

## PROJECT ESTIMATE

**Client:** Heising-Simons Foundation  
400 Main Street, Ste. 200  
Los Altos, CA 94022

**Project Name & Address:** Parkopolis Santa Ana  
Madison Park, 1528 S Standard Ave  
Santa Ana, CA 92707

**Contact:** Andres S. Bustamente, Ph.D.  
**Phone:** 949-824-7367  
**Email:** asbustam@uci.edu

**Job Name:** Parkopolis Santa Ana  
**Job Number:** B0638  
**Project Manager:** TBD  
**Date:** 10/19/2022  
**Version:** 4

	DESCRIPTION	AMOUNT
1	<p><b>Parkopolis Game Board Stencils</b></p> <p>Materials and labor to fabricate one (1) Parkopolis game board stencil kit, inclusive of one (1) stencil per color. Assumes game board to be 40' x 40'.</p> <p>Assumes Client to provide simplified game board design as a vector (Ai) file, from which Cinnabar Graphics Manager and Graphics Coordinator will design and layout final digital stencil files. Client to provide and proof any written copy, images, and/or illustrations. Excludes cost to license images and/or illustrations.</p>	\$ 21,259.20
2	<p><b>Parkopolis Game Board Key Sign</b></p> <p>Materials and labor to fabricate one (1) Parkopolis game board key sign, ~3' W x 2" D x 4' H, consisting of one (1) direct embed aluminum graphic panel mounted on steel post. Panel to explain simplified game with icon key and instructions in English and Spanish. Post to be painted (color TBD), have weather-resistant finish, and be mounted to existing concrete slab.</p> <p>Assumes client to design, provide and proof written copy, images, and/or illustrations for, and layout graphic panel file. Client to provide graphic as vector (Ai) file. Excludes cost to license images and/or illustrations. Includes cost of services of Graphics Manager and Graphics Coordinator to produce template files for cards.</p>	\$ 5,378.15
3	<p><b>Flip Cards</b></p> <p>Materials and labor to fabricate one (1) double-legged steel flip card frame, ~3'-8.75" W x 5'-4.5" H, with sixteen (16) double-sided cards (~1'-6" W x 2' H each) that flip horizontally on the frame. Each card face to have two (2) sections designed for previous versions of Parkopolis board, stacked with the assigned front and backs accordingly.</p> <p>Frame to be painted (color TBD), have weather-resistant finish, and be mounted to existing concrete slab. Double-sided cards to be direct embed aluminum graphic panels with plastic sleeves and turn handles, each on 180-degree hinge. Final construction to be ADA compliant.</p> <p>Assumes Client to provide simplified design, provide and proof written copy, images, and/or illustrations for, and layout graphic card files. Client to provide graphics as vector (Ai) files. Excludes cost to license images and/or illustrations. Includes cost of services of Graphics Manager and Graphics Coordinator to produce template files for cards.</p>	\$ 29,370.45
4	<p><b>Spinning Wheel</b></p> <p>Materials and labor to fabricate (1) spinning wheel frame with two spinning wheels, ~3'-3" W x 2'-11" D x 4'-1.5" H. Steel frame to be painted (color TBD), have weather-resistant finish, and be mounted to existing concrete slab. Metal frame to be painted for weather proofing, color TBD.</p> <p>Spinners to be engraved two tone HDPE (or similar) with metal grip bars painted and finished to match frame. Assumes one wheel to have numbers one (1) - six (6) and second wheel to have fractions (1/4, 2/4, 3/4, 4/4), five (5), and six (6) . Final construction to be ADA compliant.</p>	\$ 32,635.55

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DESCRIPTION	AMOUNT
<b>5 Tubulum</b> Materials and labor to fabricate one (1) Tubulum with four (4) integral-colored PVC tubes @ 2'-11.5" W x 2'-4.75" D x 3'-4.5" H. Tubulum frame to be metal, painted (color TBD), have weather-resistant finish, and be mounted to existing concrete slab. Structure holding tubes to be HDPE (or similar; color TBD). Final construction to be ADA compliant.	\$ 14,579.65
<b>6 Project Management</b> Cost of services of Project Manager for sixty-four (64) hours @ \$105/hour and Project Coordinator for forty (40) hours @ \$75/hour over the course of project duration (Assumes approximately eight (8) weeks from date of approval).  Also includes cost of Graphics Manager for sixteen (16) hours @ \$90/hour and Graphics Coordinator for twenty-four (24) hours @ \$75/hour to oversee QC all graphics production.	\$ 12,960.00
<b>7 Technical Design &amp; Engineering</b> Cost of services of Technical Design Director for eight (8) hours @ \$135/hour, Technical Director for twenty-four (24) hours @ \$135/hour, Technical Designer for one-hundred and twenty (120) hours @ \$85/hour, and Technical Design Coordinator for thirty-two (32) hours @ \$75/hour throughout the project's duration to design and provide templates, fabrication approach, shop drawings and CNC files for Line Items 1-5. Also includes engineering of Flip Cards.	\$ 31,080.00
<b>8 Packing &amp; Handling</b> Cost of materials and labor to pack and load items 1-5.	\$ 870.00
<b>9 Transportation/Freight</b> Cost of equipment, materials, and labor to ship items 1-5 from Los Angeles to Santa Ana	\$ 880.00
<b>10 Installation</b> Includes cost of equipment, materials, and labor to create Parkopolis Game Board and install line items 2-5 on site in Santa Ana in two phases:  1: 40' x 40' Parkopolis game board, as surface treatment on existing concrete slab. Includes cost to prepare and treat slab to receive board game design. Multiple layers of integral-color concrete epoxy mix to be stencil-applied onto treated slab. Timeline of installation TBD, based on final Client design and required surface prep.  2. Installation of line items 2-5 on finished Parkopolis game board by Cinnabar Installation lead and two (2) Cinnabar installers for two (2) days. Assumes work to take place during daytime hours, M-F, and that installation to be non-union.  Please note: Game board application requires clean (paint-free) cement with repaired cracks and imperfections. Installation estimate excludes concrete repairs. Client is responsible for assuring installation-ready condition of existing concrete slab.	\$ 44,942.40

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	DESCRIPTION		AMOUNT
11	<b>Estimated Sales Tax (9.25%, City of Santa Ana)</b> City of Santa Ana sales tax, applied to line items 1-5.	\$	9,628.60
<b>PROJECT GRAND TOTAL:</b>			<b>\$ 203,584.00</b>

### DEDUCT ALTERNATE

	DESCRIPTION		AMOUNT
DA1	<b>Gameboard</b>  Cost reduced from Project Grant Total if existing concrete slab treated with epoxy paint instead of integral-color concrete epoxy mix. Deduction includes materials, fabrication labor, installation labor, and tax.  Please note: Gameboard application still requires client (paint-free) cement with repaired cracks and imperfections.	\$	(8,500.00)
DA2	<b>Park Drums</b>  Cost reduced from Project Grant Total if tubulum is cut and replaced with park drum set of five (5) in five (5) colors, off the shelf from Willy Goat. Deduction includes materials, fabrication labor, installation labor, and tax.	\$	(9,079.65)

Cinnabar pricing is valid for thirty (30) days upon submission to client (10/19/22 - 11/17/22). Cinnabar reserves the right to update pricing should a contract be executed after that period.

If the above costs and specifications meet with your approval, please sign and date below and return one executed copy.

*Client*

*Date*

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DESCRIPTION	AMOUNT
<b>PAYMENT TERMS:</b>	
30% OF PROPOSED TOTAL DUE UPON ACCEPTANCE	\$ 61,075.20
30% OF PROPOSED TOTAL DUE AT BEGINNING OF FABRICATION (~THREE (3) WEEKS FROM ACCEPTANCE)	\$ 61,075.20
30% OF PROPOSED TOTAL DUE AT BEGINNING OF INSTALLATION (~SIX (6) WEEKS FROM ACCEPTANCE)	\$ 61,075.20
10% OF PROPOSED TOTAL DUE UPON FINAL INVOICE (~EIGHT (8) WEEKS FROM ACCEPTANCE)	\$ 20,358.40
<b>TOTAL:</b>	<b>\$ 203,584.00</b>

**Additional Terms and Conditions of the Estimate:**

1. Place of Delivery: The Project shall be delivered to CLIENT at CLIENT's job site, located at Madison Park, Santa Ana, CA 92707. 2. Inspection and Title: The Risk of Loss, Damage, and Title shall pass to CLIENT F.O.B. CLIENT'S job site immediately upon CLIENT'S inspection and acceptance of the Project. 3. Taxes: In addition to the Purchase Price, CLIENT shall pay CINNABAR the amount of all governmental taxes, excises and other charges (except taxes on or measured by net income) that CINNABAR may be required to pay with respect to the design and construction of the Project, except where the law otherwise provides. 4. Interpretation and Parol Evidence: The Parties intend this Estimate to be the final, complete and exclusive expression of their agreement concerning the matters contained herein, amendable only by a subsequent writing between the Parties. No course of prior dealings between the Parties and no trade custom shall be relevant to supplement or explain any term used in this Estimate. 5. Authority: No agent, employee or representative of CINNABAR has any authority to bind CINNABAR to any affirmation, representation or warranty concerning the Project designed, constructed and delivered hereunder. Unless an affirmation, representation or warranty made by an agent, employee or representative is specifically included in this Estimate, it has not constituted a part of the basis for this bargain and shall not be in any way enforceable. 6. Remedies: CLIENT'S exclusive remedy, and CINNABAR's limit of liability, for any and all losses or damages resulting from defects related to the Project shall be for the purchase price of the Project. 7. Attorney's Fees and Costs: In the event of any action between the parties to enforce the provisions hereof, the unsuccessful party to such litigation shall pay to the successful party all costs and expenses, including reasonable attorney's fees, that the successful party incurred. 8. Changes to scope may constitute a change order. All change orders must be agreed upon in advance and in writing by CINNABAR and CLIENT. 9. Acceptance: By authorizing the Commencement of any Work herein contained, the Client hereby represents that these terms and conditions are understood and accepted and made part of the Agreement.

Parkopolis: \$203,584

Number Ball and Fraction Ball Overlays: \$6,000

**GRAND TOTAL (PARKOPOLIS, NUMBER BALL, FRACTION BALL): \$209,584**

## EXHIBIT 1

### NUMBER BALL/FRACTION BALL \$6,000:

#### The Learning Goal

Playful, physically active, embodied math learning. Communication and Collaboration (children play structured games on teams to pursue different goals), Content (fractions, decimals, arithmetic, number lines), Critical Thinking (strategizing what shots you need to reach your goal the most efficient way), Creativity (making up new games/goals using the court, e.g., adding in a ball that multiplies all shots by 2), Confidence (engaging with fractions and decimals in a playful approaches improves confidence when they encounter them in the classroom).

#### The Design

The traditional 3-point arc is converted into a 1-point arc and smaller arcs closer to the basket represent  $1/4$ ,  $1/2$ , and  $3/4$  point shots on one end of the court, and  $1/3$  and  $2/3$  point shots on the opposite end. The numbers are presented as fractions on one side of the court and as decimals on the other side, requiring students to convert between them. Along the side of the court, a number line with both fraction and decimal representations helps students keep track of their score.



photo: Andres Bustamante

### PARKOPOLIS \$203,584:

#### The Learning Goal

Parkopolis supports children's playful communication with adults and fellow peers around content in science and math. It encourages collaboration and cooperative game play, creative innovation in creating new rules, and the confidence to persist on challenging activities.

