

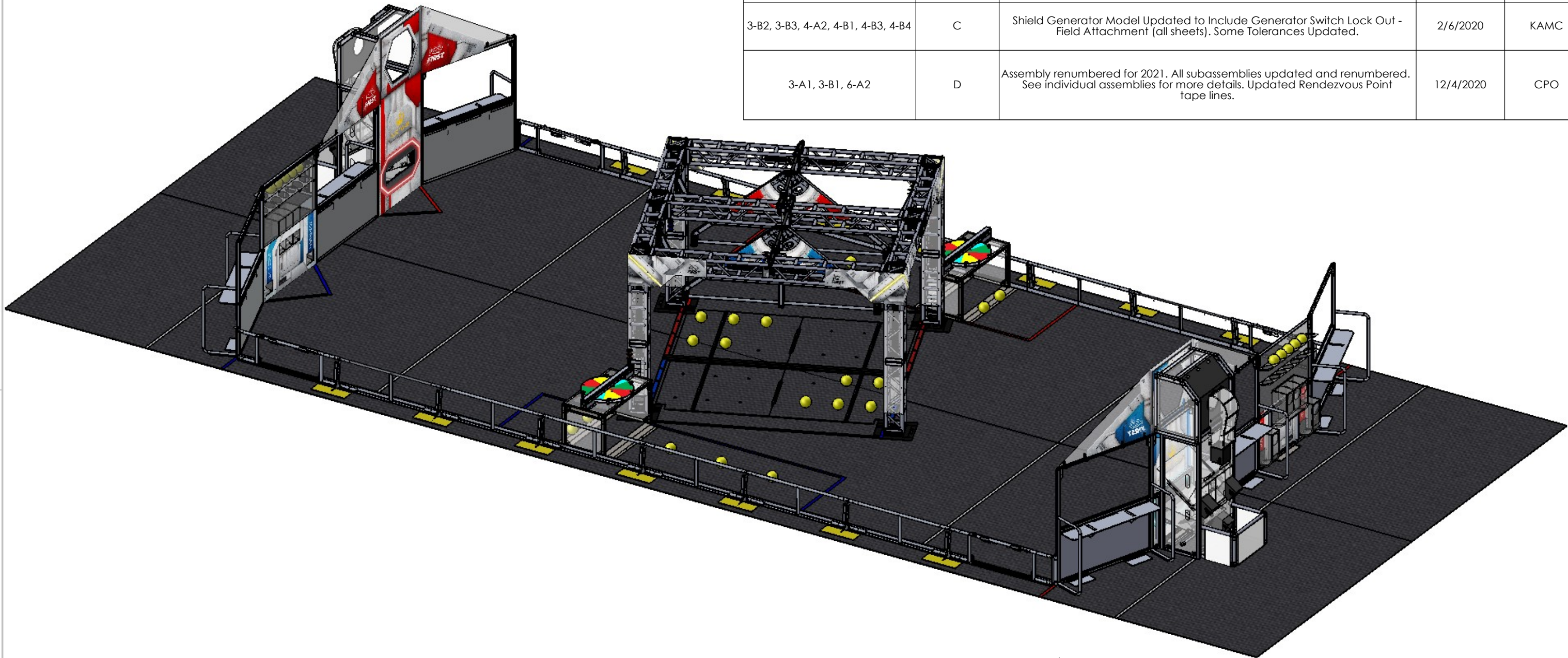
4

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1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
5-A2, 5-A3, 5-B2	A	Adjusted TRENCH location.	1/2/2020	CPO
A2, 2-A2, 3-A2, 3-A3, 4-A2, 4-A3, 4-A4, 4-B1, 4-B2, 4-B3, 4-B4, 5-A2, 5-A3, 6-A2, 6-A3	B	Added Sheet, Added Truss Base Reference Dimensions, Updated Tolerance in Title Blocks, Added Dimension for TRENCH RUN.	1/31/2020	KAMC
3-B2, 3-B3, 4-A2, 4-B1, 4-B3, 4-B4	C	Shield Generator Model Updated to Include Generator Switch Lock Out - Field Attachment (all sheets). Some Tolerances Updated.	2/6/2020	KAMC
3-A1, 3-B1, 6-A2	D	Assembly renumbered for 2021. All subassemblies updated and renumbered. See individual assemblies for more details. Updated Rendezvous Point tape lines.	12/4/2020	CPO



B

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		DIMENSIONS ARE IN INCHES	DRAWN		
		TOLERANCES:	CHECKED		
		FRACTIONAL +/- 1/2	ENG APPR.		
		ONE PLACE DECIMAL: +/- 0.5	MFG APPR.		
		TWO PLACE DECIMAL: +/- 0.50	Q.A.		
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:		
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**2021 Field Layout and Marking**

