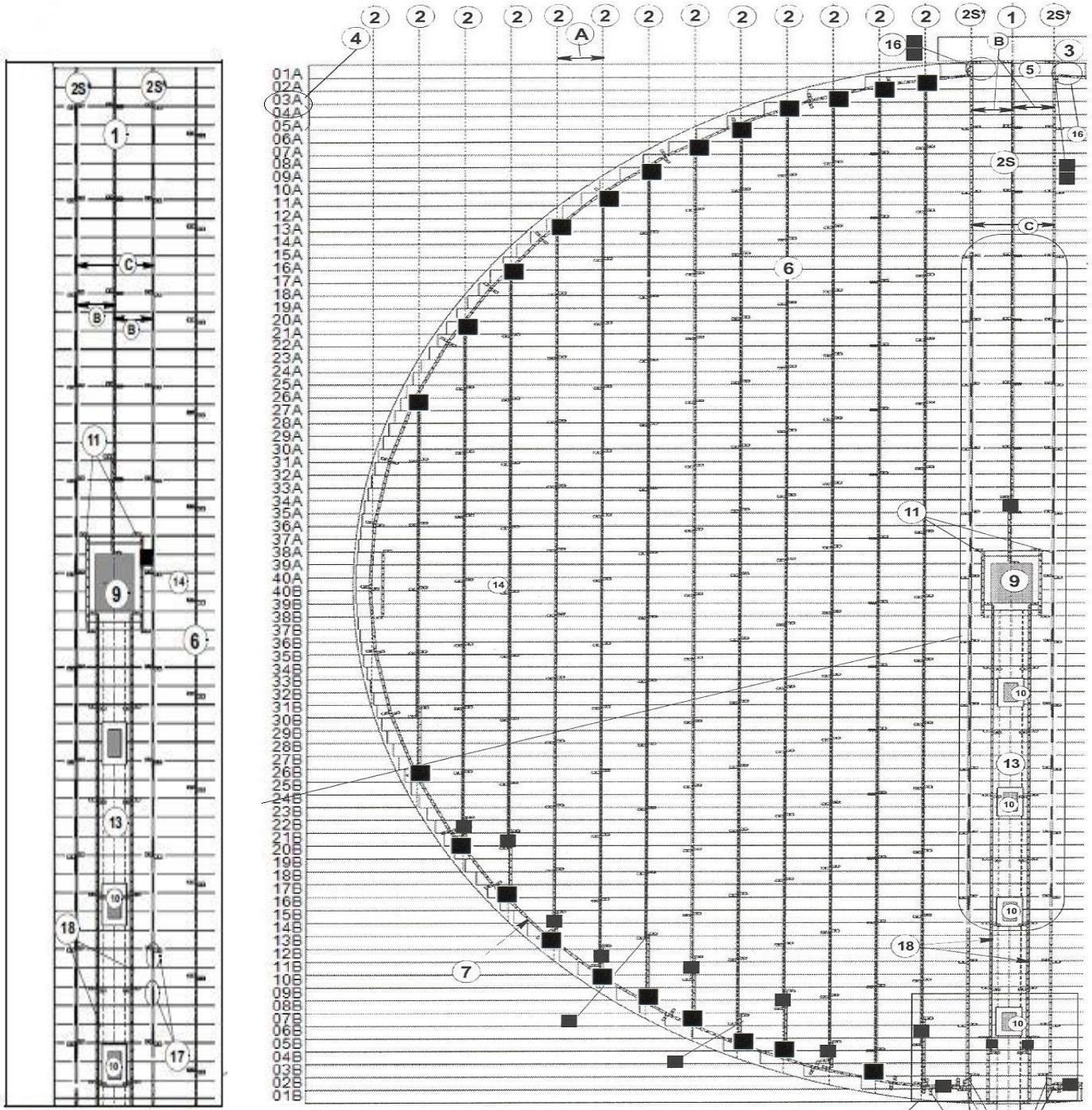
Splice qty. (Total splices 52)  
 3                                      12                                      11                                      11                                      12                                      3

Flashing Qty : 97

APCalc 2.9.5

A	Chalkline = NORMAL Spacing: See Standard Chalkline Support Spacing Chart for YOUR HEIGHT Bin.
B	SPECIAL Center Chalkline, 18" shown
1	Centerline
2S	SPECIAL Center Chalklines
6	SYNTIRO support Row on NORMAL Chalkline Spacing
7	Other Half Circle of Syntiro Supports
8	Bin Sidewall
10	Intermediate Sump Area
12	SHORT Support
13	Auger
16	Support Row Clipped (top and bottom) to Half Circle at Fan Transition
18	Support Row as close as possible to Auger
19	Final Plank 1B at Unload