#### The Design

Parkopolis builds ideas about numbers, measuring, and fractions – a stumbling block for many children – into a life-size board game. Children roll "fraction dice" to skip around the board in  $1/2$  and  $3/4$  leaps, and draw giant cards that engage them in play that is hands-on and "minds-on".



photo: Sahar Coston-Hardy



Madison Park  
Neighborhood  
Community  
Garden

Fraction  
Ball

Number  
Ball

Parkopolis

Madison Park  
Temporarily closed

1101

Edinger Ave

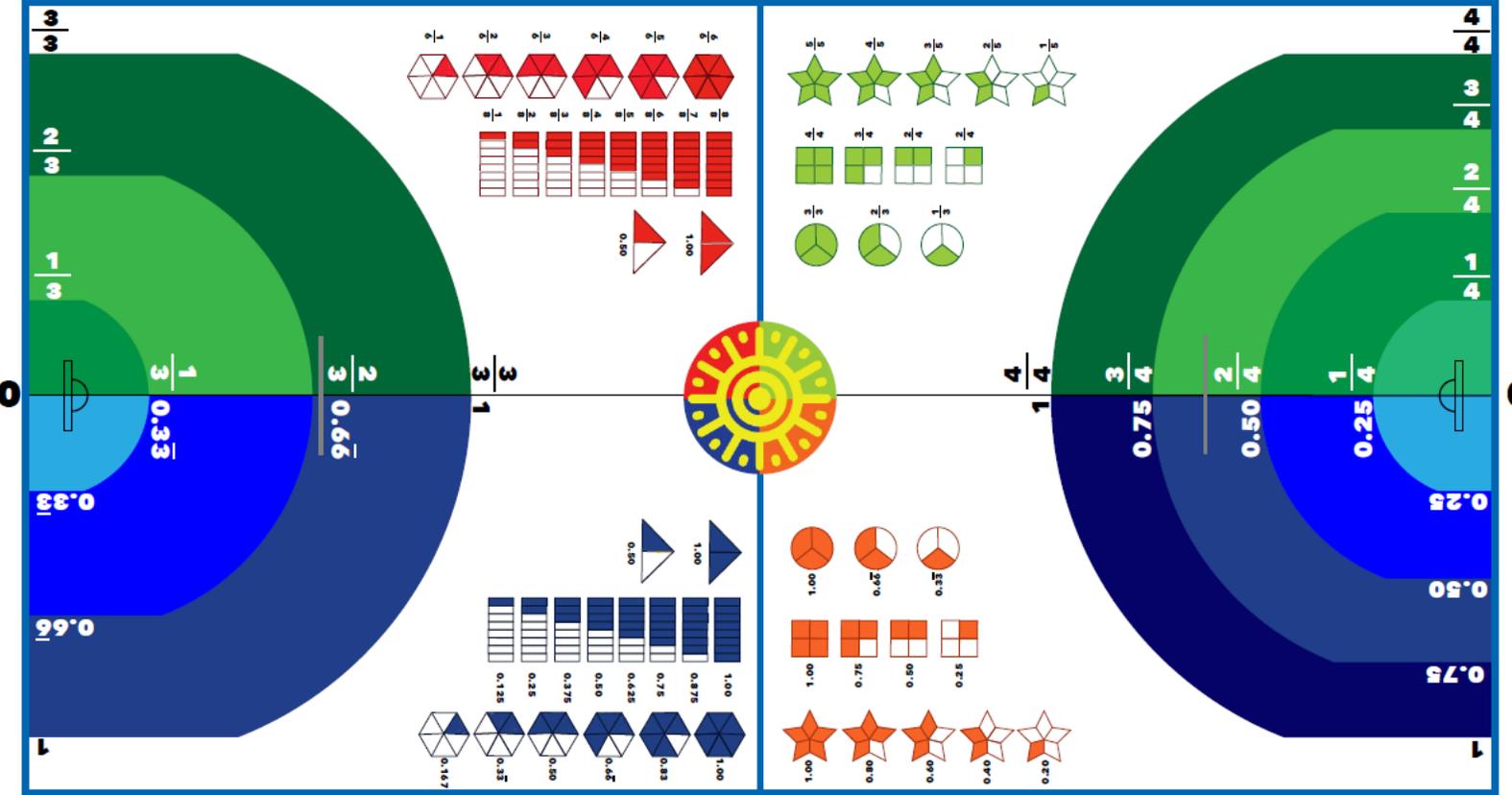
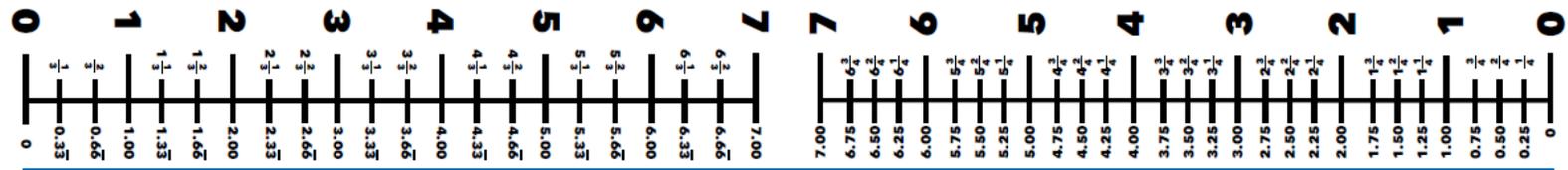
INDIAN AVE

S Standard Ave

S Standard Ave

S Standard Ave

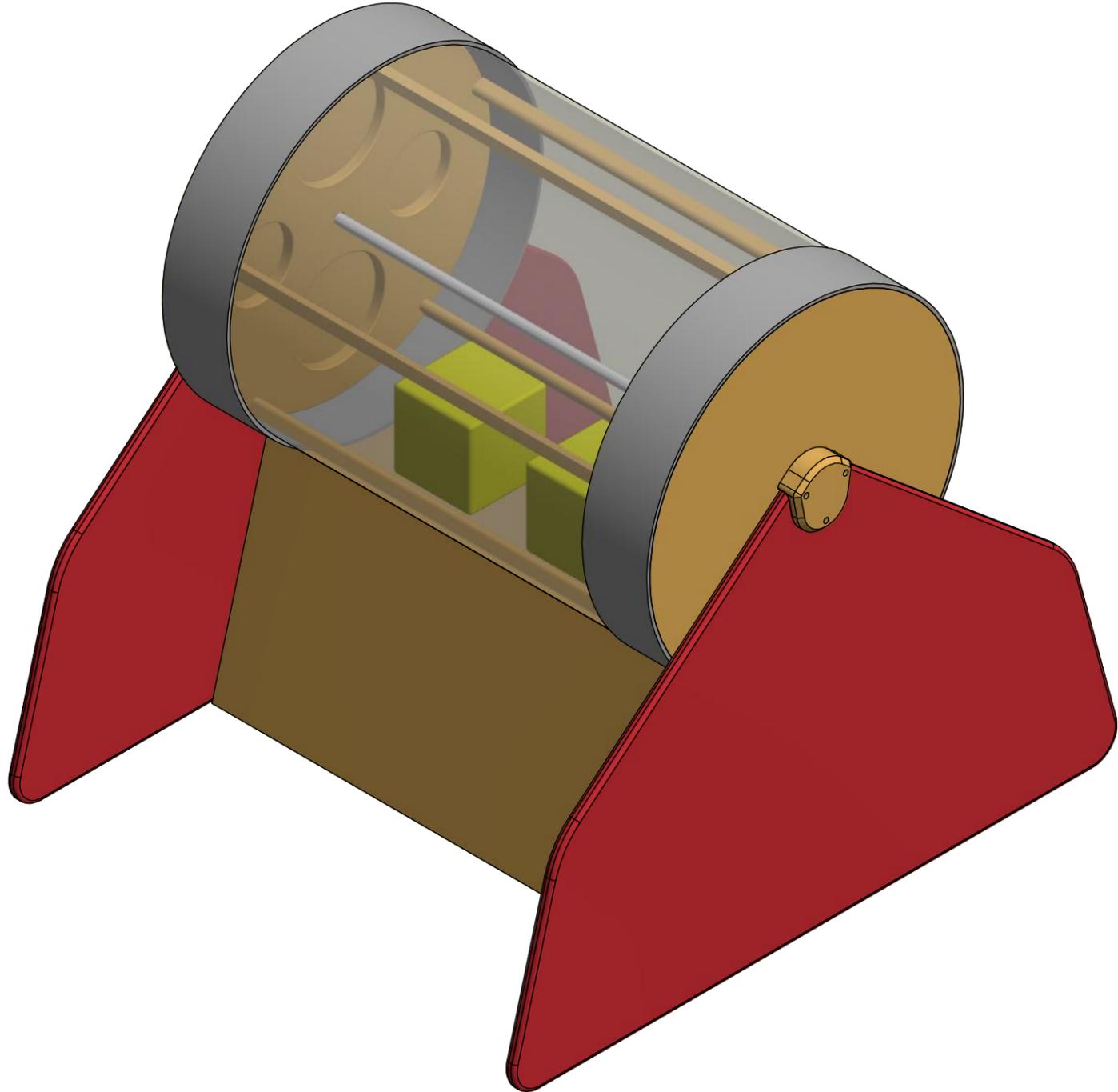






# PLEASE TOUCH MUSEUM

## DICE TUMBLER



REVISION HISTORY		
REV	DESCRIPTION	DATE
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UNLESS OTHERWISE SPECIFIED:  
 ALL DIMS ARE IN INCHES [mm]  
 FINISH SURFACE TO BE 63✓  
 DIM LIMITS ON MACHINED SURFACES ARE:  
 DECIMAL XX - ±.02 XXX - ±.005  
 FRACTIONAL ±1/32 ANGULAR ±1/2°

⊙ THIRD ANGLE PROJECTION

CLIENT:	PLEASE TOUCH MUSEUM
JOB NUMBER:	17073
PROJECT:	PARKOPOLIS
DRAWING NAME:	

