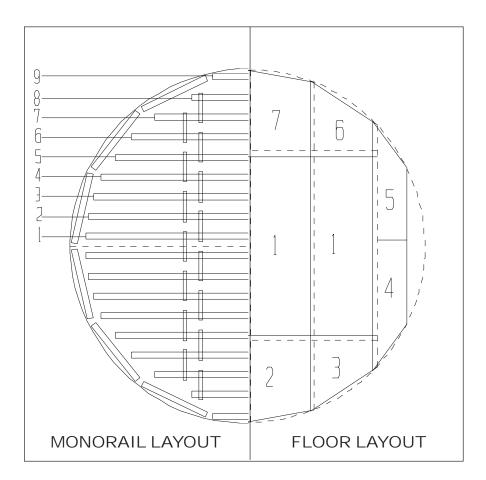
# GSI Corrugated Floor and Monorail Layouts

**Owner's Manual** 







Manual # PNEG-225 Revised: 11/05/2002

# SAFETY GUIDELINES

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and it's safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



**NOTE** indicates information about the equipment that you should pay special attention to.

# General Safety Statement

The GSI Group, Inc.'s, principal concern is your safety and the safety of others associated with grain handling equipment. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist and inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation, where serious injury or death may occur.

You should consider the location of the bin site relative to power line locations or electrical transmission equipment. We recommend you contact your local power company to review your installation plan or for information concerning required equipment clearance. Clearance of portable equipment that may be taken to the bin site should be reviewed and considered as well. Any electrical control equipment in contact with the bin should be properly grounded and installed in accordance with National Electric Code provisions and other local or national codes.

This product is intended for the use of grain storage only. Any other use is a misuse of the product!



This product has sharp edges! These sharp edges may cause serious injury. To avoid injury, handle sharp edges with caution and use proper protective clothing and equipment at all times.

Sidewall bundles or sheets must be stored in a safe manner. The safest method of storing sidewall bundles is laying horizontally with the arch of the sheet upward or over like a dome. Sidewall sheets stored on edge must be secured in a way that they cannot fall over and cause injury. Care should be taken in the handling and movement of sidewall bundles.

Personnel operating or working around equipment should read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

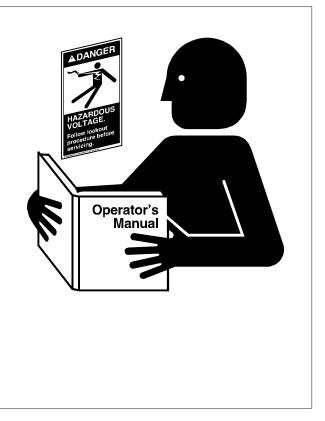
#### FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.



#### PRACTICE SAFE MAINTENANCE

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet, and clothing from all rotating parts.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any build up of grease, oil, or debris.

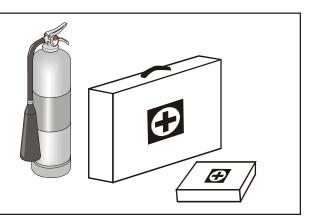


#### PREPARE FOR EMERGENCIES

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

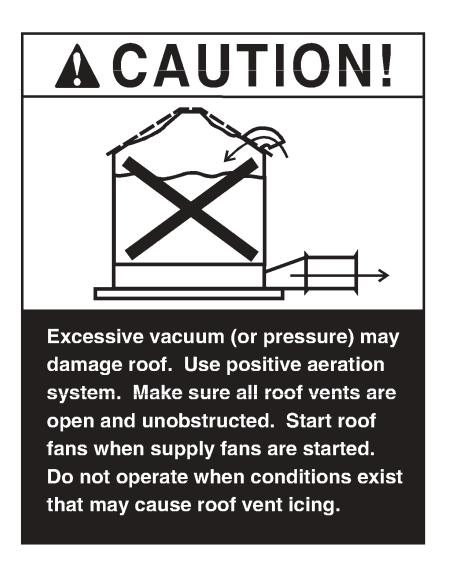
Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



# WEAR PROTECTIVE CLOTHING Wear close fitting clothing and safety equipment **Eye Protection** appropriate to the job. Safety glasses should be worn at all times to protect eyes from debris. Wear gloves to protect your hands from sharp edges on plastic or steel parts. Gloves A respirator may be needed to help prevent breathing potentially toxic fumes and dust. Wear hard hat and steel toe boots to help protect your head and toes from falling debris. **Steel Toe Boots** Respirator Hard Hat

# CAUTION!

GSI DOES NOT WARRANT ANY ROOF DAMAGE CAUSED BY EXCESSIVE VACUUM OR INTERNAL PRESSURE FROM FANS OR OTHER AIR MOVING SYSTEMS. ADEQUATE VENTILATION AND/OR "MAKEUP AIR" DEVICES SHOULD BE PROVIDED FOR ALL POWERED AIR HANDLING SYSTEMS. GSI DOES NOT RECOMMEND THE USE OF DOWNWARD FLOW SYSTEMS (SUCTION). SEVERE ROOF DAMAGE CAN RESULT FROM ANY BLOCKAGE OF AIR PASSAGES. RUNNING FANS DURING HIGH HUMIDITY/COLD WEATHER CONDITIONS CAN CAUSE AIR EXHAUST OR INTAKE PORTS TO FREEZE.



#### Safety



**ATTENTION**: The decal shown below should be present on the outside of the outside of the door cover of the two ring, 24" porthole door cover and roof manway cover. If a decal has been damaged or is missing in any of these locations contact The GSI Group for a free replacement decal.



# Safety Sign-Off Sheet

It is necessary for the employer to train the employee in the safe operating and safety procedures for this equipment. We included this sign-off sheet for your convenience and personal record keeping. All unqualified persons are to stay out of the work area at all times. A person who has not read this manual and does not understands all operating and safety instructions is not qualified to operate this equipment.

DATE	EMPLOYER'S SIGNATURE	EMPLOYEE'S SIGNATURE
	1	
	2	
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All information, illustrations, photos, and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

# Introduction

READ THIS MANUAL carefully to learn how to properly use and install equipment. Failure to do so could result in personal injury or equipment damage.

INSPECT the shipment immediately upon arrival. The Customer is responsible for ensuring that all quantities are correct. Report any damage or shortages by recording a detailed description on the Bill of Lading to justify the Customer's claim from the Transport Firm. Our responsibility for damage to the equipment ends with acceptance by the delivering carrier. Save all paperwork and documentation furnished with any of the equipment/components.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your equipment and should be easily accessible when needed.

WARRANTY is provided as part of the company's support program for customers who use and maintain their equipment as described in the manual. The warranty is explained on the warranty page located on the inside back cover of this manual.

This warranty provides you the assurance that the company will back its products where defects appear within the warranty period. In some circumstances, the company also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the factory specifications, the warranty will become void and field improvements may be denied.

#### Properly Store Grain Bin/Silo Materials Prior to Construction to Prevent Wet Storage Stain:

Wet storage stain (rust) will develop when closely packed bundles of galvanized material such as sidewall and roof sheets have moisture present from any source. Roof and sidewall bundles should be inspected on arrival for the presence of moisture. If moisture is present, moisture must not be permitted to remain between the sheets. In the case of moisture presence, sheets or panels should be separated immediately, wiped down, dried and sprayed with a light oil or diesel fuel.

Where possible, sidewall bundles, roof sheets and other closely packed materials should be stored in a dry climate controlled building. Storage inside a dry building should be done if at all possible. Where outdoor storage is unavoidable, the materials should be raised out of contact from the ground or vegetation. Stacking and spacing materials should not be corrosive or wet. Materials must be protected from the weather. Weather protection that permits more air movement around the bundles are best.

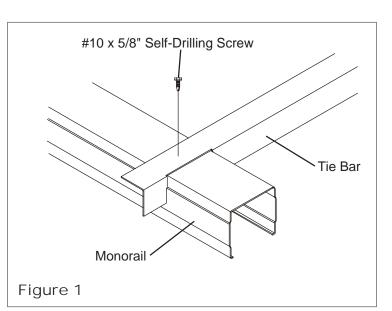
The storage method of the roof bundles and sidewall sheets may also help minimize moisture presence. Roof bundles should be stored inclined. The bundles should be stored and secured in a stable safe manner. Turning the bundles over and storing with the center of the dome "up" like a arch is a option. Sidewall bundles may be stored on edge, **however these bundles should be secured in such as way as they cannot fall over and cause injury.** 

Should "white rust" or "wet storage stain" occur, contact GSI immediately concerning methods to minimize the adverse effect upon the galvanized coating.

#### Tie Bar Detail

1. Locate the tie bars between the rails (Spaced evenly throughout the system.)

 A single #10 self-drilling screw may be used to fasten the tie bars at each end to the rails as necessary.
(See Figure 1.)

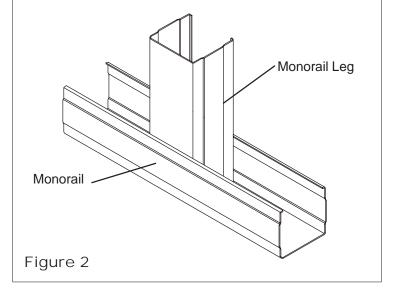


#### Assembling Legs to Rail

1. Place two corners of the monorail leg into the rails as shown.

2. By twisting the leg it will spread the rail enough to get the other corners inside.

3. The leg can then be pushed down into the rail until the tabs lock it into place. (See Figure 2.)

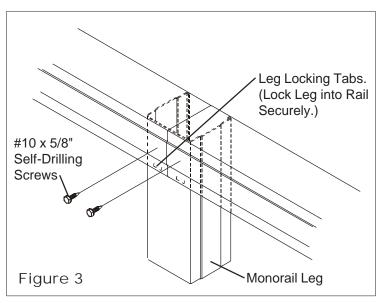


#### Splicing Rails

# 1. A leg must be centered at each splice!

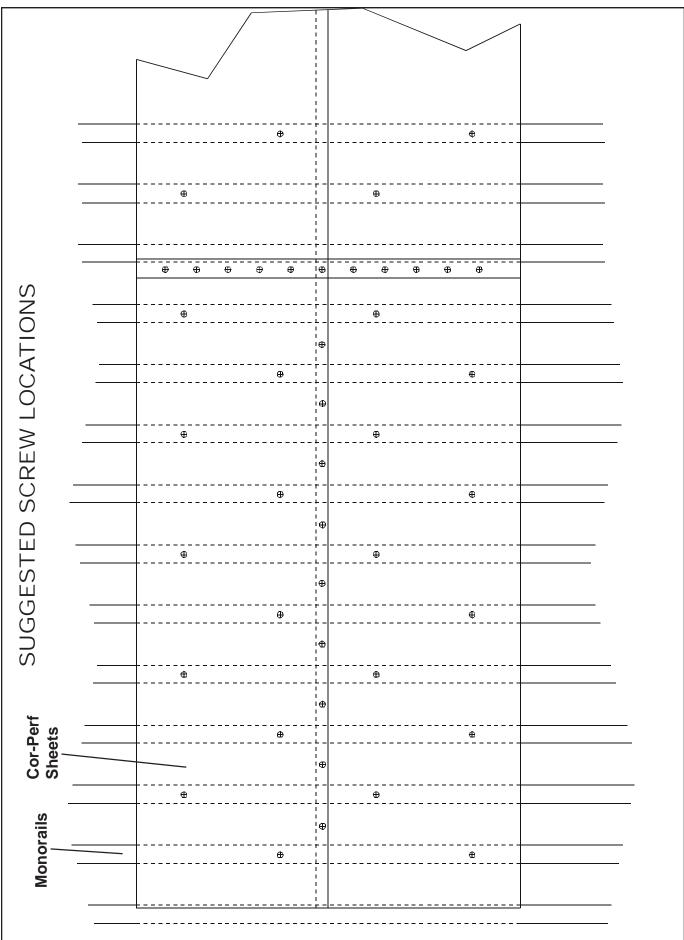
2. The closest leg may be moved a few inches over to center it under the splice. If more than 3" of movement is required to center the leg under the splice, add an additional leg.

3. Fasten the rail to the leg with two #10 self-drilling screws *(splice locations only)*. (See Figure 3.)

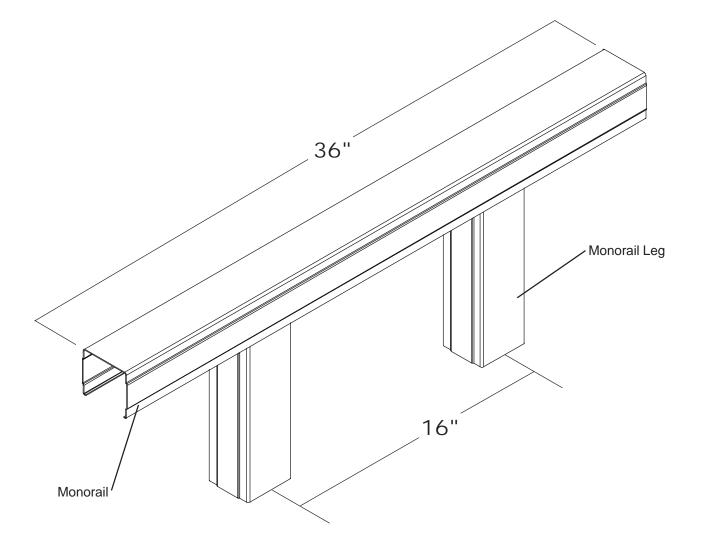


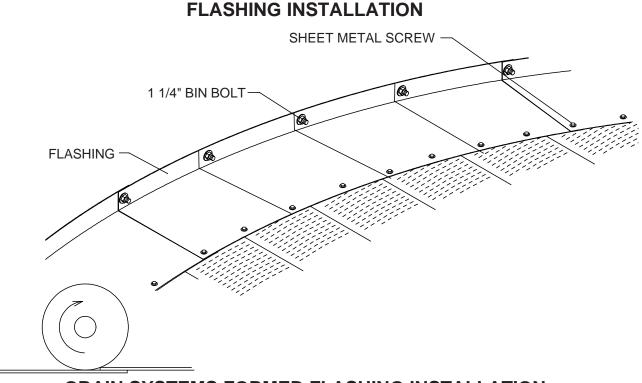
		.eg	Sp	ac	ing	C	har	t					
	Eave Height	40'		60'		70'		80'		90'		100	)'
	Rings of 2.66	15	5R	2	2R	2	6R	З	80R	3	34R		
TANK DIAMETER	Spacing No of legs												
12'		26"		22"		20"		18"		17"		16"	
12		20	82		91		97		104		108		113
15'		26"		21"	01			18"	101	17"	100	16"	110
10		20	113		129		133		143		149		156
18'		26"			125	20"	100	18"	140	17"	145	16"	
10		20	178		207		214		232		242		254
20'		26"			207	20"	214	18"		17"		16"	
20		20	208				260					-	
211		26"		21"	250	20"		18"	282	17"	295	16"	310
21'		26										-	
0.41		0.0"	288	0.4	341		355	4.01	387		406		427
24'		26"		21"		20"		18"		17"		16"	
			310		364		378		409		428		450
25'		26"				20"		18"		17"		16"	
			355		415		431		467		488		512
27'		26"							1	17"		16"	
			387		454				514		538		565
30'		25"		21"								16"	
			562		632		654		706		736		770
33'		25"		21"		20"		18"		17"		16"	
			690		776		803		866		904		945
36'		25"		21"		20"		18"		17"		16"	
			716		820		855		930		974		1024
39'		24"		21"		20"		18"		17"	-	16"	
			864		958		998		1086		1139		1198
40'		24"		21"		20"		18"		17"		16"	
10		_ ·	796		880		915		995		1042		1094
42'		24"			000	20"	010	18"			1042	16"	
72		27	932		1034		1076				1228	-	1292
45'		23"		21"	1004	20"			1172		1220	16"	
43													
48'		22"	1109	20"	1200	10"	1310	10"	1430	17"	1500	16"	1580
40		23	1010	20	1 100	19	1151	10	1520	17	1505		1600
E A!		00"	1243	20"	1400	10"	1454	10"	1520	47"	1595	1.6"	1000
54'		23	1070	20	4075	19	4050	10	2050	17	0450		0000
001		00"	1670	0.01	18/5	4.0"	1958	4.01	2050	4 71	2152	4.0"	2268
60'		23		20	~	19"	1958 2276	18	0004	17	0500	16	0040
			1950		2180	1.0.1	2276	4	2384		2502		2640
72'		22"		19"		18"		17"		17"		16"	
		2	2016		2388		2500		2630		2630		2766
75'		22"		19"		18"	2500 3890	17"		17"		16"	
		(	3272		3712		3890		4088		4088		4314
78'		22"		19"		18"		17"		16"		16"	
			3544		4020		4214		4430		4674		4674
90'		22"		19"		18"		17"		16"		15"	
		4	4650		5280		5538		5826		6150		6520
105'	1	21"		18"		17"	4214 5538	16"		16"		15"	
		6	5962		7920		8315		8760		8760		9264
L		<u> </u>											

#### Monorail Installation



#### OUTER PERIMETER RAIL DETAIL

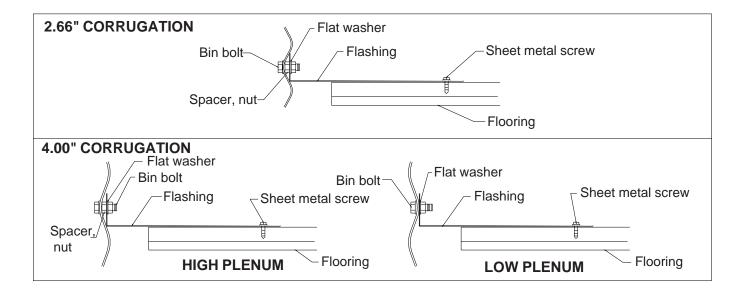




**GRAIN SYSTEMS FORMED FLASHING INSTALLATION** 

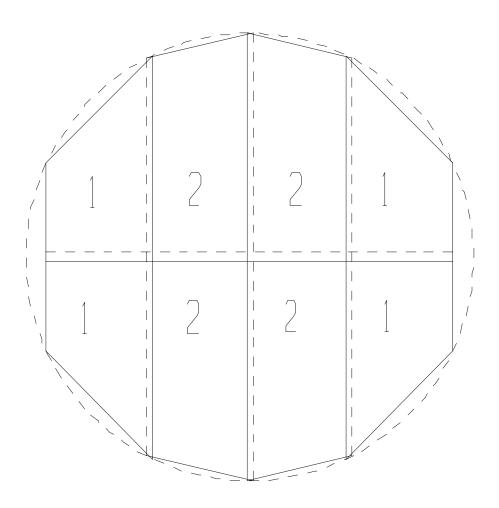
If bin sweep auger is to be used, overlap flashing such that rotation (usually clockwise) of the sweep will climb up on the next flashing section. This will prevent the rotating/slipping outer wheel of the sweep from catching on the flashing edges.

