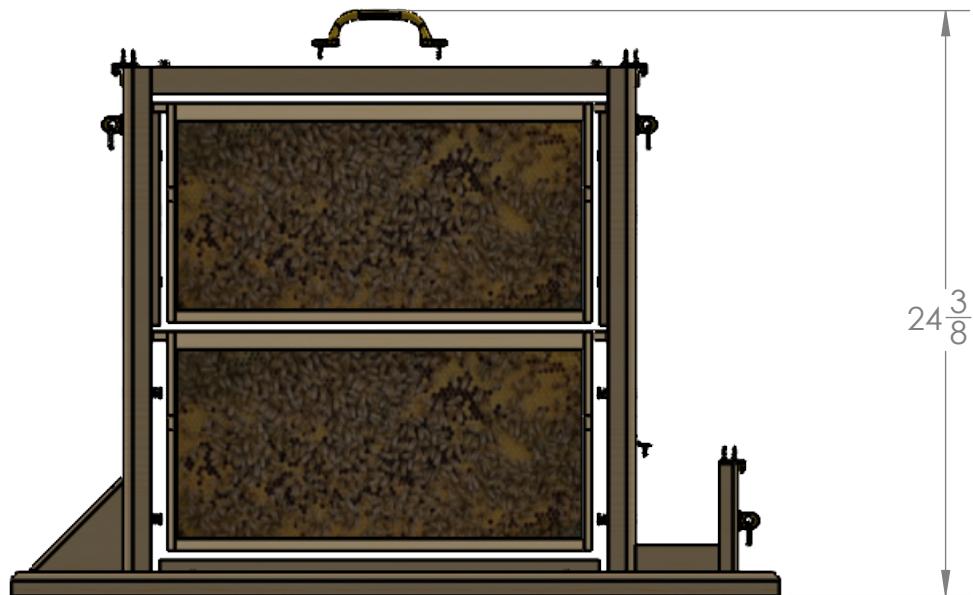
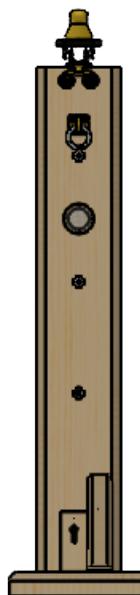
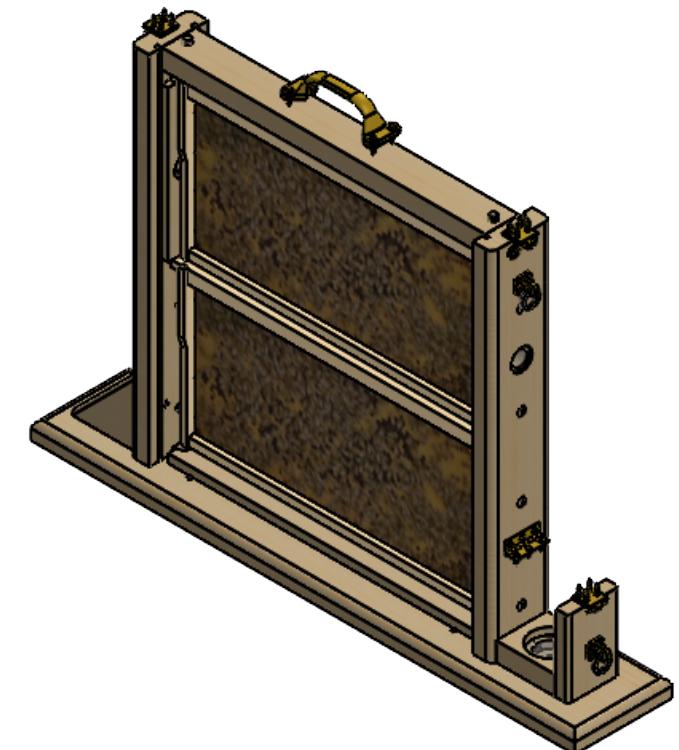
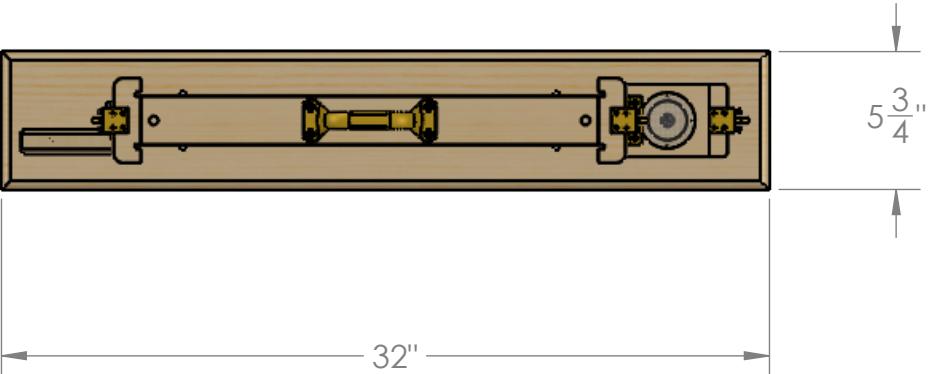


NOTES:

1. SHOWN WITH FEEDER BOTTLE, AND TWO DEEP FRAMES.
2. FINISH: STAIN.
3. PREDRILL ALL HOLES.
4. GLUE AND CLAMP SQUARE.
5. POSITION, DRILL AND SCREW HASPS ON COMPLETED ASSEMBLY.
6. STAPLE #8 HARDWARE MESH OVER VENT HOLES.
7. FEEDER BOTTLE SHOULD HAVE A PLASTIC LID, AS METAL WILL RUST.
8. HOLES IN FEEDER BOTTLE LID ARE 0.04" (#60 DRILL BIT).
9. REMOVE ALL SHARP EDGES.



10050_D	-	OBSERVATION HIVE
PART NUMBER	REV	DESCRIPTION

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THIRD ANGLE PROJECTION

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CUSTOMER
BEE KEEPERS
PROJECT
HIVE PRODUCTS

DRAWN BY
F. FULKERSON
DATE
2025-01-27
CHECKED BY
P.G. KELLY
DATE
2025-01-27
APPROVED
P.G. KELLY
DATE
2025-01-27



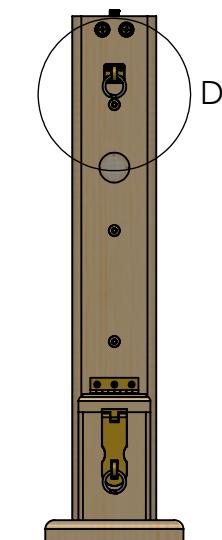
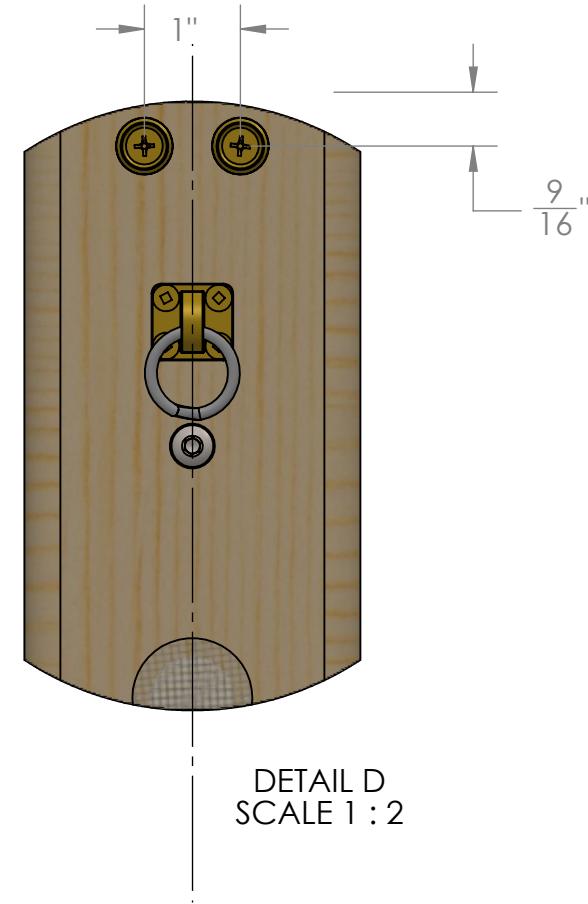
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OBSERVATION HIVE

SIZE	DRAWING NO	10050_D	REVISION
B	1:8	20.53 lbs	-
SCALE	WEIGHT	SHEET 1 OF 22	

NOTES:

1. SHOWN WITH FEEDER BOTTLE, TWO DEEP FRAMES.
2. FINISH: STAIN.
3. PREDRILL ALL HOLES.
4. GLUE AND CLAMP SQUARE.
5. POSITION, DRILL AND SCREW HASPS ON COMPLETED ASSEMBLY.
6. STAPLE #8 HARDWARE MESH OVER VENT HOLES.
7. FEEDER BOTTLE SHOULD HAVE A PLASTIC LID, AS METAL WILL RUST.
8. HOLES IN FEEDER BOTTLE LID ARE 0.04 (#60 DRILLBIT).
9. REMOVE ALL SHARP EDGES.



10050_D	-	OBSERVATION HIVE
PART NUMBER	REV	DESCRIPTION

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PROJECT HIVE PRODUCTS	
THIRD ANGLE PROJECTION	



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APPROVED P.G. KELLY	DATE 2025-01-27



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OBSERVATION HIVE

10050_D

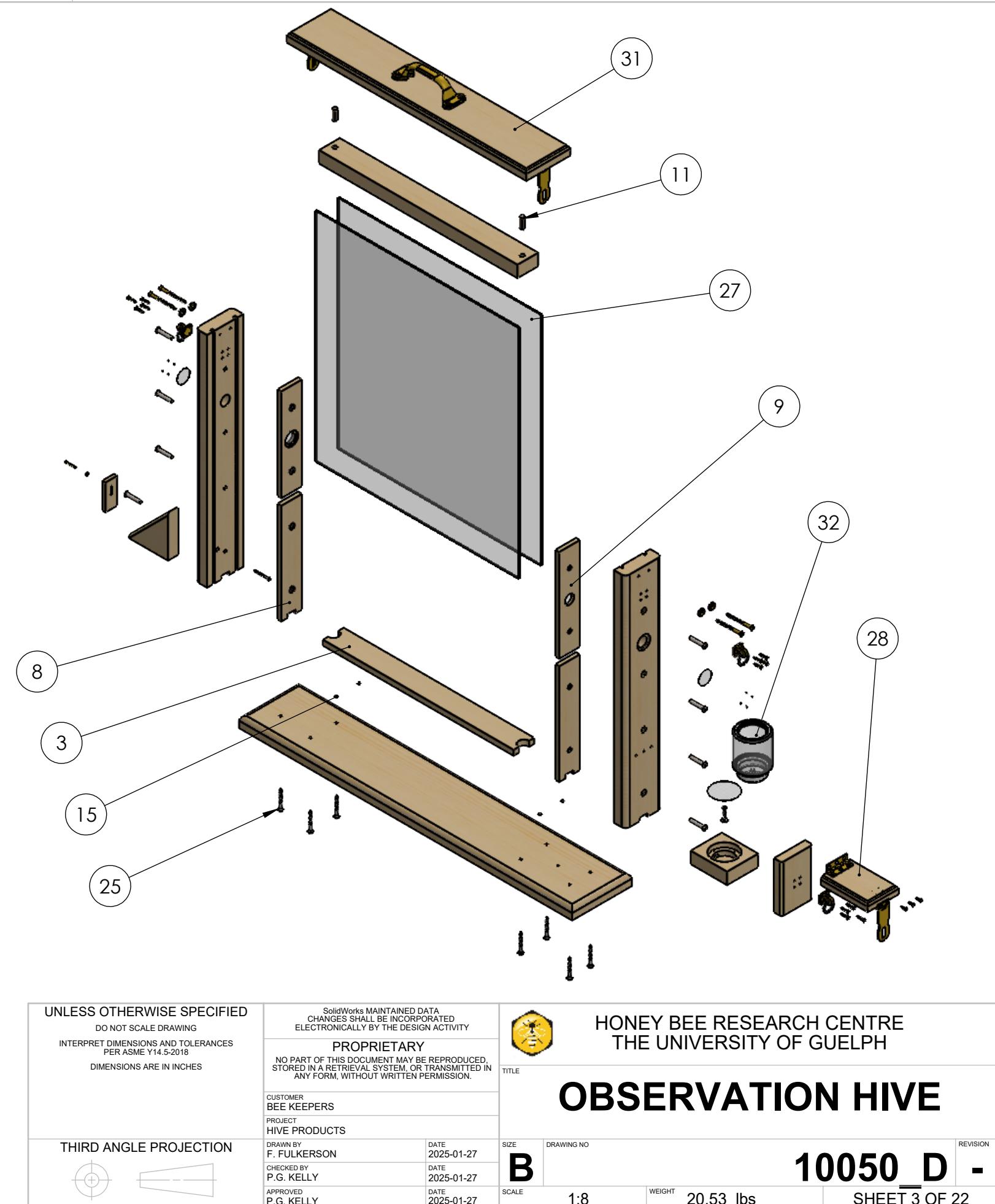
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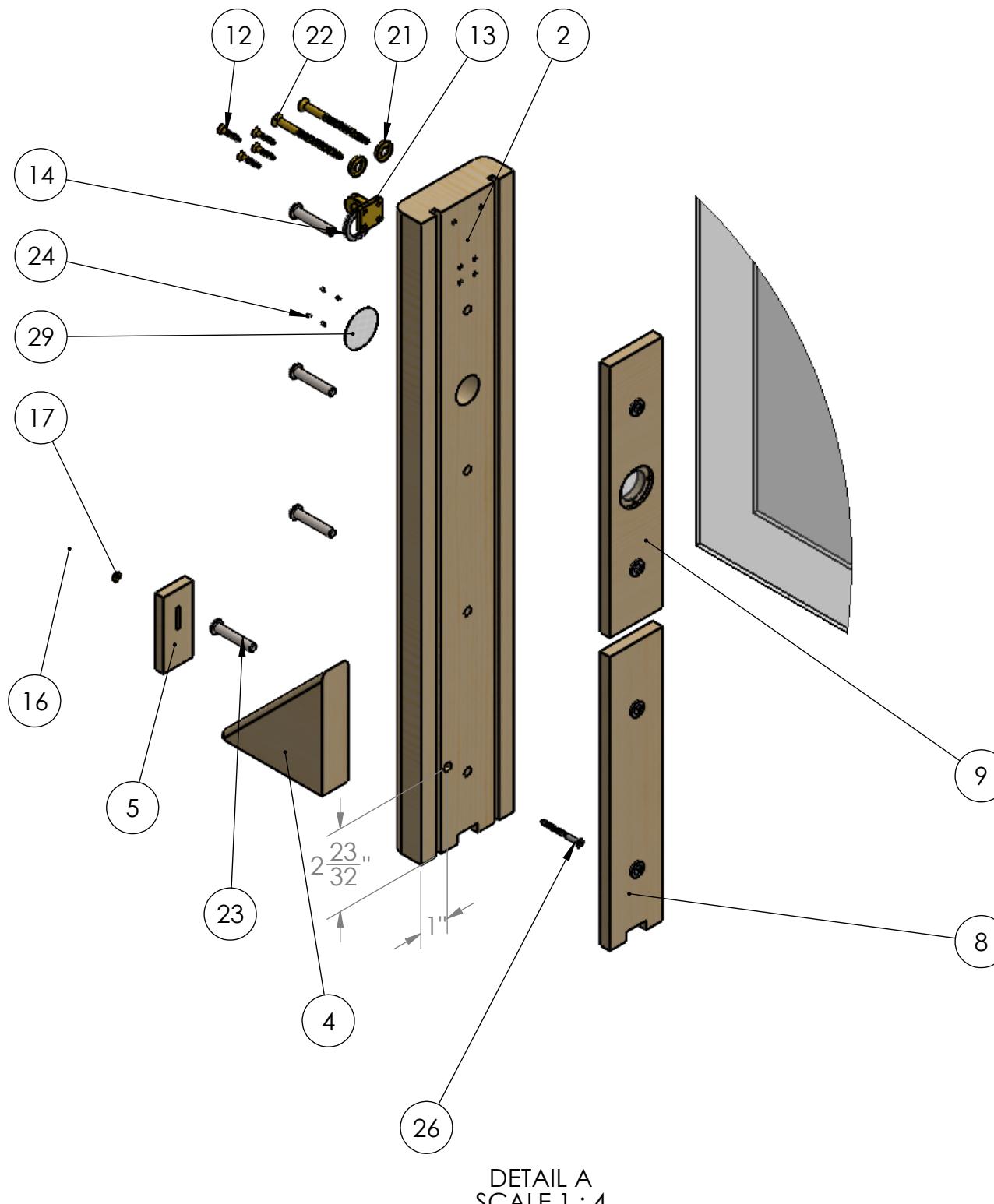
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WEIGHT 20.53 lbs