DRAWN BY:	L. STRAND
PROJ MGR:	
CREATION DATE:	2/5/2018

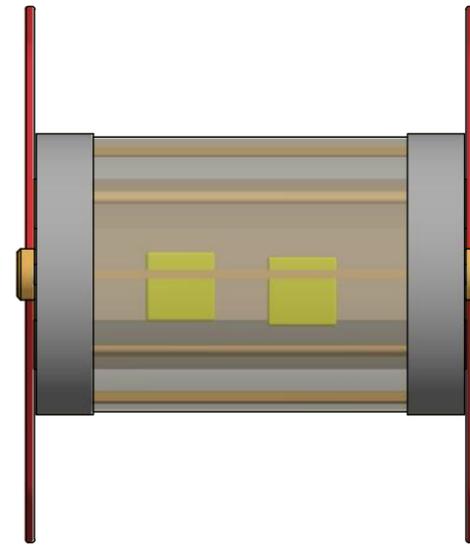
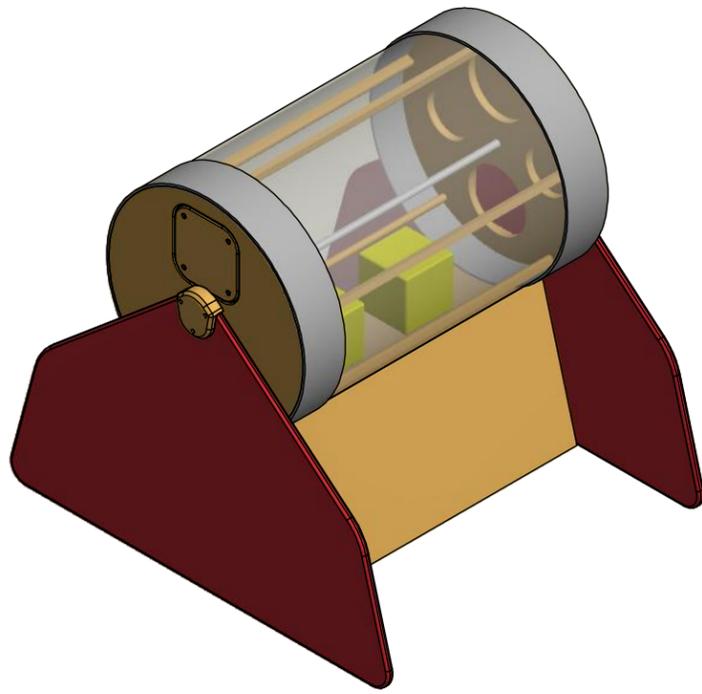


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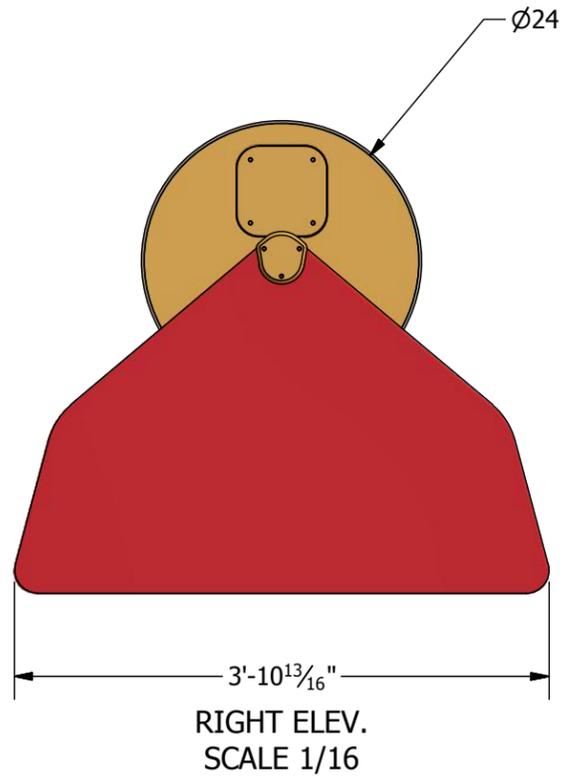
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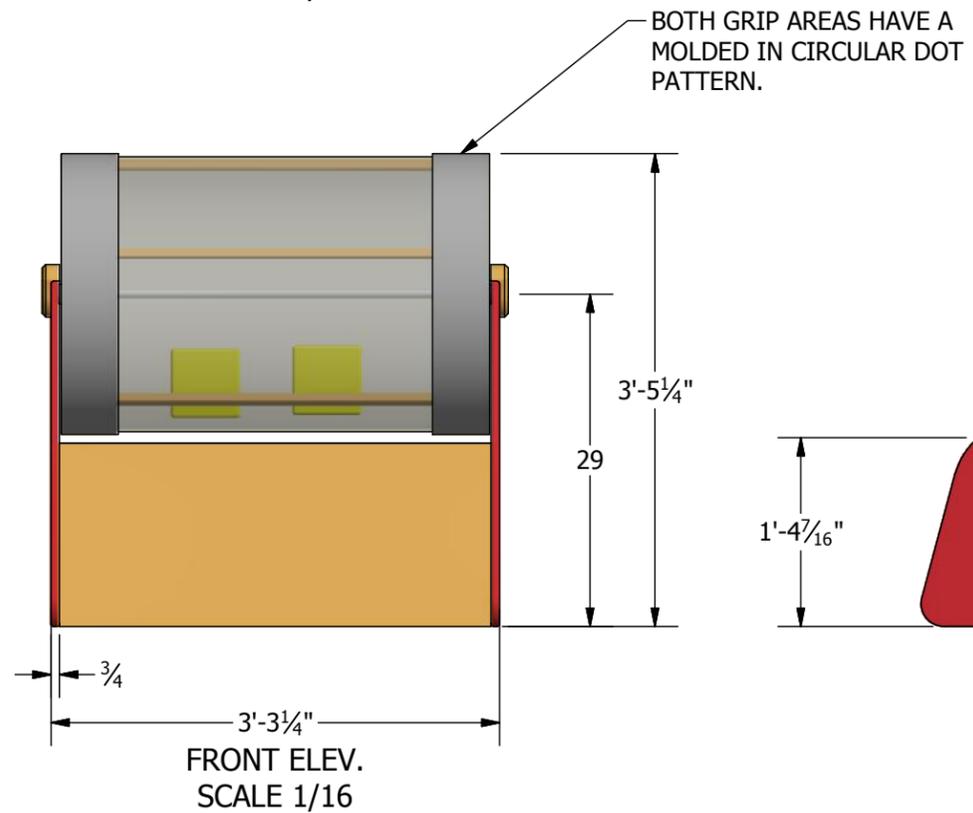
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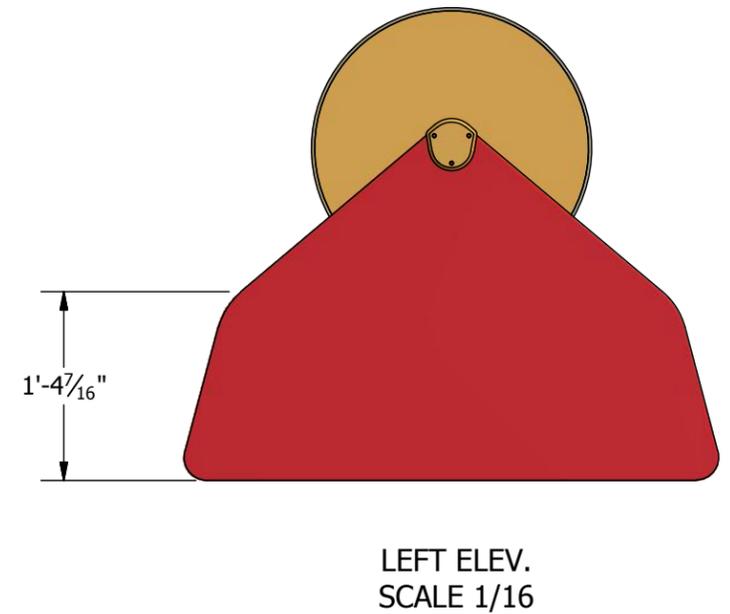
PLAN VIEW  
SCALE 1/16



RIGHT ELEV.  
SCALE 1/16



FRONT ELEV.  
SCALE 1/16



LEFT ELEV.  
SCALE 1/16

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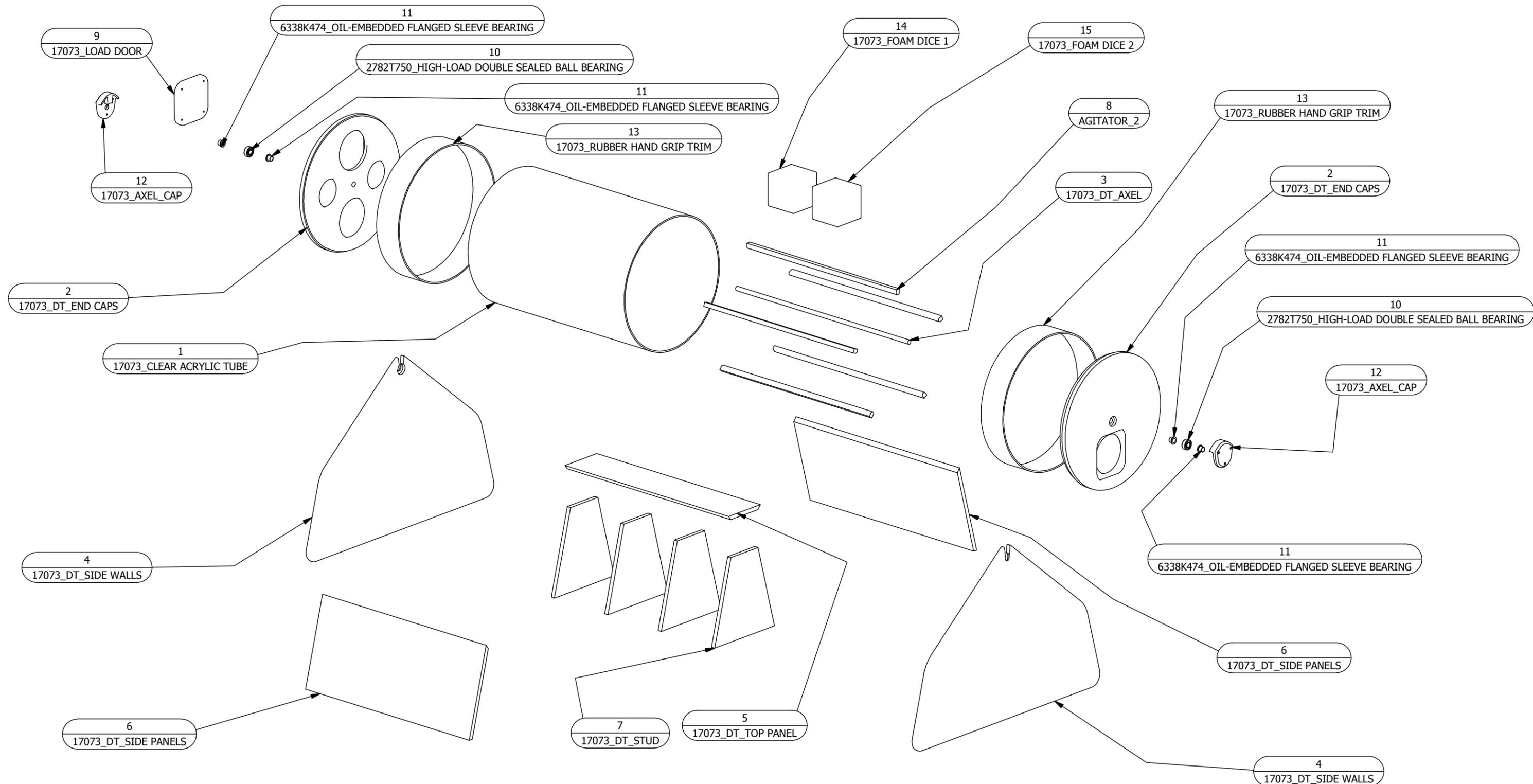


