

## 30' DOME JOIST DECK - PHD-A

Notice: We offer this deck plan to represent the minimum requirement for your dome. Factors beyond the control of Pacific Domes - your soil composition, wind exposure, expected snow load, and seismic safety requirements – may warrant additional material including larger footings and beams, reduced spans between posts and between beams, and bracing of the support system. Consult an engineer for further details

1. Lay out the pier blocks according to Sheet 1 of drawing SD-30-71. Dig each pier block into the ground an inch or two and make each one level with itself.
2. Cut and lay out the beams according to Sheet 1. Leave the ends of the beams long (extending past the perimeter of the floor). Cut them later.
3. Level the beams with various lengths of 4 x 4 atop the piers.
4. Cut the “P”, “Q”, and “R” boards from the nine 2x6x8’ boards.  
Cut the “C”, “C2”, “C3”, “C4”, “N”, and “O” boards from the eighteen 2x6x10’ boards.  
Cut the “D”, “F”, “I”, “J”, “K”, “L”, “M”, “S”, “T”, and “U” boards from the thirty-three 2x6x12’ boards.  
Cut the “E”, “G”, and “H” boards from the five 2x6x16’ boards.

Note: All board length dimensions refer to the long side of the board. For the H joist, measure the length to point on centerline of joist. See SD-30-71, page 2.

5. Frame according to Sheet 2 of drawing SD-30-71. The centerline point of the “H” board meets the inside of the perimeter where two “C” boards meet. Set the other joists on 16” centers from the “H” boards.
6. Cover with plywood according to Sheet 3 of drawing SD-30-71.
7. Rasp, sand and finish with exterior grade varnish.

## 30' Dome Joist Deck - PHD-A Board Cut and Material List

### Board Cut List

Letter	Qty.	Size (Nominal)	Size (Actual)	Length <sup>1</sup>	Ends <sup>2</sup>
A	8	4x6 [100x150]	3 1/2" x 5 1/2" [89mm x 140mm]	192" [4877mm]	0°
B	2	4x6 [100x150]	3 1/2" x 5 1/2" [89mm x 140mm]	144" [3658mm]	0°
C	16	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	56 7/16" [1434mm]	9° - 9°
C2	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	56 7/16" [1434mm]	9° - 11°
C3	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	33 7/16" [849mm]	11° - 3°
C4	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	45" [1143mm]	3° - 3°
D	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	135 1/4" [3435mm]	0°
E	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	183 1/4" [4654mm]	0°
F	19	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	64 1/2" [1638mm]	0°
G	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	153 9/16" [3900mm]	63° - 63°
H	1	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	145 3/16" [3687mm]	9° - 0°
I	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	142 3/4" [3626mm]	9° - 0°
J	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	140 1/4" [3562mm]	9° - 0°
K	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	137 11/16" [3497mm]	9° - 0°
L	4	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	132 3/8" [3362mm]	27° - 0°
M	4	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	124 3/16" [3155mm]	27° - 0°
N	4	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	116 1/16" [2948mm]	27° - 0°
O	4	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	104 15/16" [2665mm]	45° - 0°
P	4	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	88 15/16" [2259mm]	45° - 0°
Q	4	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	72 15/16" [1853mm]	45° - 0°
R	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	46 3/4" [1187mm]	81° - 81°
S	3	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	139 1/2" [3544mm]	0°
T	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	138 11/16" [3523mm]	5° - 0°
U	2	2x6 [50x150]	1 1/2" x 5 1/2" [38mm x 140mm]	137 3/16" [3484mm]	5° - 0°
-	24	4x4 [100x100]	3 1/2" x 3 1/2" [89mm x 89mm]	As required	0°
-	25	3/4"	4' x 8'	As required	As required