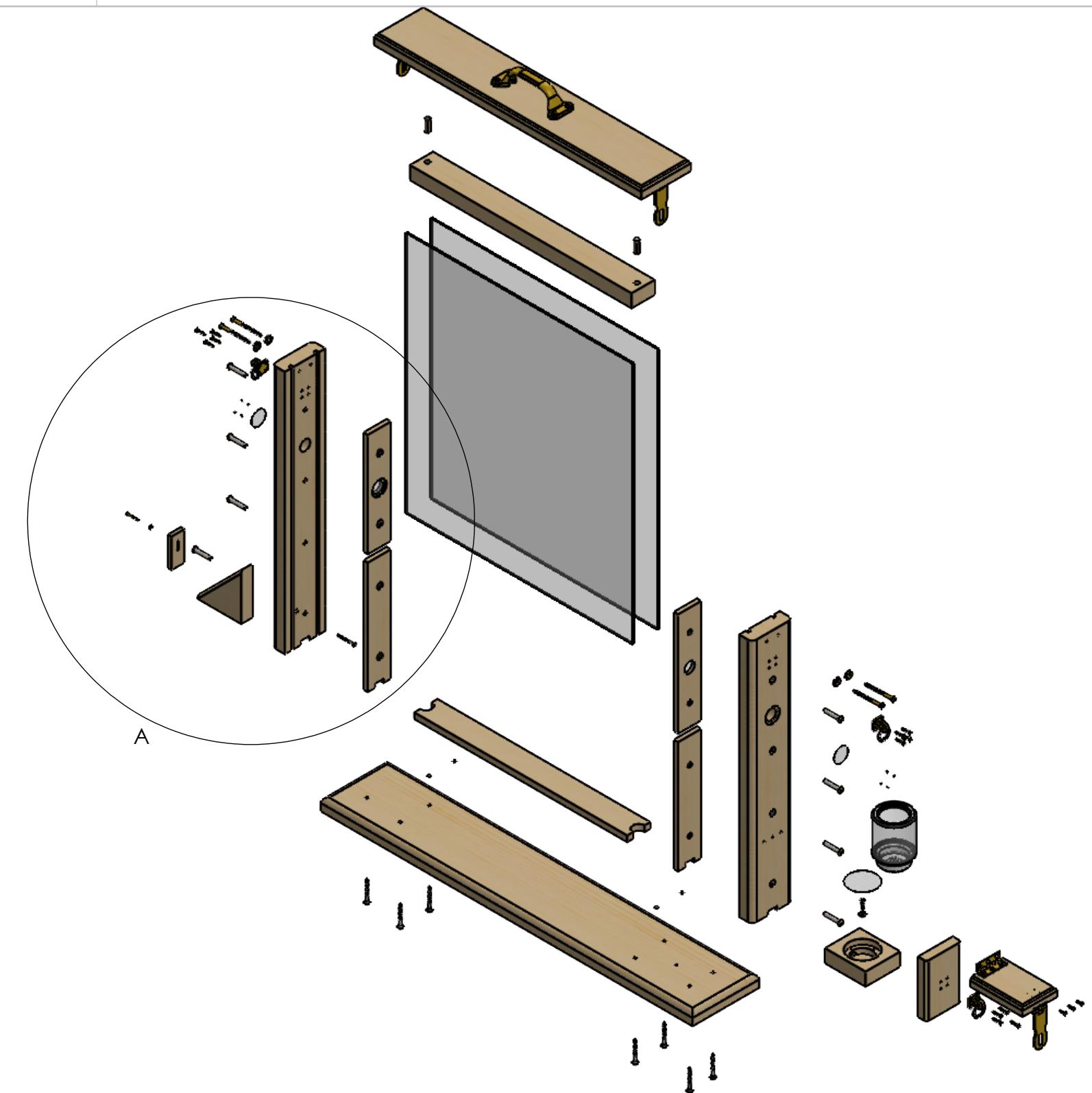
SHEET 2 OF 22

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2220_D	BASE	1
2	2221_D	SIDE	2
3	2228_D	INNER BASE	1
4	2223_D	GUSSET	1
5	2227_D	FEEDER HOLE COVER	1
6	2224_D	FEEDER BASE	1
7	2225_D	FEEDER SIDE	1
8	10055_D	LOWER FRAME REST	2
9	10054_D	UPPER FRAME REST	2
10	2231_D	INNER TOP	1
11	97195A109	3/8" Wood Dowel Pins	2
12	95188A310	Brass Square-Drive Flat-Head Screws for Wood	12
13	3851N11H_D	3851N11_Padlockable Hasp	3
14	90177A228	Zinc-Plated Steel Split Rings	3
15	95495K463	Adhesive-Back Bumpers	4
16	98685A560	Brass Phillips Decorative Rounded Head Screws	1
17	92916A320	Brass Washer	1
18	Regular FW 0.164	WASHER FOR #8 SCREW	1
19	91070A254	Rounded Head Screws for Plywood and OSB	1
20	92114A128	Brass Phillips Flat Head Screws for Wood	3
21	92921A011	Brass Countersunk Washer	4
22	92114A255	Brass Phillips Flat Head Screws for Wood	4
23	SBHSCREW 0.25-20x1.375-HX-N	1/4-20 X 1-3/8 SBHCS	8
24	97900A210	STAPLE	12
25	90396A140	Flanged Rounded Head Screws for Wood	7
26	90610A157	Square-Drive Flat Head Screws for Wood	1
27	2232_D	TEMPERED GLASS PANEL 19 X 18-1/2 X 3/16	2
28	10052_D	FEEDER LID	1
29	2236_D	VENT SCREEN - #8 MESH HARDWARE CLOTH	2
30	2237_D	FEEDER SCREEN - #8 MESH HARDWARE CLOTH	1
31	10051_D	OBSERVATION HIVE TOP	1
32	10053_D	SYRUP BOTTLE	1





DETAIL A
SCALE 1 : 4



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OBSERVATION HIVE

B

DRAWING NO

10050 D

REVISION

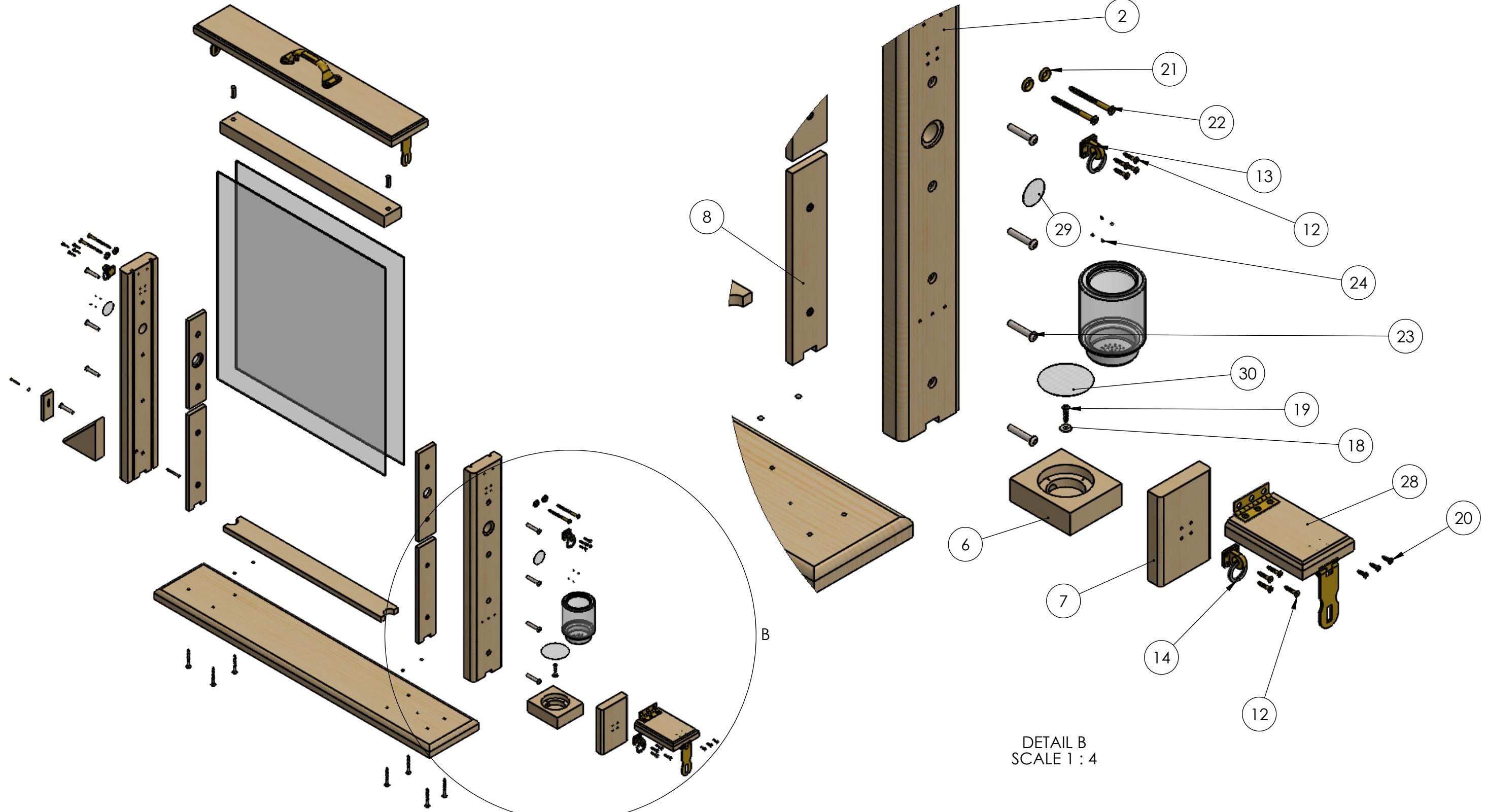
SCALE

1:8

WEIGHT

20.53 lbs

SHEET 4 OF 22



DETAIL B
SCALE 1 : 4

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SIZE	DRAWING NO
B	10050 D
SCALE	1:8