SIZE **B** DWG. NO. **FE-2021** REV **D**

SCALE: 1:60 WEIGHT: SHEET 1 OF 6

4

3

2

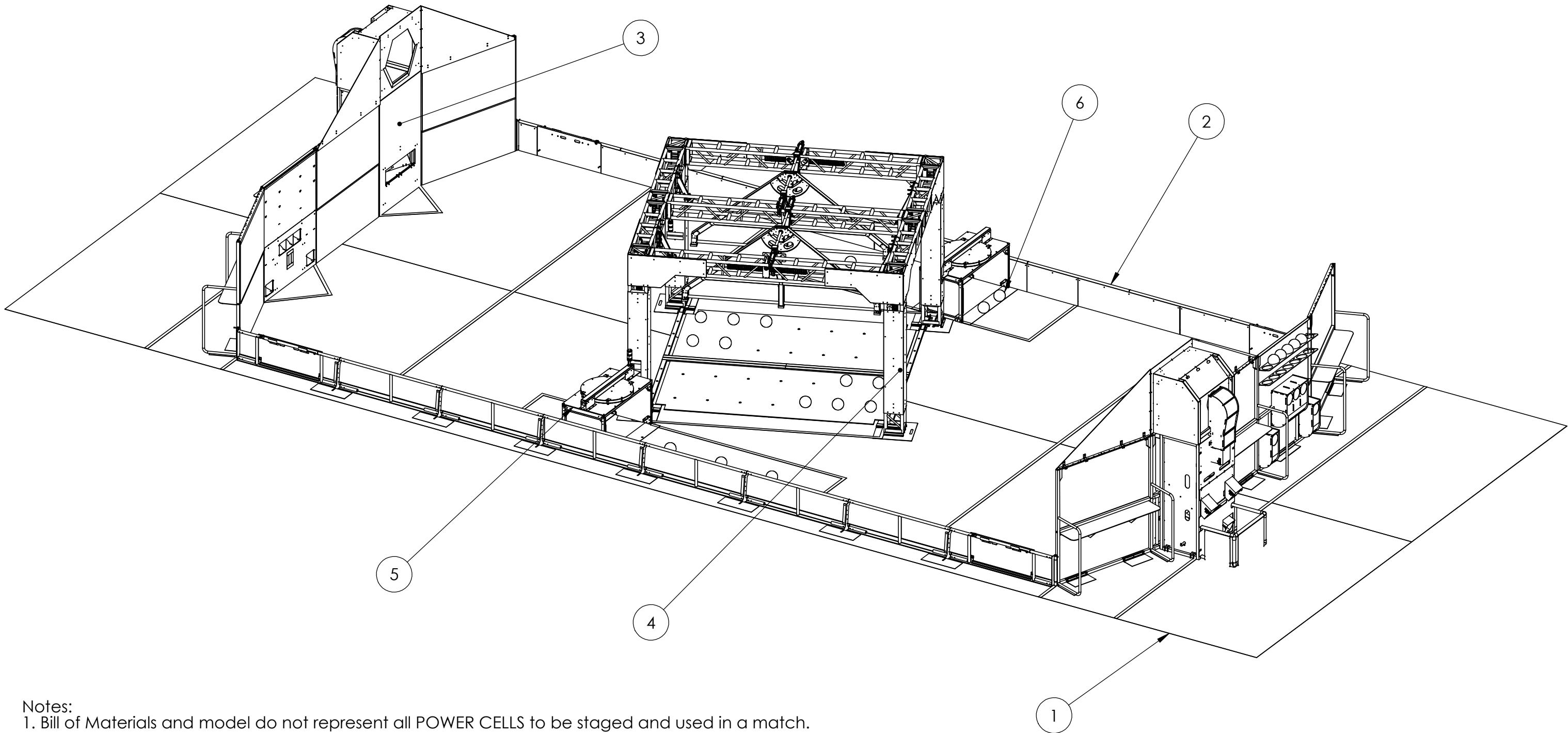
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1



Notes:  
1. Bill of Materials and model do not represent all POWER CELLS to be staged and used in a match.

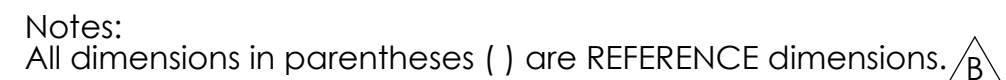
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-2021-01	Carpet	2
2	FE-2021-02	Side Border	2
3	FE-2021-03	End Wall	2
4	GE-21000	Shield Generator	1
5	GE-21100	Trench with Control Panel	2
6	GE-21500	Power Cell	10



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			CHECKED				
			ENG APPR.				
			MFG APPR.				
			Q.A.				
			COMMENTS:				
NEXT ASSY	USED ON						
APPLICATION		DO NOT SCALE DRAWING	SIZE <b>B</b>			DWG. NO. <b>FE-2021</b>	REV <b>D</b>
			SCALE: 1:60		WEIGHT:	SHEET 2 OF 6	