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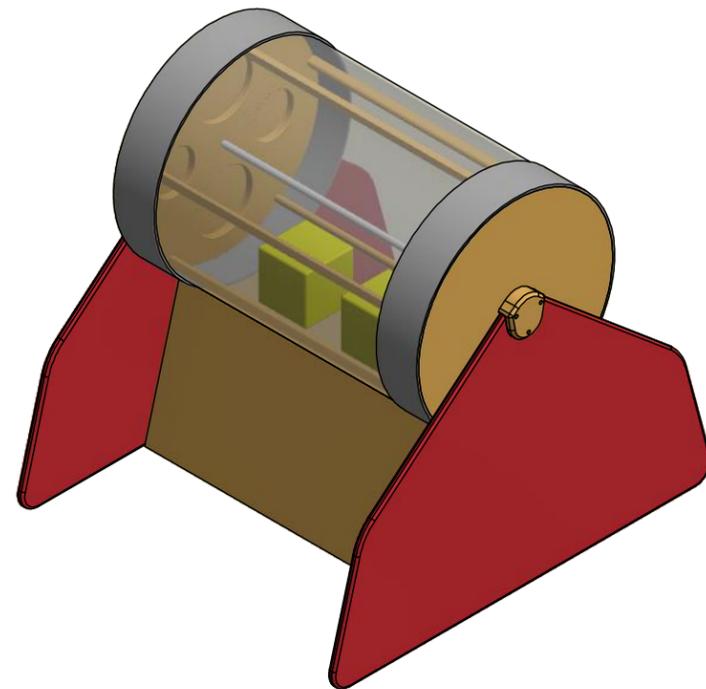


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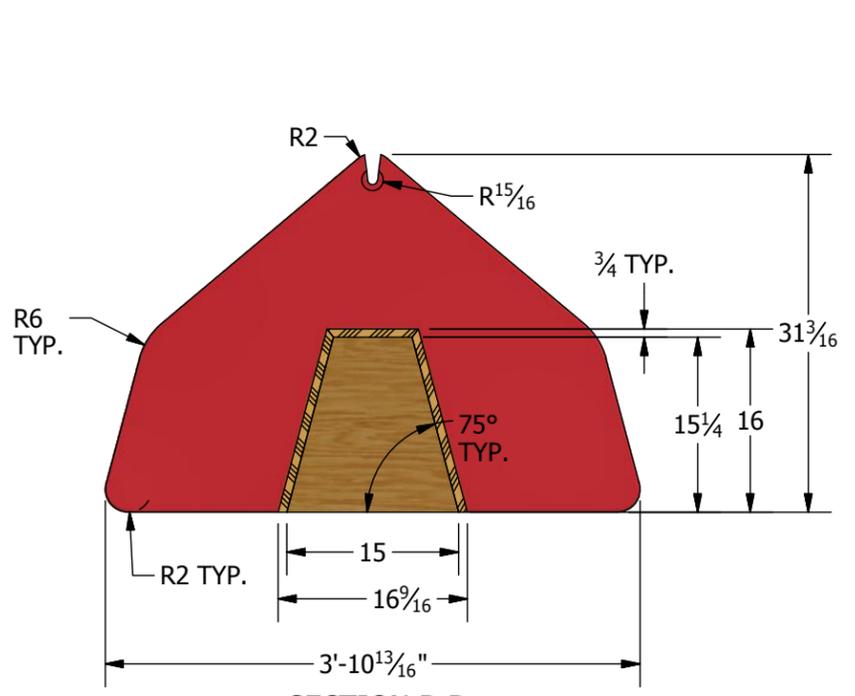
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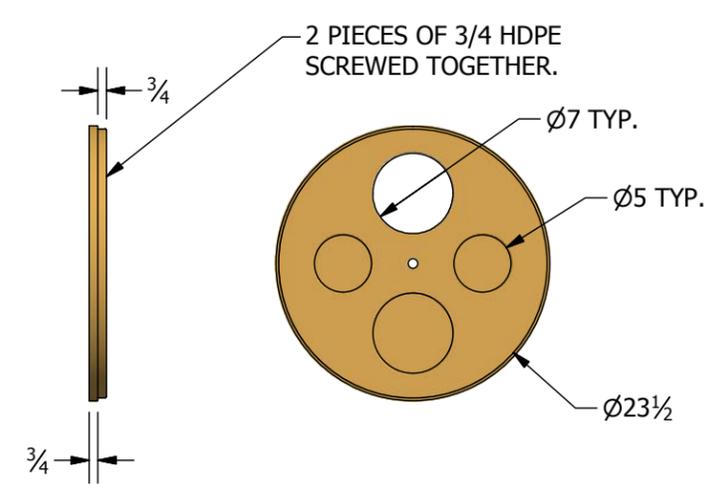
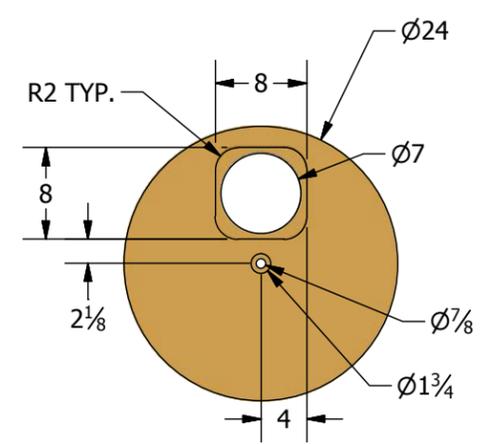
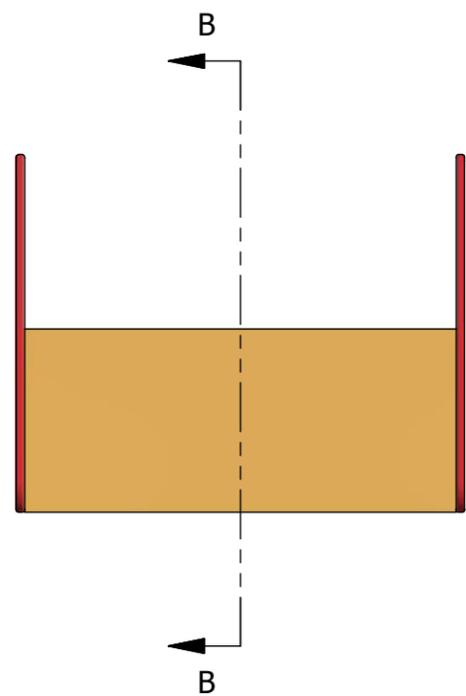
PARTS LIST										
ITEM	PART NUMBER	VENDOR	MATERIAL	QTY	DESCRIPTION	WIDTH	LENGTH	THICKNESS	DIAMETER	
1	17073_CLEAR ACRYLIC TUBE		PLEXIGLASS	1			36	1/4 in	24 in	
2	17073_DT_END CAPS		Polyethylene, High Density	2				1 1/2 in	24 in	
3	17073_DT_AXEL		Aluminum 6061	1			39 3/4		3/4 in	
4	17073_DT_SIDE WALLS		Polyethylene, High Density	2		31 15/16	48	3/4 in		
5	17073_DT_TOP PANEL		Polyethylene, High Density	1		8	37 3/4	3/4 in		
6	17073_DT_SIDE PANELS		Polyethylene, High Density	2		16 9/16	37 3/4	3/4 in		
7	17073_DT_STUD		Plywood, Finish	4		15	15 1/4	3/4 in		
8	AGITATOR_2		Polyethylene, High Density	5		1	34 1/2	3/4 in		
9	17073_LOAD DOOR		Polyethylene, High Density	1			7 7/8	3/4 in		
10	2782T750_HIGH-LOAD DOUBLE SEALED BALL BEARING		Generic	2	STEP AP203					
11	6338K474_OIL-EMBEDDED FLANGED SLEEVE BEARING		Generic	4	STEP AP203					
12	17073_AXEL_CAP		Polyethylene, High Density	2		4 9/16	4 9/16	1 1/2 in		
13	17073_RUBBER HAND GRIP TRIM		Generic	2						
14	17073_FOAM DICE 1		Generic	1		6	6	6 in		
15	17073_FOAM DICE 2		Generic	1		6	6	6 in		

<b>REVISION HISTORY</b> <table border="1"> <thead> <tr> <th>REV</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td>2/5/2018</td> </tr> </tbody> </table>			REV	DESCRIPTION	DATE	1		2/5/2018	UNLESS OTHERWISE SPECIFIED: ALL DIMS ARE IN INCHES [mm] FINISH SURFACE TO BE 63✓ DIM LIMITS ON MACHINED SURFACES ARE: DECIMAL XX - ±.02 XXX - ±.005 FRACTIONAL ±1/32 ANGULAR ±1/2°			CLIENT: PLEASE TOUCH MUSEUM JOB NUMBER: 17073 PROJECT: PARKOPOLIS DRAWING NAME:		DRAWN BY: L. STRAND PROJ MGR: CREATION DATE: 2/5/2018		 <b>Universal Services Associates</b> 5 HORNE Drive, Folcroft, PA 19032 www.BUILDWITHUSA.com 610-461-0300		THIS DRAWING INCLUDES INFORMATION PROPRIETARY TO UNIVERSAL SERVICES ASSOCIATES, INC. AND SHALL NOT BE USED OR DUPLICATED WITHOUT PERMISSION		PG SIZE: <b>B</b> SHEET: <b>4 of 5</b> REV: <b>1</b>	
REV	DESCRIPTION	DATE																			
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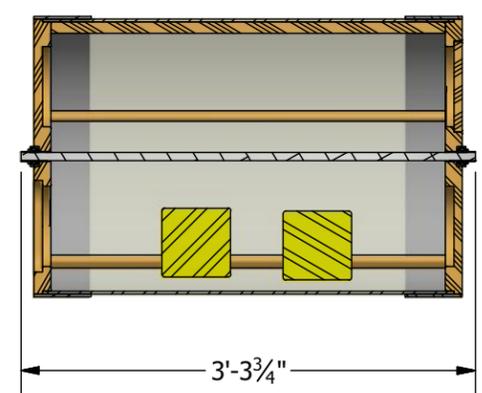
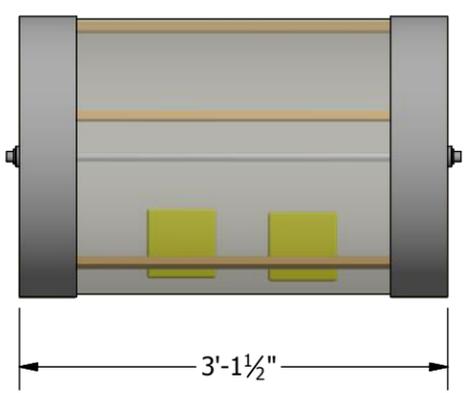