Splice and Sump Detail

See Unload Detail (Figure 16),  
Page 19

**48' Floor**

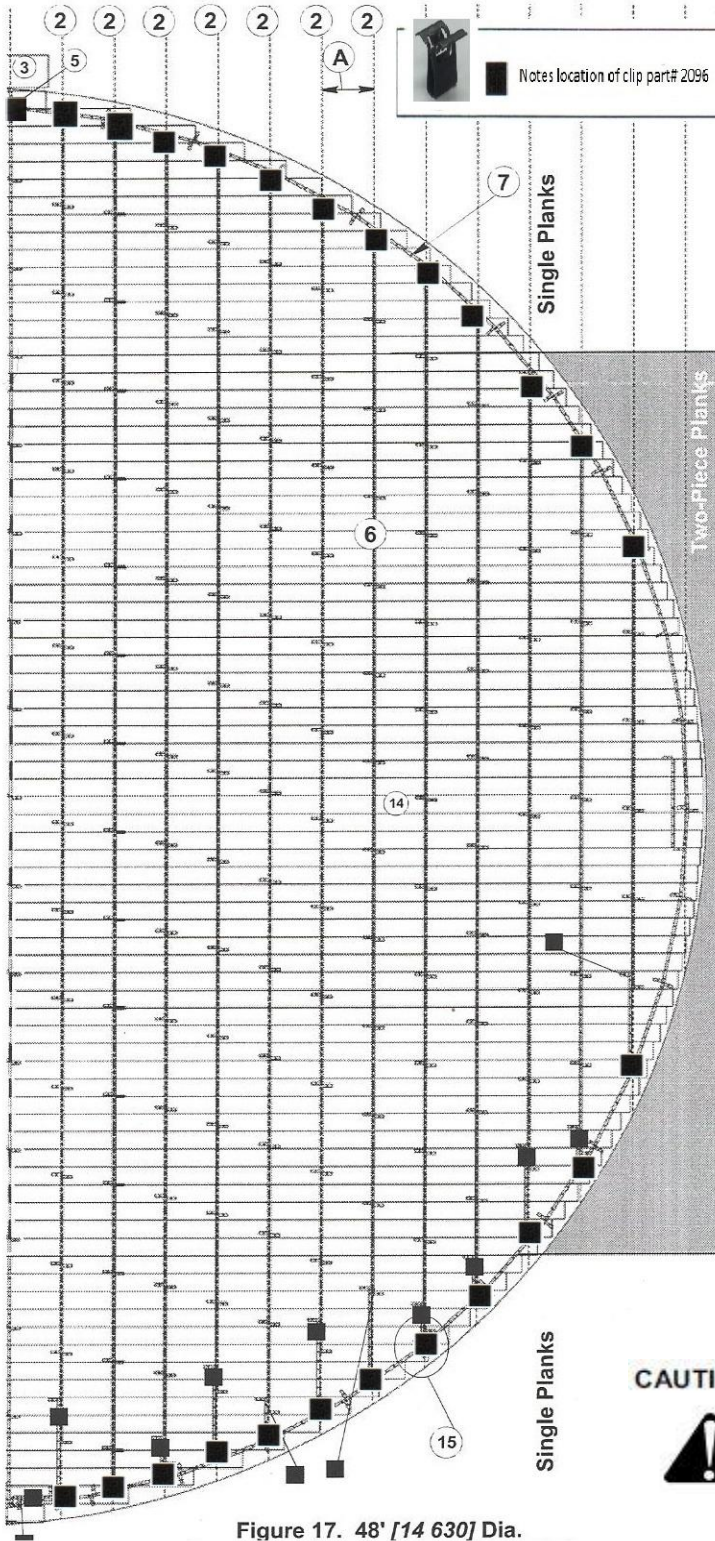


Figure 17. 48' [14 630] Dia.

Figure 17. 48' Diam

20" Support spacing example shown (for 33-37ft high bin)

See the chart on page 5 or 20 of this Manual for Support Spacing for YOUR HEIGHT of bin.