		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 	
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL +/- 1/2	DRAWN				TITLE:
		ONE PLACE DECIMAL: +/- 0.5 TWO PLACE DECIMAL: +/- 0.050	CHECKED				<h1>2021 Field Layout and Marking</h1>
			ENG APPR.				
			MFG APPR.				
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.				
		MATERIAL	COMMENTS:				
NEXT ASSY	USED ON	FINISH				SIZE <b>B</b> DWG. NO. <b>FE-2021</b> REV <b>D</b>	
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:64 WEIGHT:			SHEET 3 OF 6	

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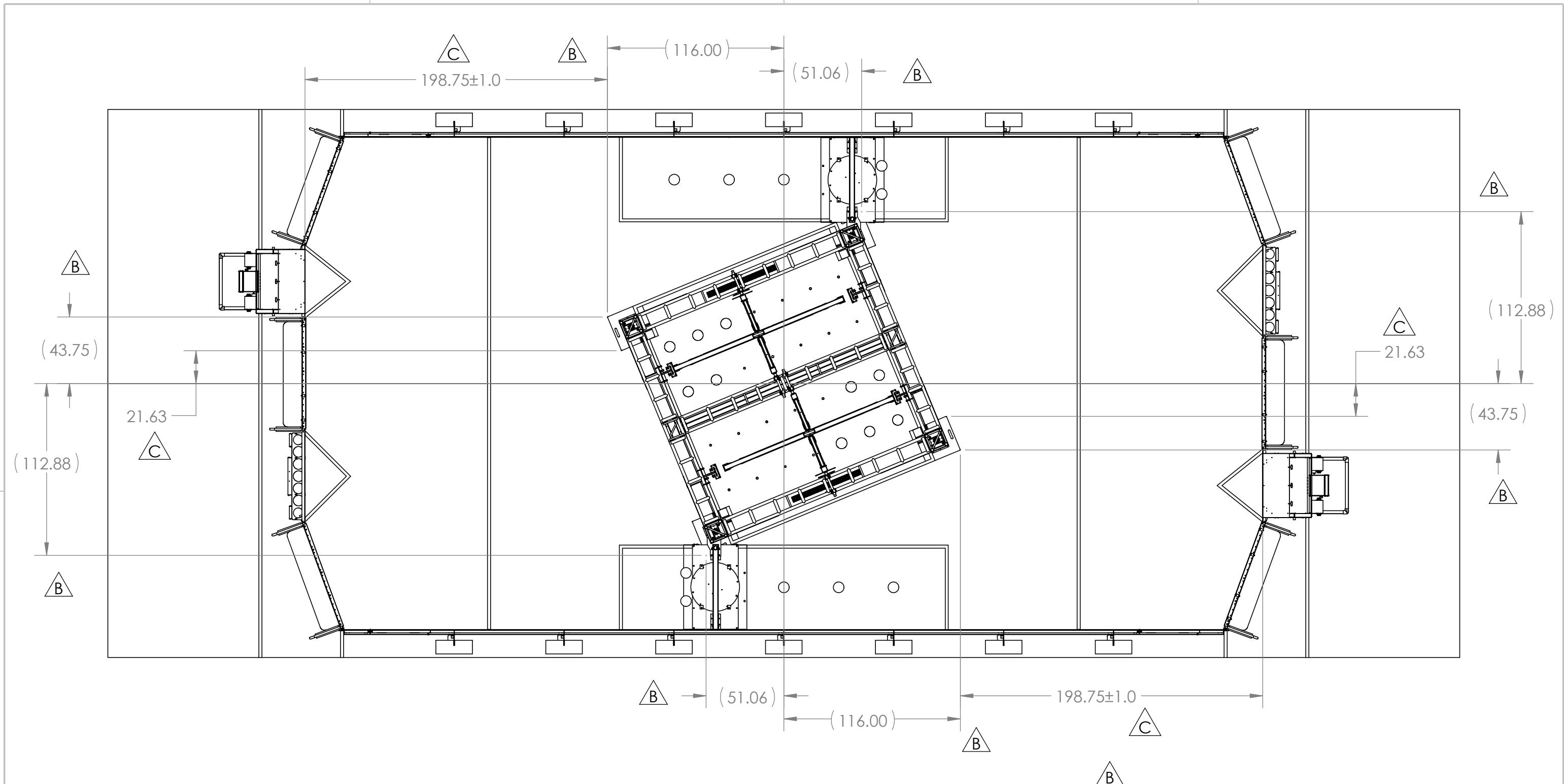
1


B

B



A

A



Notes:  
All dimensions in parentheses ( ) are REFERENCE dimensions. 