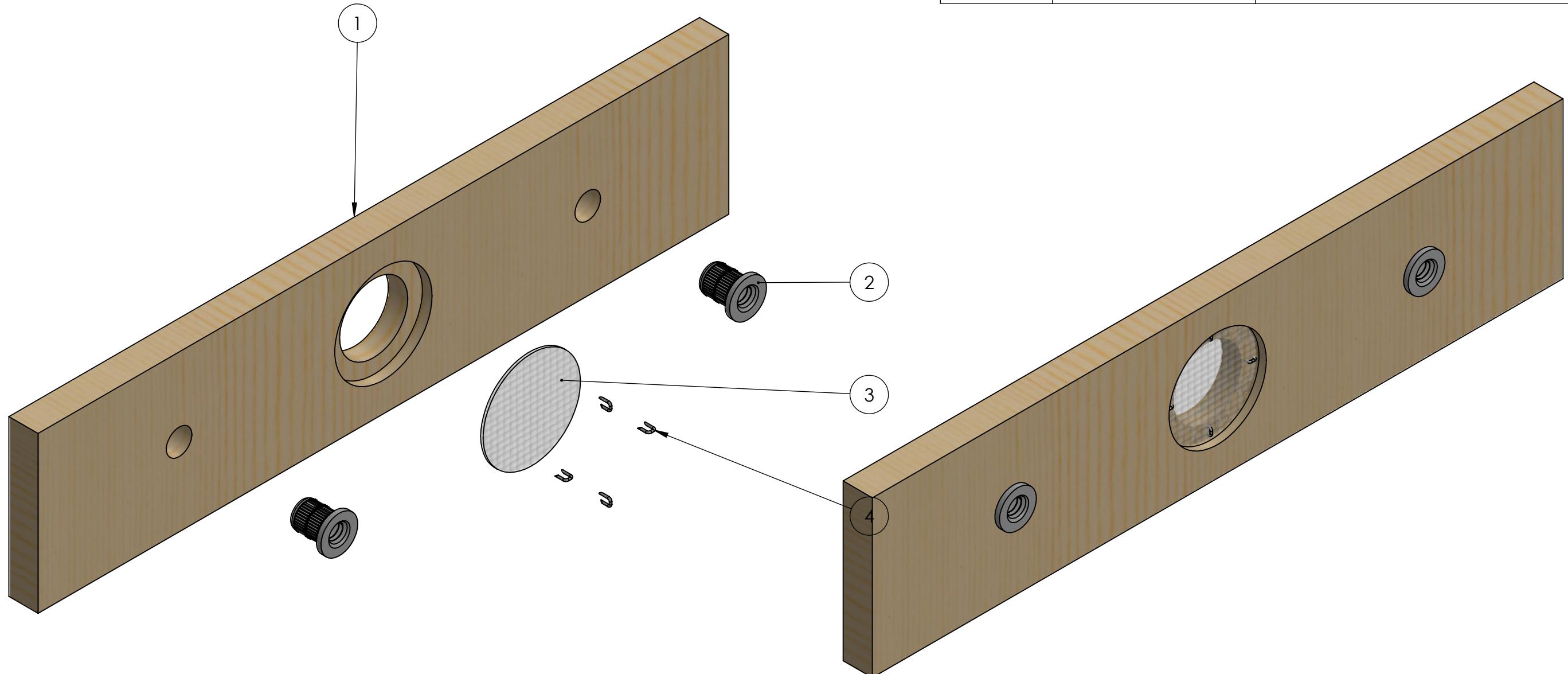
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OBSERVATION HIVE

REVISION
D -

NOTES:
 1. PRESS THREADED INSERTS INTO 21/64 HOLES.
 2. STAPLE #8 HARDWARE MESH INTO HOLE.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2230_D	UPPER FRAME SUPPORT	1
2	94738A310	Zinc-Plated Steel Knurled Inserts for Hardwood	2
3	2236_D	VENT SCREEN - #8 MESH HARDWARE CLOTH	1
4	97900A210	STAPLE	4



10054_D	-	UPPER FRAME REST
PART NUMBER	REV	DESCRIPTION

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THIRD ANGLE PROJECTION



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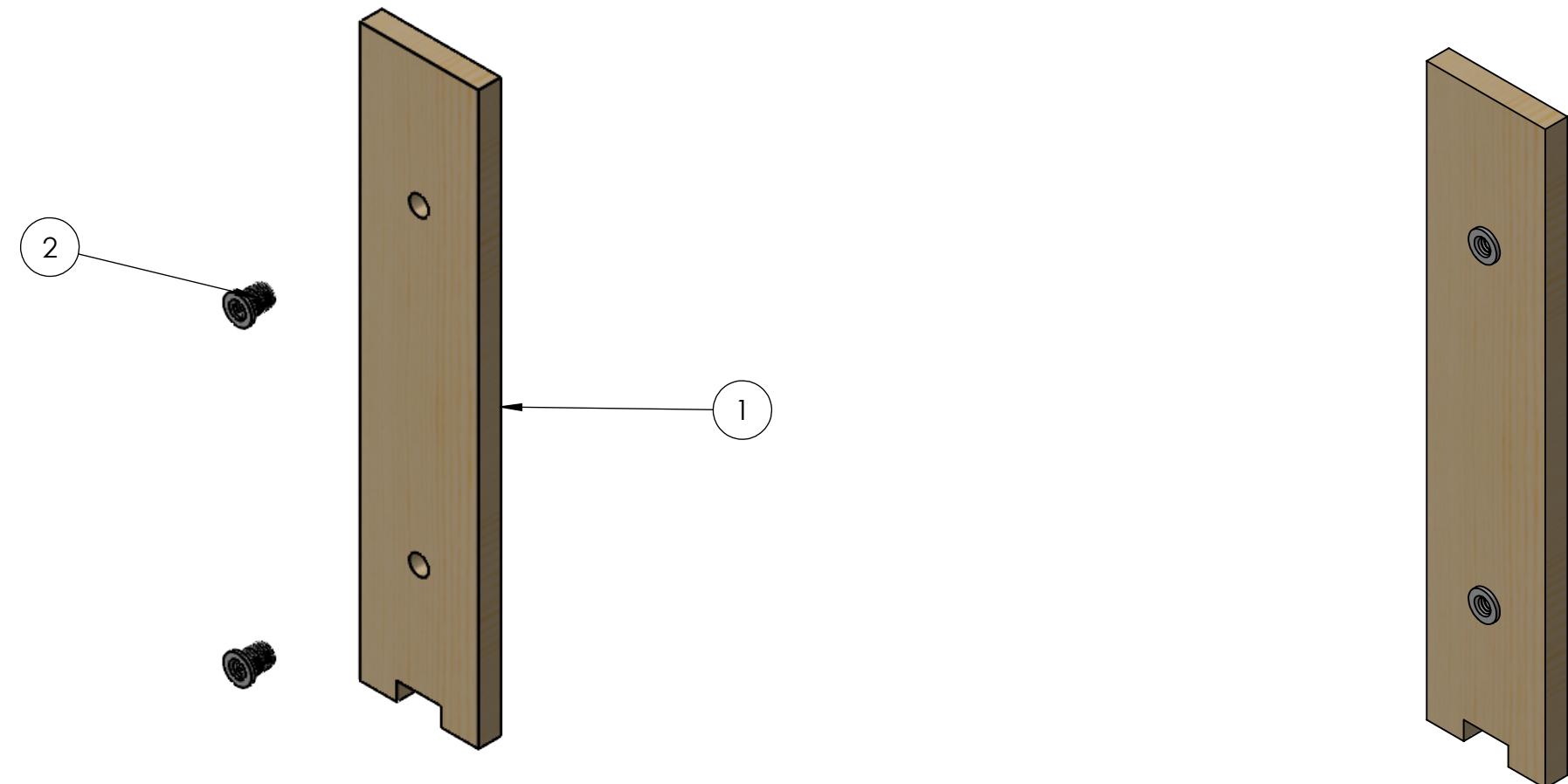
UPPER FRAME REST

10050_D

SIZE	DRAWING NO	REVISION
B	1:1	-
SCALE	WEIGHT 0.09 lbs	SHEET 6 OF 22

NOTES:
1. PRESS THREADED INSERTS INTO 21/64 HOLES.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2229_D	INNER LOWER SIDE	1
2	94738A310	Zinc-Plated Steel Knurled Inserts for Hardwood	2



10055_D	-	LOWER FRAME REST
PART NUMBER	REV	DESCRIPTION

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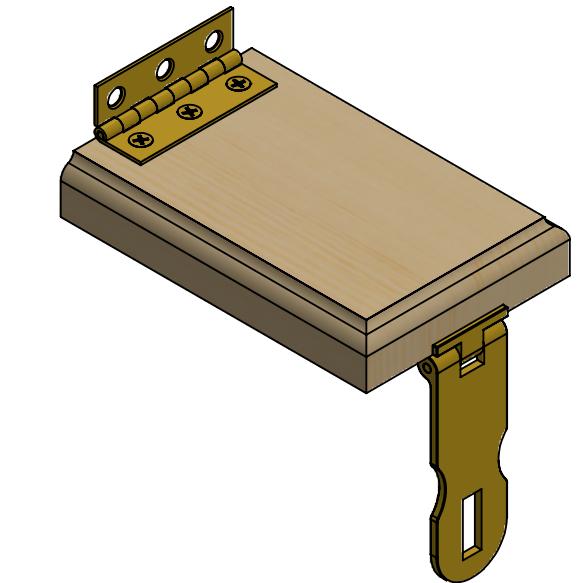
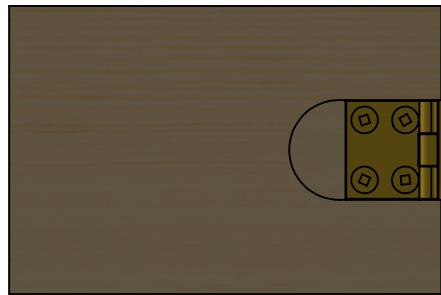
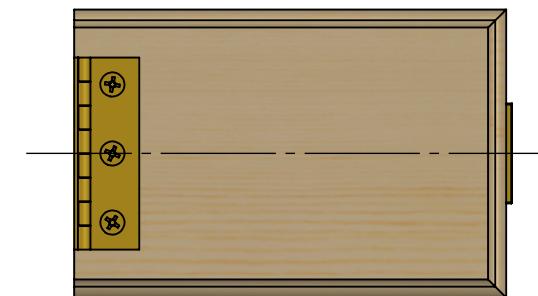
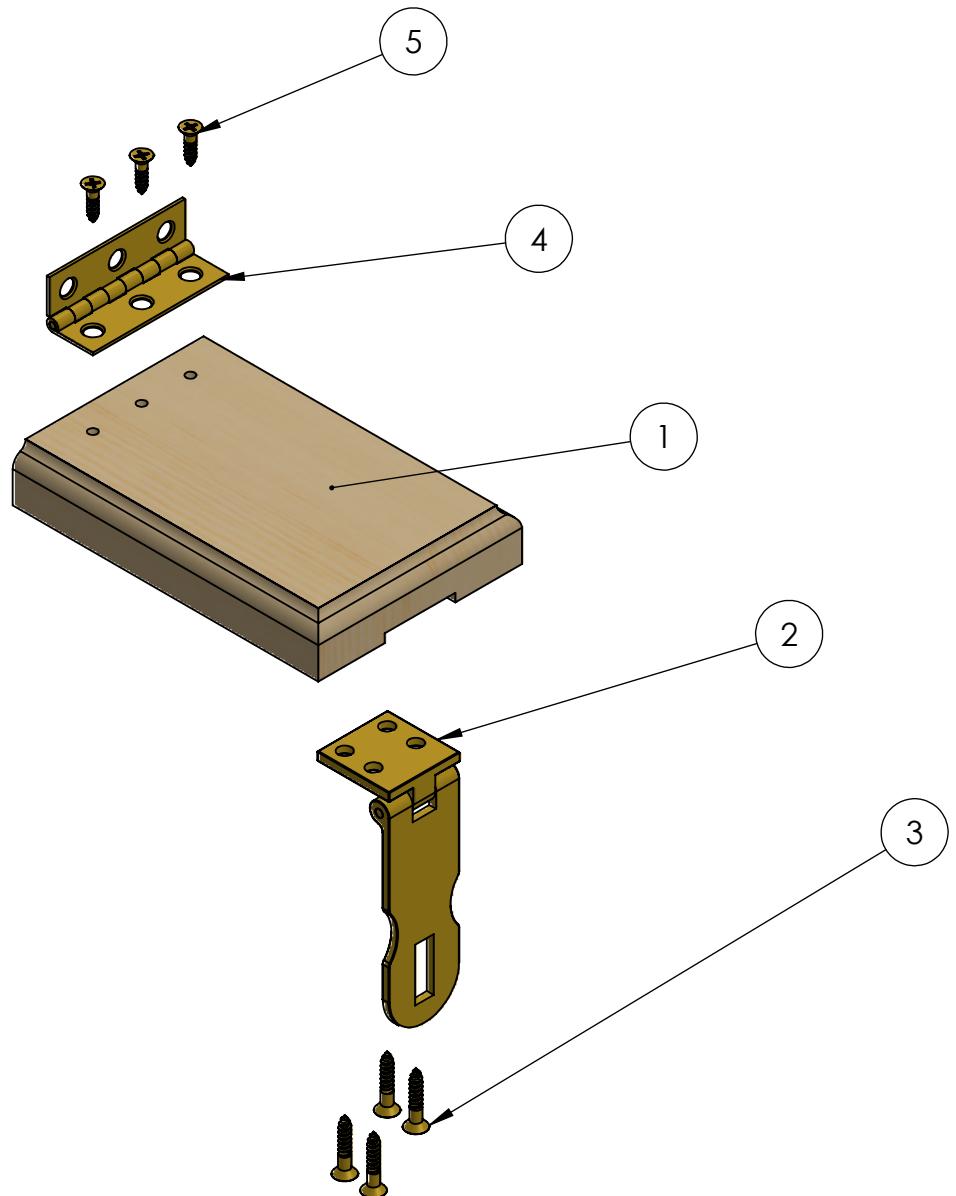