After the floor is in place, lay the flashing pieces on top of the floor place over the 1.1/4" bin bolts. See the details below to determine the correct sequence for placing the nuts and washers. Finger tighten the nuts. While holding flashing flat, fasten the flashing to the floor with sheet metal screws. Now tighten flashing nuts.

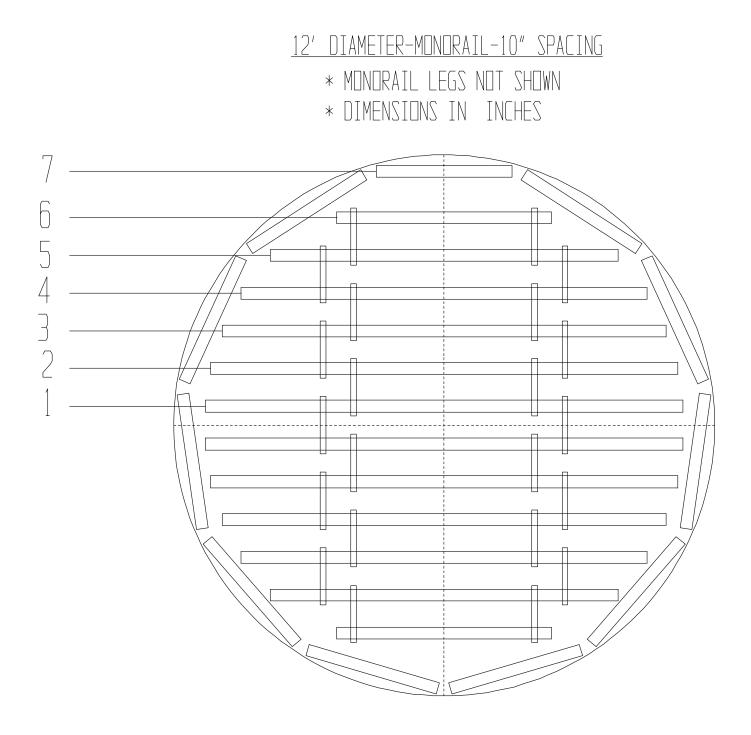


#### NOTES

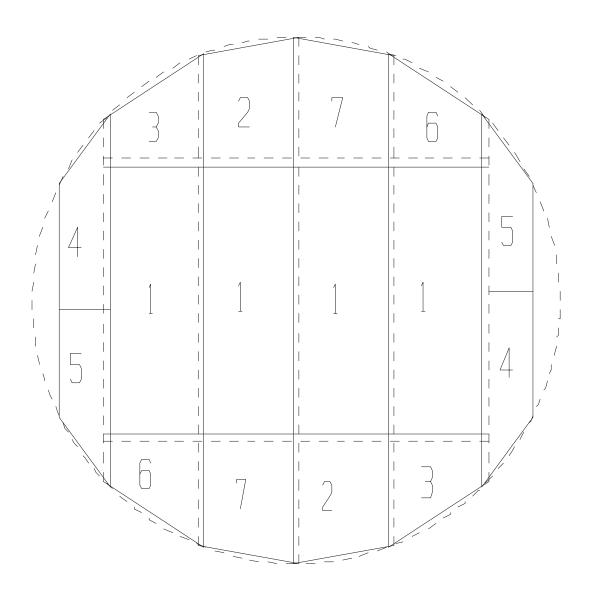
# 12' BIN FLOOR LAYOUTS



12' Diameter Monorail Lengths				
Monorail Number	Sec 1.			
1	128.0			
2	125.0			
3	118.0			
4	107.0			
5	90.0			
6	63.0			
7	36.0			



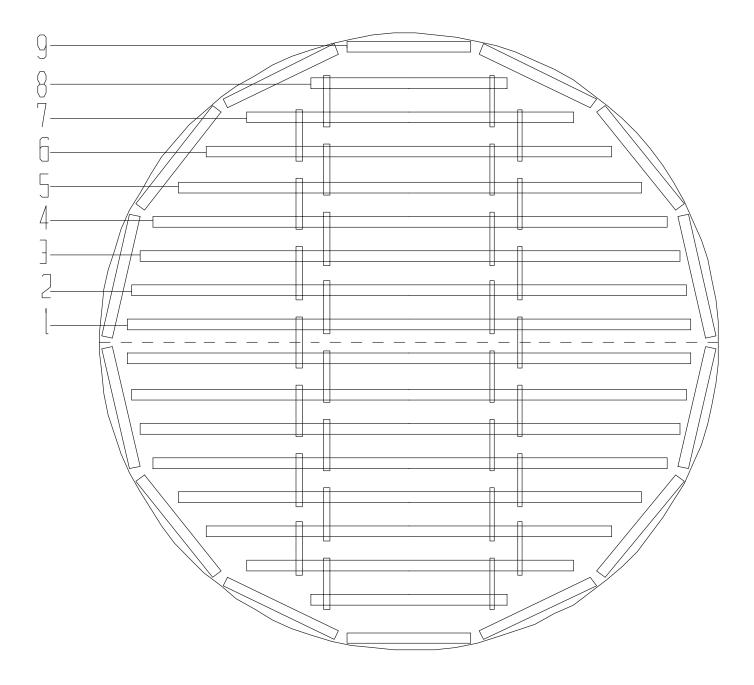
### 15' BIN FLOOR LAYOUTS



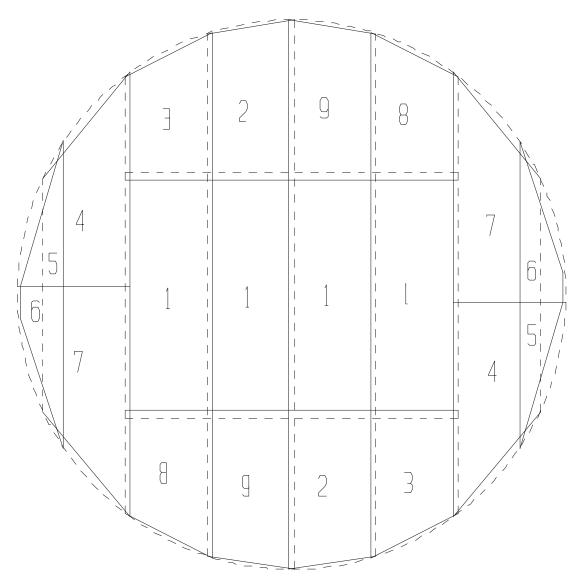
15' Diameter Monorail Lengths				
Monorail Number	Sec 1.			
14	163.0			
15	157.0			
16	149.0			
17	137.0			
18	122.0			
19	99.0			
20	65.0			
21	36.0			



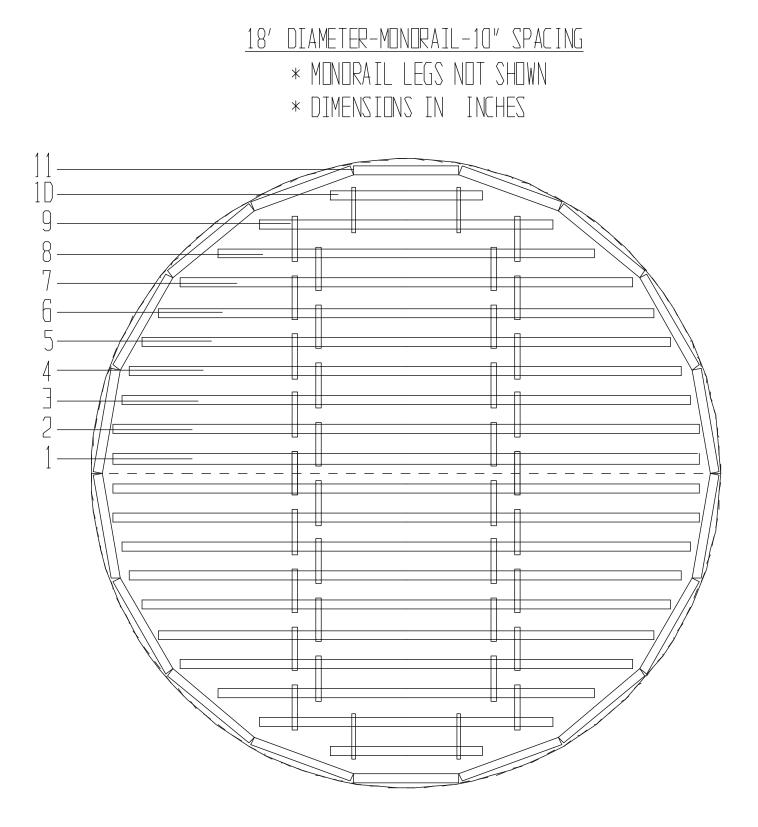
- \* MONORAIL LEGS NOT SHOWN
- \* DIMENSIONS IN INCHES



#### 18' BIN FLOOR LAYOUTS

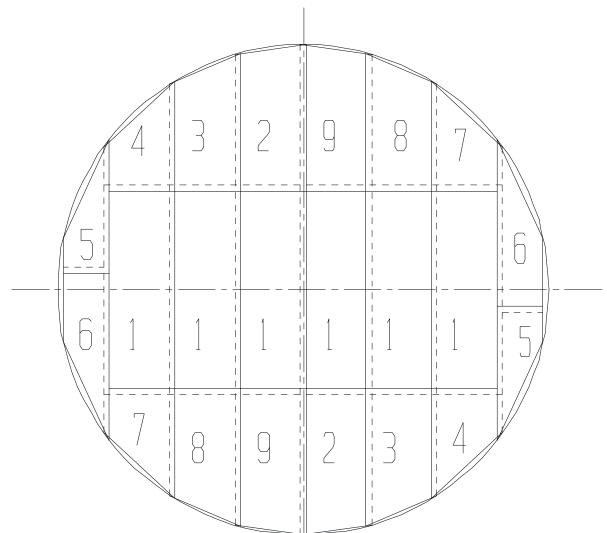


18' Diameter Monorail Lengths				
Monorail Number	Sec 1.			
1	202.0			
2	200.0			
3	195.0			
4	189.0			
5	180.0			
6	168.0			
7	153.0			
8	132.0			
9	105.0			
10	61.0			
11	36.0			



#### 20' BIN FLOOR LAYOUTS



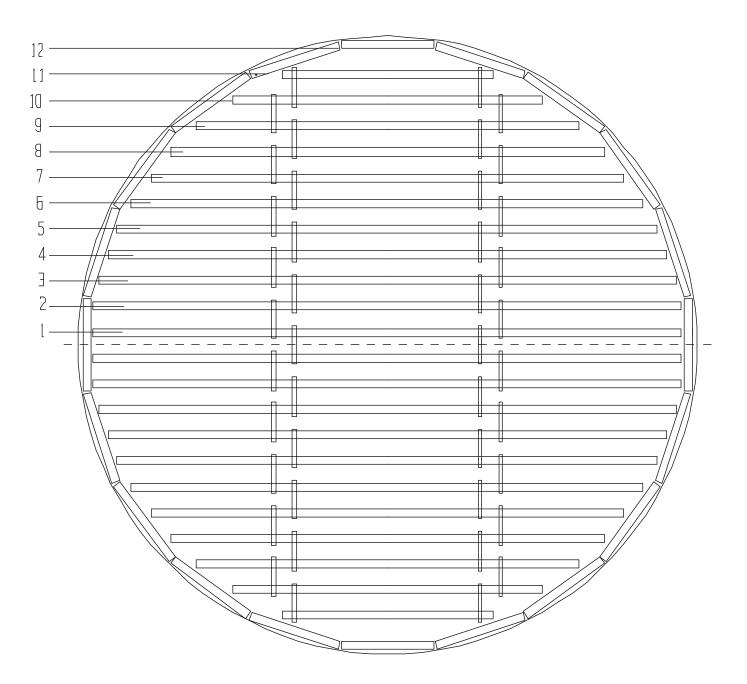


20' Diameter Monorail Lengths				
Monorail Number	Sec 1.			
1	226.0			
2	224.0			
3	220.0			
4	214.0			
5	207.0			
6	196.0			
7	183.0			
8	167.0			
9	146.0			
10	119.0			
11	78.0			
12	36.0			

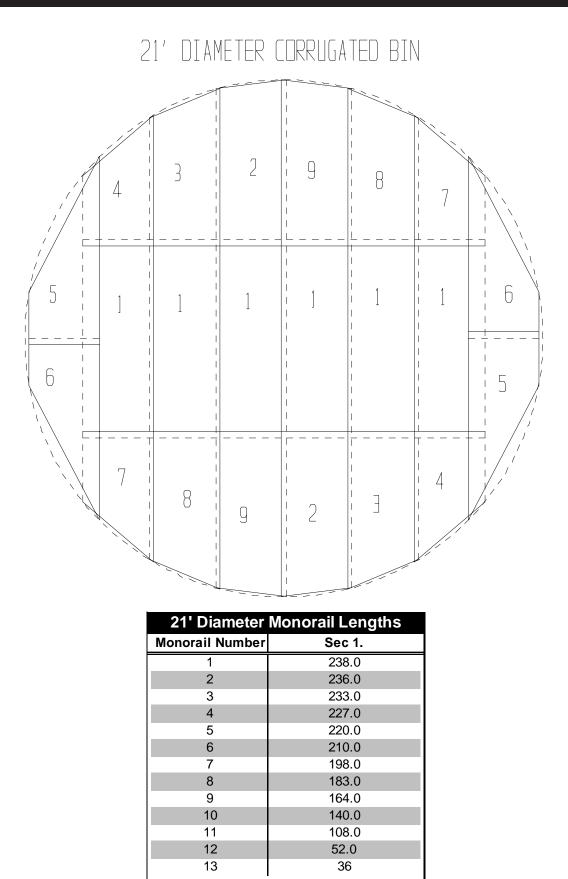
#### 20' DIAMETER-MONORAIL-10" SPACING

- \* MONORAIL LEGS NOT SHOWN
- \* DIMENSIONS IN INCHES

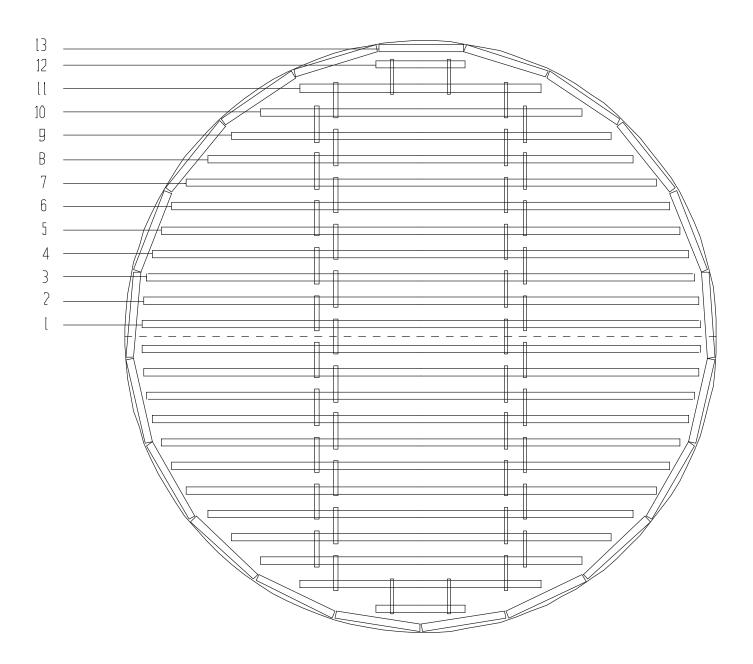
\* 20 PIECES AROUND THE DUTSIDE OF THE BIN