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			DRAWN			
			CHECKED			
			ENG APPR.			
			MFG APPR.			
			Q.A.			
			COMMENTS:			
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				

4

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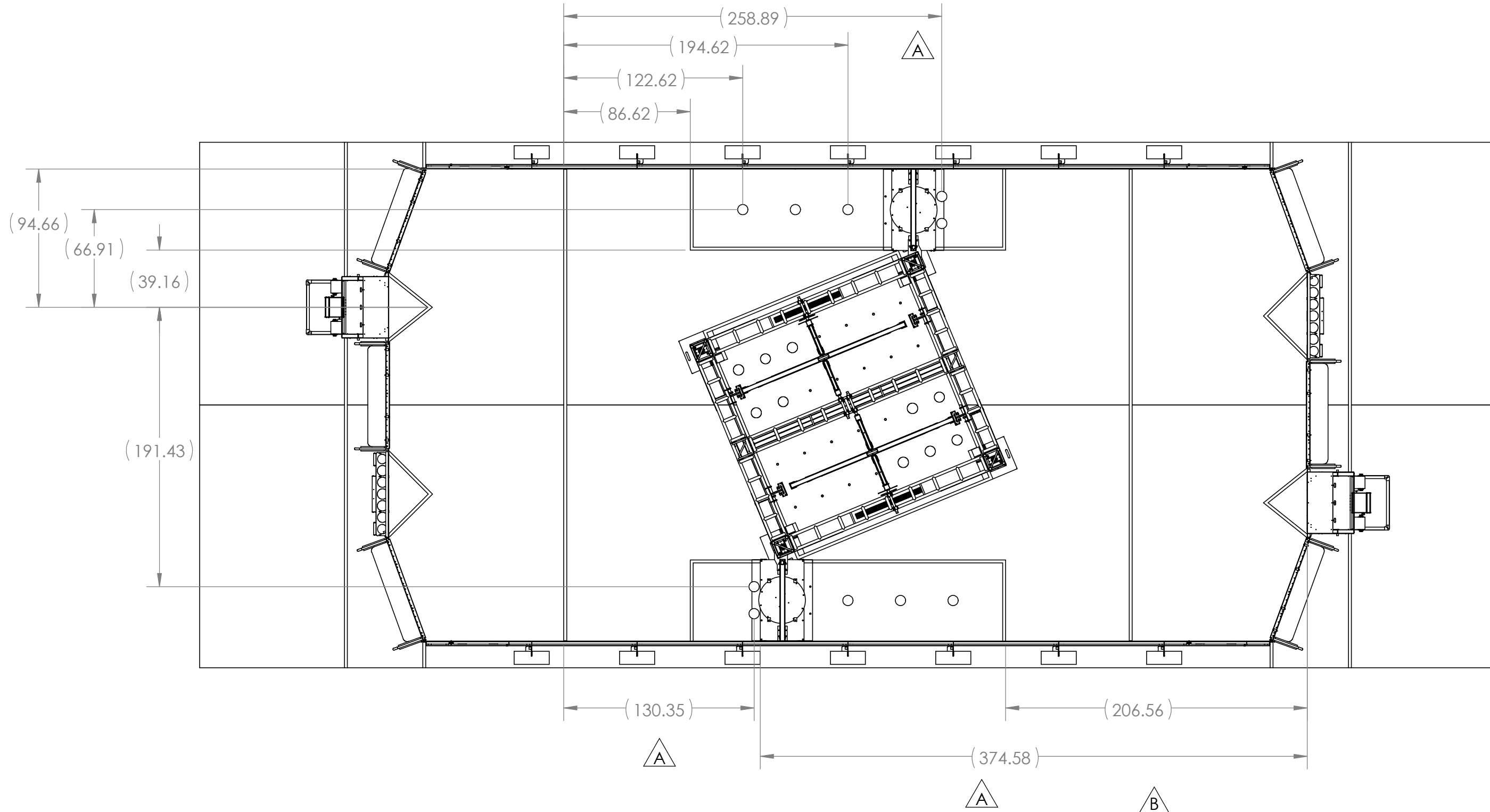
1