### Material List

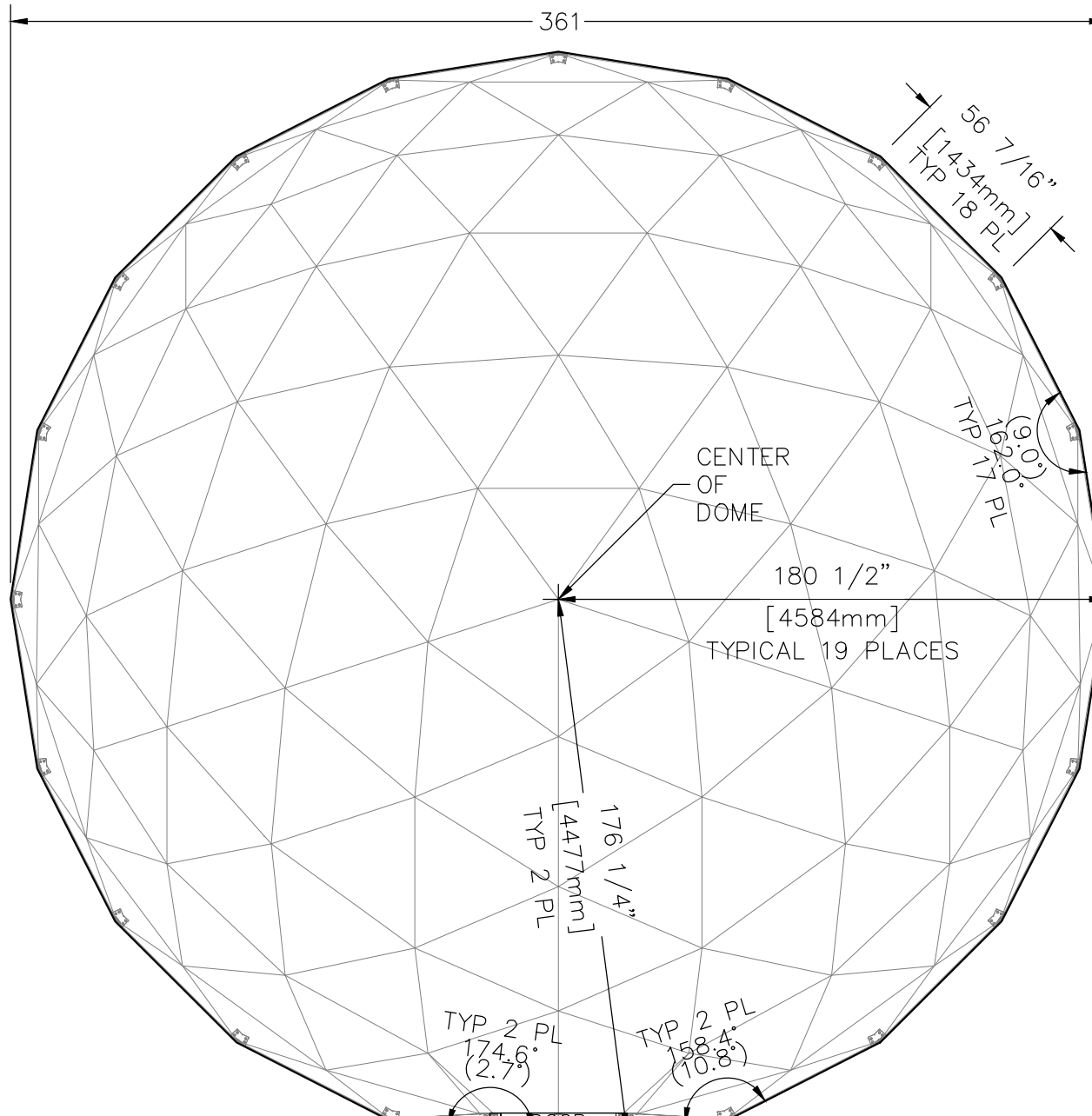
Qty.	Item	Material Allocation
8	4" x 6" x 16' <sup>3</sup>	A
2	4" x 6" x 12'	B
5	2" x 6" x 16'	E, G, H
33	2" x 6" x 12'	D, F, I, J, K, L, M, S, T, U
18	2" x 6" x 10'	C, C2, C3, C4, N, O
9	2" x 6" x 8'	P, Q, R
24	Pier blocks	Piers
As required	4" x 4"	Posts
15	lbs. of 16d galvanized box nails <sup>4</sup>	Fasteners
25	Sheets of 3/4" plywood	Cladding
15	lbs. of 8d galvanized box nails <sup>4</sup>	Fasteners
6	Gallons exterior varnish	Finish

<sup>1</sup> All lengths in inches and millimeters and for the long side of the board. For the H joist, measure length to point on centerline of joist. See SD-30-71, page 2.

<sup>2</sup> Angles shown represent the angles of the material cut off. For angles less than 45°, use this for setting the angle of the saw.

<sup>3</sup> Splice as required.

<sup>4</sup> Substitute screws for nails to afford portability of floor.