A	Chalkline = NORMAL Spacing: See Standard Chalkline Support Spacing Chart for YOUR HEIGHT of Bin.
B	<b>SPECIAL Center Chalkline shown Refer to update page &amp; double row under Splice plank. page 7</b>
C	36" Spacing between splices.
1	Centerline
2S	Refer to Page 7 for Update on spacing under spliced planks
3	Transition/Fan location
4	Plank Numbers
5	Plank 1A: Start with their plank against the bin Wall
6	SYNTIRO Support Row on NORMAL Chalkline Spacing
7	Outer Half Circle of SYNTIRO Supports
8	Bin Sidewall
9	Center Sump Area
10	Intermediate Sump Area
11	LONG Support at Center Sump (2)
12	SHORT Support
13	Auger
14	Center Splice Plank
15	Support Row end Treatments to be clipped
16	Support Row clipped (top and bottom) to Half Circle at Fan Transition
17	Splice Location
18	Support Row as close as possible to auger
19	Final Plank 1B at Unload

**Important!**

Clip overlapped Supports together at the top, as far back as possible on the Support Leg.

**ALTERNATE (STAGGER) Long and Short planks (from one side of the Bin to the other) so the Splices are not next to each other. Failure to do so could cause damage to the Floor.**

**Place a row of Supports on each side of the splices as on the update page 7 of this manual.**

**CAUTION!**



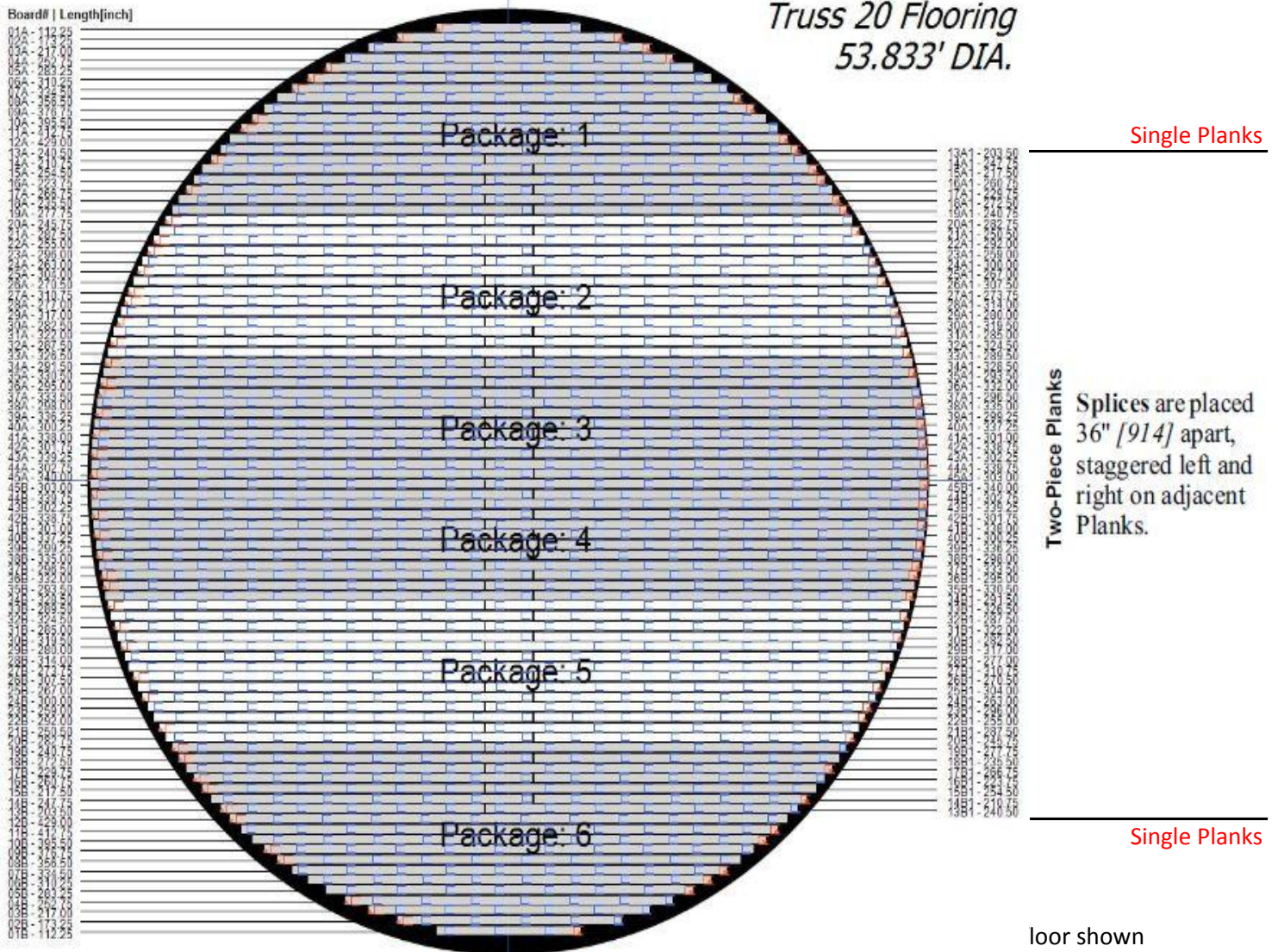
**54' Floor**

Total Floor planks per 54' Bin = 90 see Figure 18.

Plank numbers 13 through 45 are two pce planks.

**IMPORTANT!**

Study and follow the steps for Support Installation (pages 13-22) and the steps for Plank Installation (pages 23-27) of the Base Floor Manual.



**Figure 18. 54' diam floor planks (Top View)**

		<b>NORMAL Chalkline Support Spacing</b>																					
<b>Eave Height (feet)</b>		11'	15'	18'	22'	26'	29'	33'	37'	40'	44'-48'	51'	55'-59'	62'	66'	70'-73'	77'	81'-84'	88'	92'-95'			
Measurements in INCHES	44" TIERS	3	4	5	6	7	8	9	10	11	12-13	14	15-16	17	18	19-20	21	22-23	24	25-26			
	32" RINGS	4	5	6	7	8	9	10	11	12	13	14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36
	Standard Bin C-C	34	30	27	26	25	25	24	23	23	22	21	20	19	18	18	17	16	16	15	15	14	14
	Recirculating Bin	34	30	27	24	22	20	18	17	16	15	14	Group A: 18" SPECIAL Center Spacing (Page 6).				Group B: 12" SPECIAL Center Spacing (Page 7).						
		Group A: 18" SPECIAL Center Spacing (Page 6).				Group B: 12" SPECIAL Center Spacing (Page 7).																	