#### 21' BIN FLOOR LAYOUTS

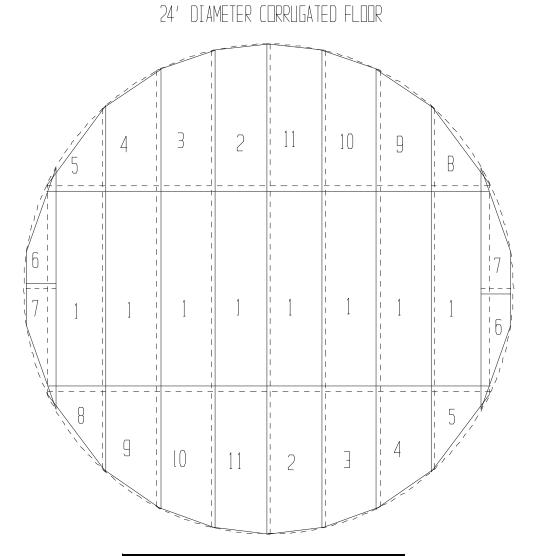


# 21' DIAMETER-MONORAIL-10" SPACING \* MONORAIL LEGS NOT SHOWN \* DIMENSIONS IN INCHES

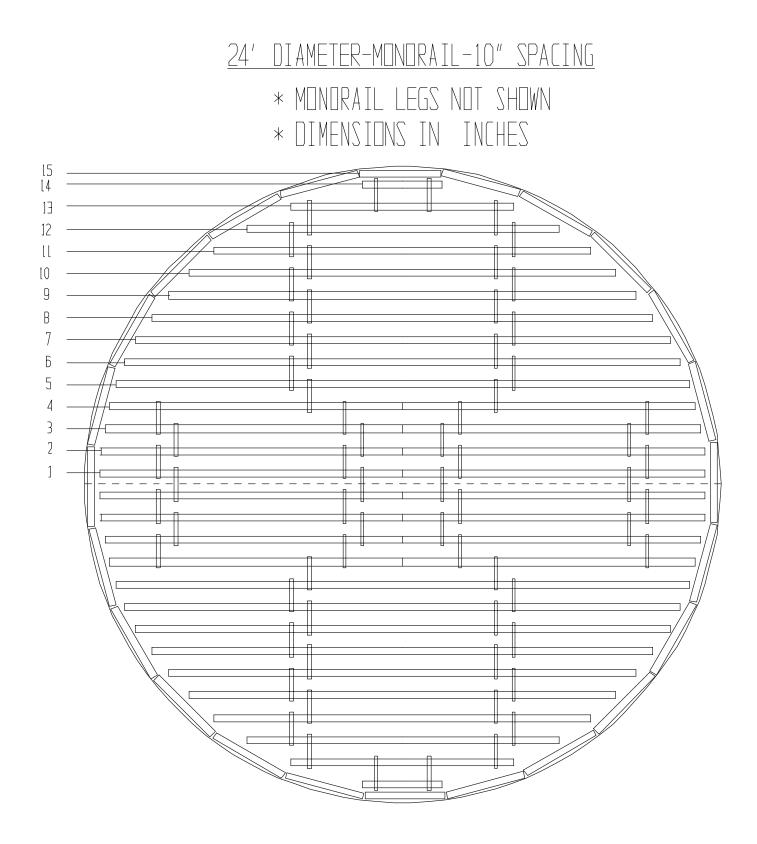


Pneg-225 Corrugated Floor & Monorail Layouts

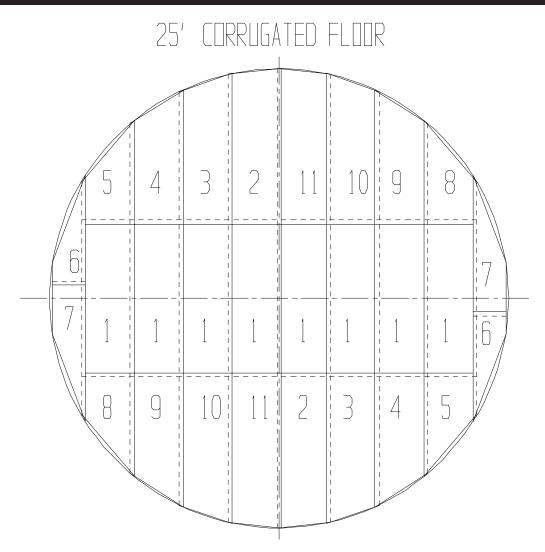
#### 24' BIN FLOOR LAYOUTS



24' Diameter Monorail Lengths						
Monorail Number	Sec 1.	Sec 2.				
1	137.0	137.0				
2	136.0	136.0				
3	135.0	135.0				
4	132.0	132.0				
5	258.0					
6	250.0					
7	240.0					
8	228.0					
9	213.0					
10	196.0					
11	174.0					
12	146.0					
13	108.0					
14	36.0					
15	36.0					

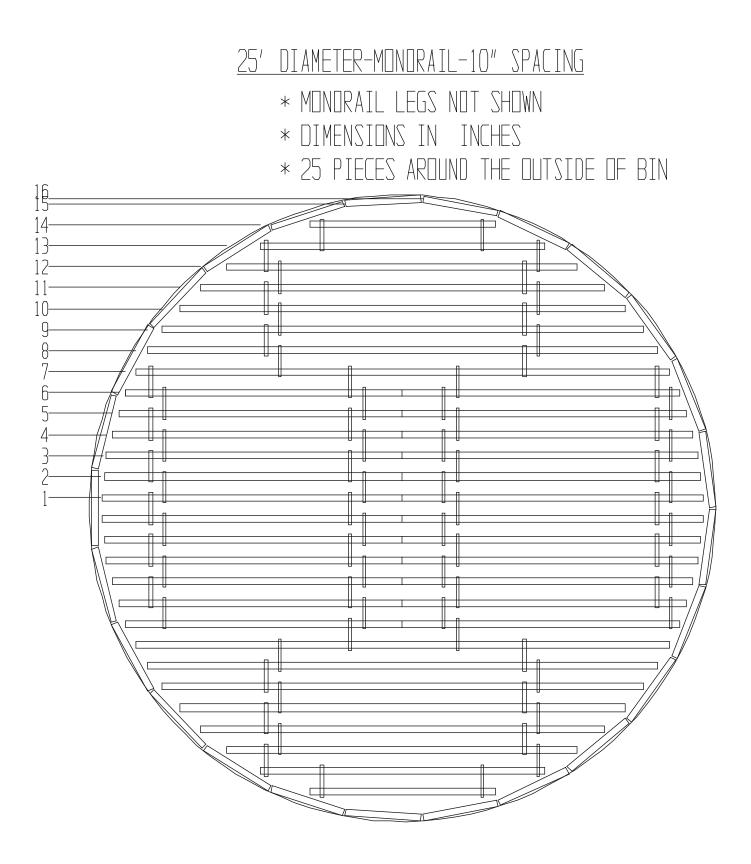


#### 25' BIN FLOOR LAYOUTS

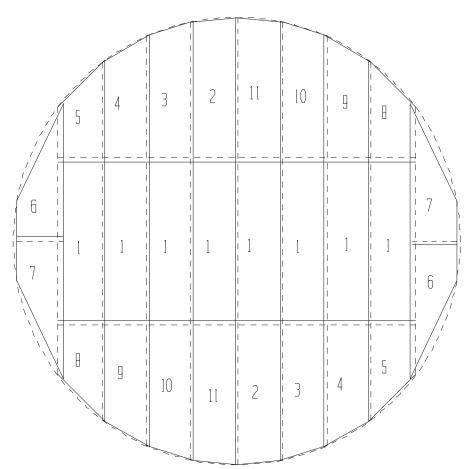


25' Diameter Monorail Lengths						
Monorail Number	Sec 1.	Sec 2.				
1	143.0	143.0				
2	142.0	142.0				
3	141.0	141.0				
4	138.0	138.0				
5	135.0	135.0				
6	132.0	132.0				
7	254.0					
8	243.0					
9	229.0					
10	212.0					
11	192.0					
12	167.0					
13	135.0					
14	88.0					
15	36.0					
16	36.0					

30



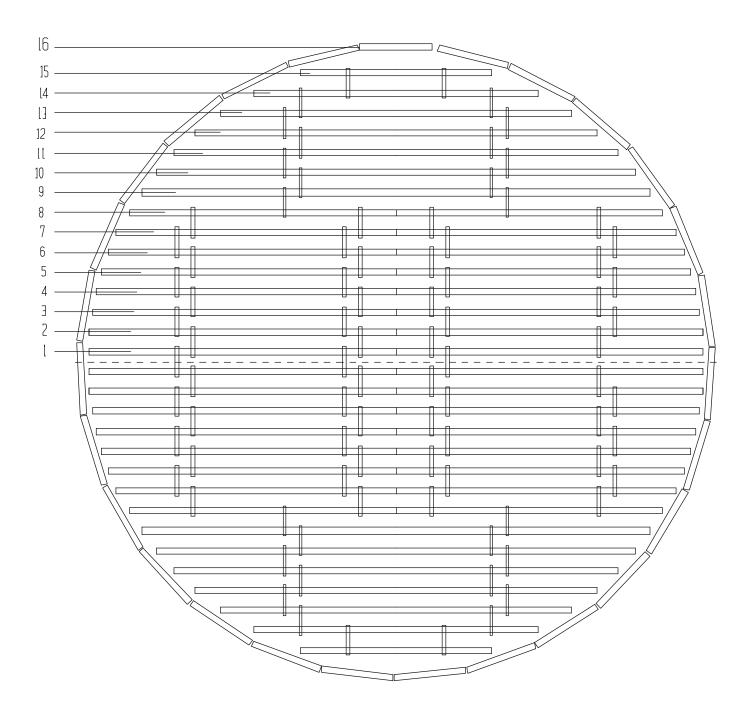
### 27' BIN FLOOR LAYOUTS



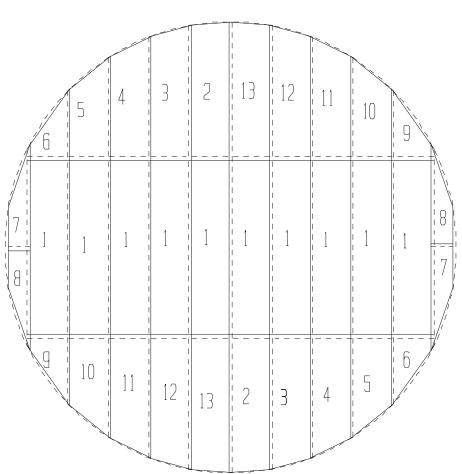
27' DIAMETER CORRUGATED BIN

27' Diameter Monorail Lengths							
Monorail Number	Sec 1.	Sec 2.					
1	155.0	155.0					
2	154.0	154.0					
3	153.0	153.0					
4	151.0	151.0					
5	148.0	148.0					
6	144.0	144.0					
7	140.0	140.0					
8	135.0	135.0					
9	258.0						
10	244.0						
11	226.0						
12	206.0						
13	181.0						
14	149.0						
15	104.0						
16	36.0						

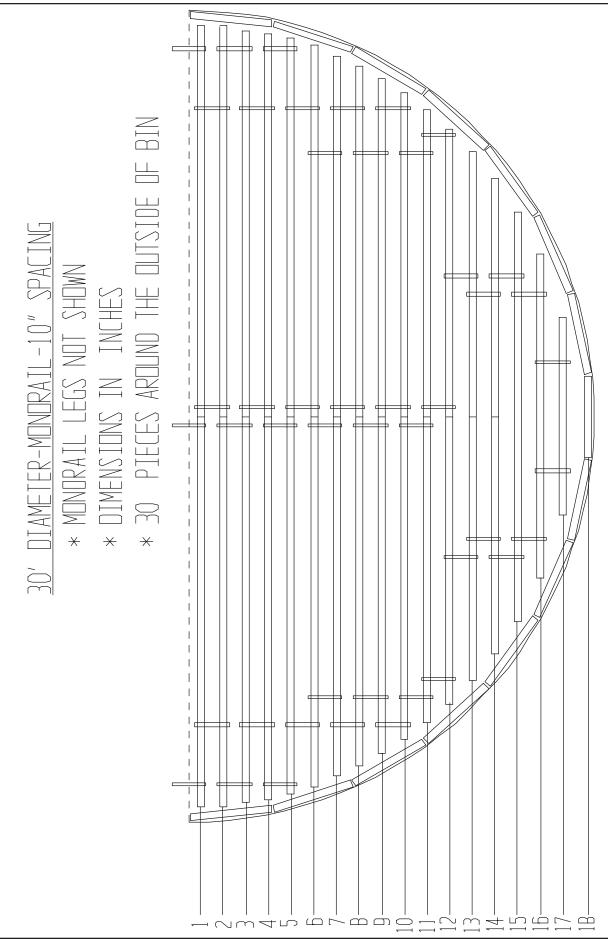
#### 27' DIAMETER-MONORAIL-10" SPACING \* MONORAIL LEGS NOT SHOWN \* DIMENSIONS IN INCHES

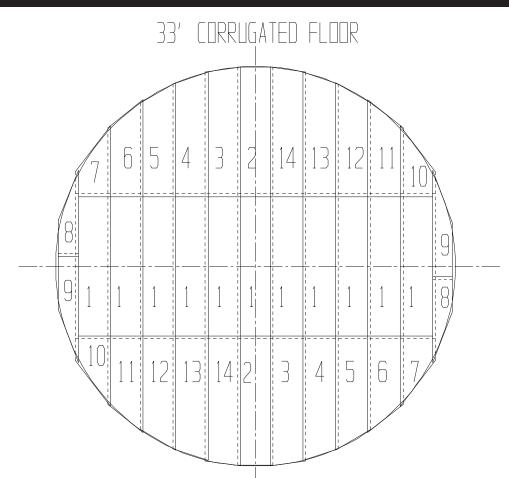


### 30' BIN FLOOR LAYOUTS

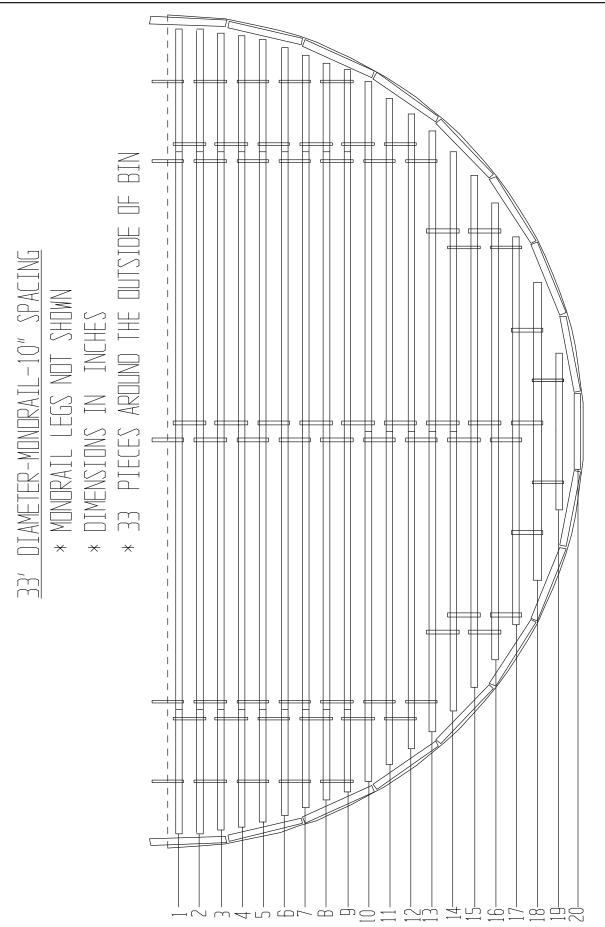


30' Diameter Monorail Lengths						
Monorail Number	Sec 1.	Sec 2.				
1	172.0	172.0				
2	172.0	172.0				
3	170.0	170.0				
4	168.0	168.0				
5	167.0	167.0				
6	164.0	164.0				
7	160.0	160.0				
8	155.0	155.0				
9	150.0	150.0				
10	144.0	144.0				
11	137.0	137.0				
12	257.0					
13	237.0					
14	214.0					
15	186.0					
16	150.0					
17	98.0					
18	36.0					