SECTION B-B  
SCALE 1/16

### TUMBLER BASE

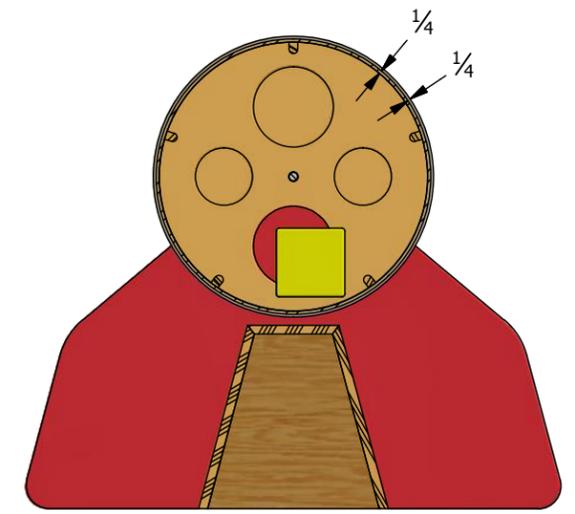
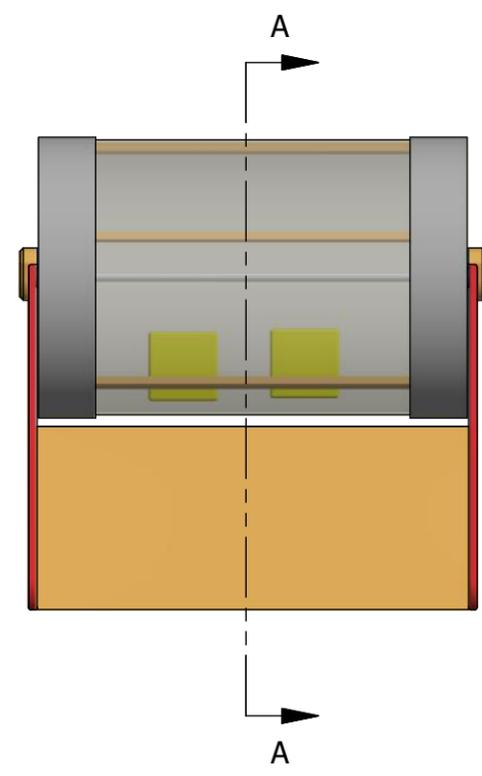
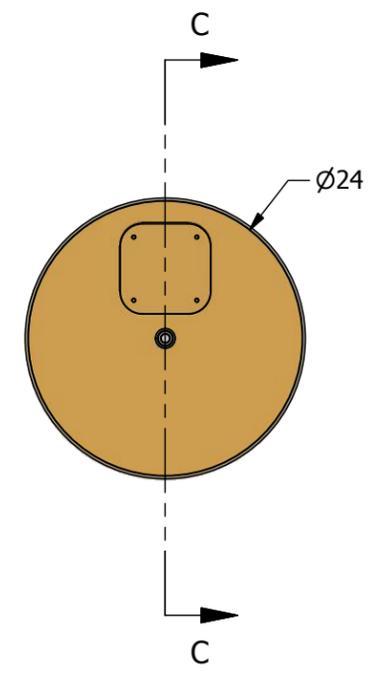


### SIDE WALLS



SECTION C-C  
SCALE 1 / 16

### DICE TUMBLER



SECTION A-A  
SCALE 1/16

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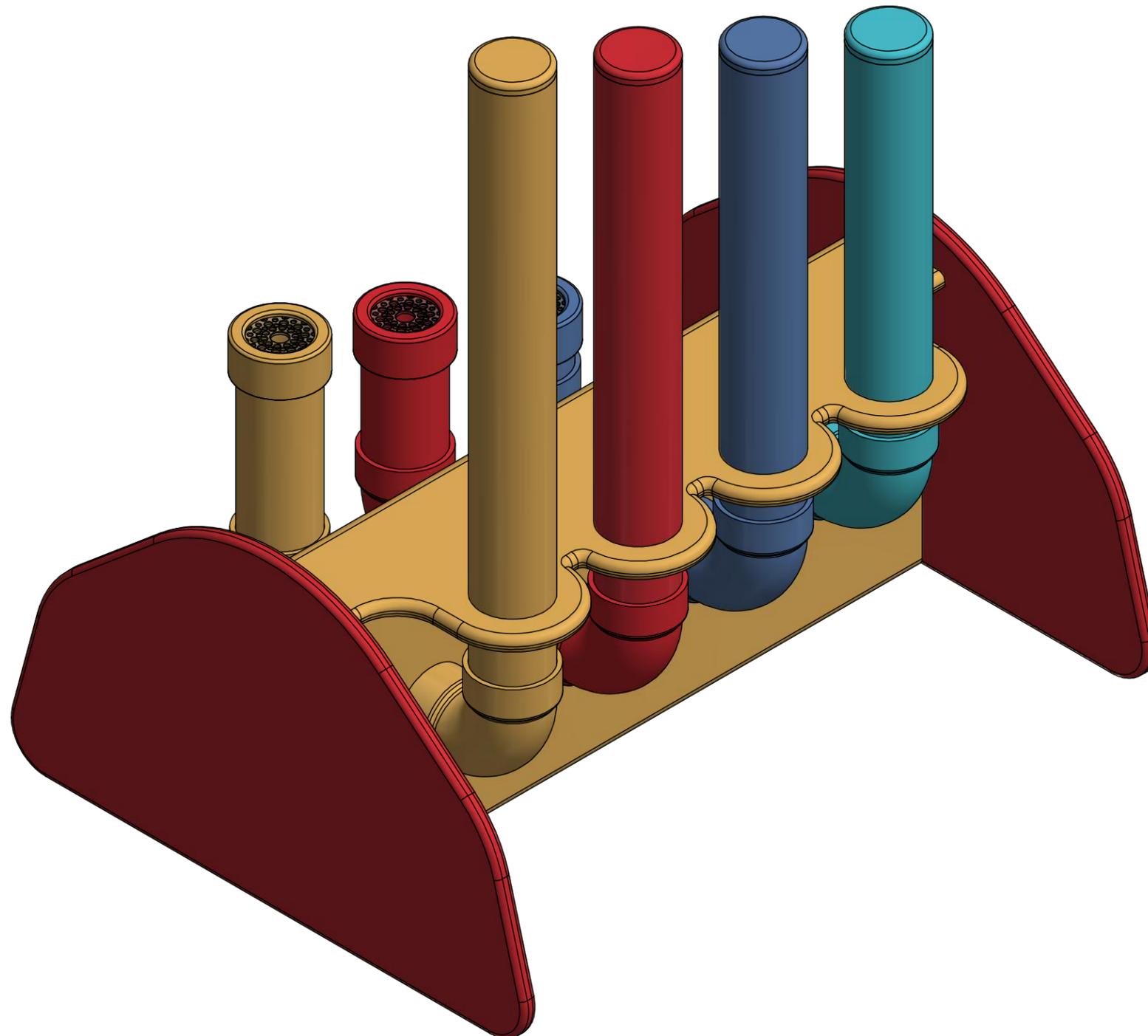
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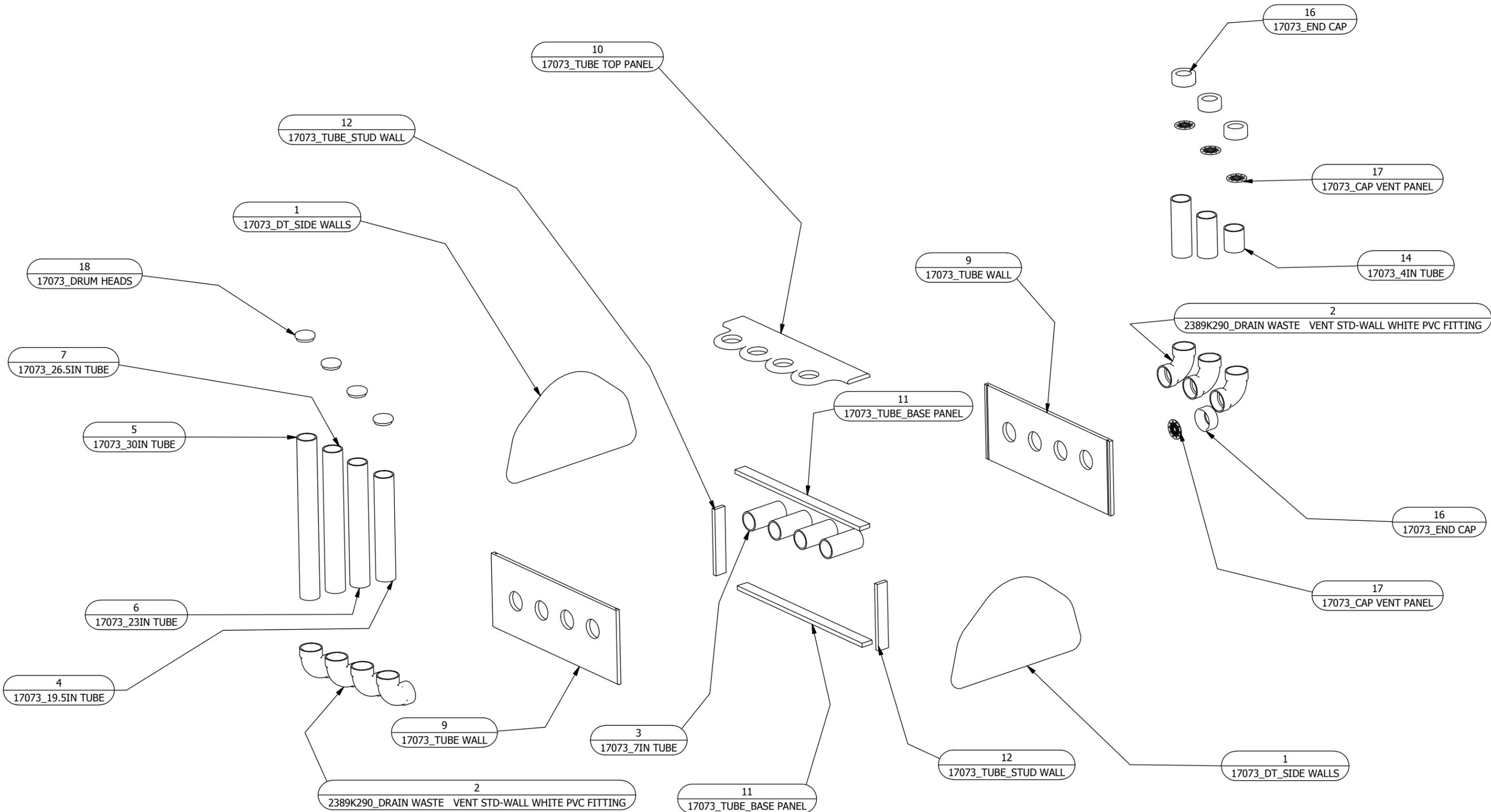
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# PLEASE TOUCH MUSEUM

## TUBULUM STATION



REVISION HISTORY		DATE	UNLESS OTHERWISE SPECIFIED: ALL DIMS ARE IN INCHES [mm] FINISH SURFACE TO BE 63✓ DIM LIMITS ON MACHINED SURFACES ARE: DECIMAL XX - ±.02 XXX - ±.005 FRACTIONAL ±1/32 ANGULAR ±1/2°	CLIENT:	PLEASE TOUCH MUSEUM	DRAWN BY:	Istrand		Universal Services Associates			
REV	DESCRIPTION			2/7/2018	 THIRD ANGLE PROJECTION	JOB NUMBER:	17073		PROJ MGR:		5 HORNE Drive, Folcroft, PA 19032	
1			PROJECT:	PARKOPOLIS		CREATION DATE:	2/7/2018	www.BUILDWITHUSA.com				
				DRAWING NAME:	<h3>TUBULUM STATION</h3>			610-461-0300				
S:\IM-Sclients\PleaseTouch\17073 - Parkopolis\DesignIP\Drawings\17073_TUBULUM\17073_TUBULUM_STATION.idw								PG SIZE:	B <th>SHEET:</th> <td>1 of 5 <th>REV:</th> <td>1</td> </td>	SHEET:	1 of 5 <th>REV:</th> <td>1</td>	REV:
								<small>THIS DRAWING INCLUDES INFORMATION PROPRIETARY TO UNIVERSAL SERVICES ASSOCIATES, INC. AND SHALL NOT BE USED OR DUPLICATED WITHOUT PERMISSION</small>				