B

B



A

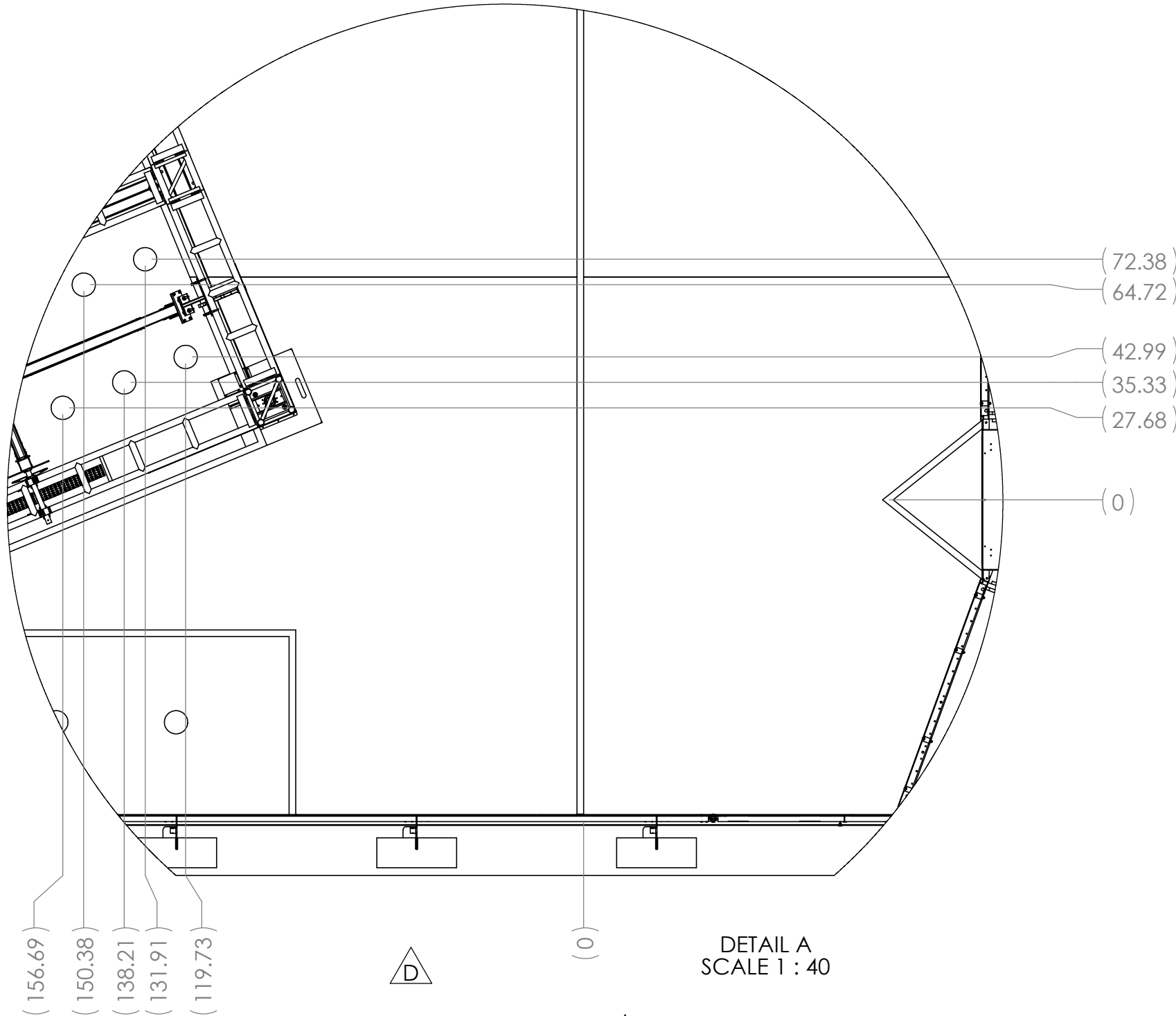
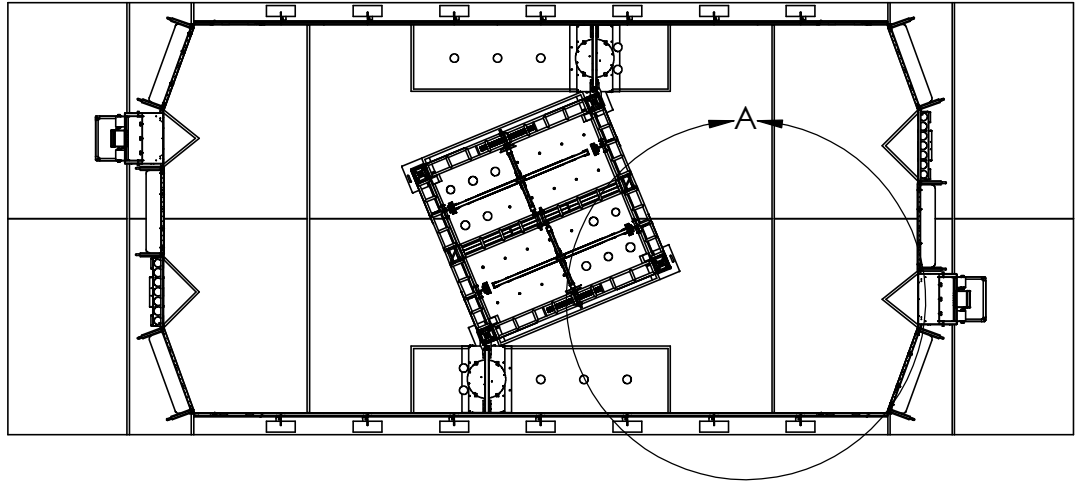
A



Notes:  
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			DRAWN			
			CHECKED			
			ENG APPR.			
			MFG APPR.			
			Q.A.			COMMENTS:
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				