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LOWER FRAME REST

SIZE DRAWING NO
B 10050_D -
SCALE 1:2 WEIGHT 0.09 lbs SHEET 7 OF 22

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2226_D	FEEDER TOP	1
2	3851N11_D	PADLOCKABLE HASP	1
3	95188A310	Brass Square-Drive Flat-Head Screws for Wood	4
4	1603A24_D	2" SURFACE MOUNT HINGE	1
5	92114A128	Brass Phillips Flat Head Screws for Wood	3



10052_D	-	FEEDER LID
PART NUMBER	REV	DESCRIPTION

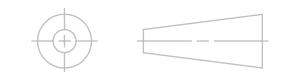
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THIRD ANGLE PROJECTION



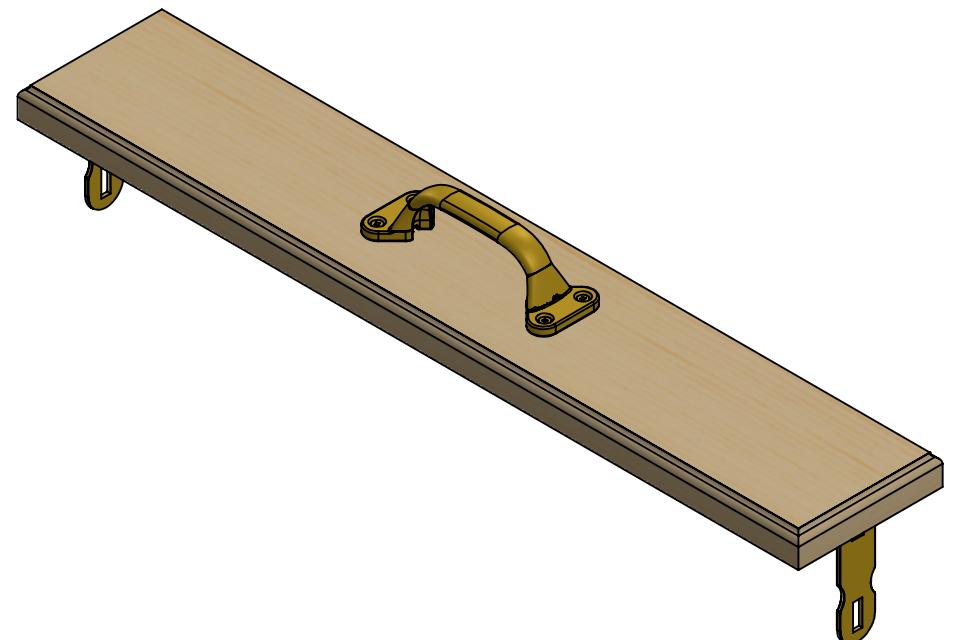
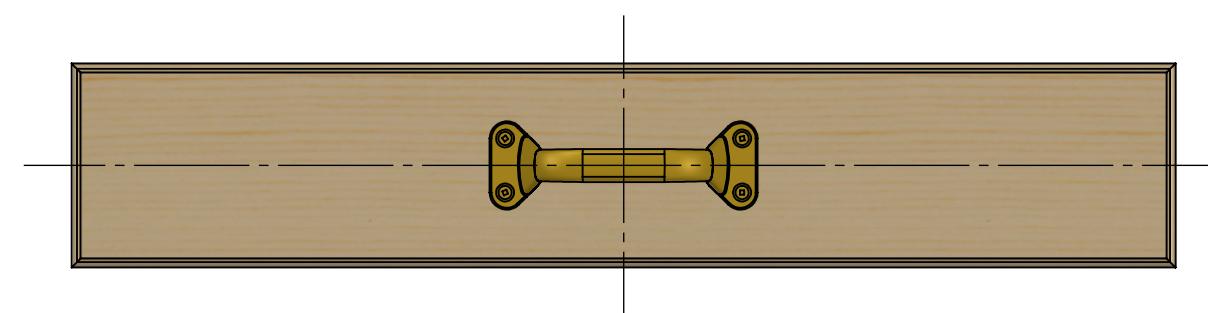
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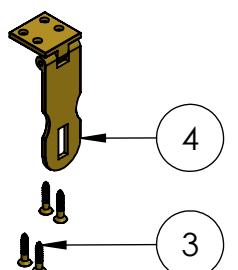
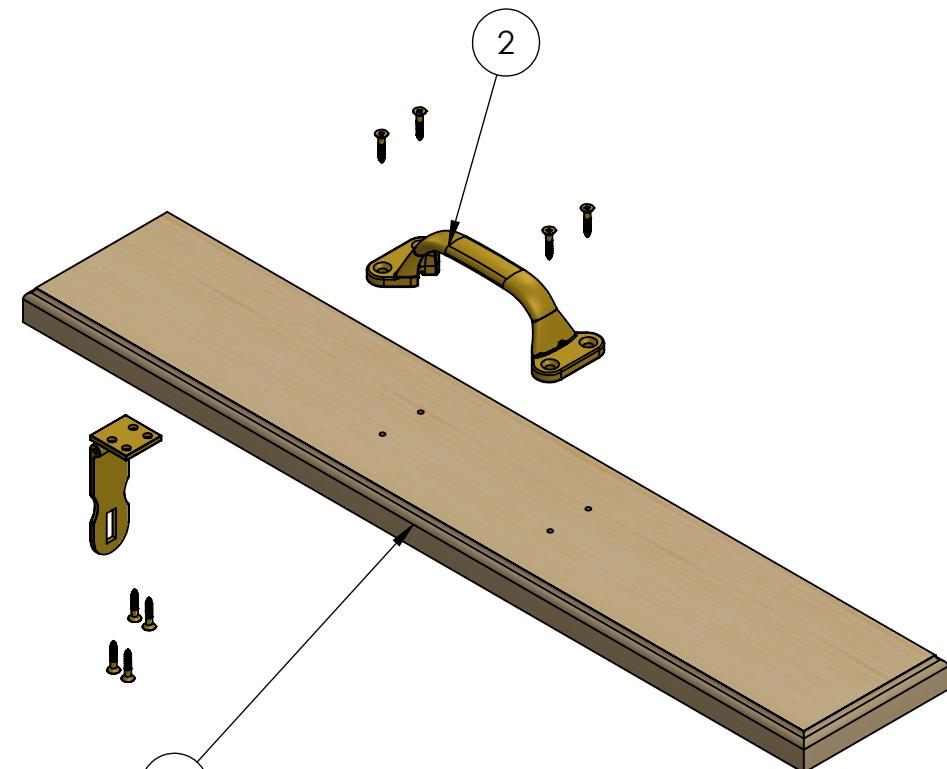
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FEEDER LID

10050_D
-
REVISION
B
DRAWING NO
1:2
SCALE
0.31 lbs
WEIGHT
SHEET 8 OF 22



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	2222_D	TOP PANEL	1
2	1646A35	Unthreaded-Hole Oval Pull Handle	1
3	95188A310	Brass Square-Drive Flat-Head Screws for Wood	12
4	3851N11_D	PADLOCKABLE HASP	2



10051_D	-	OBSERVATION HIVE TOP
PART NUMBER	REV	DESCRIPTION

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OBSERVATION HIVE TOP

10050_D

REVISION -

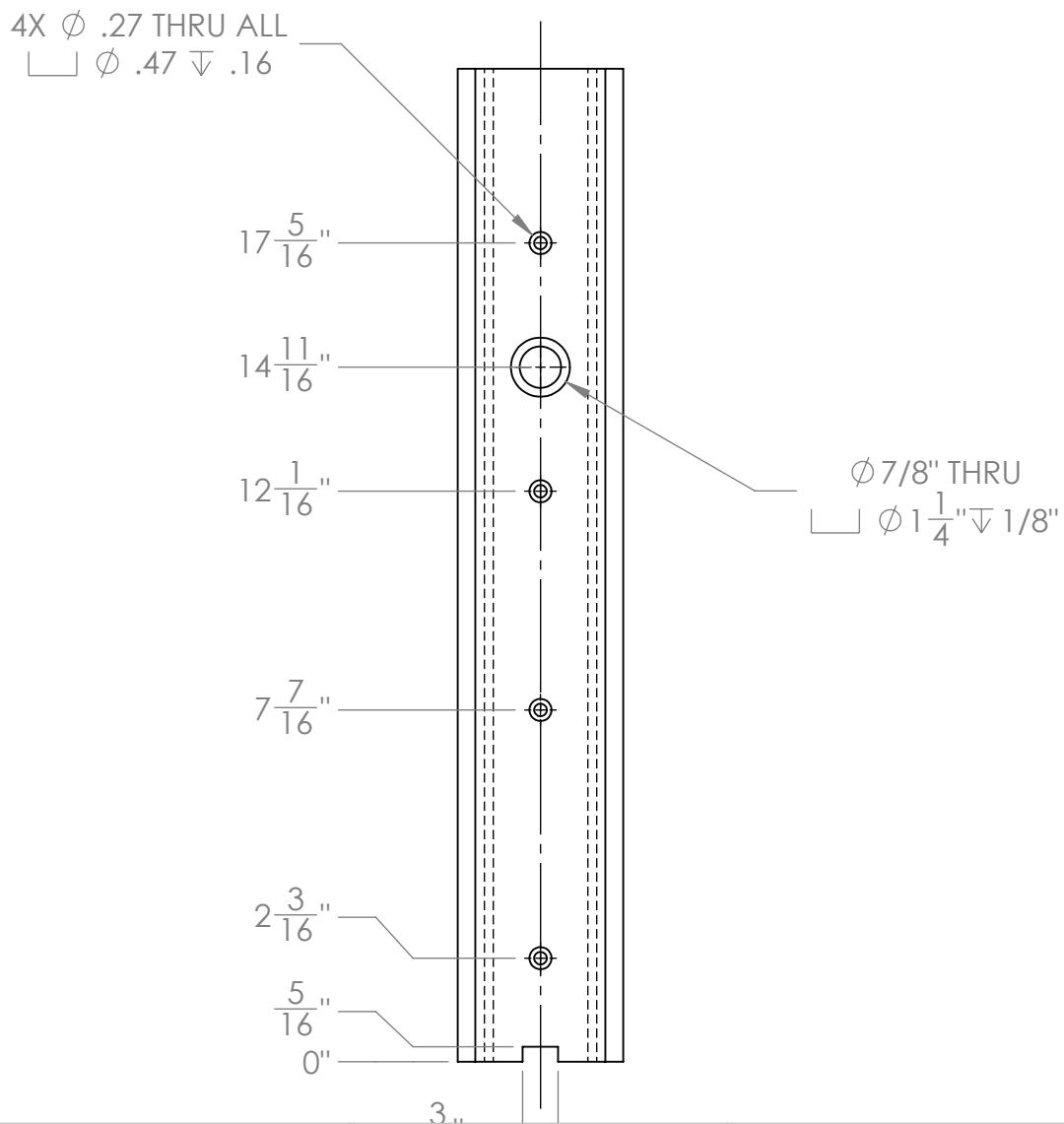
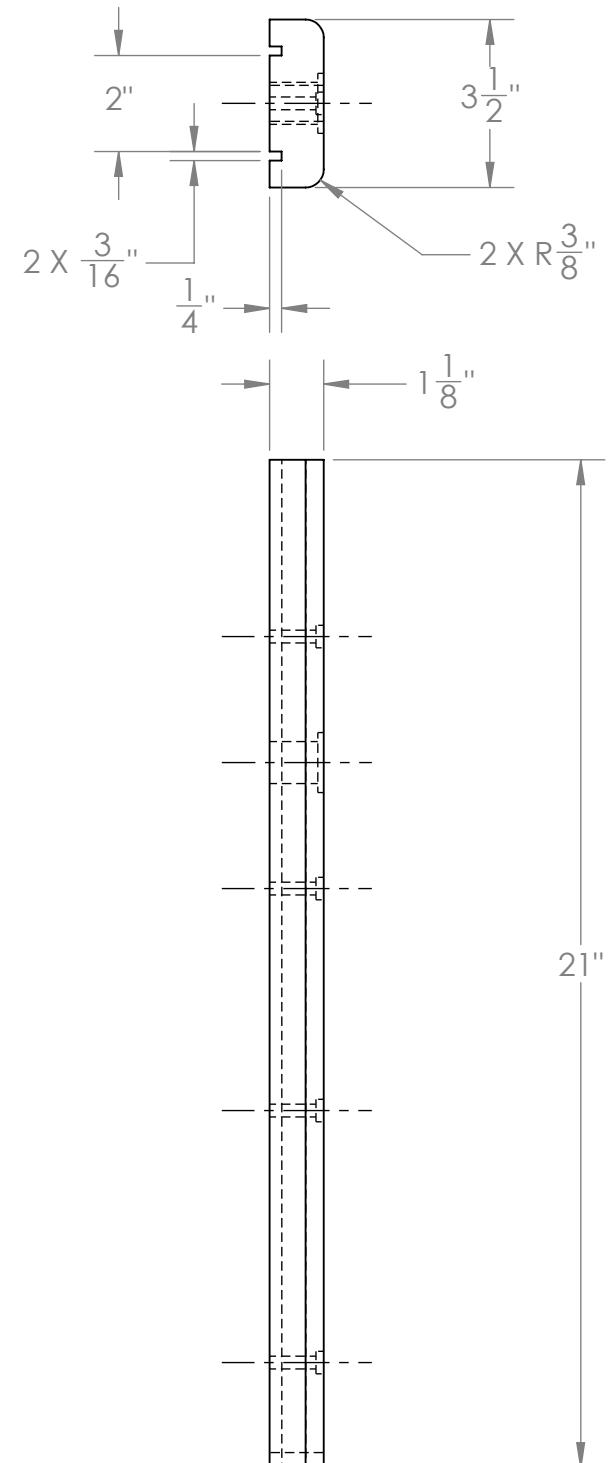
DRAWING NO B