REVISION HISTORY		
REV	DESCRIPTION	DATE
1		2/7/2018

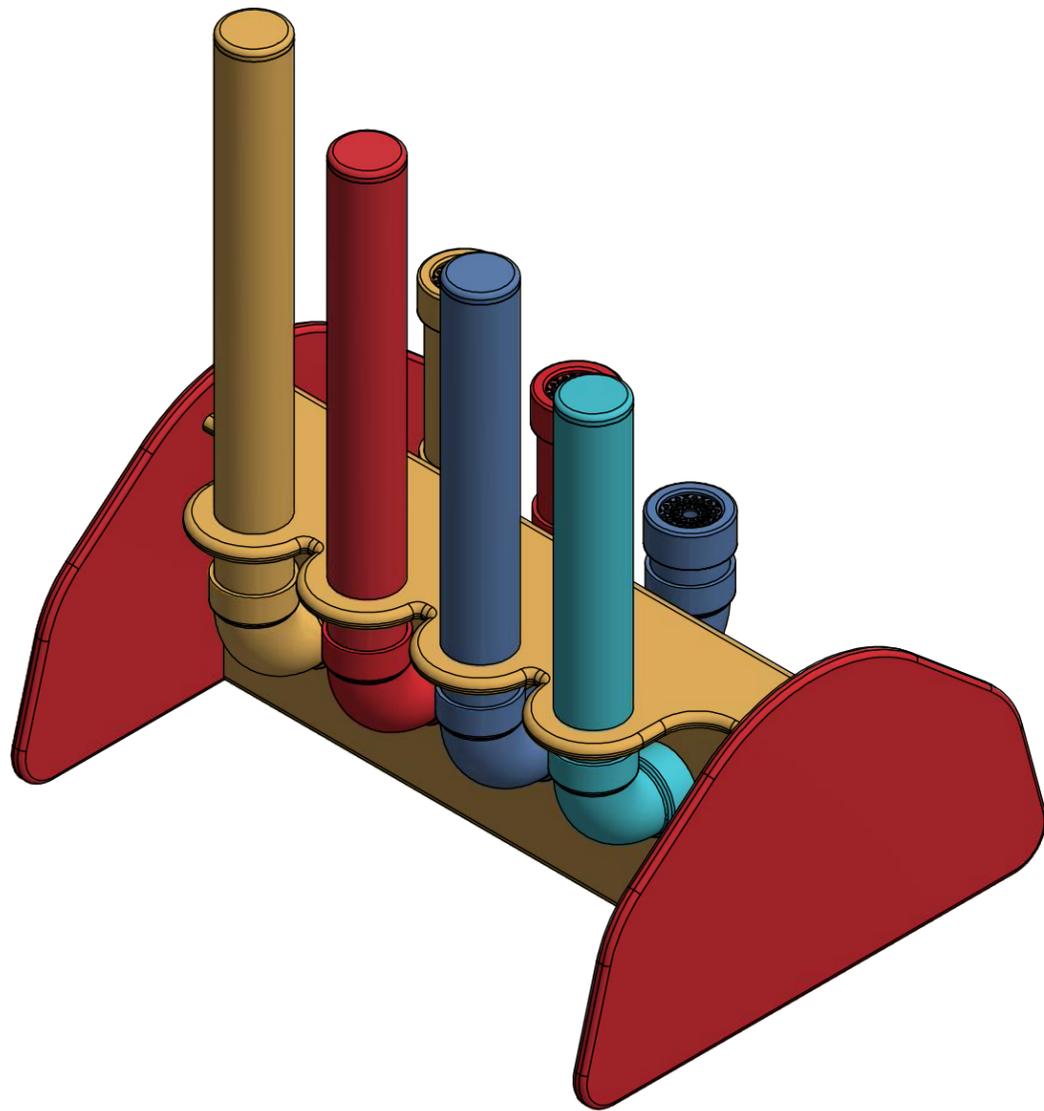
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⊙ THIRD ANGLE PROJECTION

CLIENT:	PLEASE TOUCH MUSEUM	DRAWN BY:	Istrand
JOB NUMBER:	17073	PROJ MGR:	
PROJECT:	PARKOPOLIS	CREATION DATE:	2/7/2018
DRAWING NAME:	<b>TUBULUM STATION</b>		



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PARTS LIST										
ITEM	PART NUMBER	VENDOR	MATERIAL	QTY	DESCRIPTION	WIDTH	LENGTH	THICKNESS	DIAMETER	
1	17073_DT_SIDE WALLS		Polyethylene, High Density	2		20	30	3/4 in		
2	2389K290_DRAIN WASTE VENT STD-WALL WHITE PVC FITTING	HOME DEPOT	Generic	7	STEP AP203					
3	17073_7IN TUBE	HOME DEPOT	PVC-Piping	4			7	1/4 in	3 1/2 in	
4	17073_19.5IN TUBE	HOME DEPOT	PVC-Piping	1			19 1/2	1/4 in	3 1/2 in	
5	17073_30IN TUBE	HOME DEPOT	PVC-Piping	1			30	1/4 in	3 1/2 in	
6	17073_23IN TUBE	HOME DEPOT	PVC-Piping	1			23	1/4 in	3 1/2 in	
7	17073_26.5IN TUBE	HOME DEPOT	PVC-Piping	1			26 1/2	1/4 in	3 1/2 in	
8	17073_7.5IN TUBE	HOME DEPOT	PVC-Piping	1			7 1/2	1/4 in	3 1/2 in	
9	17073_TUBE WALL		Polyethylene, High Density	2				3/4 in		
10	17073_TUBE TOP PANEL		Polyethylene, High Density	1		20	34	3/4 in		
11	17073_TUBE_BASE PANEL		Plywood, Finish	2		2 1/4	34	3/4 in		
12	17073_TUBE_STUD WALL		Plywood, Finish	2		2 1/4	12 1/2	3/4 in		
14	17073_4IN TUBE	HOME DEPOT	PVC-Piping	1			4	1/4 in	3 1/2 in	
15	17073_10.5IN TUBE		PVC-Piping	1			10 1/2	1/4 in	3 1/2 in	
16	17073_END CAP		PVC	4						
17	17073_CAP VENT PANEL		PLEXIGLASS	4				1/8 in	3 1/2 in	
18	17073_DRUM HEADS		Foam, Closed cell	4		1			3 1/2 in	

REVISION HISTORY		
REV	DESCRIPTION	DATE
1		2/7/2018

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THIRD ANGLE PROJECTION

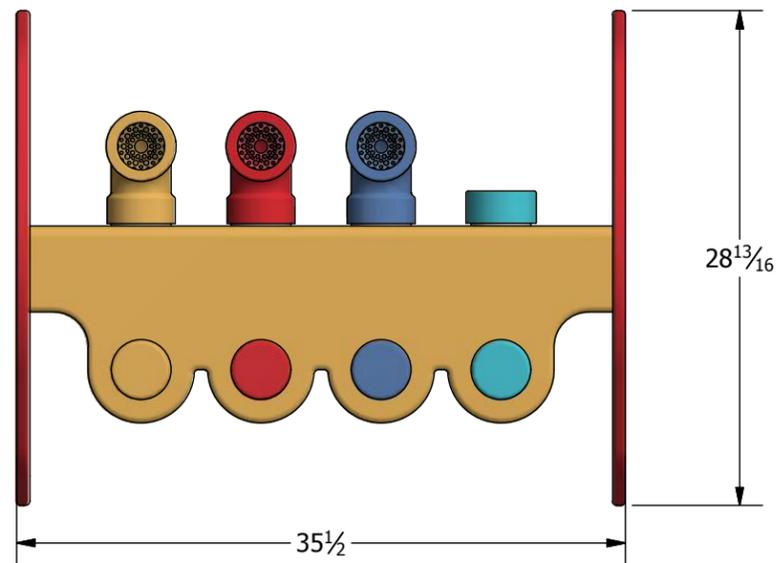
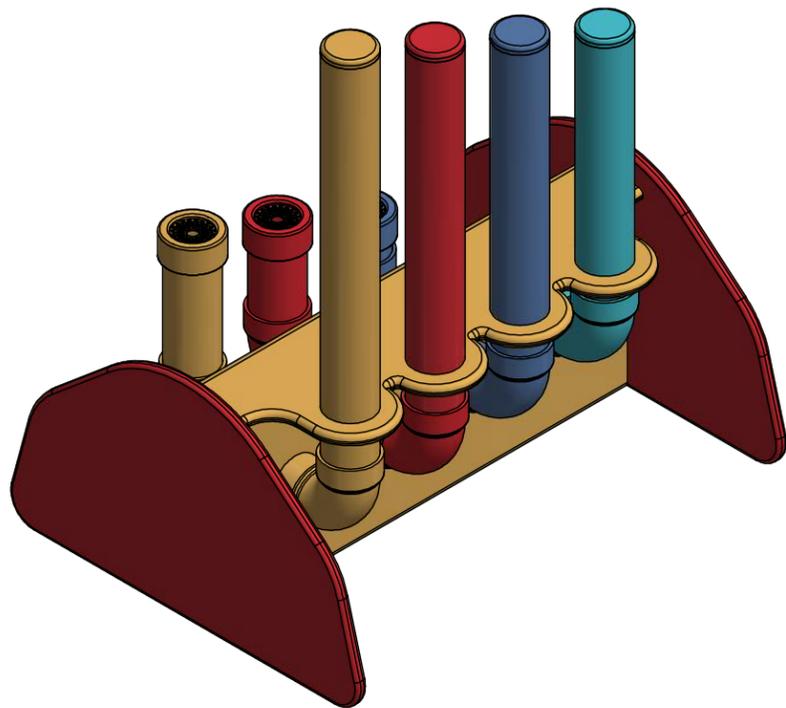
CLIENT:	PLEASE TOUCH MUSEUM	DRAWN BY:	Istrand
JOB NUMBER:	17073	PROJ MGR:	
PROJECT:	PARKOPOLIS	CREATION DATE:	2/7/2018
DRAWING NAME:	<b>TUBULUM STATION</b>		