		<b>Support Counts</b>																					
STANDARD Bin	LONG	221	237	257	263	265	265	277	285	285	295	305	315	329	343	343	368	382	382	402	402	402	426
	SHORT	6	12	12	8	12	12	14	14	14	14	12	16	12	16	16	14	16	16	14	14	14	16
RECIRCULATING Bin	LONG	221	237	257	277	295	315	343	368	382	402	426											
	SHORT	6	12	12	14	14	16	16	14	16	14	16											



## 54' Floor Numbers and Plank Measurements

Package	#1 1 of 6	#2 2 of 6	#3 3 of 6	#4 4 of 6	#5 5 of 6	#6 6 of 6					
	Length	Length	Length	Length	Length	Length					
19A	277.75	33A	326.50	45A	340.00	45B1	340.00	33B1	326.50	19B1	277.75
19A1	240.75	33A1	289.50	45A1	303.00	45B	303.00	33B	289.50	19B	240.75
18A	235.50	32A	287.50	44A	302.75	44B1	302.75	32B1	287.50	18B1	235.50
18A1	272.50	32A1	324.50	44A1	339.75	44B	339.75	32B	324.50	18B	272.50
17A	266.75	31A	322.00	43A	339.25	43B1	339.25	31B1	322.00	17B1	266.75
17A1	229.75	31A1	285.00	43A1	302.25	43B	302.25	31B	285.00	17B	229.75
16A	223.75	30A	282.50	42A	301.75	42B1	301.75	30B1	282.50	16B1	223.75
16A1	260.75	30A1	319.50	42A1	338.75	42B	338.75	30B	319.50	16B	260.75
15A	254.50	29A	317.00	41A	338.00	41B1	338.00	29B1	317.00	15B1	254.50
15A1	217.50	29A1	280.00	41A1	301.00	41B	301.00	29B	280.00	15B	217.50
14A	210.75	28A	277.00	40A	300.25	40B1	300.25	28B1	277.00	14B1	210.75
14A1	247.75	28A1	314.00	40A1	337.25	40B	337.25	28B	314.00	14B	247.75
13A	240.50	27A	310.75	39A	336.25	39B1	336.25	27B1	310.75	13B1	240.50
13A1	203.50	27A1	273.75	39A1	299.25	39B	299.25	27B	273.75	13B	203.50
12A	429.00	26A	270.50	38A	298.00	38B1	298.00	26B1	270.50	12B	429.00
11A	412.75	26A1	307.50	38A1	335.00	38B	335.00	26B	307.50	11B	412.75
10A	395.50	25A	304.00	37A	333.50	37B1	333.50	25B1	304.00	10B	395.50
9A	376.75	25A1	267.00	37A1	296.50	37B	296.50	25B	267.00	9B	376.75
8A	356.50	24A	263.00	36A	295.00	36B1	295.00	24B1	263.00	8B	356.50
7A	334.50	24A1	300.00	36A1	332.00	36B	332.00	24B	300.00	7B	334.50
6A	310.25	23A	296.00	35A	330.50	35B1	330.50	23B1	296.00	6B	310.25
5A	283.25	23A1	259.00	35A1	293.50	35B	293.50	23B	259.00	5B	283.25
4A	252.75	22A	255.00	34A	291.50	34B1	291.50	22B1	255.00	4B	252.75
3A	217.00	22A1	292.00	34A1	328.50	34B	328.50	22B	292.00	3B	217.00
2A	173.25	21A	287.50					21B1	287.50	2B	173.25
1A	112.25	21A1	250.50					21B	250.50	1B	112.25
		20A	245.75					20B1	245.75		
		20A1	282.75					20B	282.75		