361

56 7/16"  
[1434mm]  
TYP 18 PL

TYP 163.0°  
177 PL

CENTER OF DOME

180 1/2"

[4584mm]

TYPICAL 19 PLACES

176 1/4"  
[4477mm]  
TYP 2 PL

TYP 2 PL  
174.6°  
(2.7°)

TYP 2 PL  
158.4°  
(10.8°)

DOOR

33 7/16"  
[849mm]  
TYP 2 PL

45"  
[1143mm]

ALL DIMENSIONS MEASURE TO OUTSIDE EDGE  
ALL DIMENSIONS MEASURED IN INCHES.  
MITER ANGLES IN PARENTHESIS.



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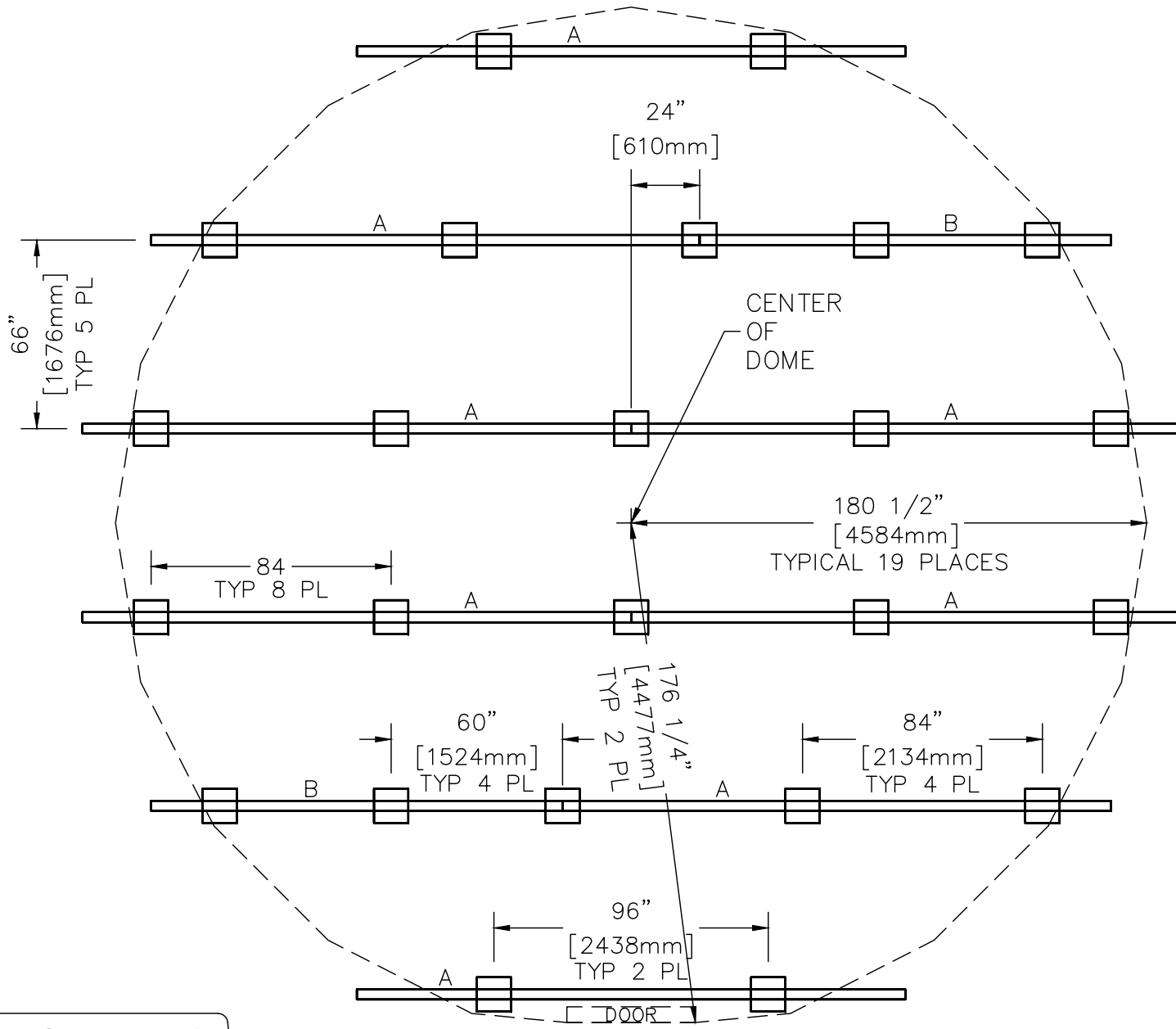
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**20' DOME PERIMETER - PHD-A**  
DESCRIPTION:  
**PERIMETER BOARDS**