SCALE 1:4

WEIGHT 1.81 lbs

SHEET 9 OF 22

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



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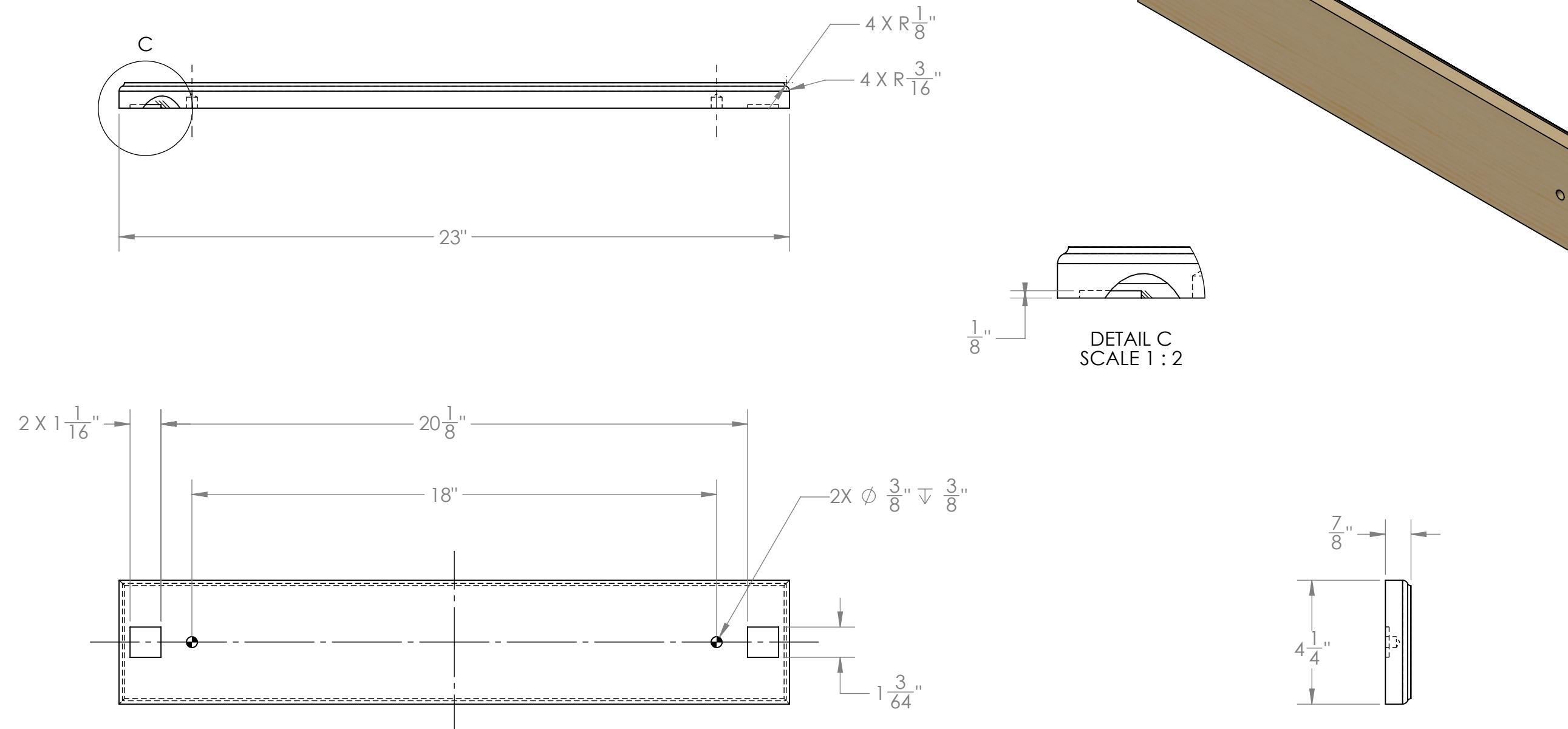
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SIDE

SIZE DRAWING NO
 B 10050 D -
 SCALE 1:4
 WEIGHT 0.96 lbs
 SHEET 11 OF 22

2221_D	-	SIDE
PART NUMBER	REV	DESCRIPTION

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2222_D	-	TOP PANEL
PART NUMBER	REV	DESCRIPTION

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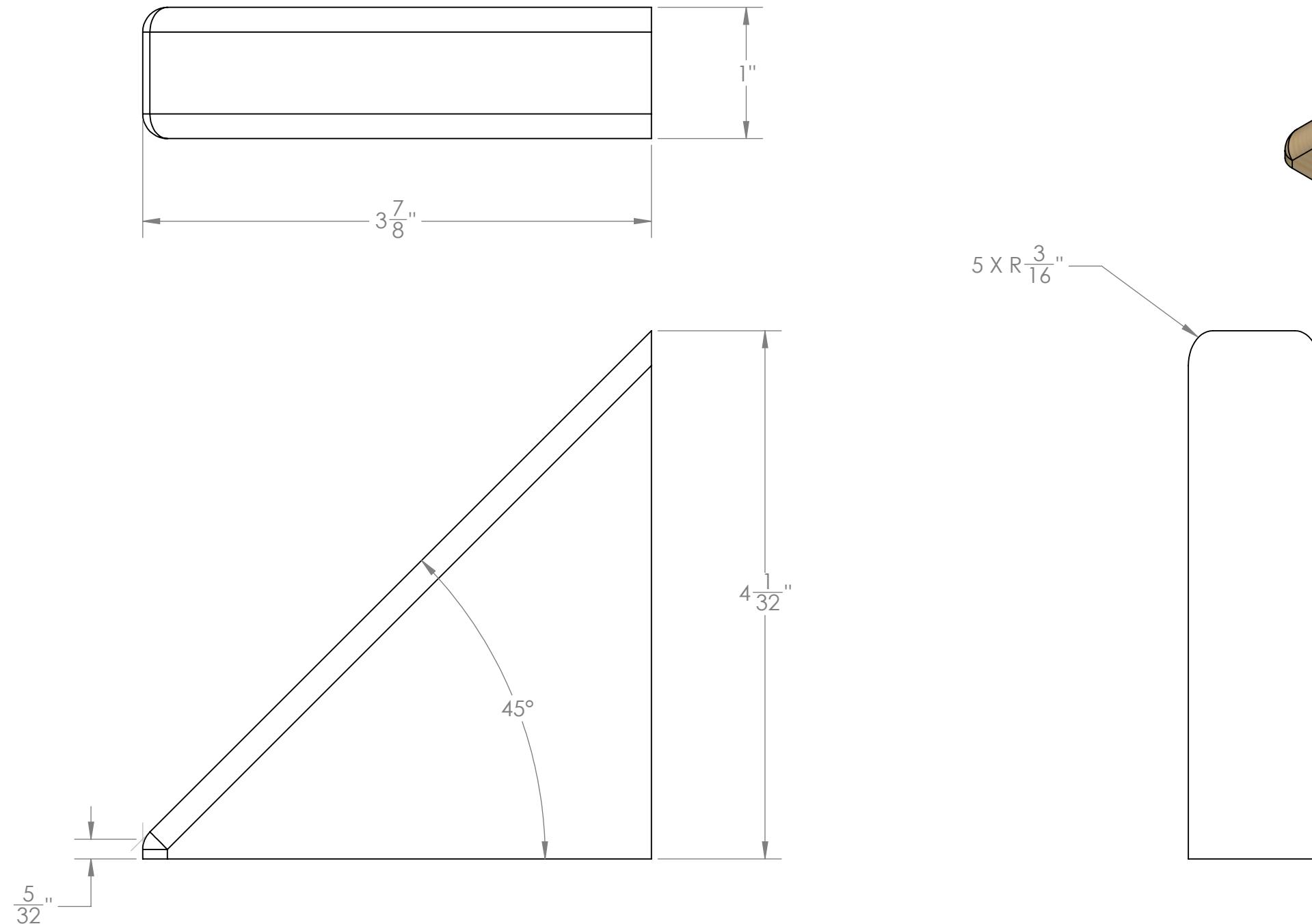