Pkg. length [ft] (Total length 45478.50 inch / 3789.88 ft)  
 586.31                  674.17                  634.46                  634.46                  674.17                  586.31

Pkg. weight [lb] (Total weight 7678.29 lb)  
 1187.87                  1365.86                  1285.41                  1285.41                  1365.86                  1187.87

Splice qty. (Total splices 66)  
 7                  14                  12                  12                  14                  7

Flashing Qty: 109



### CAUTION!



**Make sure there are a row of supports under each spliced plank 16" from center chalk line and 20" from center chalk line on both sides of the auger. Refer to Page 7, 8, 9 and 10 on the Install update page**

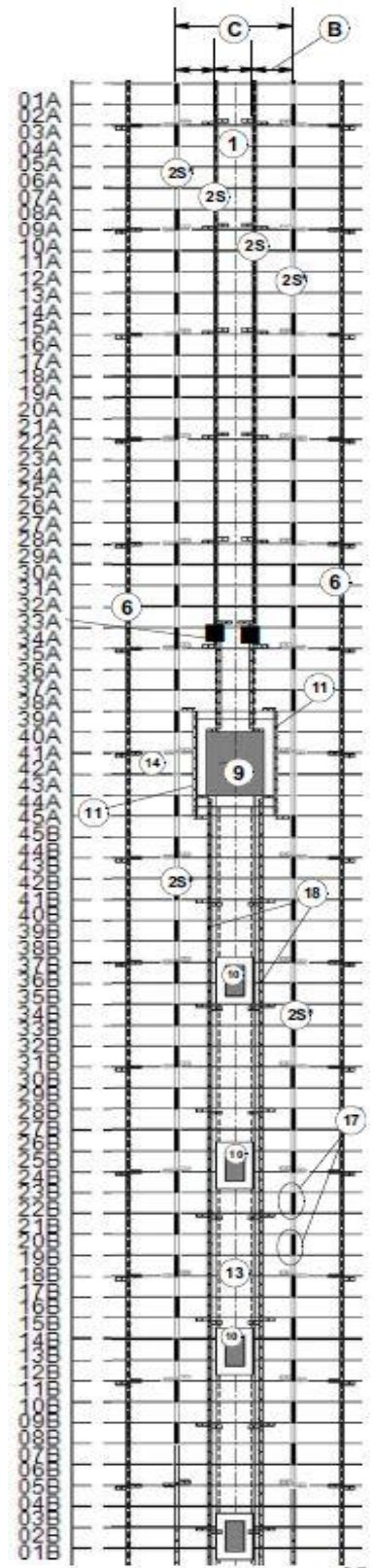
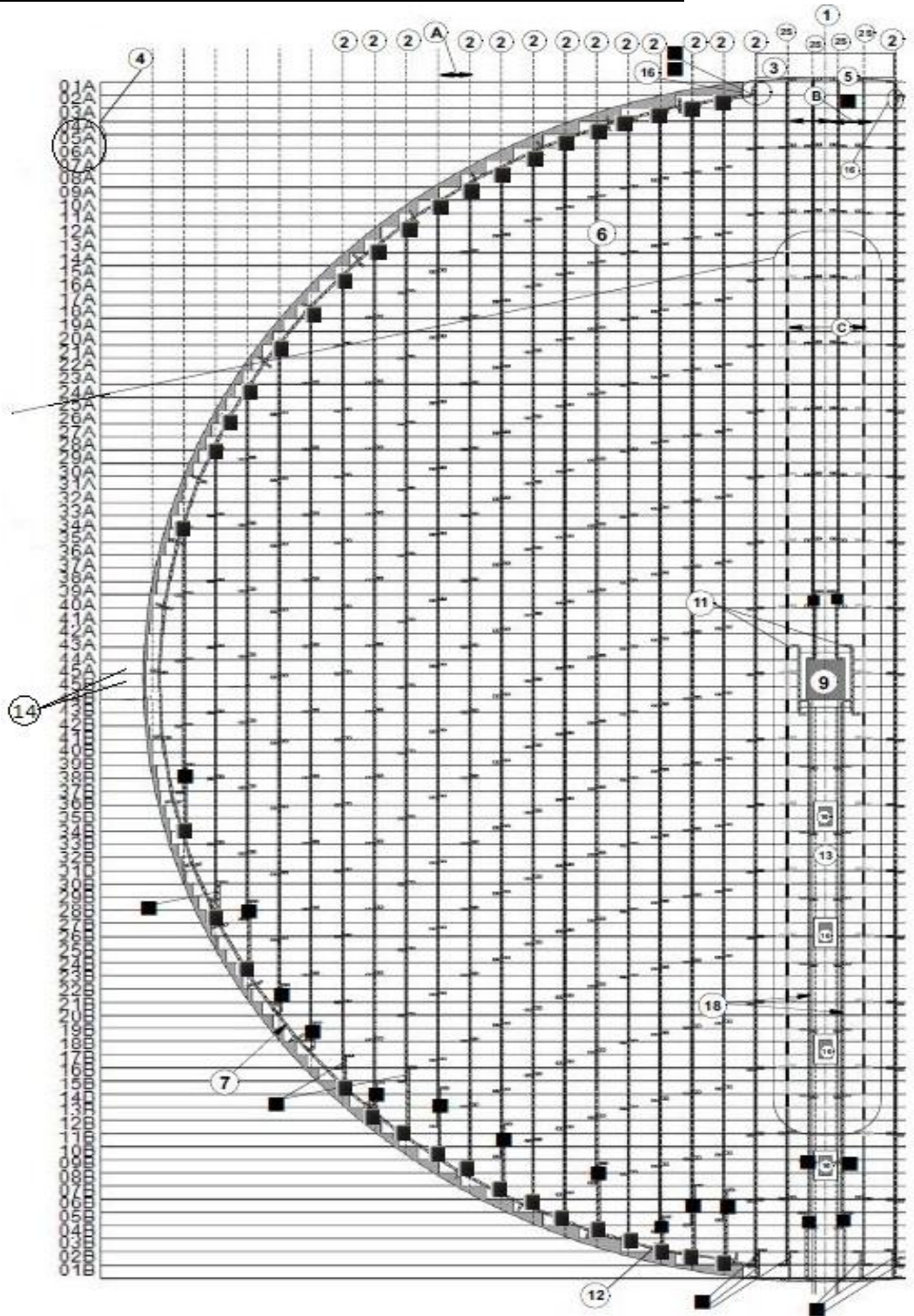