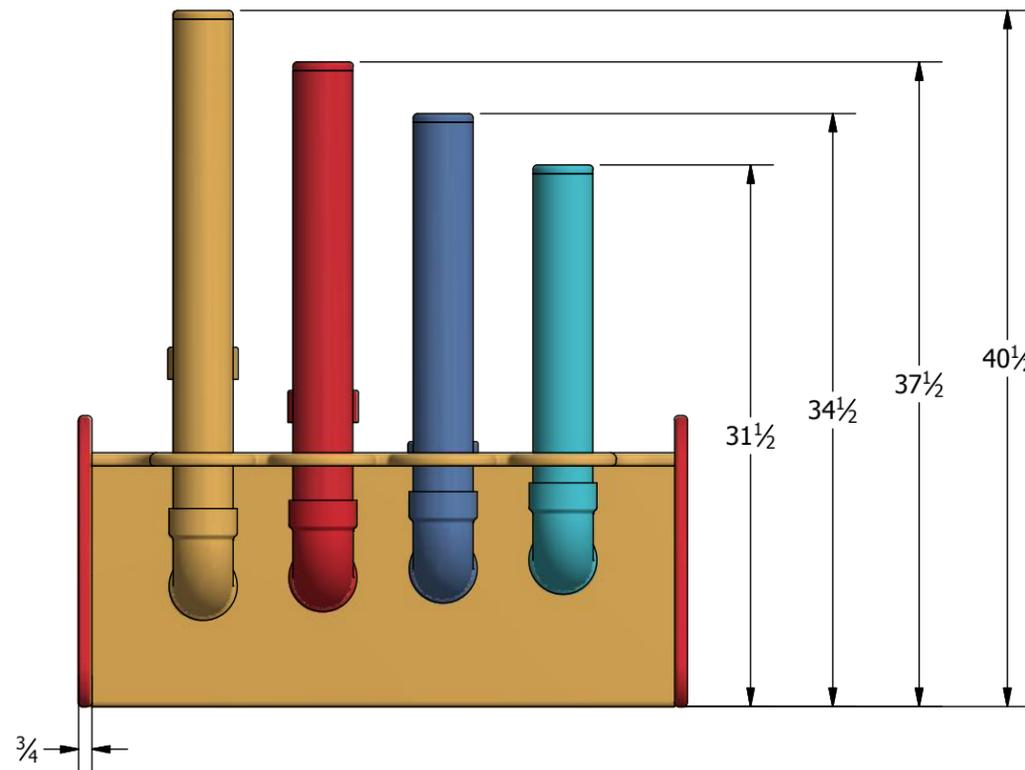
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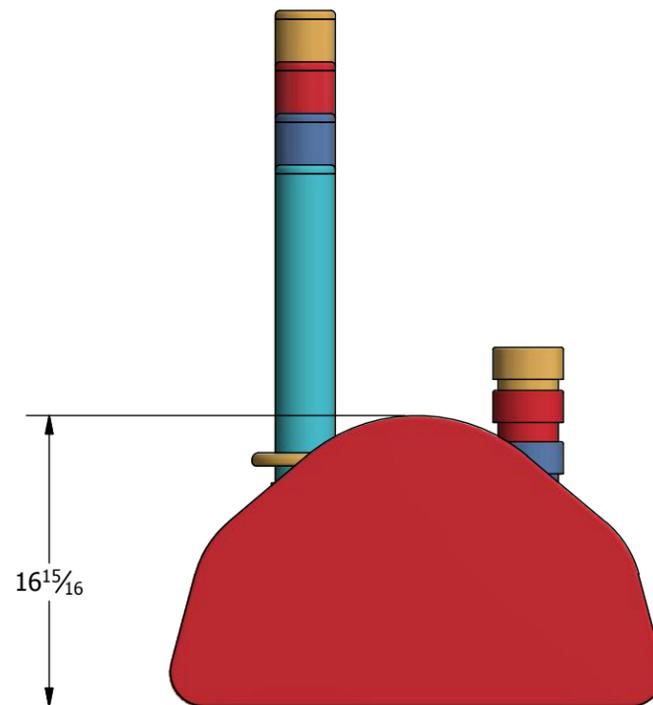
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B	3 of 5	1



PLAN VIEW  
SCALE 3/32



FRONT ELEV.  
SCALE 3/32



LEFT ELEV.  
SCALE 3/32

REVISION HISTORY		
REV	DESCRIPTION	DATE
0		-

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THIRD ANGLE PROJECTION

CLIENT: PLEASE TOUCH MUSEUM  
JOB NUMBER: 17073  
PROJECT: PARKOPOLIS  
DRAWING NAME:

DRAWN BY: Istrand  
PROJ MGR:  
CREATION DATE: 2/7/2018

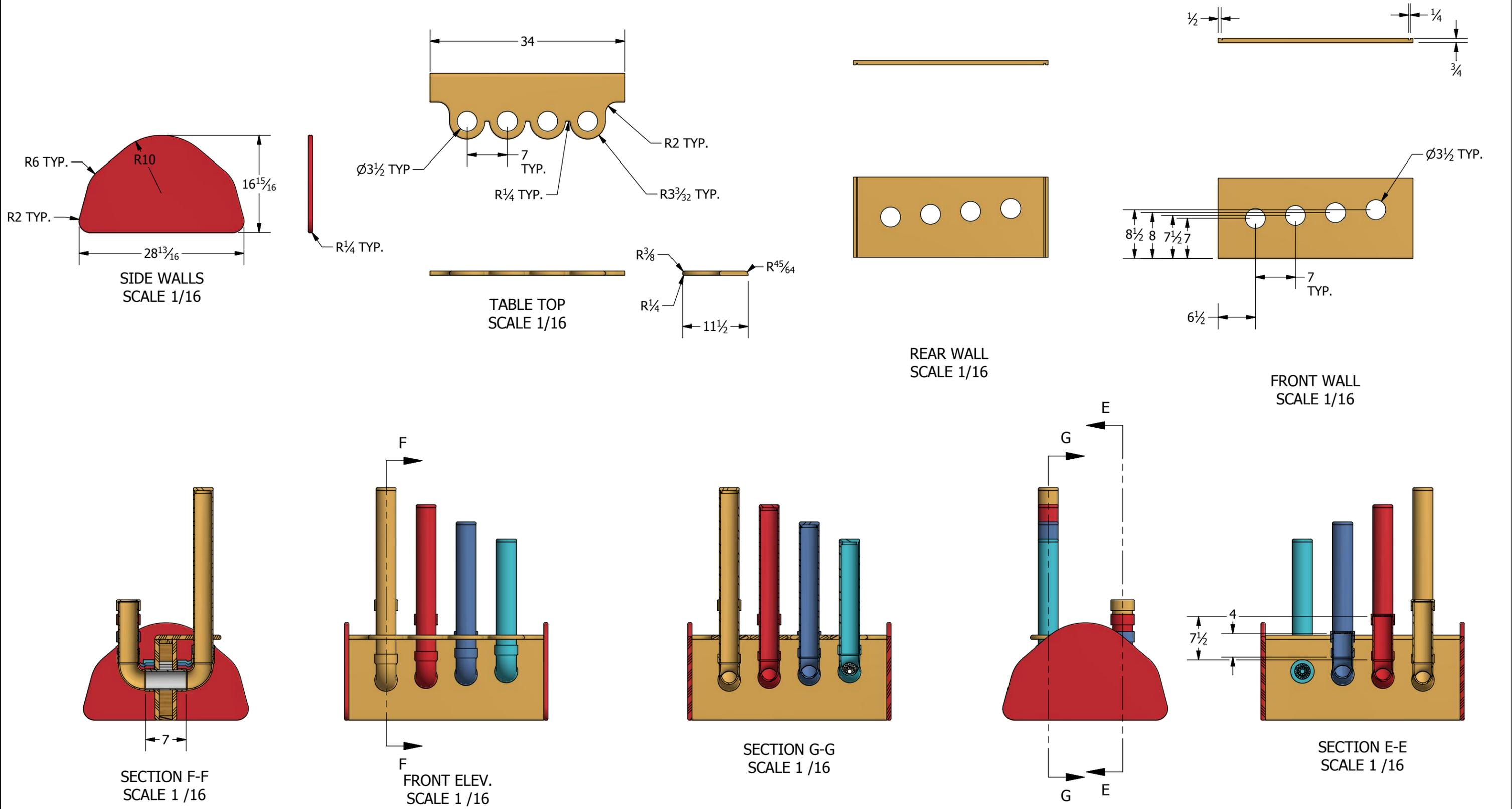


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# TUBULUM STATION



REVISION HISTORY		
REV	DESCRIPTION	DATE
1		2/7/2018

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THIRD ANGLE PROJECTION

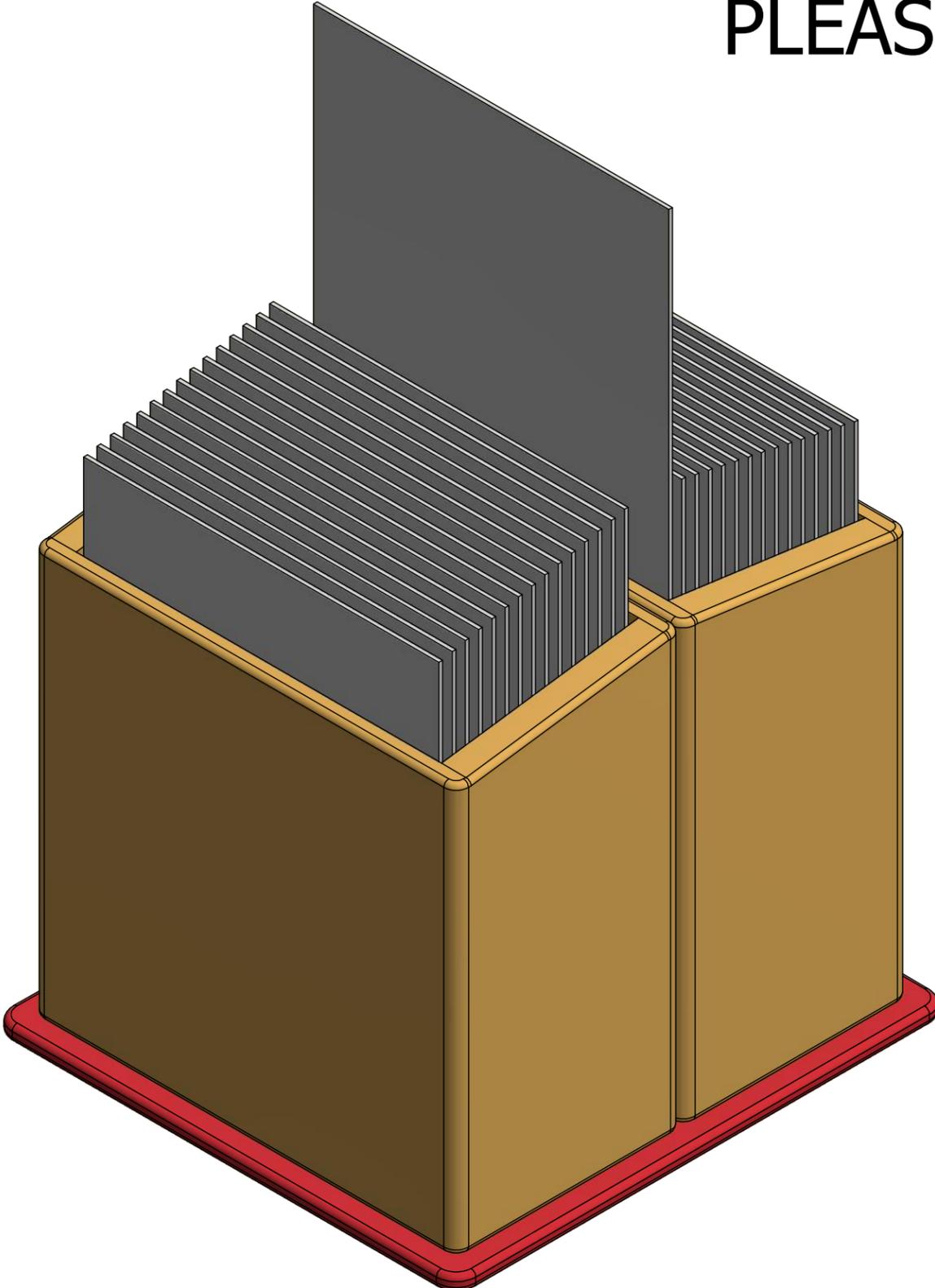
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JOB NUMBER:	17073	PROJ MGR:	
PROJECT:	PARKOPOLIS	CREATION DATE:	2/7/2018
DRAWING NAME:	<b>TUBULUM STATION</b>		