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TOP PANEL

SIZE DRAWING NO
B 10050 D -
 REVISION
 SCALE 1:4
 WEIGHT 1.03 lbs
 SHEET 12 OF 22

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2223_D	-	GUSSET
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
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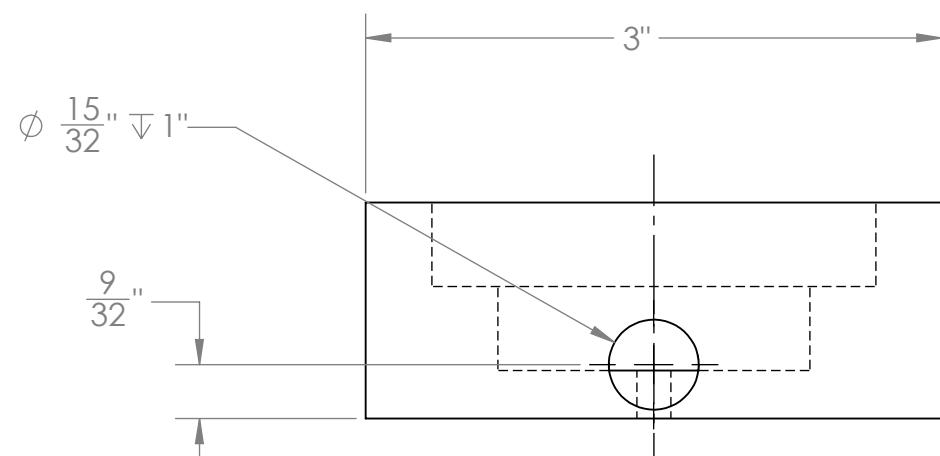
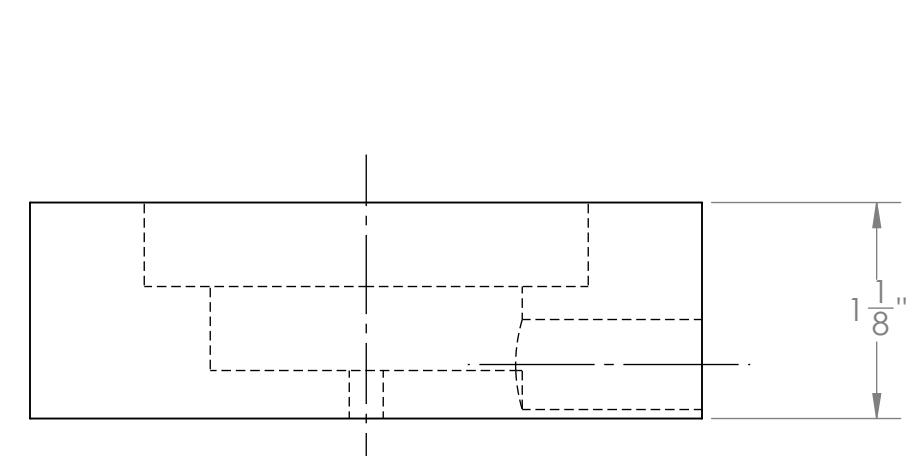
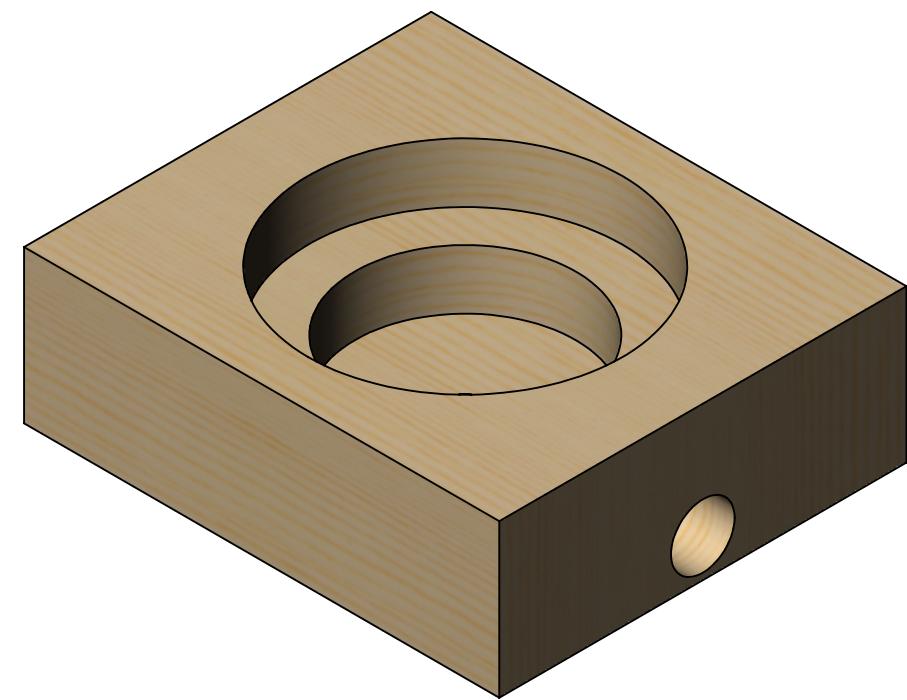
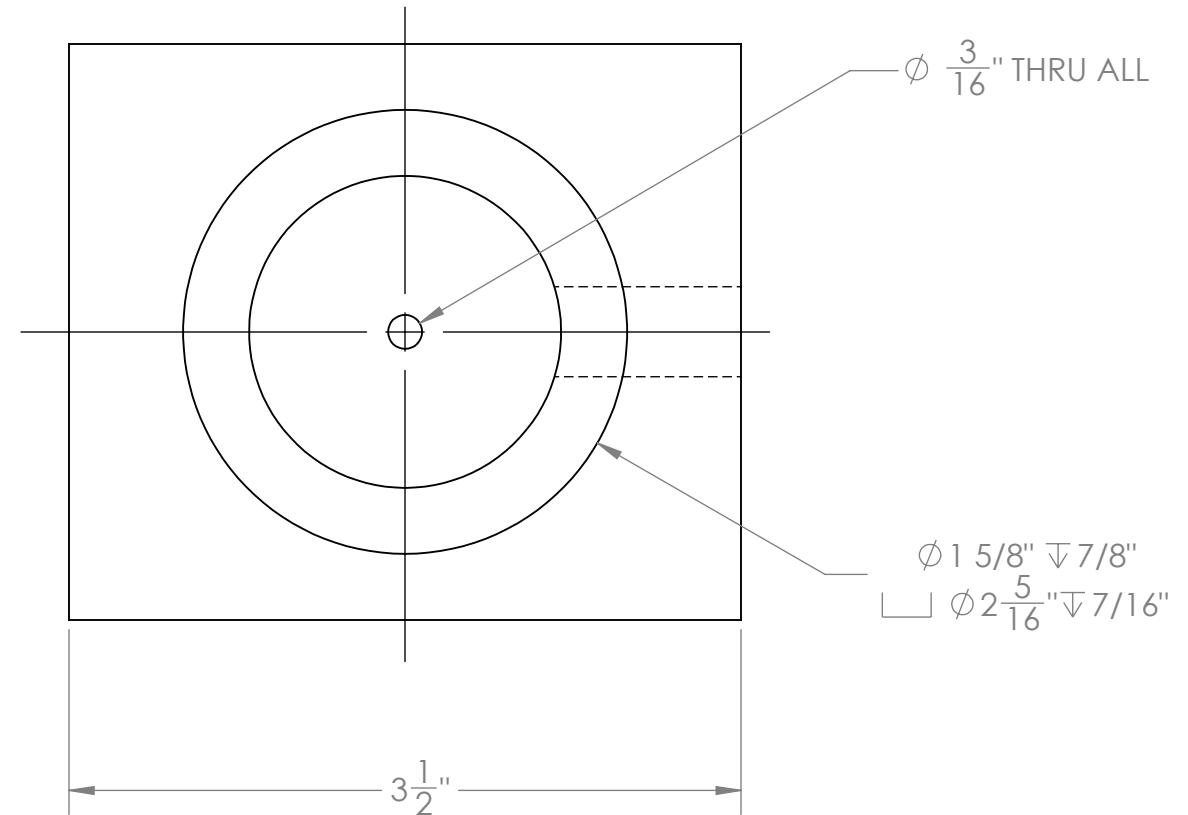
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GUSSET

SIZE	DRAWING NO
B	10050 D
SCALE	1:1
WEIGHT	0.10 lbs
SHEET 13 OF 22	

NOTES:

1. MATERIAL: Pine.
2. FINISH: STAIN.
3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
4. REMOVE ALL SHARP EDGES.



2224_D	-	FEEDER BASE
PART NUMBER	REV	DESCRIPTION

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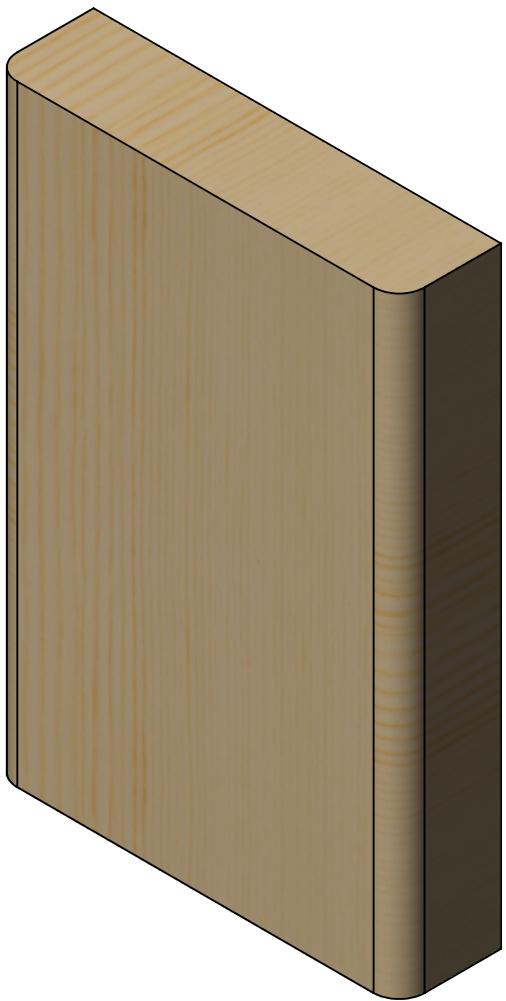
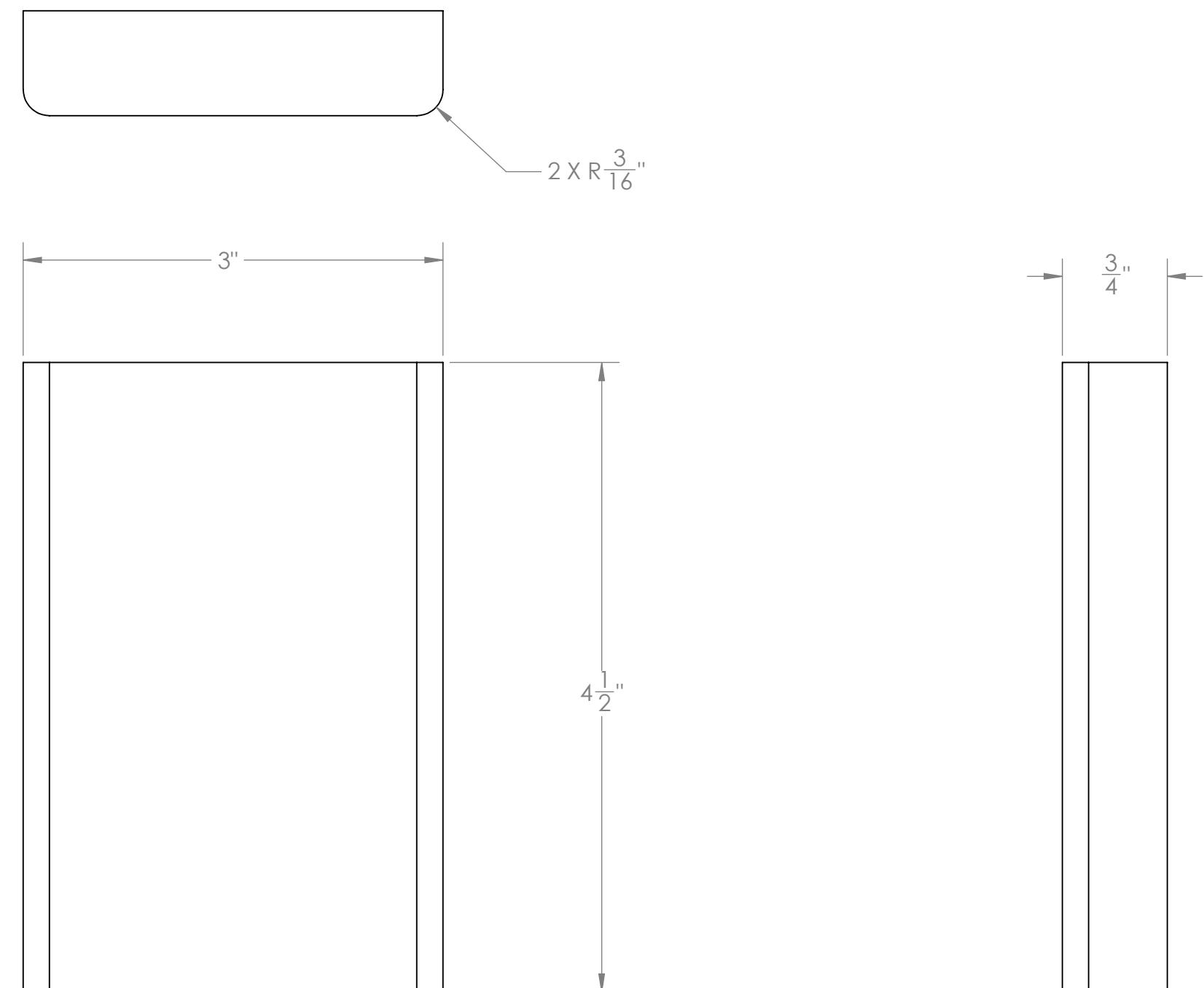
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2025-01-27
CHECKED BY
P.G. KELLY
DATE
2025-01-27
APPROVED
P.G. KELLY
DATE
2025-01-27

SIZE
B DRAWING NO
10050 D
REVISION
-
SCALE
1:1
WEIGHT
0.11 lbs
SHEET 14 OF 22

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
 4. REMOVE ALL SHARP EDGES.



UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
 DIMENSIONS ARE IN INCHES

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 THE UNIVERSITY OF GUELPH

FEEDER SIDE

THIRD ANGLE PROJECTION

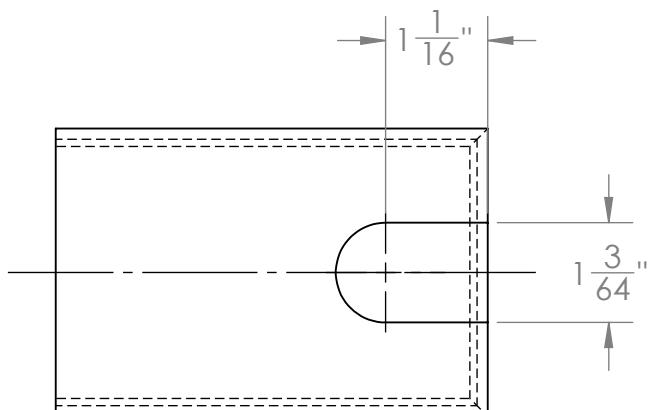
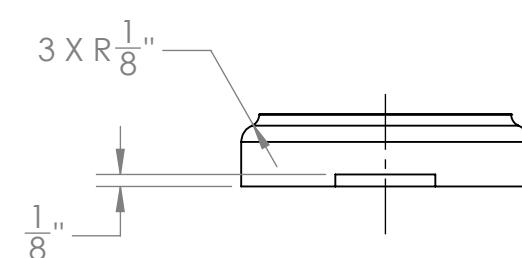
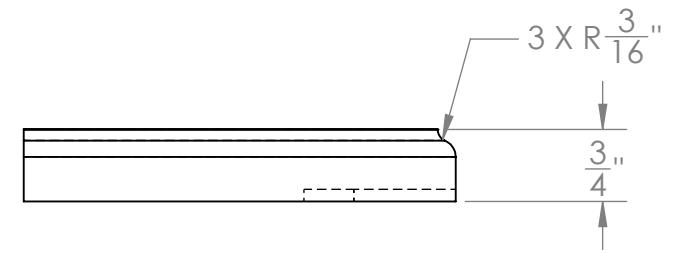
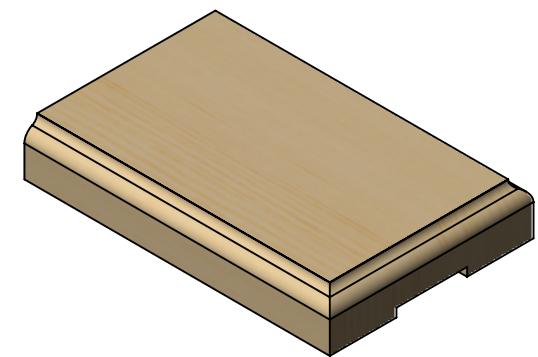
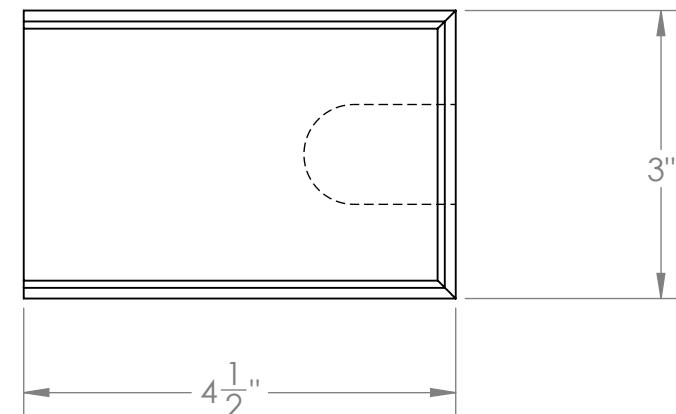
DRAWN BY F. FULKERSON	DATE 2025-01-27
CHECKED BY P.G. KELLY	DATE 2025-01-27
APPROVED P.G. KELLY	DATE 2025-01-27