DETAIL A  
SCALE 1 : 40

Notes:  
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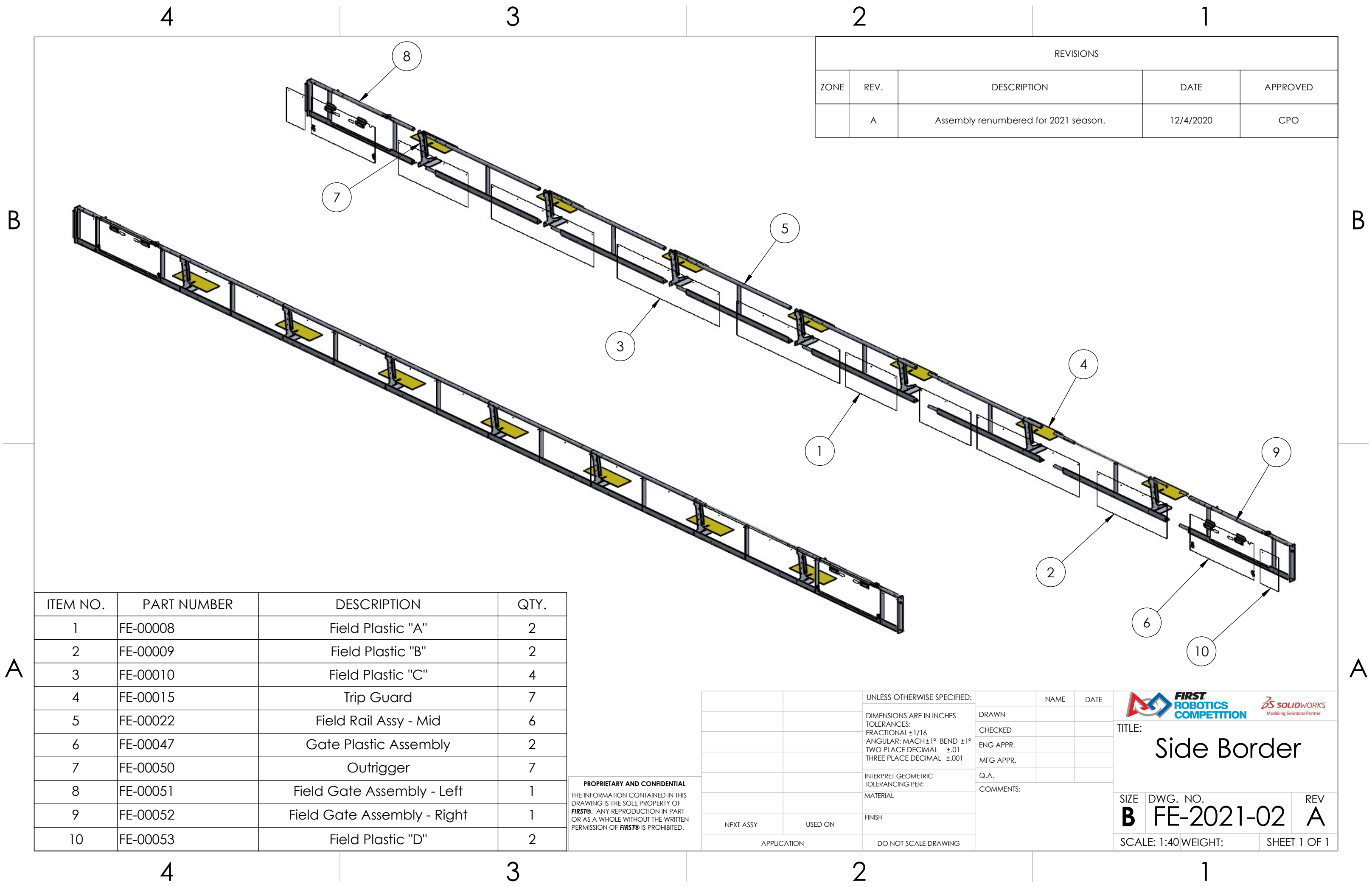
		UNLESS OTHERWISE SPECIFIED:
		DIMENSIONS ARE IN INCHES
		TOLERANCES:
		FRACTIONAL +/- 1/2
		ONE PLACE DECIMAL: +/- 0.5
		TWO PLACE DECIMAL: +/- 0.50
		INTERPRET GEOMETRIC TOLERANCING PER:
		MATERIAL
NEXT ASSY	USED ON	FINISH
APPLICATION		DO NOT SCALE DRAWING



TITLE:  
**2021 Field Layout  
and Marking**

SIZE **B** DWG. NO. **FE-2021** REV **D**



SCALE: 1:160 WEIGHT: SHEET 6 OF 6



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Assembly renumbered for 2021 season.	12/4/2020	CPO