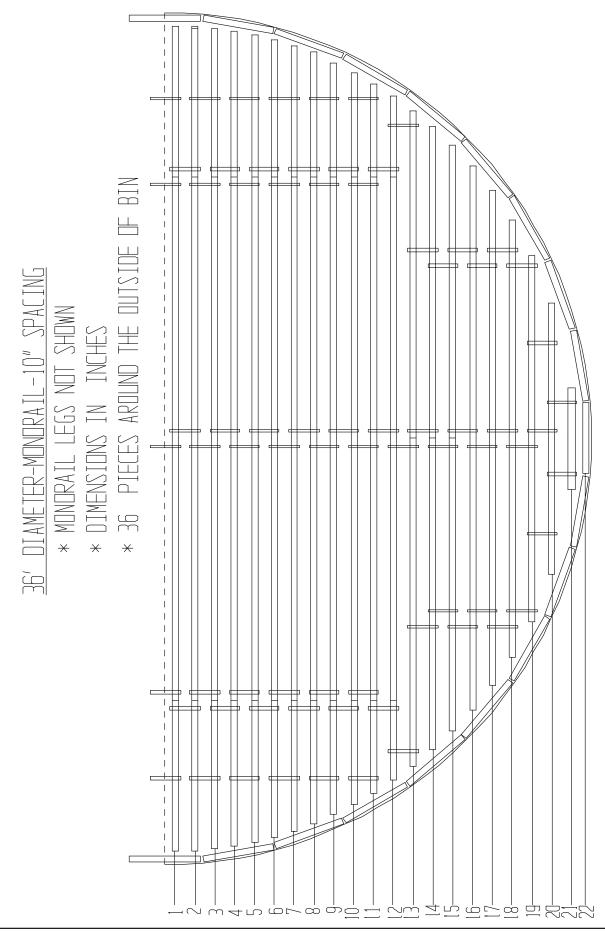


33' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 1. Sec 2. S			
1	59.0	264.0	59.0		
2	58.0	264.0	58.0		
3	57.0	264.0	57.0		
4	56.0	264.0	56.0		
5	53.0	264.0	53.0		
6	51.0	264.0	51.0		
7	47.0	264.0	47.0		
8	43.0	264.0	43.0		
9	38.0	264.0	38.0		
10	165.0	165.0			
11	159.0	159.0			
12	152.0	152.0			
13	143.0	143.0			
14	134.0	134.0			
15	246.0				
16	220.0				
17	189.0				
18	148.0				
19	87.0				
20	36.0				

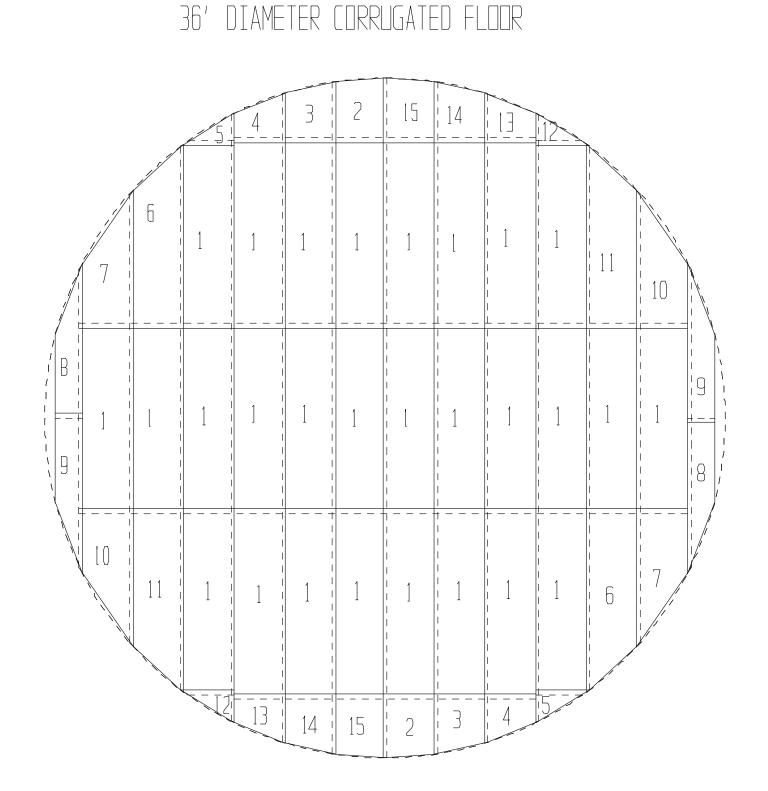


37

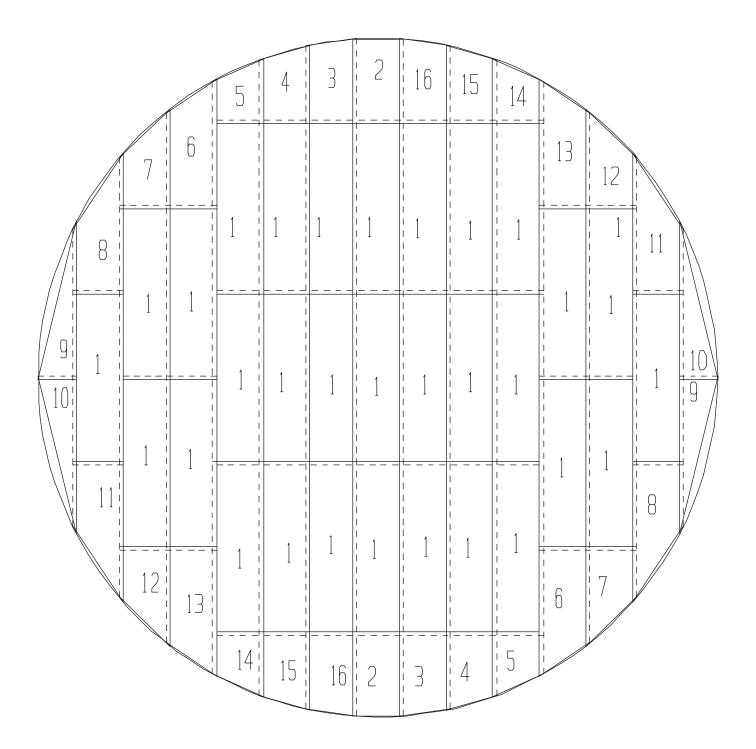
36' Diameter Monorail Lengths						
Monorail Number	Sec 1.	Sec 1. Sec 2. Sec 3				
1	77.0	264.0	77.0			
2	76.0	264.0	76.0			
3	75.0	264.0	75.0			
4	74.0	264.0	74.0			
5	72.0	264.0	72.0			
6	69.0	264.0	69.0			
7	66.0	264.0	66.0			
8	63.0	264.0	63.0			
9	58.0	264.0	58.0			
10	54.0	264.0	54.0			
11	48.0	264.0	48.0			
12	42.0	264.0	42.0			
13	167.0	167.0				
14	159.0	159.0				
15	149.0	149.0				
16	139.0	139.0				
17	254.0					
18	225.0					
19	191.0					
20	145.0					
21	71.0					
22	36.0					



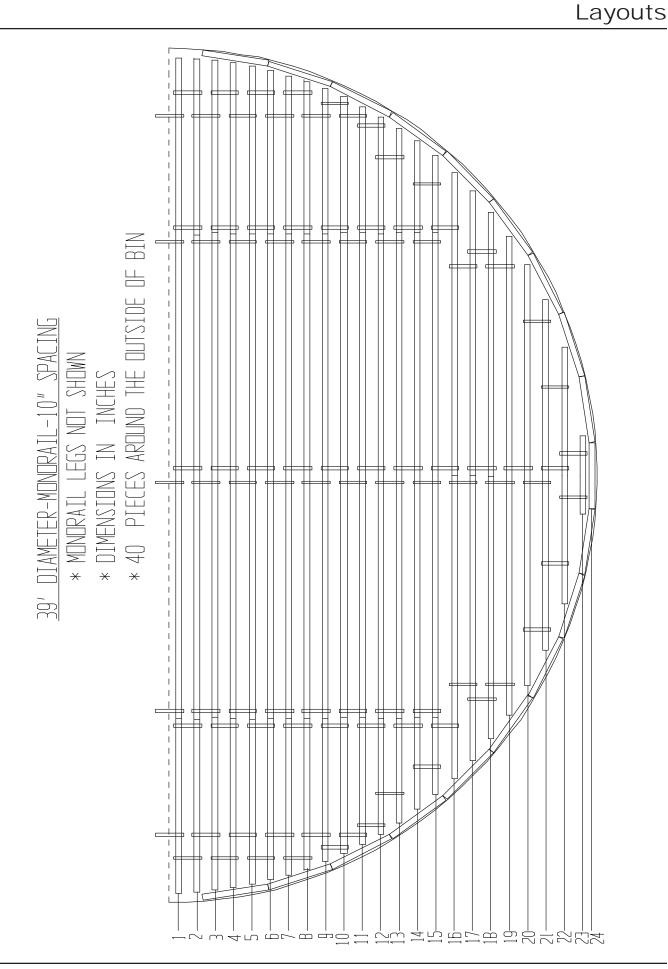
Pneg-225 Corrugated Floor & Monorail Layouts



39' DIAMETER CORRUGATED FLOOR

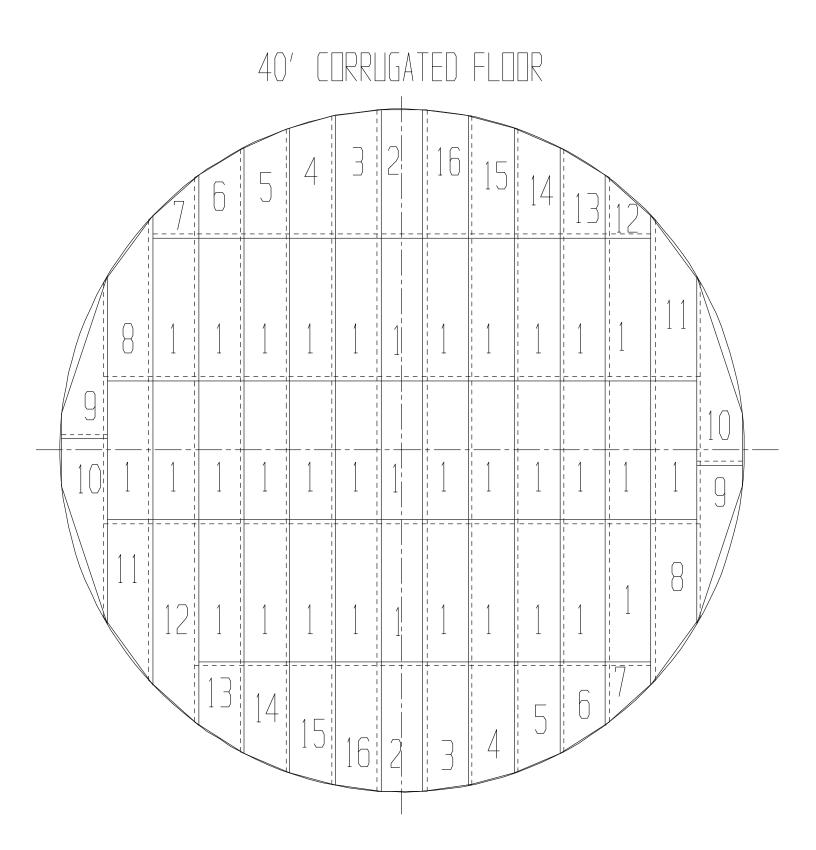


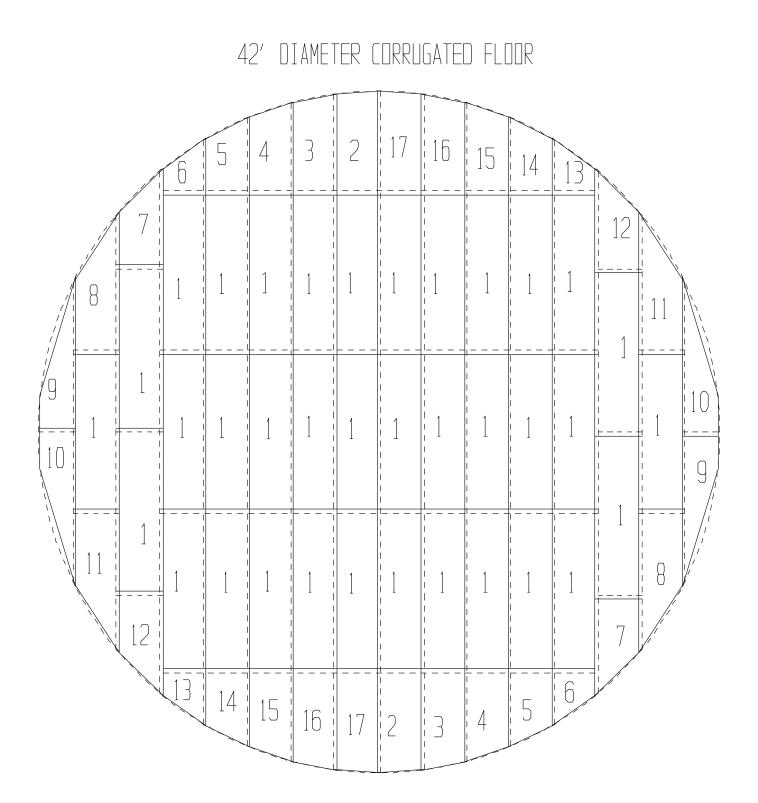
39' Diameter Monorail Lengths						
Monorail Number	Sec 1.	Sec 1. Sec 2. Sec 3				
1	95.0	264.0	95.0			
2	94.0	264.0	94.0			
3	94.0	264.0	94.0			
4	92.0	264.0	92.0			
5	90.0	264.0	90.0			
6	88.0	264.0	88.0			
7	85.0	264.0	85.0			
8	82.0	264.0	82.0			
9	78.0	264.0	78.0			
10	74.0	264.0	74.0			
11	69.0	264.0	69.0			
12	63.0	264.0	63.0			
13	57.0	264.0	57.0			
14	50.0	264.0	50.0			
15	42.0	264.0	42.0			
16	165.0	165.0				
17	155.0	155.0				
18	143.0	143.0				
19	260.0					
20	229.0					
21	190.0					
22	139.0					
23	42.0					
24	36.0					



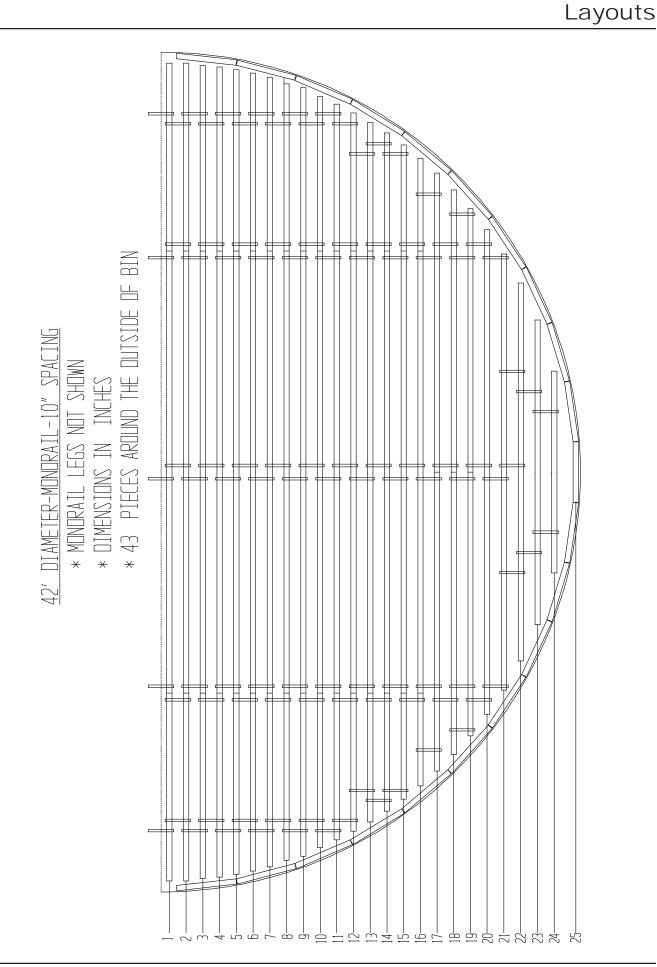
40' Diameter Monorail Lengths							
Monorail Number	Sec 1.	Sec 1. Sec 2. Sec 3.					
1	101.0	264.0	101.0				
2	100.0	264.0	100.0				
3	100.0	264.0	100.0				
4	98.0	264.0	98.0				
5	96.0	264.0	96.0				
6	94.0	264.0	94.0				
7	91.0	264.0	91.0				
8	88.0	264.0	88.0				
9	84.0	264.0	84.0				
10	80.0	264.0	80.0				
11	75.0	264.0	75.0				
12	70.0	264.0	70.0				
13	64.0	264.0	64.0				
14	57.0	264.0	57.0				
15	49.0	264.0	49.0				
16	41.0	264.0	41.0				
17	163.0	163.0					
18	152.0	152.0					
19	140.0	140.0					
20	252.0						
21	217.0						
22	174.0						
23	113.0						
24	36.0						
25							

40' DIAMETER - MONDRAIL - 10" SPACING * MONDRAIL LEGS NOT SHOWN * DIMENSIONS IN INCHES * 41 PIECES AROLND THE DUTSIDE OF BIN	
<u></u> <u></u> * * * *	