SIZE B	DRAWING NO 10050 D
SCALE 1:1	WEIGHT 0.12 lbs
SHEET 15 OF 22	

2225_D	-	FEEDER SIDE
PART NUMBER	REV	DESCRIPTION

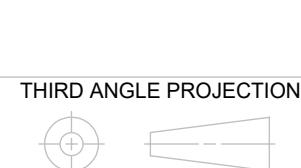
NOTES:

1. MATERIAL: Pine.
2. FINISH: STAIN.
3. SIZES MAY NEED TO BE ALTERED TO SUIT YOUR FEEDER JAR.
4. REMOVE ALL SHARP EDGES.



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THIRD ANGLE PROJECTION



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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

DRAWN BY
F. FULKERSON

CHECKED BY
P.G. KELLY

APPROVED
P.G. KELLY

DATE
2025-01-27

DATE
2025-01-27

DATE
2025-01-27



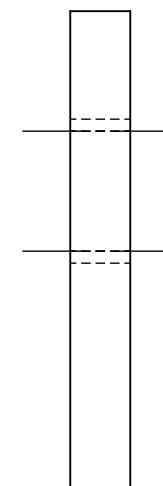
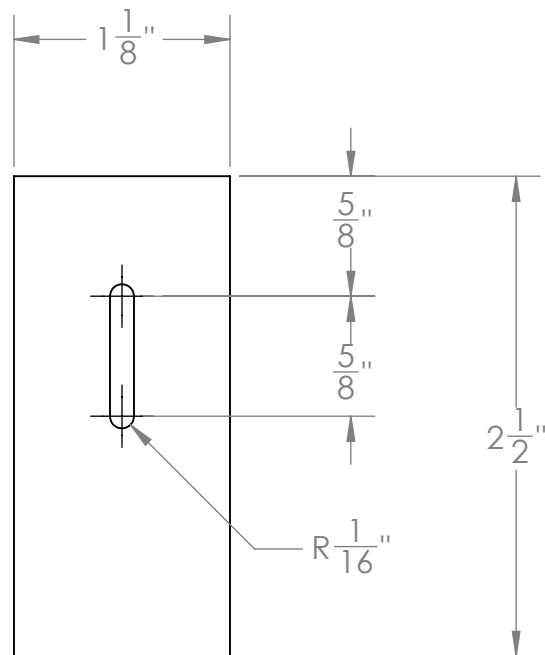
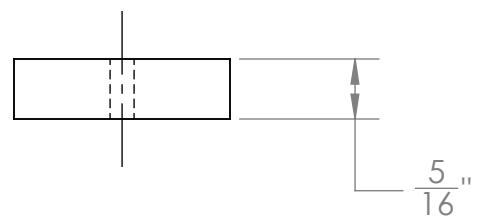
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

FEEDER TOP

2226_D	-	FEEDER TOP
PART NUMBER	REV	DESCRIPTION

		SIZE		DRAWING NO	
B				10050	D
SCALE	1:2	WEIGHT	0.12 lbs	SHEET	16 OF 22
REVISION	-				

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2227_D	-	FEEDER HOLE COVER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
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THIRD ANGLE PROJECTION

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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY
 F. FULKERSON
 DATE
 2025-01-27

CHECKED BY
 P.G. KELLY
 DATE
 2025-01-27

APPROVED
 P.G. KELLY
 DATE
 2025-01-27



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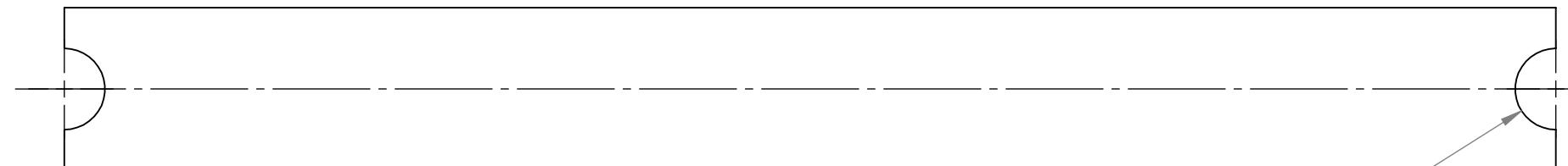
FEEDER HOLE COVER

10050_D

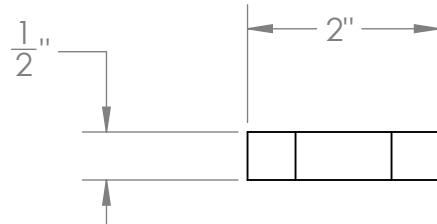
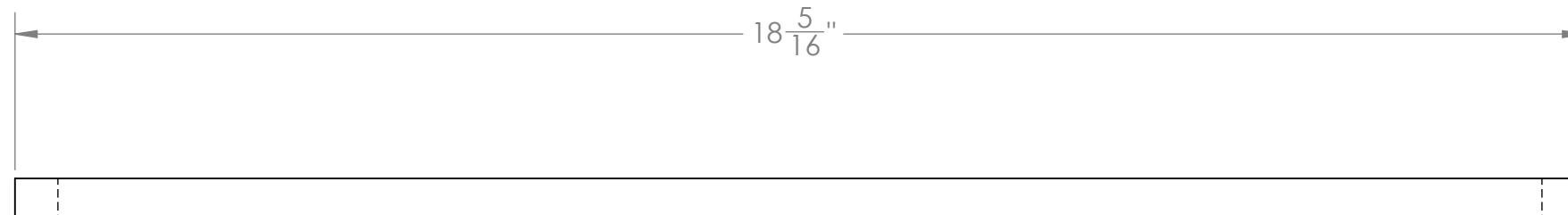
-

SIZE DRAWING NO
B 1:1
 SCALE 1:1
 WEIGHT 0.01 lbs
 SHEET 17 OF 22

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2 X R $\frac{1}{2}$ "



2228_D	-	INNER BASE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
 DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION

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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY
 F. FULKERSON DATE
 2025-01-27
 CHECKED BY
 P.G. KELLY DATE
 2025-01-27
 APPROVED
 P.G. KELLY DATE
 2025-01-27

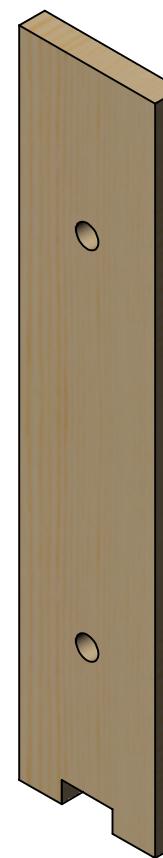
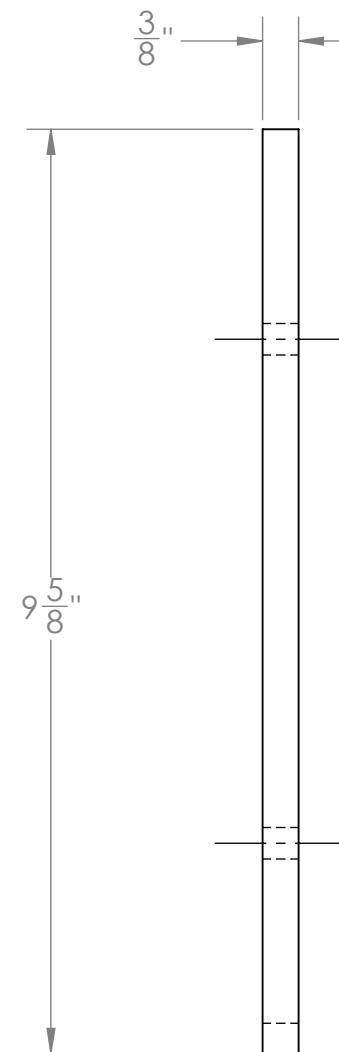
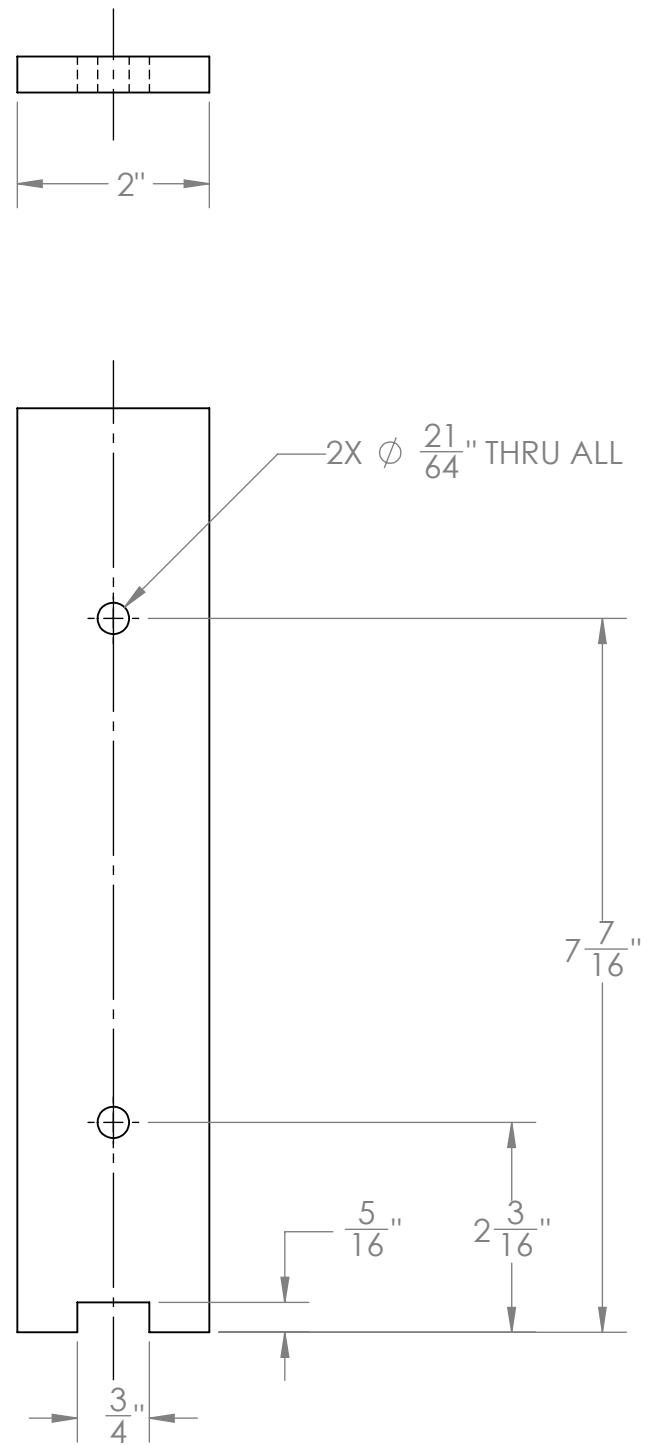


HONEY BEE RESEARCH CENTRE
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INNER BASE

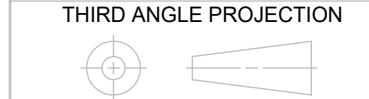
SIZE DRAWING NO
B 10050 D -
 REVISION
 1:2 WEIGHT 0.22 lbs SHEET 18 OF 22

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2229_D	-	INNER LOWER SIDE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
 DIMENSIONS ARE IN INCHES



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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY
 F. FULKERSON
 DATE
 2025-01-27
 CHECKED BY
 P.G. KELLY
 DATE
 2025-01-27
 APPROVED
 P.G. KELLY
 DATE
 2025-01-27