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PG SIZE:	SHEET:	REV:
B	5 of 5	1

# PLEASE TOUCH MUSEUM FLIP CARDS



REVISION HISTORY		
REV	DESCRIPTION	DATE
0		-

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 THIRD ANGLE PROJECTION

CLIENT:	PLEASE TOUCH MUSEUM
JOB NUMBER:	17073
PROJECT:	PARKOPOLIS
DRAWING NAME:	

DRAWN BY:	L. Strand
PROJ MGR:	E. Saich
CREATION DATE:	2/16/2018

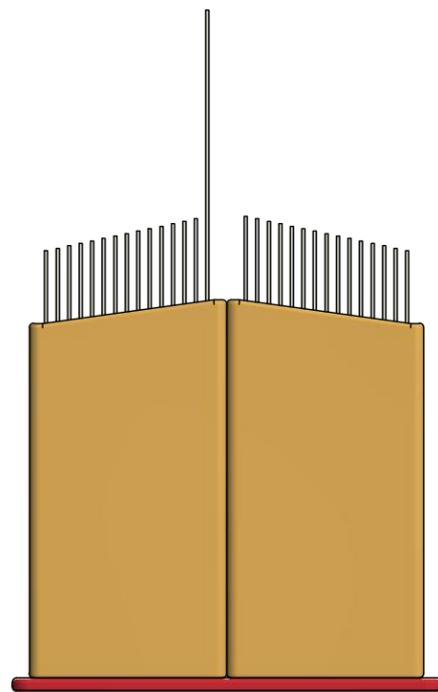
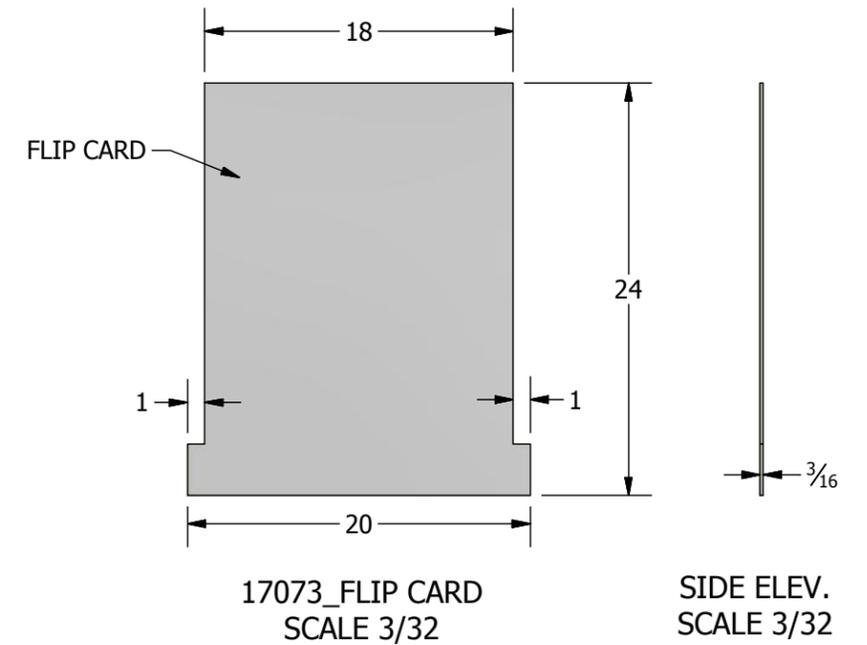
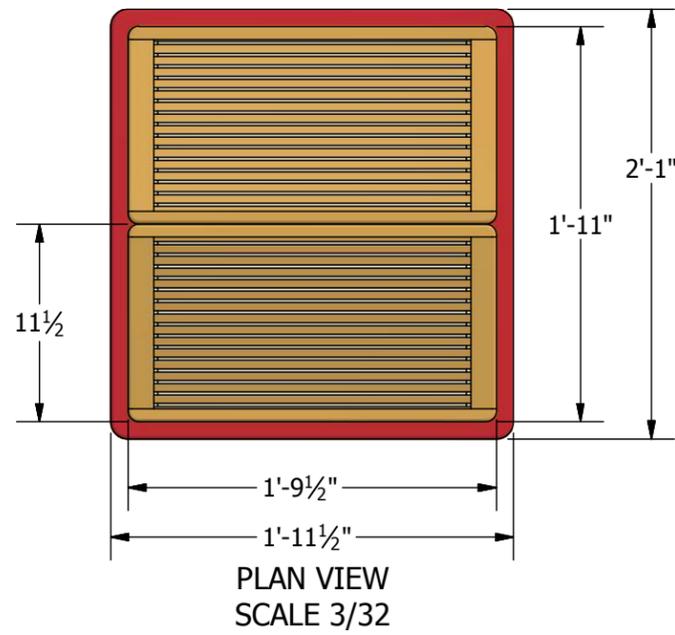
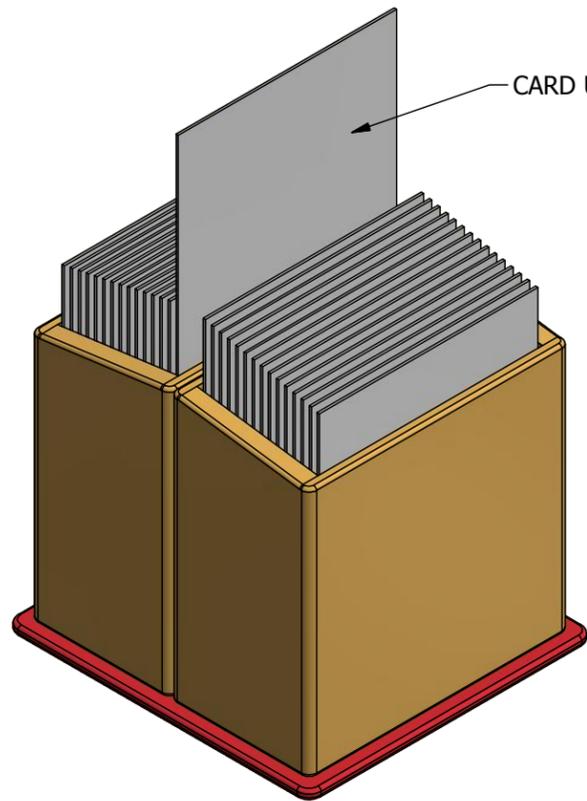


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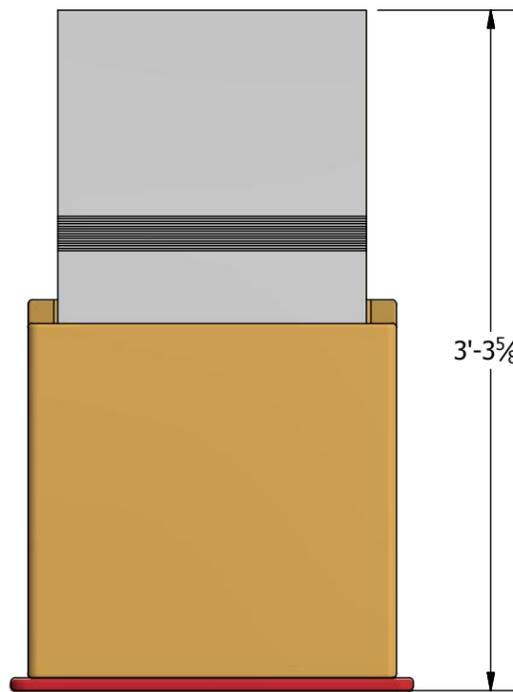
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## FLIP CARDS

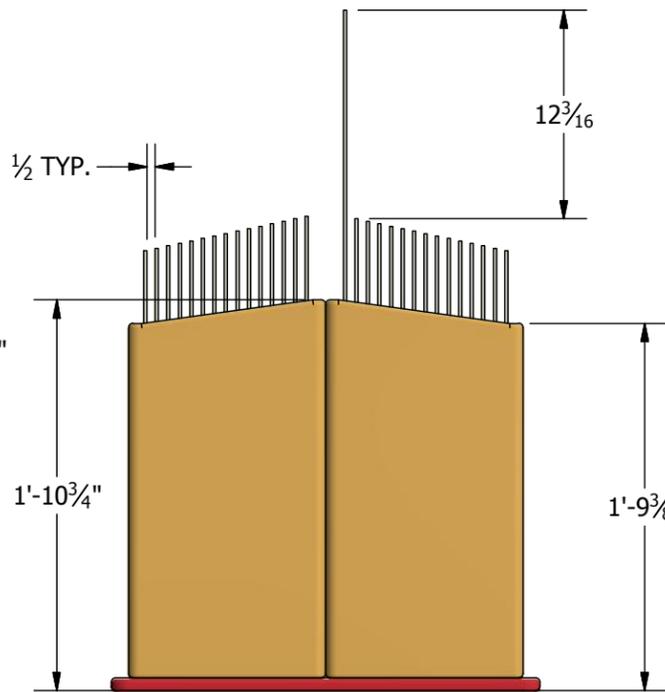
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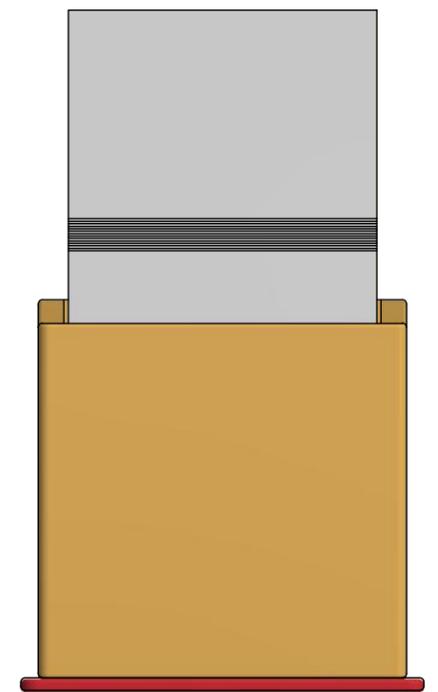
RIGHT ELEV.  
SCALE 3/32



FRONT ELEV.  
SCALE 3/32



LEFT ELEV.  
SCALE 3/32



REAR ELEV.  
SCALE 3/32

REVISION HISTORY		
REV	DESCRIPTION	DATE
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THIRD ANGLE PROJECTION

CLIENT: PLEASE TOUCH MUSEUM  
JOB NUMBER: 17073  
PROJECT: PARKOPOLIS  
DRAWING NAME:

DRAWN BY: L. Strand  
PROJ MGR: E. Saich  
CREATION DATE: 2/16/2018



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