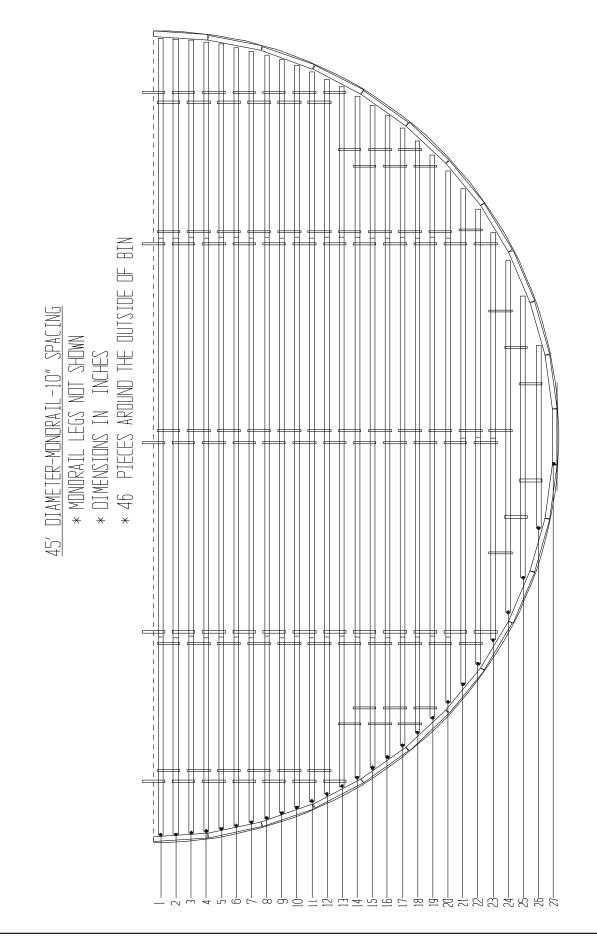


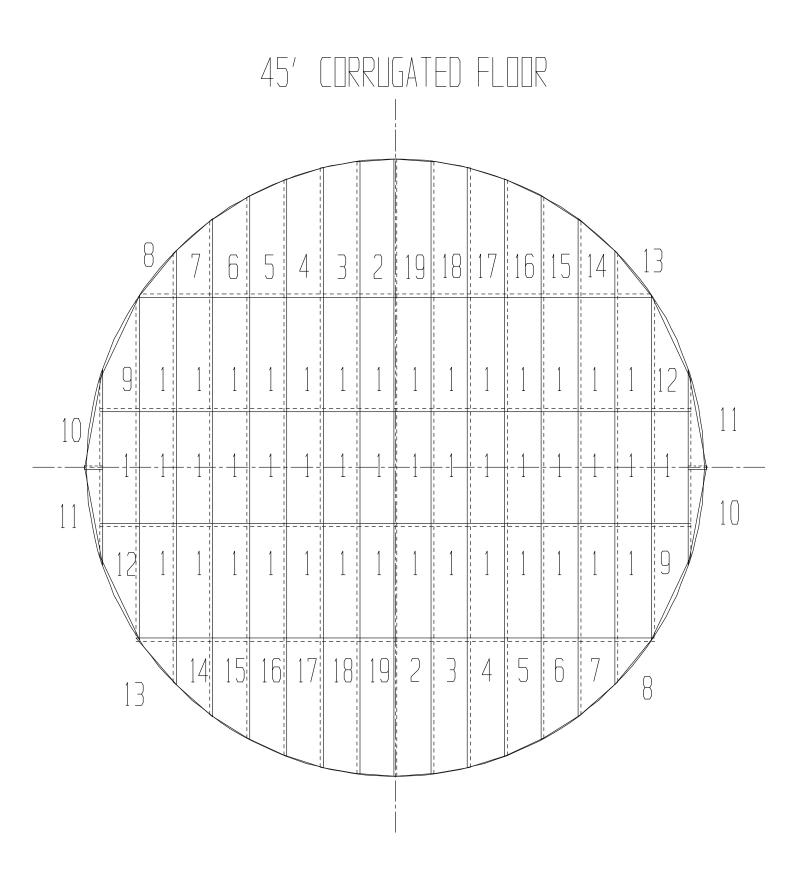


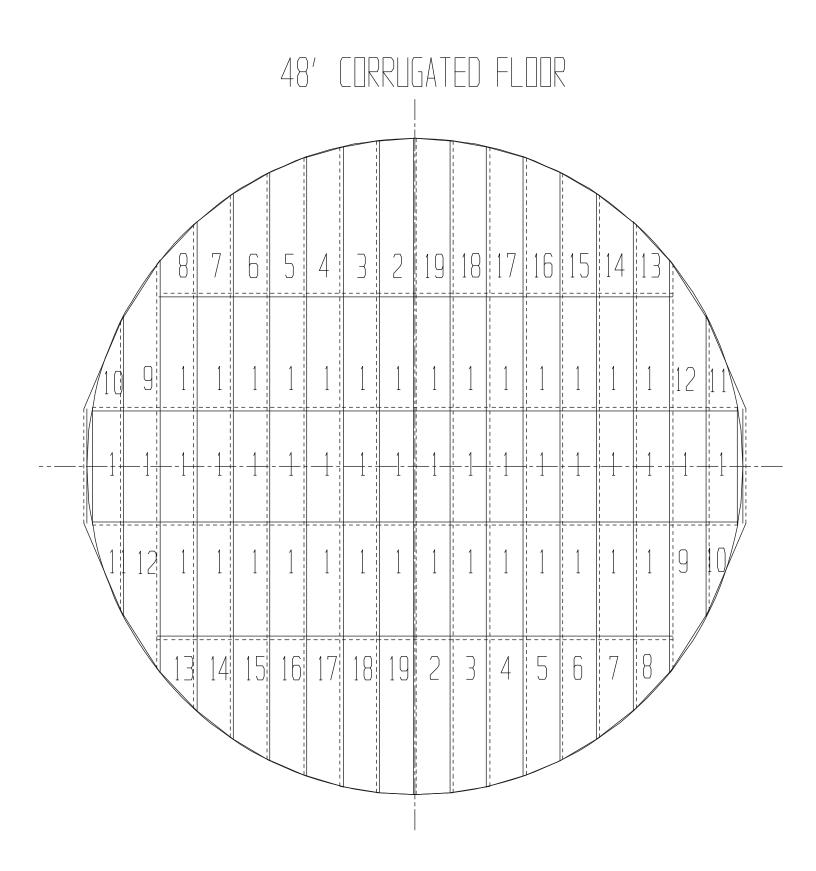
42' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.		
1	101.0	264.0	101.0		
2	100.0	264.0	100.0		
3	100.0	264.0	100.0		
4	98.0	264.0	98.0		
5	96.0	264.0	96.0		
6	94.0	264.0	94.0		
7	91.0	264.0	91.0		
8	88.0	264.0	88.0		
9	84.0	264.0	84.0		
10	80.0	264.0	80.0		
11	75.0	264.0	75.0		
12	70.0	264.0	70.0		
13	64.0	264.0	64.0		
14	57.0	264.0	57.0		
15	49.0	264.0	49.0		
16	41.0	264.0	41.0		
17	163.0	163.0			
18	152.0	152.0			
19	140.0	140.0			
20	252.0				
21	217.0				
22	174.0				
23	113.0				
24	36.0				
25					



45' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.		
1	131.0	264.0	131.0		
2	130.0	264.0	130.0		
3	130.0	264.0	130.0		
4	128.0	264.0	128.0		
5	127.0	264.0	127.0		
6	125.0	264.0	125.0		
7	122.0	264.0	122.0		
8	120.0	264.0	120.0		
9	116.0	264.0	116.0		
10	113.0	264.0	113.0		
11	108.0	264.0	108.0		
12	104.0	264.0	104.0		
13	99.0	264.0	99.0		
14	93.0	264.0	93.0		
15	86.0	264.0	86.0		
16	79.0	264.0	79.0		
17	72.0	264.0	72.0		
18	63.0	264.0	63.0		
19	54.0	264.0	54.0		
20	43.0	264.0	43.0		
21	163.0	163.0			
22	150.0	150.0			
23	134.0	134.0			
24	231.0				
25	185.0				
26	119.0				
27	36.0				







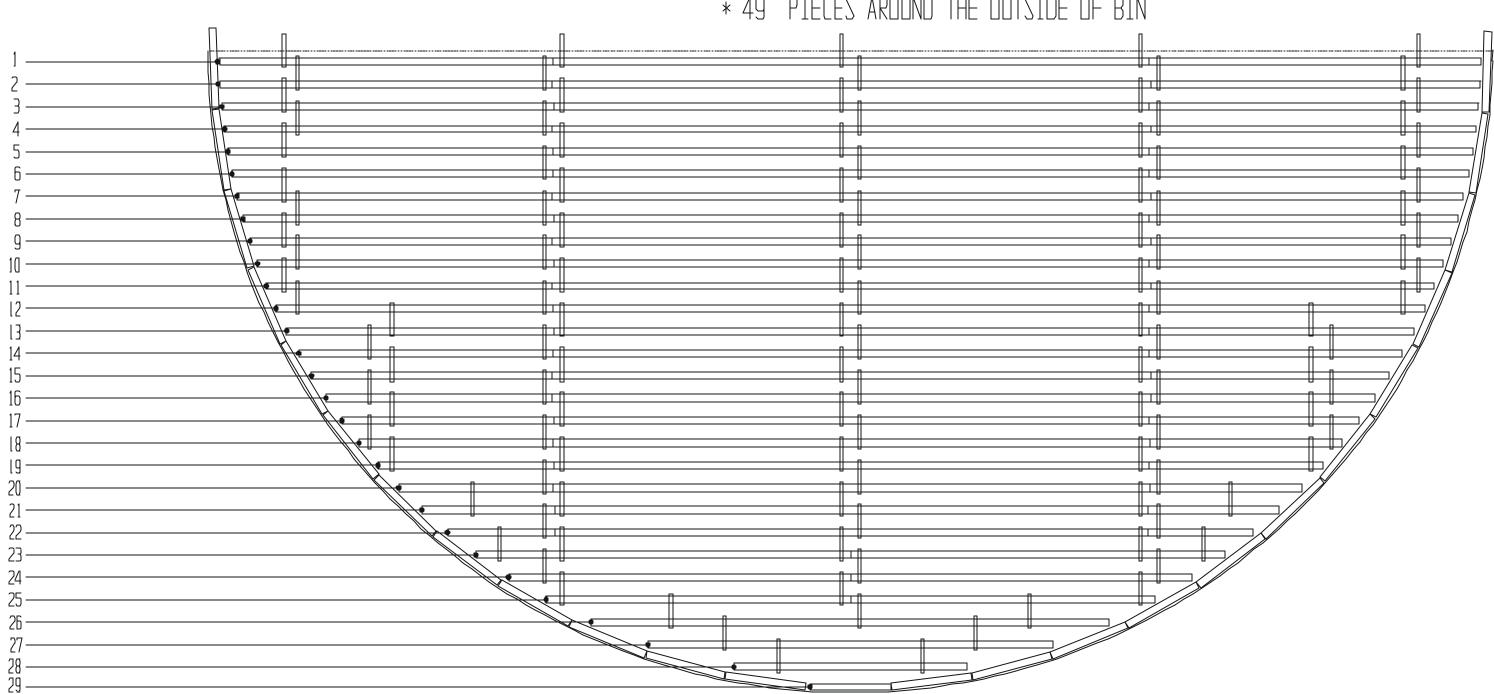
48' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.		
1	149.0	264.0	149.0		
2	148.0	264.0	148.0		
3	148.0	264.0	148.0		
4	147.0	264.0	147.0		
5	145.0	264.0	145.0		
6	143.0	264.0	143.0		
7	141.0	264.0	141.0		
8	138.0	264.0	138.0		
9	135.0	264.0	135.0		
10	132.0	264.0	132.0		
11	128.0	264.0	128.0		
12	124.0	264.0	124.0		
13	119.0	264.0	119.0		
14	114.0	264.0	114.0		
15	108.0	264.0	108.0		
16	101.0	264.0	101.0		
17	94.0	264.0	94.0		
18	87.0	264.0	87.0		
19	78.0	264.0	78.0		
20	69.0	264.0	69.0		
21	59.0	264.0	59.0		
22	47.0	264.0	47.0		
23	166.0	166.0			
24	152.0	152.0			
25	135.0	135.0			
26	231.0				
27	180.0				
28	104.0				
29	36.0				