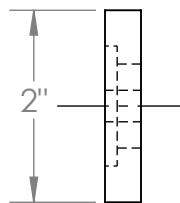
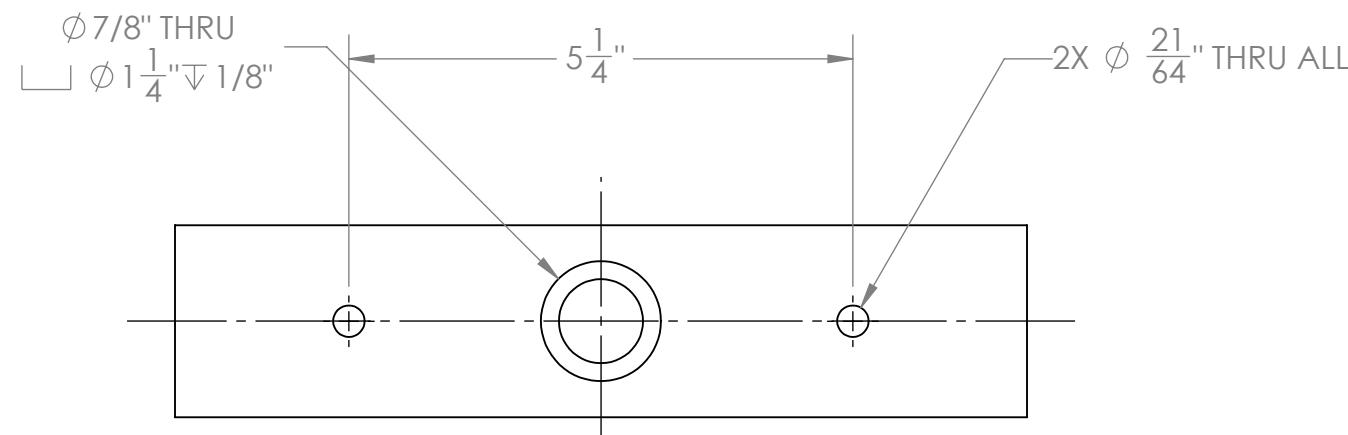
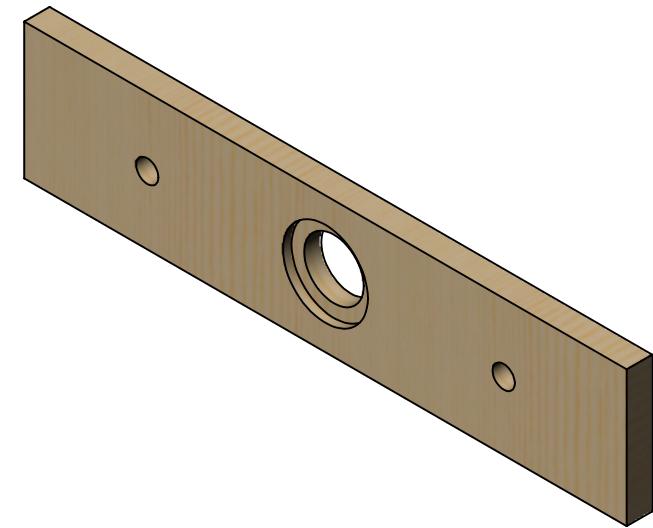
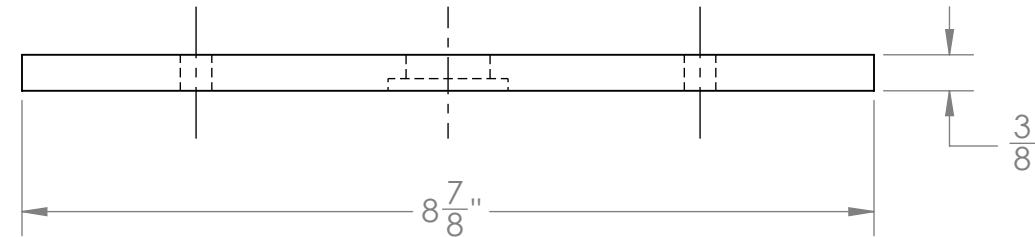


HONEY BEE RESEARCH CENTRE
 THE UNIVERSITY OF GUELPH

INNER LOWER SIDE

SIZE	DRAWING NO
B	10050_D
SCALE	1:2
WEIGHT	0.09 lbs
SHEET 19 OF 22	

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2230_D	-	UPPER FRAME SUPPORT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
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 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
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THIRD ANGLE PROJECTION

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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

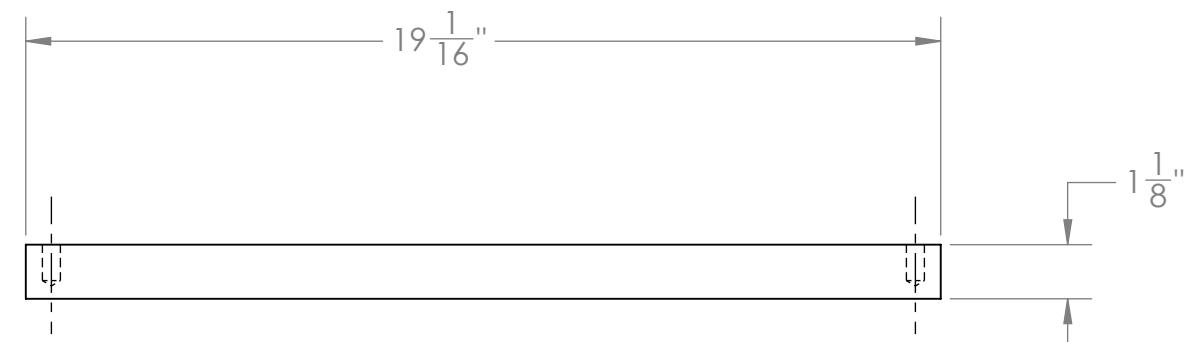
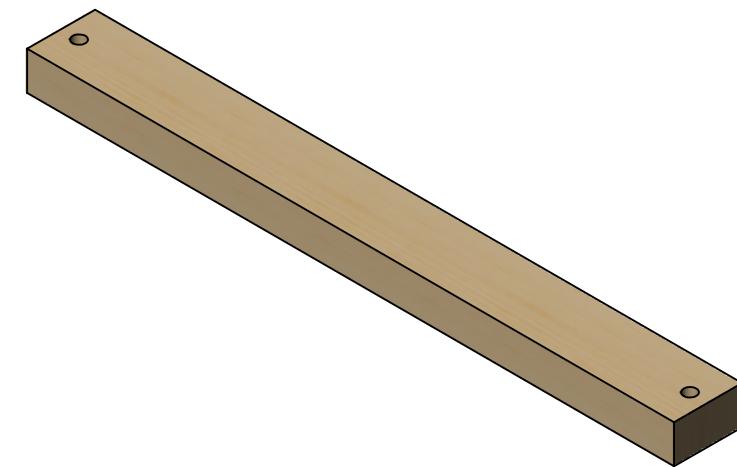
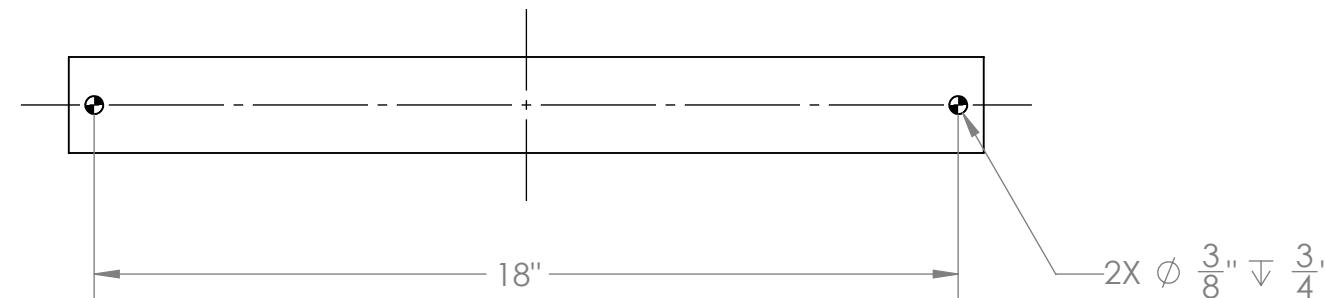
DRAWN BY
 F. FULKERSON
 DATE
 2025-01-27
 CHECKED BY
 P.G. KELLY
 DATE
 2025-01-27
 APPROVED
 P.G. KELLY
 DATE
 2025-01-27



HONEY BEE RESEARCH CENTRE
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UPPER FRAME SUPPORT
 SIZE DRAWING NO
B 1:2 0.08 lbs SHEET 20 OF 22
 REVISION
10050_D -

NOTES:
 1. MATERIAL: Pine.
 2. FINISH: STAIN.
 3. REMOVE ALL SHARP EDGES.



2231_D	-	INNER TOP
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
 DIMENSIONS ARE IN INCHES

THIRD ANGLE PROJECTION



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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY
 F. FULKERSON DATE
 2025-01-27
 CHECKED BY
 P.G. KELLY DATE
 2025-01-27
 APPROVED
 P.G. KELLY DATE
 2025-01-27

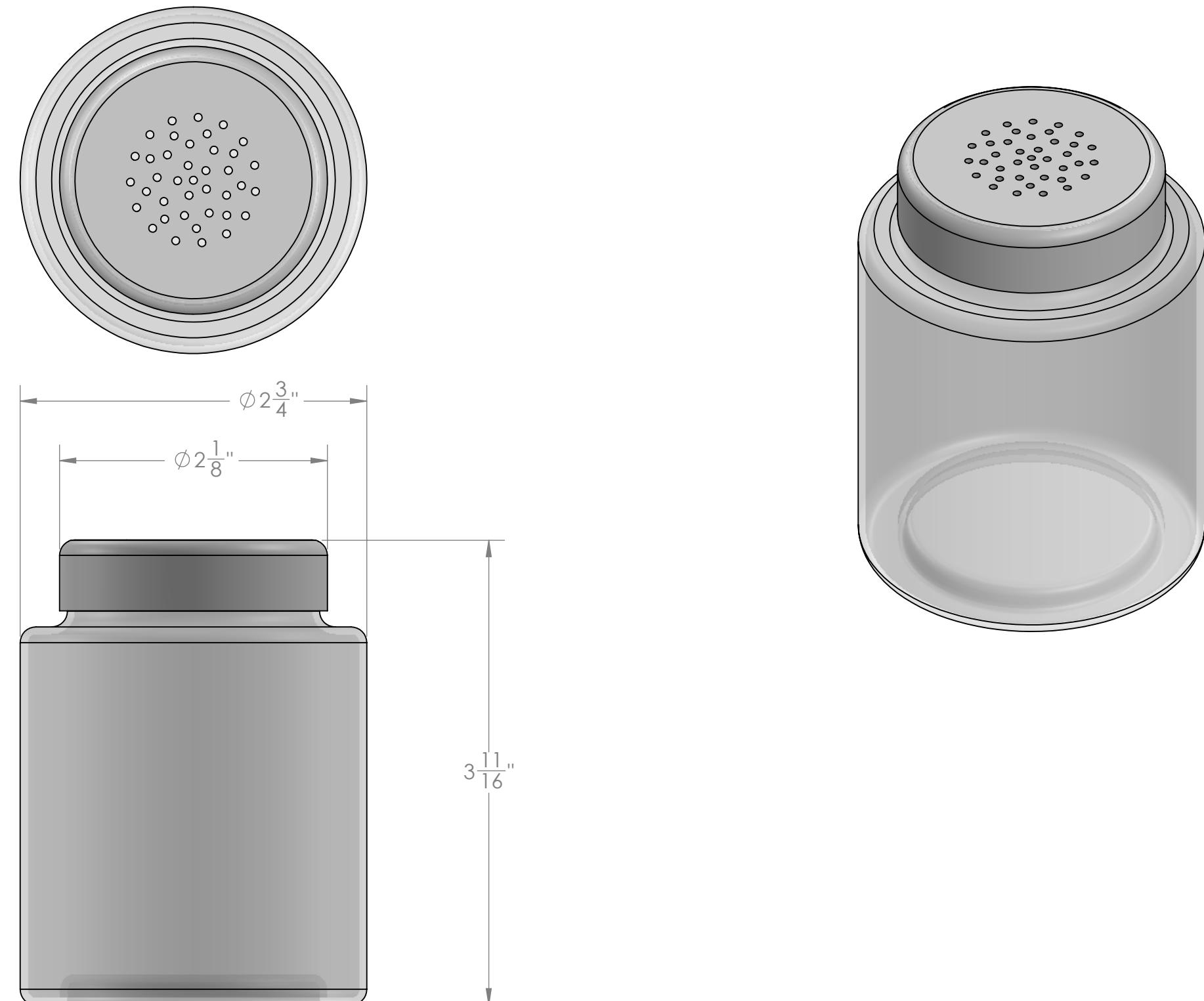


HONEY BEE RESEARCH CENTRE
 THE UNIVERSITY OF GUELPH

INNER TOP

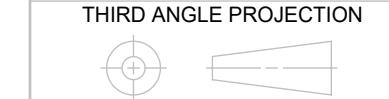
SIZE	DRAWING NO	REVISION
B	1:4	0.52 lbs
SCALE	WEIGHT	SHEET 21 OF 22

NOTES:
 1. MATERIAL: PLASTIC.
 2. FINISH: NONE.
 3. DRILL 0.04" (#60) HOLES IN LID.
 4. REMOVE ALL SHARP EDGES.



10053_D	REV	SYRUP BOTTLE
PART NUMBER		DESCRIPTION

UNLESS OTHERWISE SPECIFIED
 DO NOT SCALE DRAWING
 INTERPRET DIMENSIONS AND TOLERANCES
 PER ASME Y14.5-2018
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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY
 F. FULKERSON
 DATE
 2025-01-27
 CHECKED BY
 P.G. KELLY
 DATE
 2025-01-27
 APPROVED
 P.G. KELLY
 DATE
 2025-01-27



HONEY BEE RESEARCH CENTRE
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SYRUP BOTTLE

SIZE	DRAWING NO
B	10050_D
SCALE	1:1
WEIGHT	0.101 lbs
SHEET 22 OF 22	