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**30' DOME JOIST DECK - PHD-A**

DESCRIPTION:  
**PIERS & BEAMS, JOISTS, PLYWOOD**

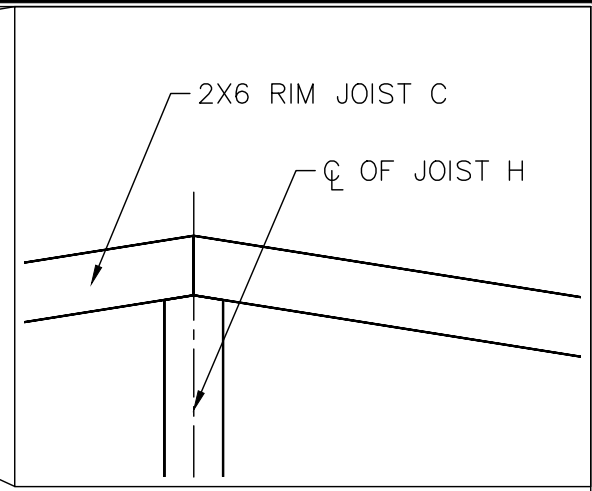
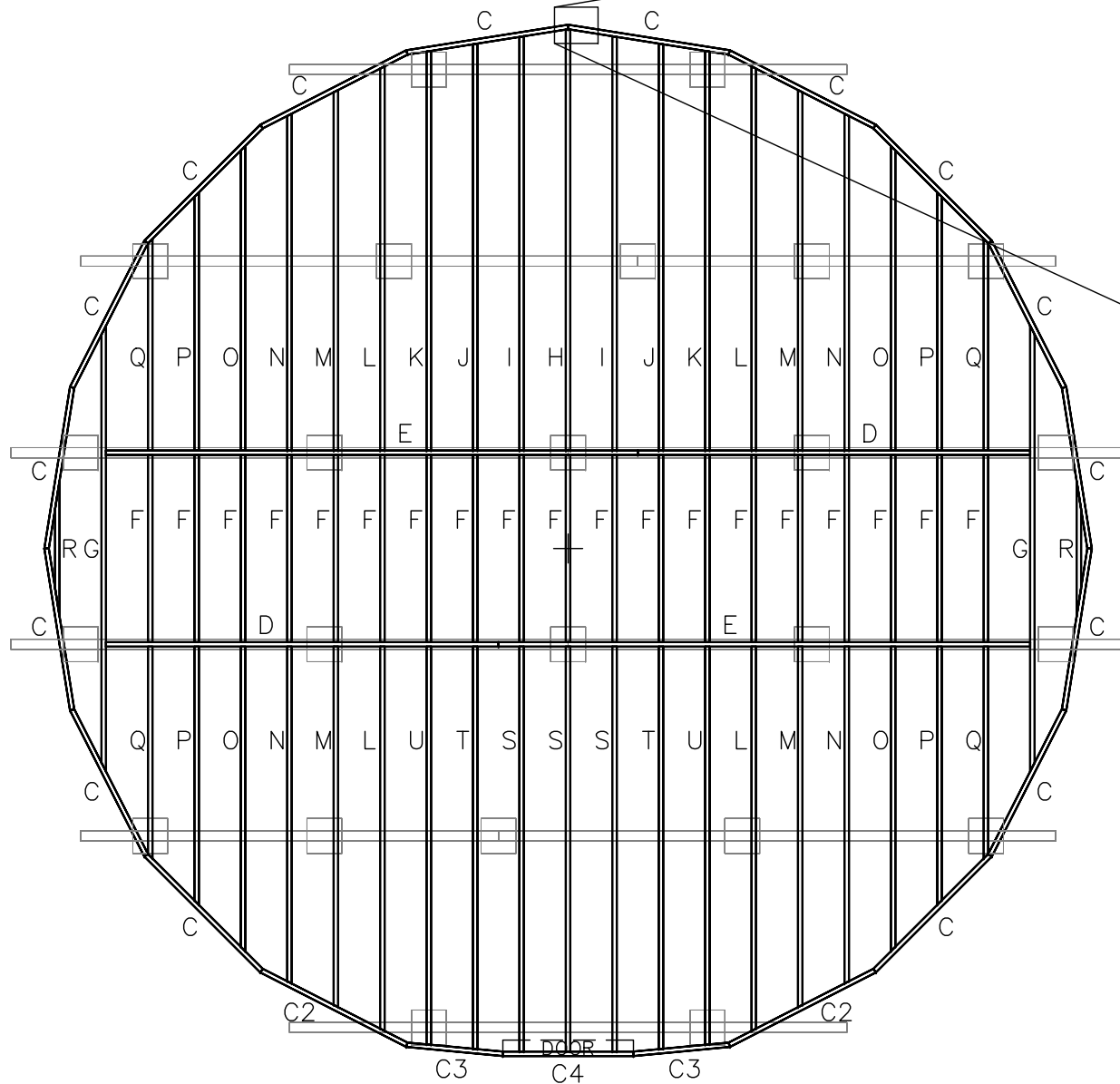
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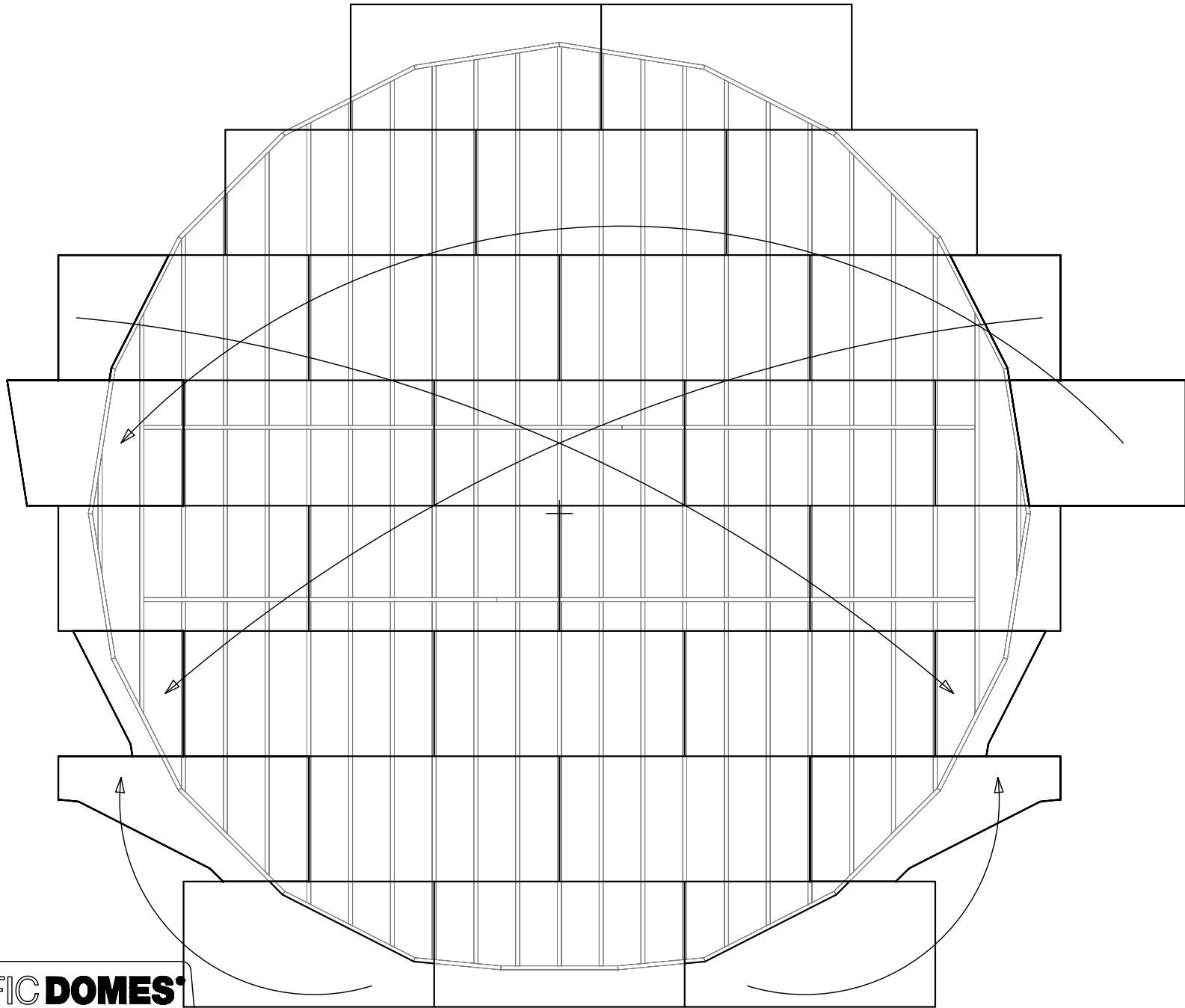

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