#### 48' DIAMETER-MONORAIL-10" SPACING

\* MONORAIL LEGS NOT SHOWN

\* DIMENSIONS IN INCHES

\* 49 PIECES AROUND THE DUTSIDE OF BIN

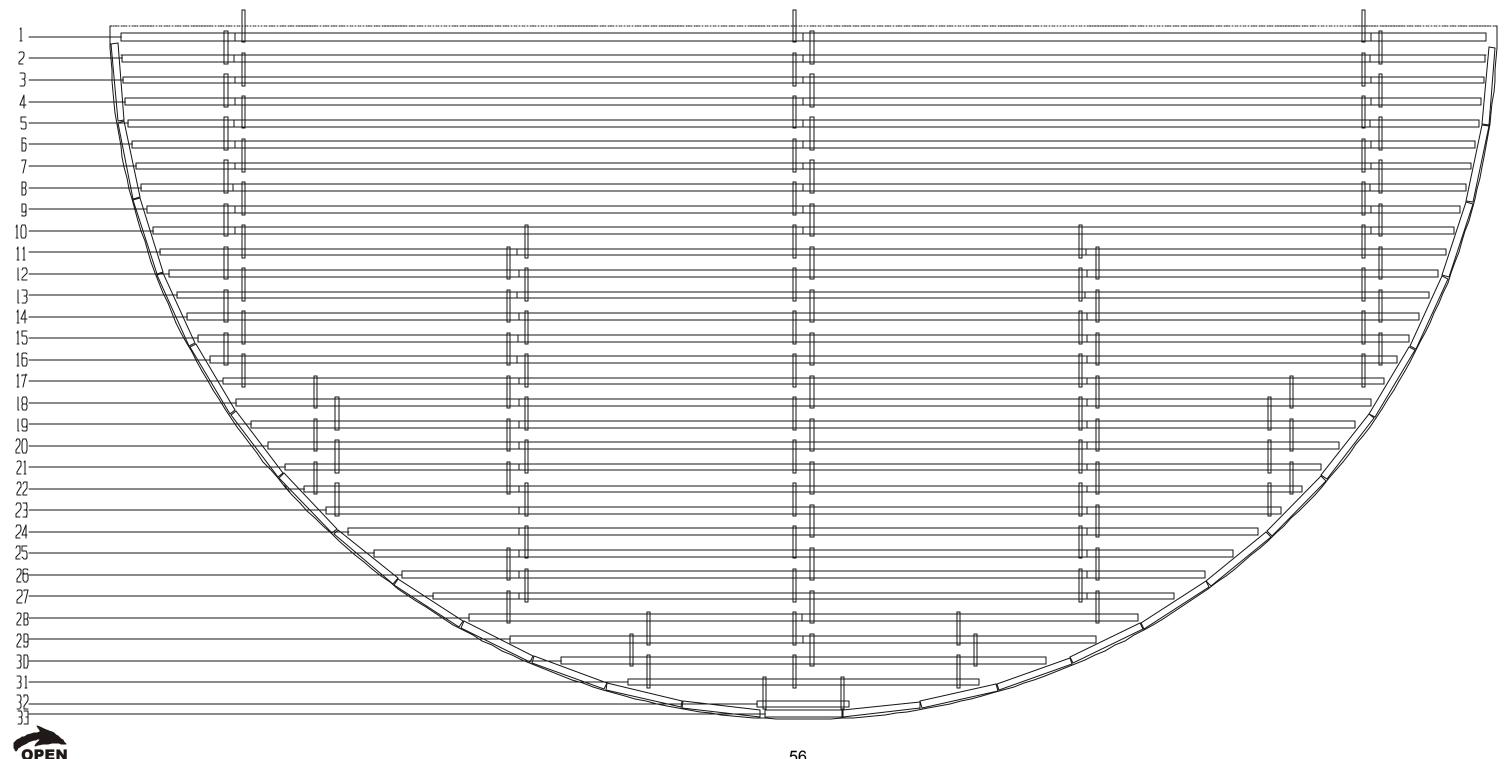


## 54' DIAMETER-MONORAIL-10" SPACING

\* MONORAIL LEGS NOT SHOWN

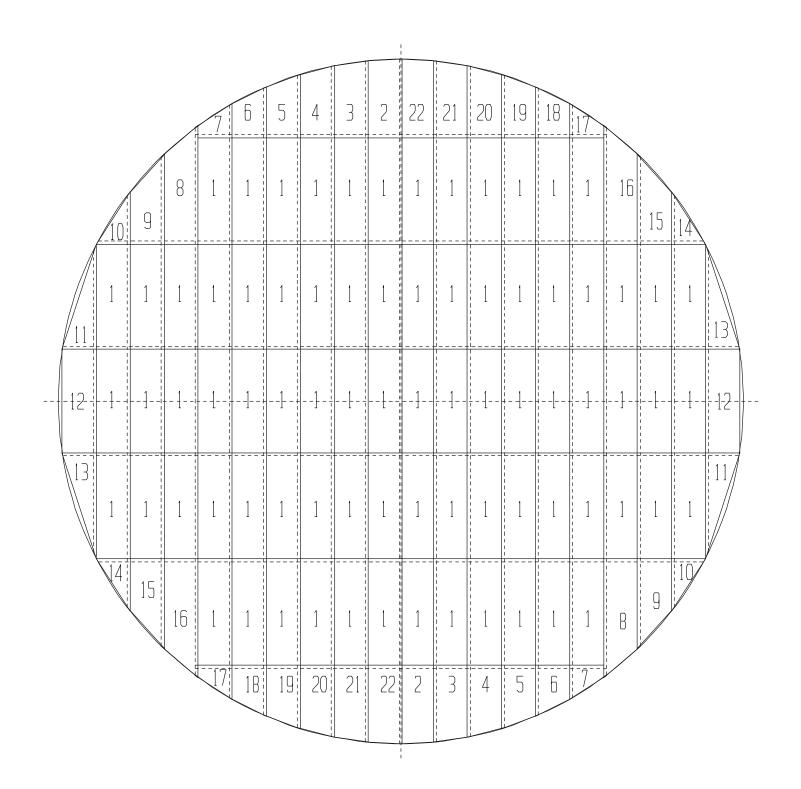
\* DIMENSIONS IN INCHES

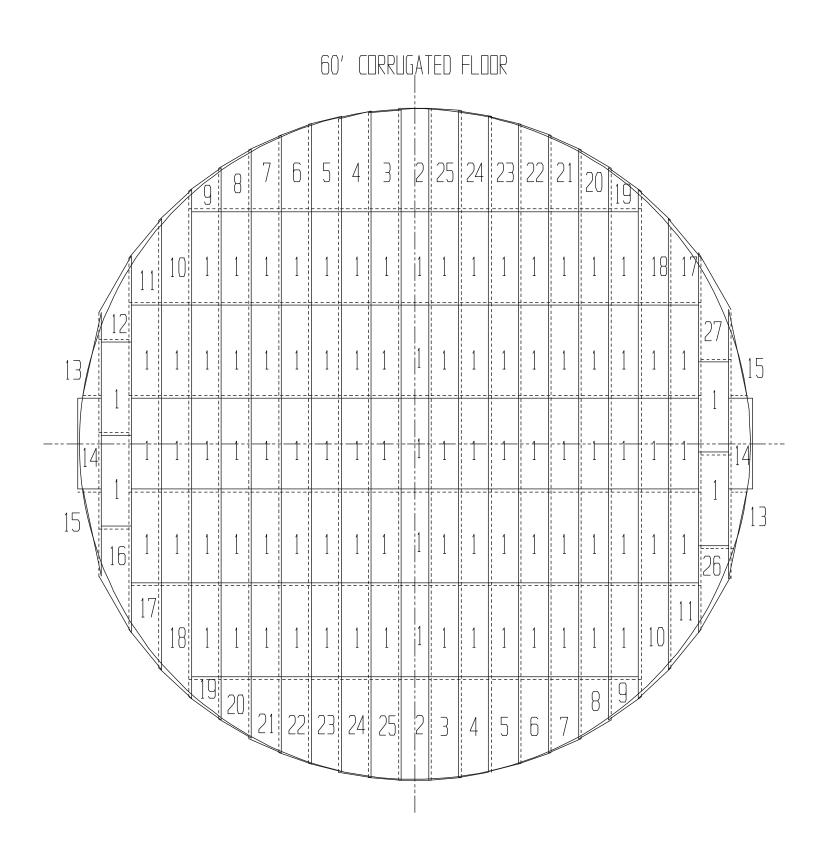
\* 55 PIECES AROUND THE OUTSIDE OF BIN



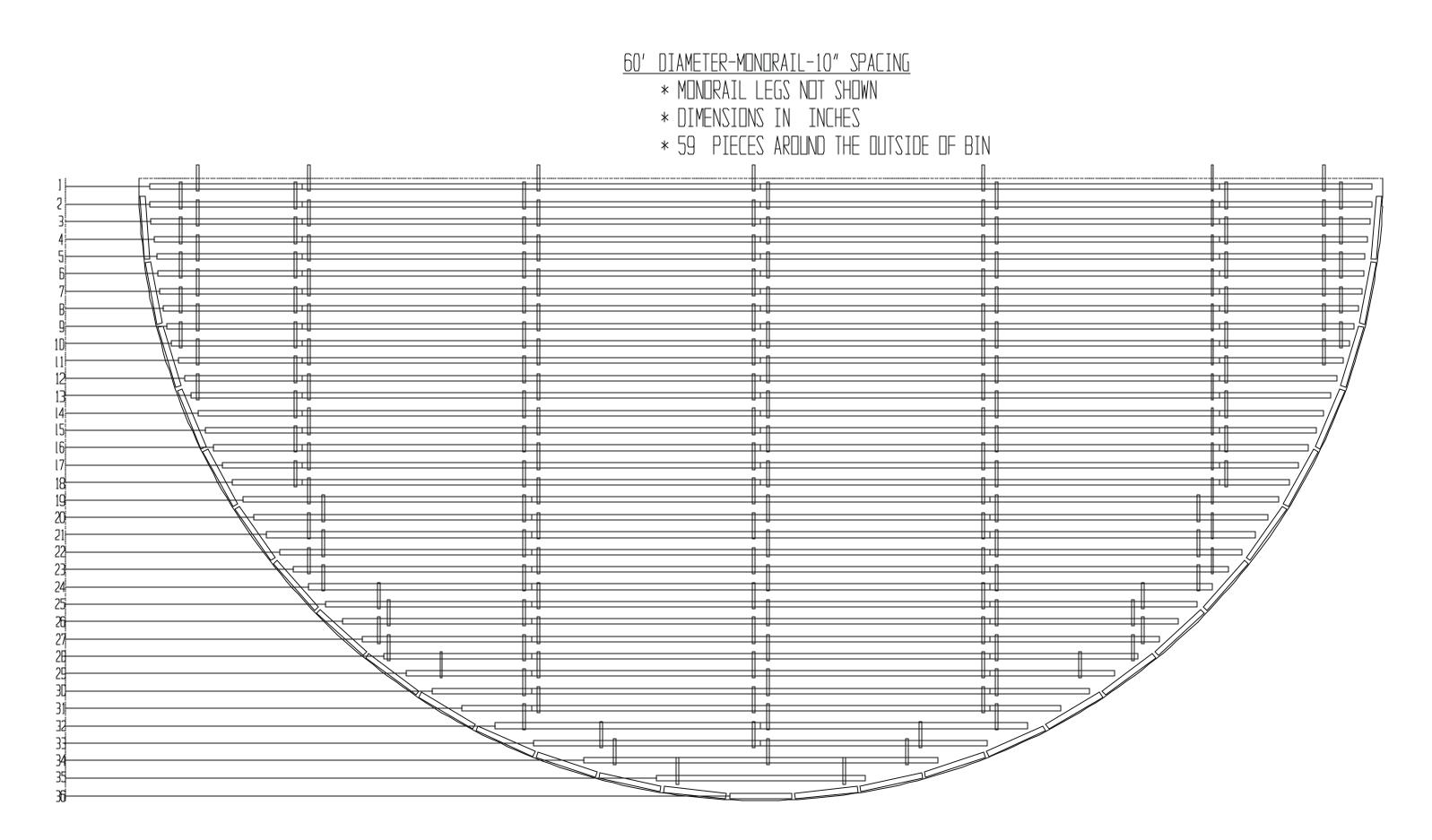
54' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	
1	53.0	264.0	264.0	53.0	
2	52.0	264.0	264.0	52.0	
3	52.0	264.0	264.0	52.0	
4	51.0	264.0	264.0	51.0	
5	49.0	264.0	264.0	49.0	
6	48.0	264.0	264.0	48.0	
7	46.0	264.0	264.0	46.0	
8	43.0	264.0	264.0	43.0	
9	41.0	264.0	264.0	41.0	
10	38.0	264.0	264.0	38.0	
11	166.0	264.0	166.0		
12	163.0	264.0	163.0		
13	158.0	264.0	158.0		
14	154.0	264.0	154.0		
15	149.0	264.0	149.0		
16	143.0	264.0	143.0		
17	138.0	264.0	138.0		
18	131.0	264.0	131.0		
19	124.0	264.0	124.0		
20	117.0	264.0	117.0		
21	108.0	264.0	108.0		
22	99.0	264.0	99.0		
23	90.0	264.0	90.0		
24	79.0	264.0	79.0		
25	67.0	264.0	67.0		
26	54.0	264.0	54.0		
27	40.0	264.0	40.0		
28	155.0	155.0			
29	136.0	136.0			
30	225.0				
31	163.0				
32	42.0				
33	36.0				

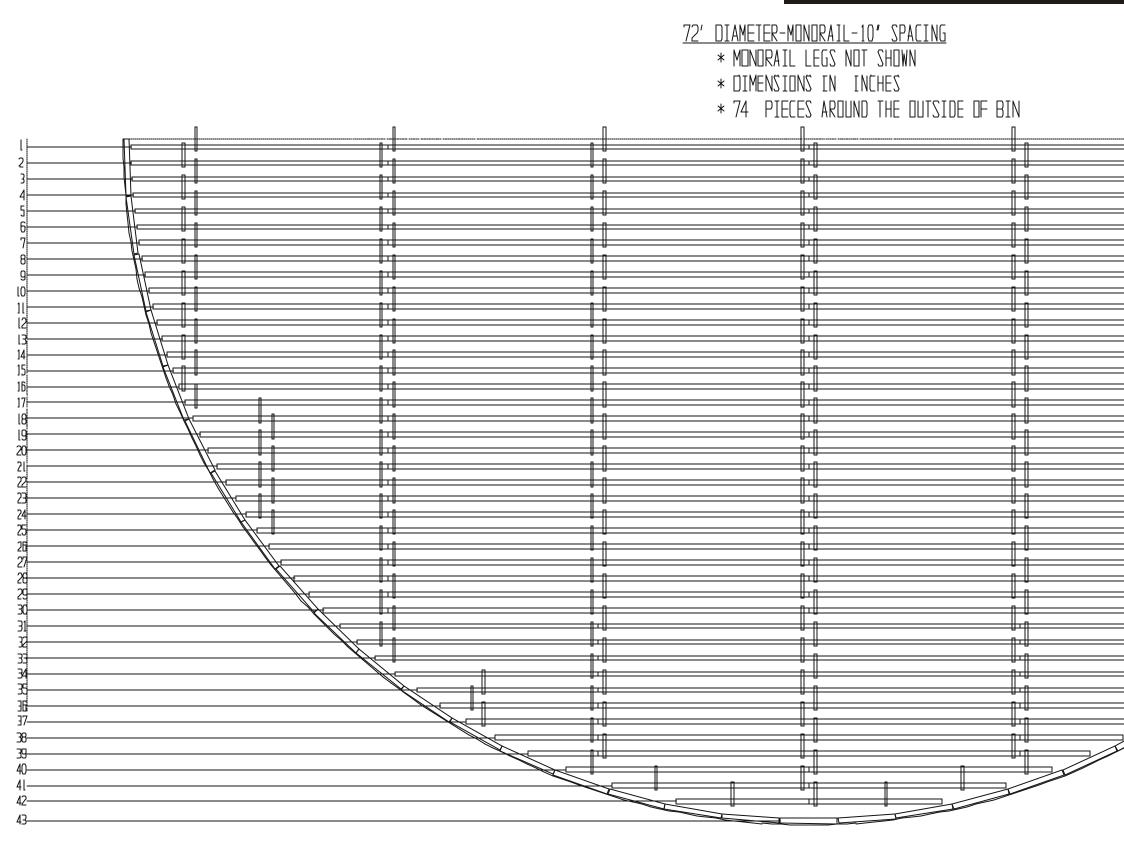
54' DIAMETER CORRUGATED FLOOR



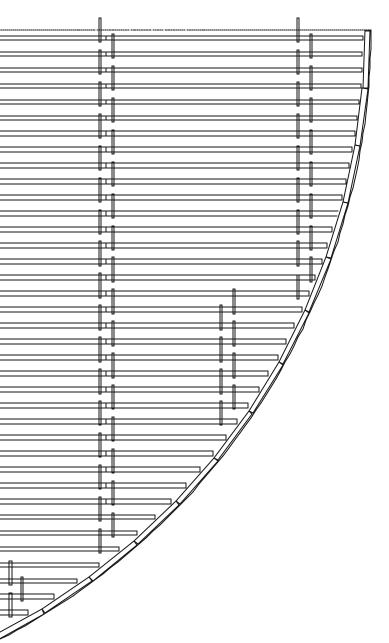


60' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	
1	89.0	264.0	264.0	89.0	
2	88.0	264.0	264.0	88.0	
3	88.0	264.0	264.0	88.0	
4	87.0	264.0	264.0	87.0	
5	86.0	264.0	264.0	86.0	
6	84.0	264.0	264.0	84.0	
7	82.0	264.0	264.0	82.0	
8	80.0	264.0	264.0	80.0	
9	78.0	264.0	264.0	78.0	
10	75.0	264.0	264.0	75.0	
11	72.0	264.0	264.0	72.0	
12	69.0	264.0	264.0	69.0	
13	65.0	264.0	264.0	65.0	
14	61.0	264.0	264.0	61.0	
15	57.0	264.0	264.0	57.0	
16	52.0	264.0	264.0	52.0	
17	47.0	264.0	264.0	47.0	
18	41.0	264.0	264.0	41.0	
19	167.0	264.0	167.0		
20	161.0	264.0	161.0		
21	154.0	264.0	154.0		
22	146.0	264.0	146.0		
23	138.0	264.0	138.0		
24	130.0	264.0	130.0		
25	120.0	264.0	120.0		
26	110.0	264.0	110.0		
27	99.0	264.0	99.0		
28	87.0	264.0	87.0		
29	74.0	264.0	74.0		
30	59.0	264.0	59.0		
31	43.0	264.0	43.0		
32	156.0	156.0			
33	134.0	134.0			
34	213.0				
35	135.0				
36	36.0				