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00008	Field Plastic "A"	2
2	FE-00009	Field Plastic "B"	2
3	FE-00010	Field Plastic "C"	4
4	FE-00015	Trip Guard	7
5	FE-00022	Field Rail Assy - Mid	6
6	FE-00047	Gate Plastic Assembly	2
7	FE-00050	Outrigger	7
8	FE-00051	Field Gate Assembly - Left	1
9	FE-00052	Field Gate Assembly - Right	1
10	FE-00053	Field Plastic "D"	2

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE:  Side Border			
		TOLERANCES:	CHECKED						
		FRACTIONAL $\pm 1/16$	ENG APPR.						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.						
		TWO PLACE DECIMAL $\pm .01$	Q.A.						
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV <b>B</b> FE-2021-02 <b>A</b>			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON					SCALE: 1:40 WEIGHT: SHEET 1 OF 1			
APPLICATION		DO NOT SCALE DRAWING							





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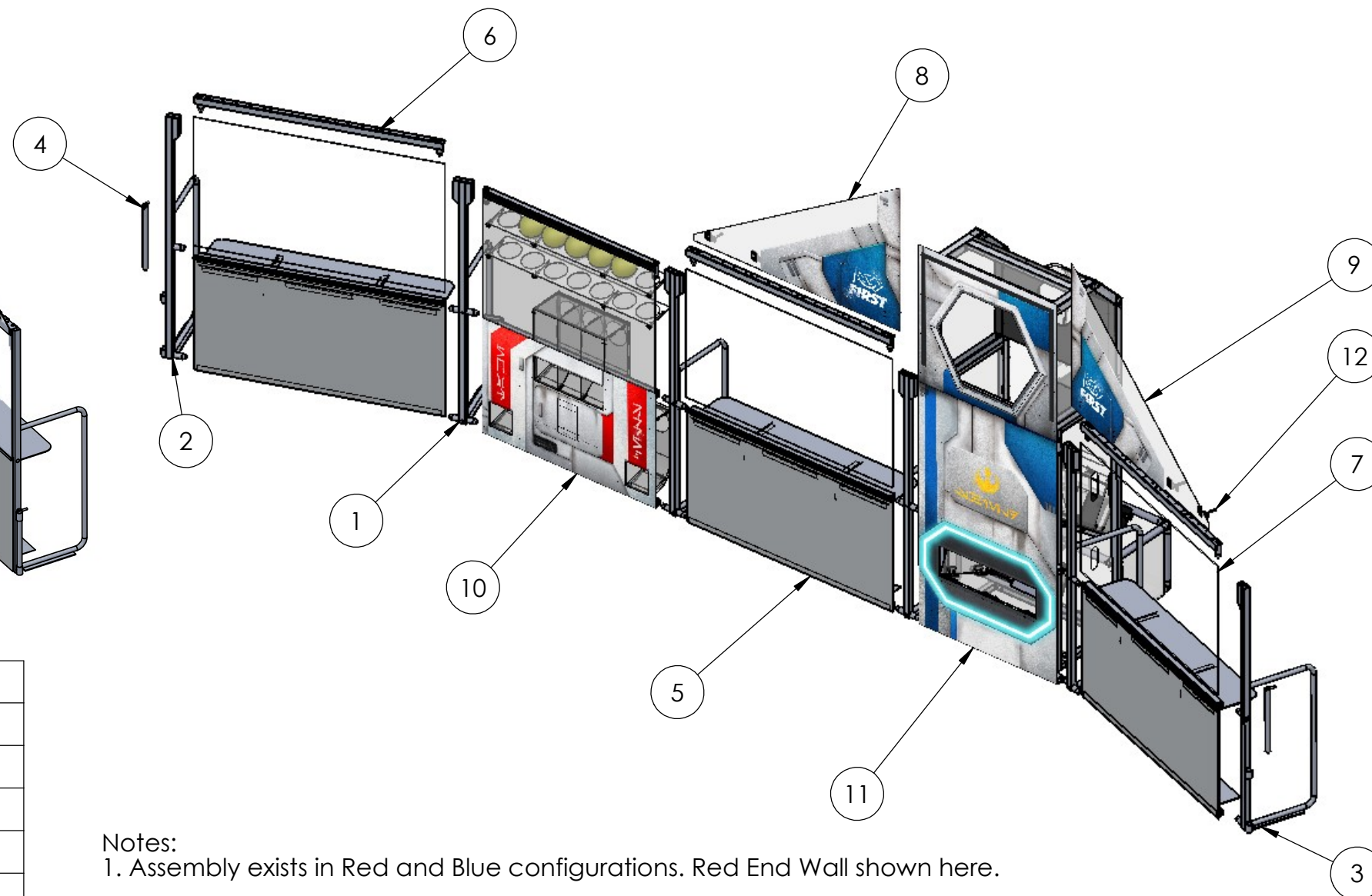
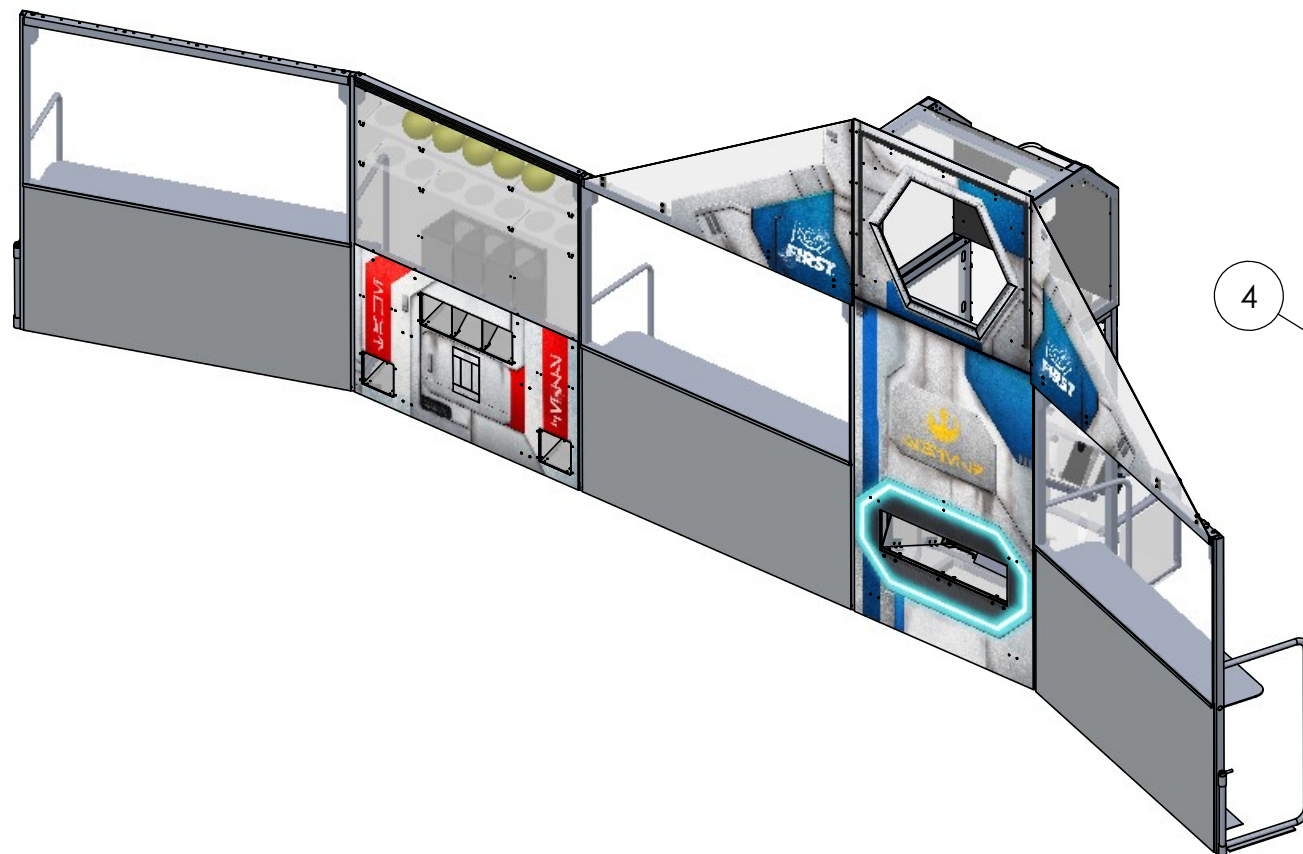
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2