Figure 19

54ft Splice Detail, Top View



**Important!**

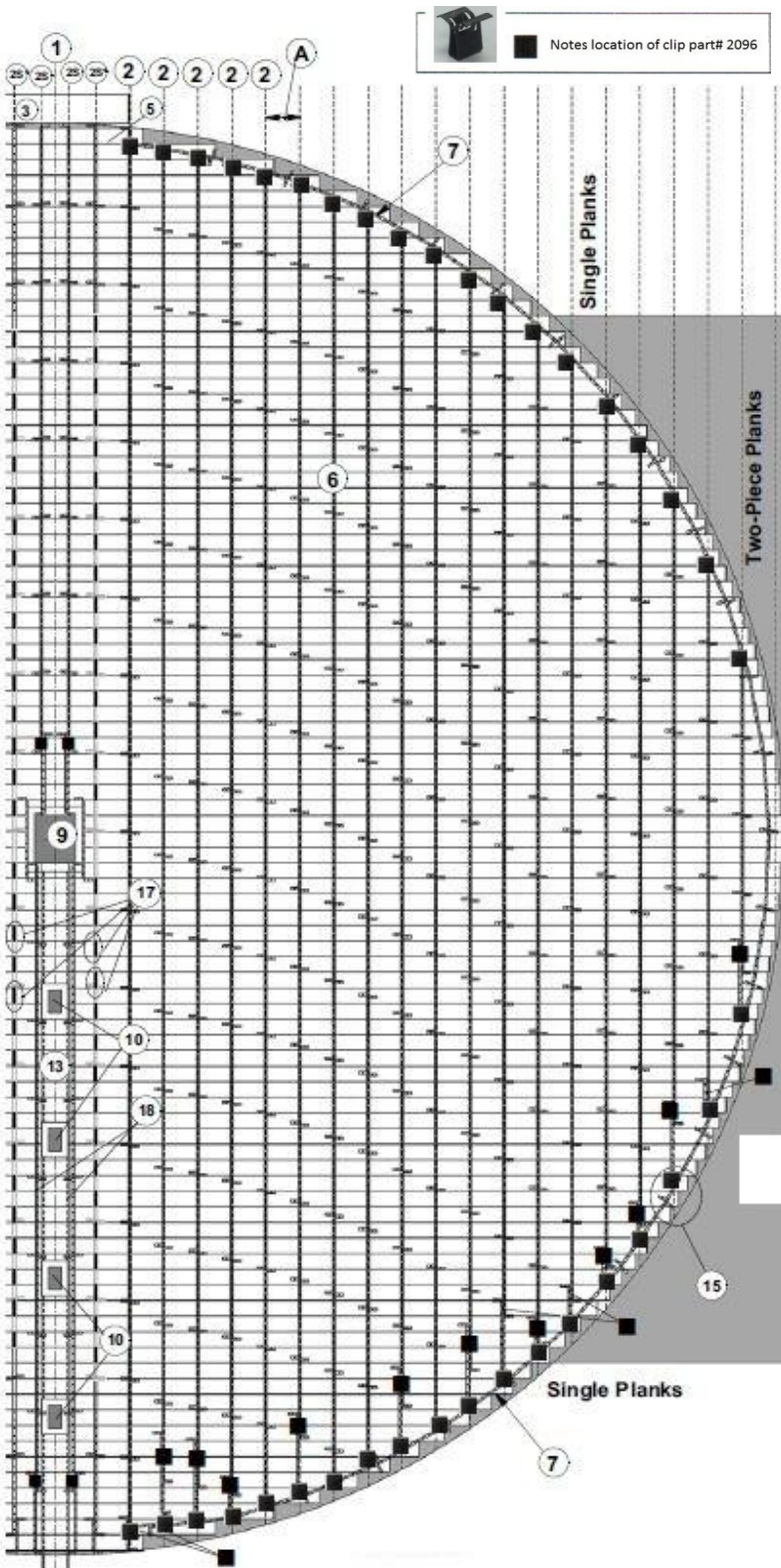
Clip overlapped Supports together at the top, as far back as possible on the Support Leg.

**CAUTION!**



***ALTERNATE (STAGGER) Long and Short planks (from one side of the Bin to the other) so the Splices are not next to each other. Failure to do so could cause damage to the Floor.***

**Place a row of Supports on each side of the splices as on the update page 7 of this manual.**



A	Chalkline = NORMAL Spacing: See Standard <b>Chalkline Support Spacing Chart</b> for YOUR HEIGHT of Bin.
B	<b>SPECIAL Center Chalkline shown</b> <b>Refer to update page &amp; double row under Splice plank. page 7</b>
C	36" Spacing between splices.
1	Centerline
2	<b>Chalkline Through out NORMAL Spacing</b>
2S	<b>Refer to Page 7 for Update on spacing under spliced planks for 2 Rows under splice</b>
3	Transition/Fan location
4	Plank Numbers
5	Plank 1A: Start with thei plank against the bin Wall
6	SYNTIRO Support Row on NORMAL Chalkline Spacing
7	Outer Half Circle of SYNTIRO Supports
8	Bin Sidewall
9	Center Sump Area
10	Intermediate Sump Area
11	LONG Support at Center Sump (2)
12	SHORT Support
13	Auger
14	Center Splice Plank
15	Support Row end Treatments to be clipped
16	Support Row clipped (top and bottom) to Half Circle at Fan Transiton
17	Splice Location
18	Support Row as close as possible to auger
19	Final Plank 1B at Unload