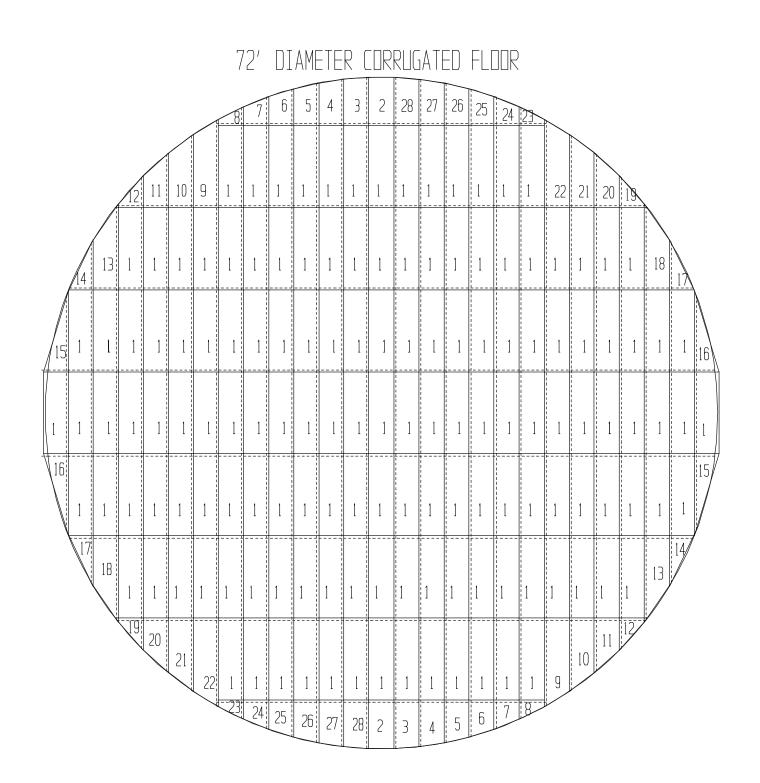




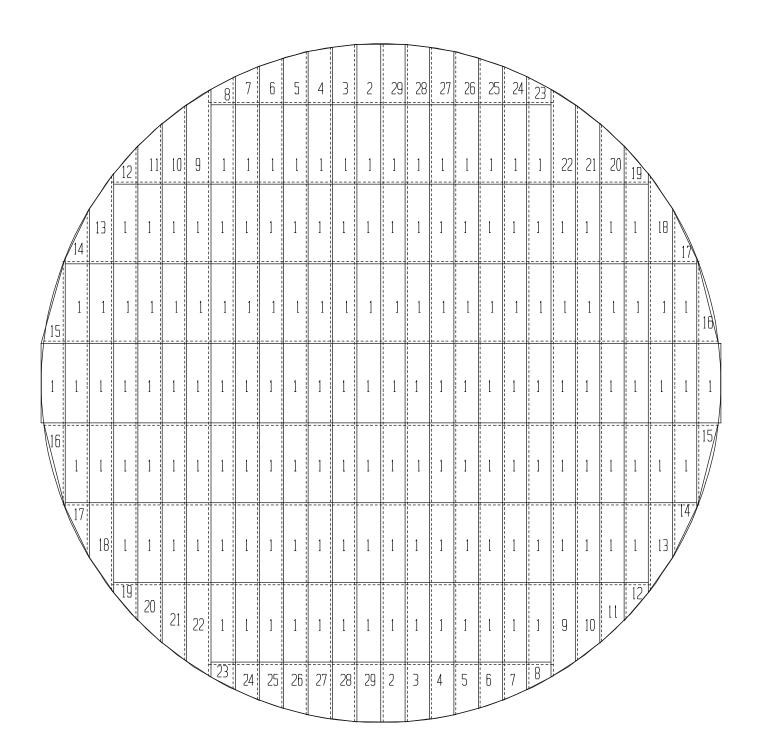




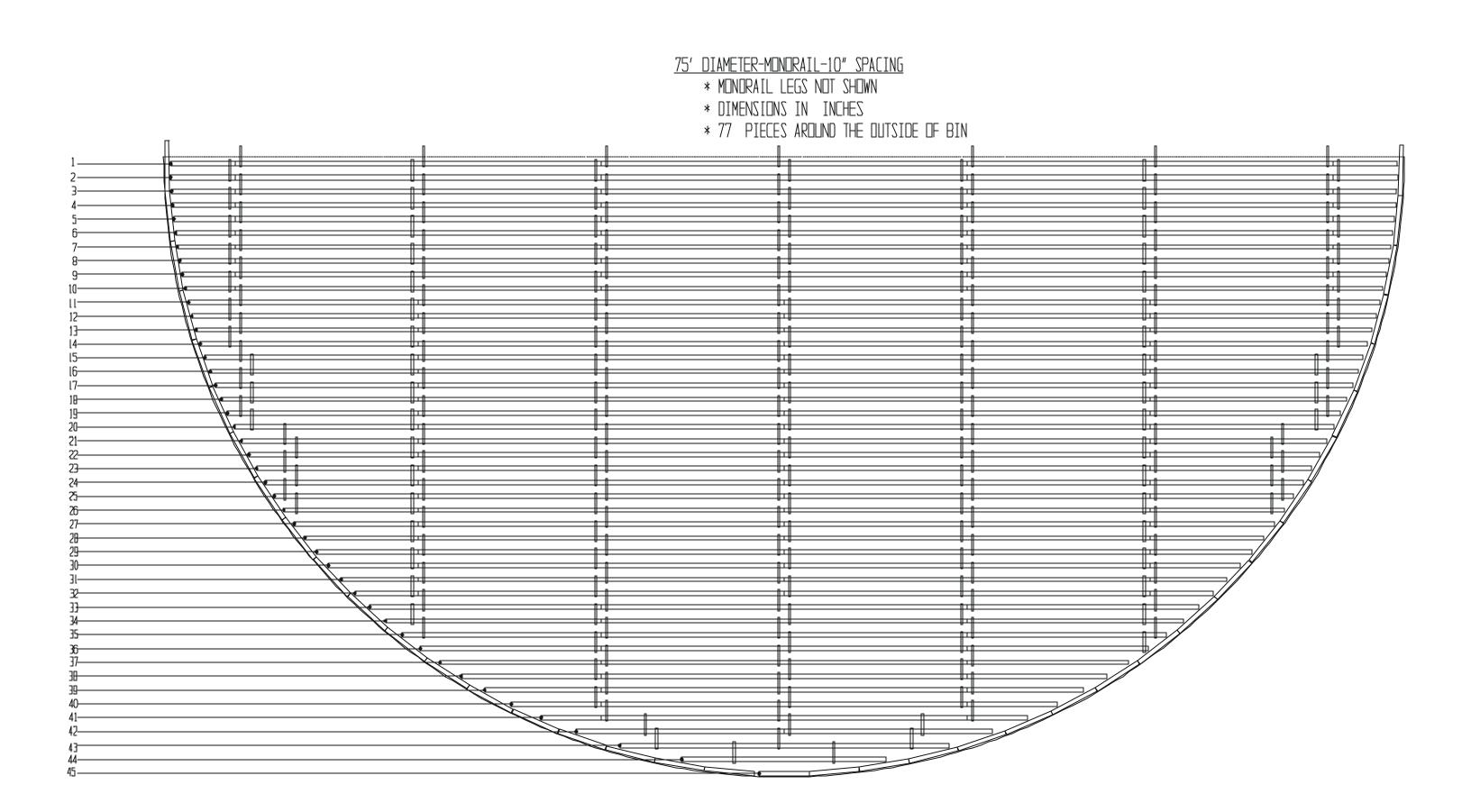
72' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	
1	160.0	264.0	264.0	160.0	
2	160.0	264.0	264.0	160.0	
3	160.0	264.0	264.0	160.0	
4	159.0	264.0	264.0	159.0	
5	158.0	264.0	264.0	158.0	
6	157.0	264.0	264.0	157.0	
7	155.0	264.0	264.0	155.0	
8	153.0	264.0	264.0	153.0	
9	151.0	264.0	264.0	151.0	
10	149.0	264.0	264.0	149.0	
11	147.0	264.0	264.0	147.0	
12	144.0	264.0	264.0	144.0	
13	141.0	264.0	264.0	141.0	
14	138.0	264.0	264.0	138.0	
15	134.0	264.0	264.0	134.0	
16	130.0	264.0	264.0	130.0	
17	126.0	264.0	264.0	126.0	
18	122.0	264.0	264.0	122.0	
19	117.0	264.0	264.0	117.0	
20	112.0	264.0	264.0	112.0	
21	107.0	264.0	264.0	107.0	
22	101.0	264.0	264.0	101.0	
23	95.0	264.0	264.0	95.0	
24	88.0	264.0	264.0	88.0	
25	81.0	264.0	264.0	81.0	
26	74.0	264.0	264.0	74.0	
27	66.0	264.0	264.0	66.0	
28	58.0	264.0	264.0	58.0	
29	49.0	264.0	264.0	49.0	
30	40.0	264.0	264.0	40.0	
31	162.0	264.0	162.0		
32	151.0	264.0	151.0		
33	139.0	264.0	139.0		
34	127.0	264.0	127.0		
35	113.0	264.0	113.0		
36	98.0	264.0	98.0		
37	82.0	264.0	82.0		
38	64.0	264.0	64.0		
39	44.0	264.0	44.0		
40	152.0	152.0			
41	246.0				
42	166.0				
43	36.0				

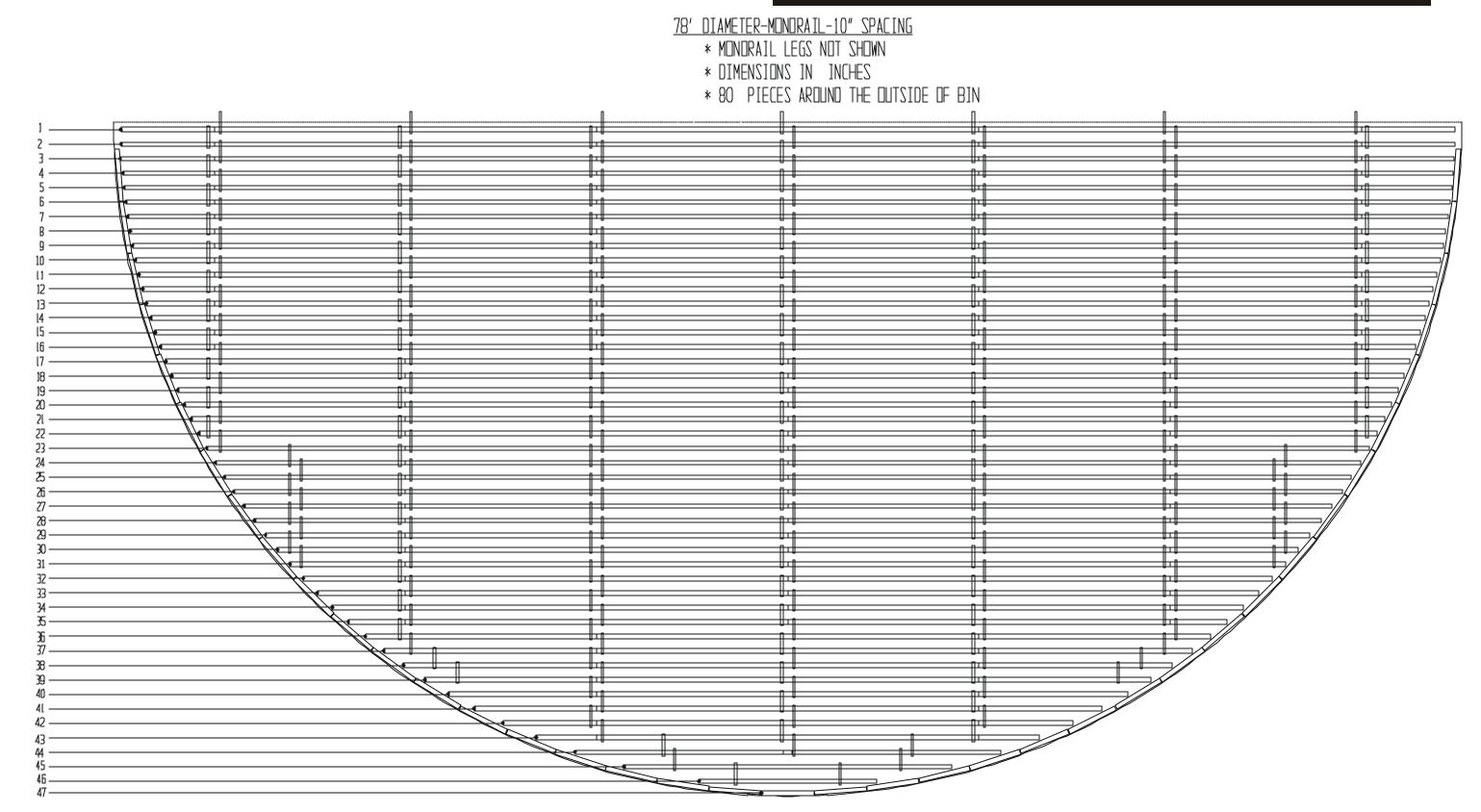


# 75' DIAMETER CORRUGATED FLOOR



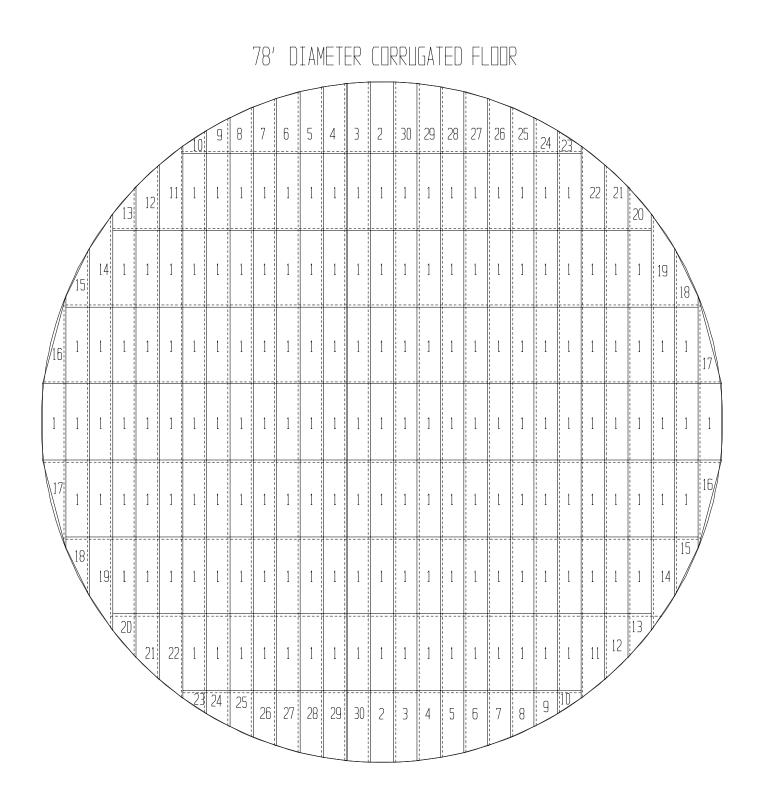
75' Diameter Monorail Lengths					
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	Sec 5.
1	46.0	264.0	264.0	264.0	46.0
2	46.0	264.0	264.0	264.0	46.0
3	45.0	264.0	264.0	264.0	45.0
4	45.0	264.0	264.0	264.0	45.0
5	44.0	264.0	264.0	264.0	44.0
6	43.0	264.0	264.0	264.0	43.0
7	41.0	264.0	264.0	264.0	41.0
8	40.0	264.0	264.0	264.0	40.0
9	38.0	264.0	264.0	264.0	38.0
10	36.0	264.0	264.0	264.0	36.0
11	165.0	264.0	264.0	165.0	
12	163.0	264.0	264.0	163.0	
13	160.0	264.0	264.0	160.0	
14	157.0	264.0	264.0	157.0	
15	153.0	264.0	264.0	153.0	
16	150.0	264.0	264.0	150.0	
17	146.0	264.0	264.0	146.0	
18	142.0	264.0	264.0	142.0	
19	137.0	264.0	264.0	137.0	
20	132.0	264.0	264.0	132.0	
21	127.0	264.0	264.0	127.0	
22	122.0	264.0	264.0	122.0	
23	116.0	264.0	264.0	116.0	
24	110.0	264.0	264.0	110.0	
25	103.0	264.0	264.0	103.0	
26	96.0	264.0	264.0	96.0	
27	89.0	264.0	264.0	89.0	
28	81.0	264.0	264.0	81.0	
29	73.0	264.0	264.0	73.0	
30	64.0	264.0	264.0	64.0	
31	55.0	264.0	264.0	55.0	
32	45.0	264.0	264.0	45.0	
33	166.0	264.0	166.0		
34	155.0	264.0	155.0		
35	143.0	264.0	143.0		
36	130.0	264.0	130.0		
37	116.0	264.0	116.0		
38	100.0	264.0	100.0		
39	83.0	264.0	83.0		
40	64.0	264.0	64.0		
41	43.0	264.0	43.0		
42	150.0	150.0			
43	237.0				
44	147.0				
45	36.0				

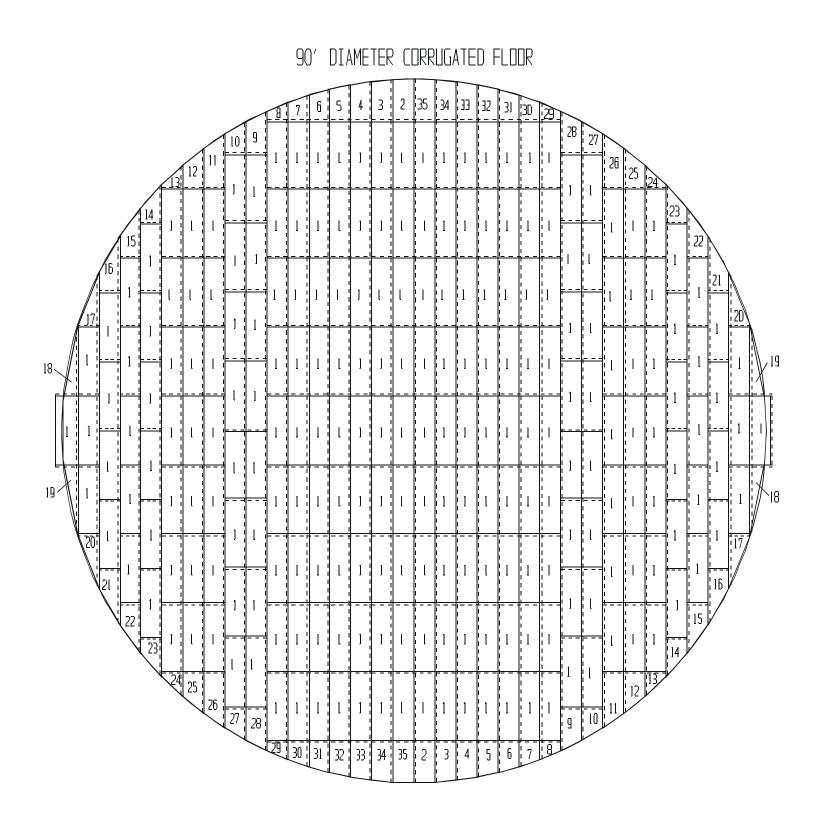






78' Diameter Monorail Lengths							
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	Sec 5.		
1	64.0	264.0	264.0	264.0	64.0		
2	64.0	264.0	264.0	264.0	64.0		
3	63.0	264.0	264.0	264.0	63.0		
4	63.0	264.0	264.0	264.0	63.0		
5	62.0	264.0	264.0	264.0	62.0		
6	61.0	264.0	264.0	264.0	61.0		
7	59.0	264.0	264.0	264.0	59.0		
8	58.0	264.0	264.0	264.0	58.0		
9	56.0	264.0	264.0	264.0	56.0		
10	54.0	264.0	264.0	264.0	54.0		
11	52.0	264.0	264.0	264.0	52.0		
12	49.0	264.0	264.0	264.0	49.0		
13	46.0	264.0	264.0	264.0	46.0		
14	43.0	264.0	264.0	264.0	43.0		
15	40.0	264.0	264.0	264.0	40.0		
16	37.0	264.0	264.0	264.0	37.0		
17	165.0	264.0	264.0	165.0			
18	161.0	264.0	264.0	161.0			
19	157.0	264.0	264.0	157.0			
20	152.0	264.0	264.0	152.0			
21	147.0	264.0	264.0	147.0			
22	142.0	264.0	264.0	142.0			
23	137.0	264.0	264.0	137.0			
24	131.0	264.0	264.0	131.0			
25	125.0	264.0	264.0	125.0			
26	118.0	264.0	264.0	118.0			
27	111.0	264.0	264.0	111.0			
28	104.0	264.0	264.0	104.0			
29	96.0	264.0	264.0	96.0			
30	88.0	264.0	264.0	88.0			
31	79.0	264.0	264.0	79.0			
32	70.0	264.0	264.0	70.0			
33	60.0	264.0	264.0	60.0			
34	50.0	264.0	264.0	50.0			
35	39.0	264.0	264.0	39.0			
36	159.0	264.0	159.0				
37	147.0	264.0	147.0				
38	133.0	264.0	133.0				
39	118.0	264.0	118.0				
40	102.0	264.0	102.0				
41	84.0	264.0	84.0				
42	64.0	264.0	64.0				
43	41.0	264.0	41.0				
44	147.0	147.0					
45	226.0						
46	122.0						
47	36.0						