1

## REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Assembly renumbered for 2021 season. Loading Bay and Power Port assemblies renumbered and updated. See assembly drawings for more details.	12/4/2020	CPO



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00001	Drivers Station Support	4
2	FE-00002_Right	Corner Supports, Right	1
3	FE-00002	Corner Supports, Left	1
4	FE-00003	Rail Pin Assy	2
5	FE-00004	End Panel	3
6	FE-00007	Field Top Rail	3
7	FE-00012	Drivers Station Acrylic	3
8	GE-20329	Power Port Backboard Left	1
9	GE-20330	Power Port Backboard Right Assembly	1
10	GE-21200	Loading Bay	1
11	GE-21300	Power Port	1
12	round_phil_.25_20_2_full	Round Head Phillips, 1/4"-20 x 2" long, fully threaded	8

Notes:  
1. Assembly exists in Red and Blue configurations. Red End Wall shown here.

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DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN		
	CHECKED		
	ENG APPR.		
	MFG APPR.		
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
MATERIAL	COMMENTS:		
FINISH			
NEXT ASSY	USED ON		
APPLICATION	DO NOT SCALE DRAWING		

TITLE:		FIRST ROBOTICS COMPETITION		3D SOLIDWORKS Modeling Solutions Partner	
End Wall		SIZE		DWG. NO.	
B		FE-2021-03		REV	
A		SCALE: 1:40		WEIGHT:	
				SHEET 1 OF 1	