**CAUTION!**



**ALTERNATE (STAGGER) Long and Short planks (from one side of the Bin to the other) so the Splices are not next to each other. Failure to do so could cause damage to the Floor.**

**Place a row of Supports on each side of the splices as on the update page 7 of this manual.**

Figure 20. 54' Diam. Floor Overview, (top view)  
15" Support Spacing Example shown (for 55'-59' high Bin)

**Support Quantities**  
**L = LONG Supports S = SHORT Supports**

		STANDARD Bins										RECIRCULATING Bins			
32"	Eave Height	44"	42'	48'	54'	60'	72'	75'	78'	42'	48'	54'			
Rings	Height	Tiers	[12 802]	[14 630]	[16 459]	[18 288]	[21 946]	[22 860]	[23 774]	[12 802]	[14 630]	[16 459]			
4	11'	3	221L+6S	278L+12S	365L+12S	464L+14S	690L+15S	773L+16S	859L+19S	221L+6S	288L+14S	369L+16S			
5			237L+12S	306L+10S	399L+16S	502L+16S	760L+19S	859L+14S	925L+13S	237L+12S	318L+10S	399L+16S			
6	15'	4	257L+12S	330L+16S	441L+18S	536L+16S	822L+19S	927L+10S	991L+17S	257L+12S	344L+14S	441L+18S			
7	18'	5	263L+8S	354L+10S	473L+14S	576L+18S	890L+17S	961L+20S	1085L+23S	277L+14S	366L+16S	473L+14S			
8			265L+12S	366L+16S	489L+20S	620L+24S	970L+29S	1057L+16S	1137L+21S	295L+14S	396L+10S	507L+18S			
9	22'	6	265L+12S	374L+18S	507L+18S	652L+16S	1030L+24S	1120L+18S	1202L+36S	315L+16S	426L+14S	529L+22S			
10	26'	7	277L+14S	374L+18S	507L+18S	684L+16S	1084L+34S	1182L+16S	1270L+34S	343L+16S	446L+12S	594L+16S			
11	29'	8	285L+14S	396L+10S	529L+22S	684L+16S	1152L+24S	1246L+28S	1350L+24S	368L+14S	472L+18S	620L+20S			
12			285L+14S	396L+10S	529L+22S	724L+22S	1152L+24S	1246L+28S	1428L+34S	382L+16S	522L+18S	656L+20S			
13	33'	9	295L+14S	406L+16S	553L+22S	724L+22S	1152L+24S	1330L+18S	1428L+34S	402L+14S	522L+18S	692L+24S			
14	37'	10	305L+12S	406L+16S	553L+22S	724L+22S	1152L+24S	1330L+18S	1428L+34S	426L+16S	552L+16S	738L+24S			
15-16	40'	11	315L+16S	426L+14S	594L+16S	760L+26S	1222L+30S	1330L+18S	1526L+38S						
17-18	44'-48'	12-13	329L+12S	446L+12S	594L+16S	800L+26S	1222L+30S	1418L+26S	1526L+38S						
19-20	51'	14	343L+16S	472L+18S	620L+20S	800L+26S	1306L+30S	1418L+26S	1642L+34S						
21-22	55'-59'	15-16	343L+16S	494L+20S	666L+20S	854L+20S	1306L+30S	1528L+24S	1642L+34S						
23-24	62'	17	368L+14S	494L+20S	666L+20S	854L+20S	1398L+34S	1528L+24S	1642L+34S						
25-26	66'	18	382L+16S	522L+18S	692L+24S	908L+24S	1398L+34S	1528L+24S	1813L+41S						
27-28	70'-73'	19-20	382L+16S	522L+18S	692L+24S	908L+24S	1398L+34S	1681L+40S	1813L+41S						
29-30	77'	21	402L+14S	552L+16S	738L+24S	908L+24S	1550L+39S	1681L+40S	1813L+41S						
31-32	81'-84'	22-23	402L+14S	552L+16S	738L+24S	972L+32S	1550L+39S	1681L+40S	1979L+41S						
33-34	88'	24	402L+14S	586L+22S	790L+26S	972L+32S	1550L+39S	1837L+32S	1979L+41S						
35-36	92'-95'	25-26	426L+16S	586L+22S	790L+26S	1084L+30S	1694L+31S	1837L+32S	1979L+41S						
37	99'	27	426L+16S	586L+22S	790L+26S	1084L+30S	1694L+31S	1837L+32S	1979L+41S						