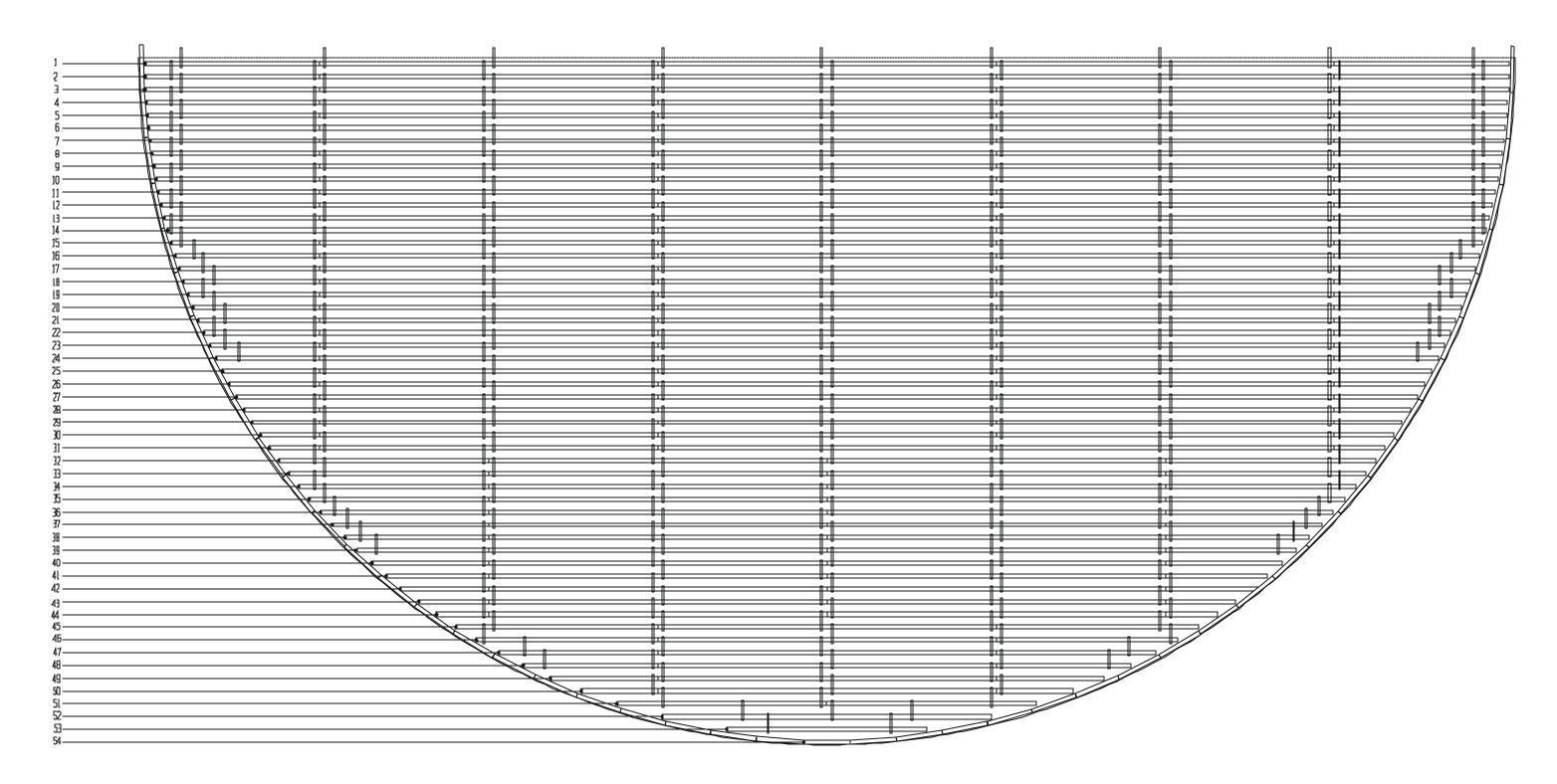




90' Diameter Monorail Lengths							
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	Sec 5.		
1	136.0	264.0	264.0	264.0	136.0		
2	136.0	264.0	264.0	264.0	136.0		
3	135.0	264.0	264.0	264.0	135.0		
4	135.0	264.0	264.0	264.0	135.0		
5	134.0	264.0	264.0	264.0	134.0		
6	133.0	264.0	264.0	264.0	133.0		
7	132.0	264.0	264.0	264.0	132.0		
8	130.0	264.0	264.0	264.0	130.0		
9	129.0	264.0	264.0	264.0	129.0		
10	127.0	264.0	264.0	264.0	127.0		
11	125.0	264.0	264.0	264.0	125.0		
12	123.0	264.0	264.0	264.0	123.0		
13	121.0	264.0	264.0	264.0	121.0		
14	118.0	264.0	264.0	264.0	118.0		
15	115.0	264.0	264.0	264.0	115.0		
16	112.0	264.0	264.0	264.0	112.0		
17	109.0	264.0	264.0	264.0	109.0		
18	106.0	264.0	264.0	264.0	106.0		
19	102.0	264.0	264.0	264.0	102.0		
20	98.0	264.0	264.0	264.0	98.0		
21	94.0	264.0	264.0	264.0	94.0		
22	90.0	264.0	264.0	264.0	90.0		
23	85.0	264.0	264.0	264.0	85.0		
24	80.0	264.0	264.0	264.0	80.0		
25	75.0	264.0	264.0	264.0	75.0		
26	70.0	264.0	264.0	264.0	70.0		
27	64.0	264.0	264.0	264.0	64.0		
28	58.0	264.0	264.0	264.0	58.0		
29	52.0	264.0	264.0	264.0	52.0		
30	46.0	264.0	264.0	264.0	46.0		
31	39.0	264.0	264.0	264.0	39.0		
32	163.0	264.0	264.0	163.0			
33	156.0	264.0	264.0	156.0			
34	148.0	264.0	264.0	148.0			
35	140.0	264.0	264.0	140.0			
36	131.0	264.0	264.0	131.0			
37	122.0	264.0	264.0	122.0			
38	112.0	264.0	264.0	112.0			
39	102.0	264.0	264.0	102.0			
40	91.0	264.0	264.0	91.0			
41	79.0	264.0	264.0	79.0			
42	67.0	264.0	264.0	67.0			
43	54.0	264.0	264.0	54.0			
44	40.0	264.0	264.0	40.0			
45	157.0	264.0	157.0				
46	141.0	264.0	141.0				
47	124.0	264.0	124.0				
48	105.0	264.0	105.0				
49	83.0	264.0	83.0				
50	59.0	264.0	59.0				
51	163.0	163.0					
52	257.0						
53	156.0						
54	36.0						
	50.0						

90' DIAMETER-MONORAIL-10" SPACING

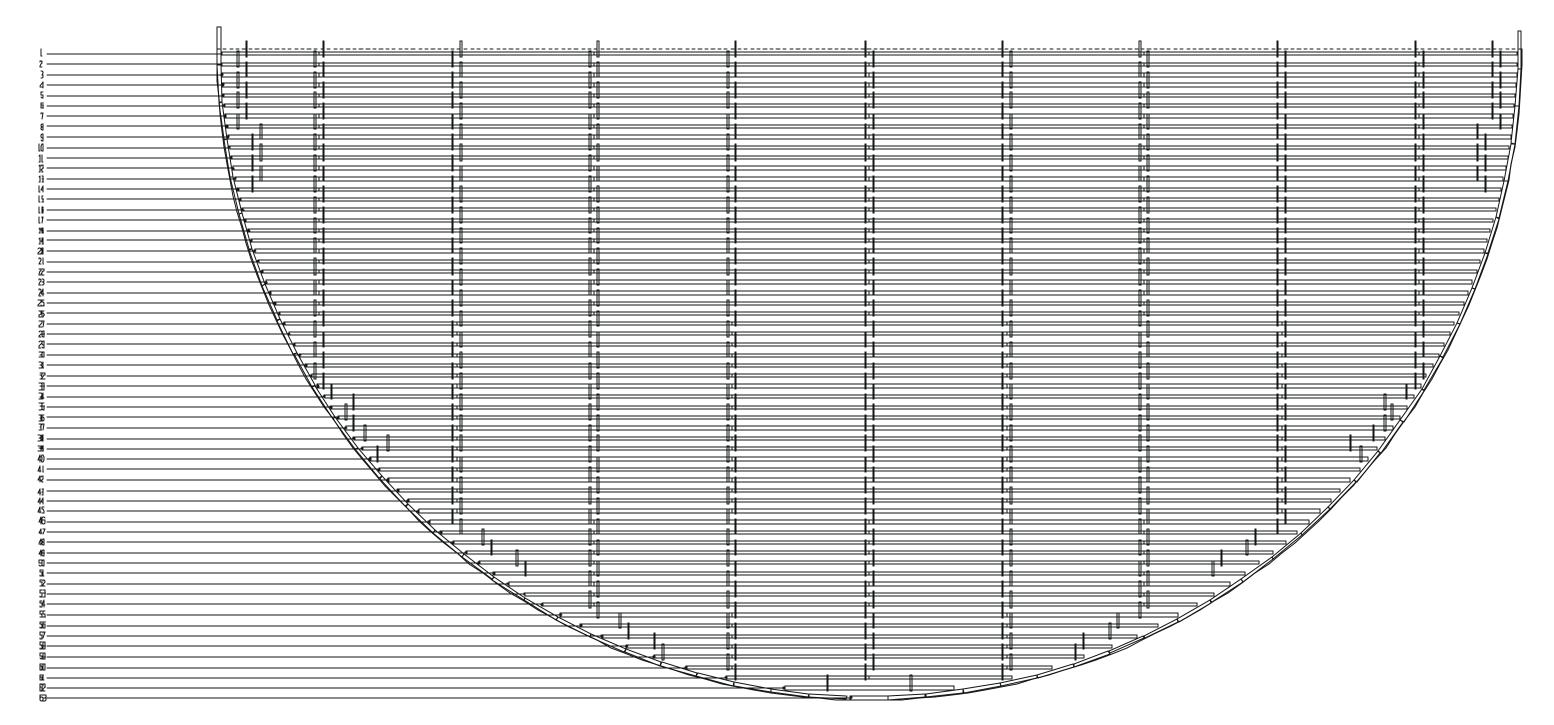
- \* MONDRAIL LEGS NOT SHOWN
- \* DIMENSIONS IN INCHES
- \* 93 PIECES AROUND THE OUTSIDE OF BIN



#### <u>105' DIAMETER-MONORAIL-10" SPACING</u>

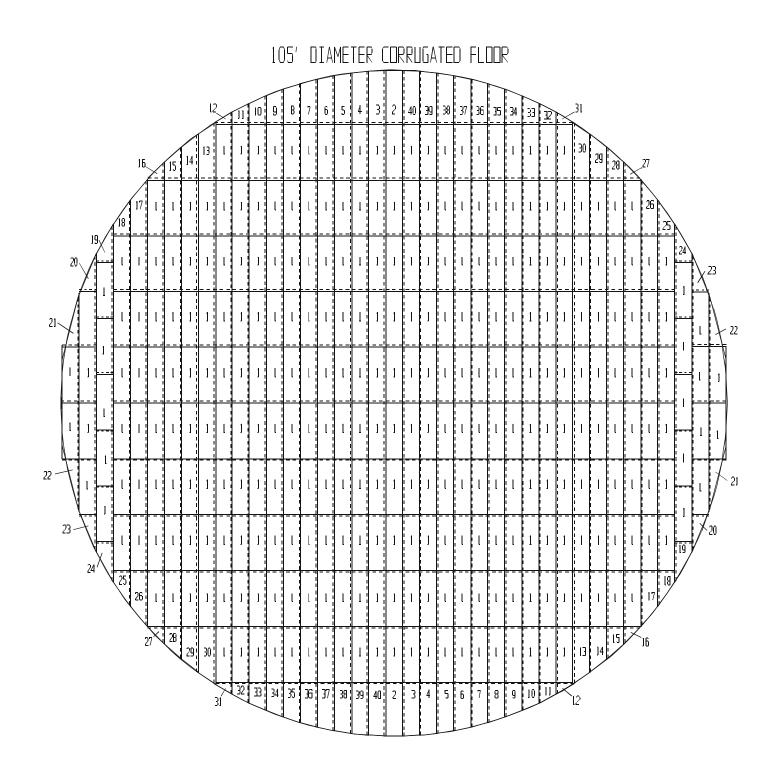
- \* MONORAIL LEGS NOT SHOWN
- \* DIMENSIONS IN INCHES

\* 108 PIECES AROUND THE OUTSIDE OF BIN





	105' Diameter Monorail Lengths							
Monorail Number	Sec 1.	Sec 2.	Sec 3.	Sec 4.	Sec 5.	Sec 6.		
1	93.0	264.0	264.0	264.0	264.0	93.0		
2	93.0	264.0	264.0	264.0	264.0	93.0		
3	93.0	264.0	264.0	264.0	264.0	93.0		
4	92.0	264.0	264.0	264.0	264.0	92.0		
5	92.0	264.0	264.0	264.0	264.0	92.0		
6	91.0	264.0	264.0	264.0	264.0	91.0		
7	90.0	264.0	264.0	264.0	264.0	90.0		
8	89.0	264.0	264.0	264.0	264.0	89.0		
9	87.0	264.0	264.0	264.0	264.0	87.0		
10	86.0	264.0	264.0	264.0	264.0	86.0		
11	84.0	264.0	264.0	264.0	264.0	84.0		
12	82.0	264.0	264.0	264.0	264.0	82.0		
13	80.0	264.0	264.0	264.0	264.0	80.0		
14	78.0	264.0	264.0	264.0	264.0	78.0		
15	76.0	264.0	264.0	264.0	264.0	76.0		
16 17	73.0 71.0	264.0 264.0	264.0 264.0	264.0 264.0	264.0 264.0	73.0 71.0		
17	68.0	264.0	264.0 264.0	264.0 264.0	264.0 264.0	68.0		
18	65.0	264.0	264.0 264.0	264.0 264.0	264.0 264.0	65.0		
20	62.0	264.0	264.0	264.0	264.0	62.0		
20	58.0	264.0	264.0	264.0	264.0	58.0		
21	54.0	264.0	264.0	264.0	264.0	54.0		
22	54.0 51.0	264.0	264.0	264.0	264.0	51.0		
23	47.0	264.0	264.0	264.0	264.0	47.0		
25	42.0	264.0	264.0	264.0	264.0	42.0		
26	38.0	264.0	264.0	264.0	264.0	38.0		
20	165.0	264.0	264.0	264.0	165.0			
28	161.0	264.0	264.0	264.0	161.0			
29	155.0	264.0	264.0	264.0	155.0			
30	150.0	264.0	264.0	264.0	150.0			
31	145.0	264.0	264.0	264.0	145.0			
32	139.0	264.0	264.0	264.0	139.0			
33	133.0	264.0	264.0	264.0	133.0			
34	126.0	264.0	264.0	264.0	126.0			
35	120.0	264.0	264.0	264.0	120.0			
36	113.0	264.0	264.0	264.0	113.0			
37	106.0	264.0	264.0	264.0	106.0			
38	98.0	264.0	264.0	264.0	98.0			
39	91.0	264.0	264.0	264.0	91.0			
40	83.0	264.0	264.0	264.0	83.0			
41	74.0	264.0	264.0	264.0	74.0			
42	65.0	264.0	264.0	264.0	65.0			
43	56.0	264.0	264.0	264.0	56.0			
44	46.0	264.0	264.0	264.0	46.0			
45	36.0	264.0	264.0	264.0	36.0			
46	158.0	264.0	264.0	158.0				
47	147.0	264.0	264.0	147.0				
48	135.0	264.0	264.0	135.0				
49	123.0	264.0	264.0	123.0				
50	110.0	264.0	264.0	110.0				
51	96.0	264.0	264.0	96.0				
52	82.0	264.0	264.0	82.0				
53	66.0	264.0	264.0	66.0				
54	50.0	264.0	264.0	50.0				
55	164.0	264.0	164.0					
56 57	145.0 124.0	264.0	145.0			-		
57 58	124.0 101.0	264.0 264.0	124.0 101.0					
30	101.0	204.0	101.0					



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