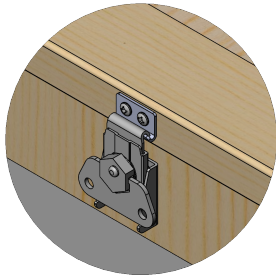
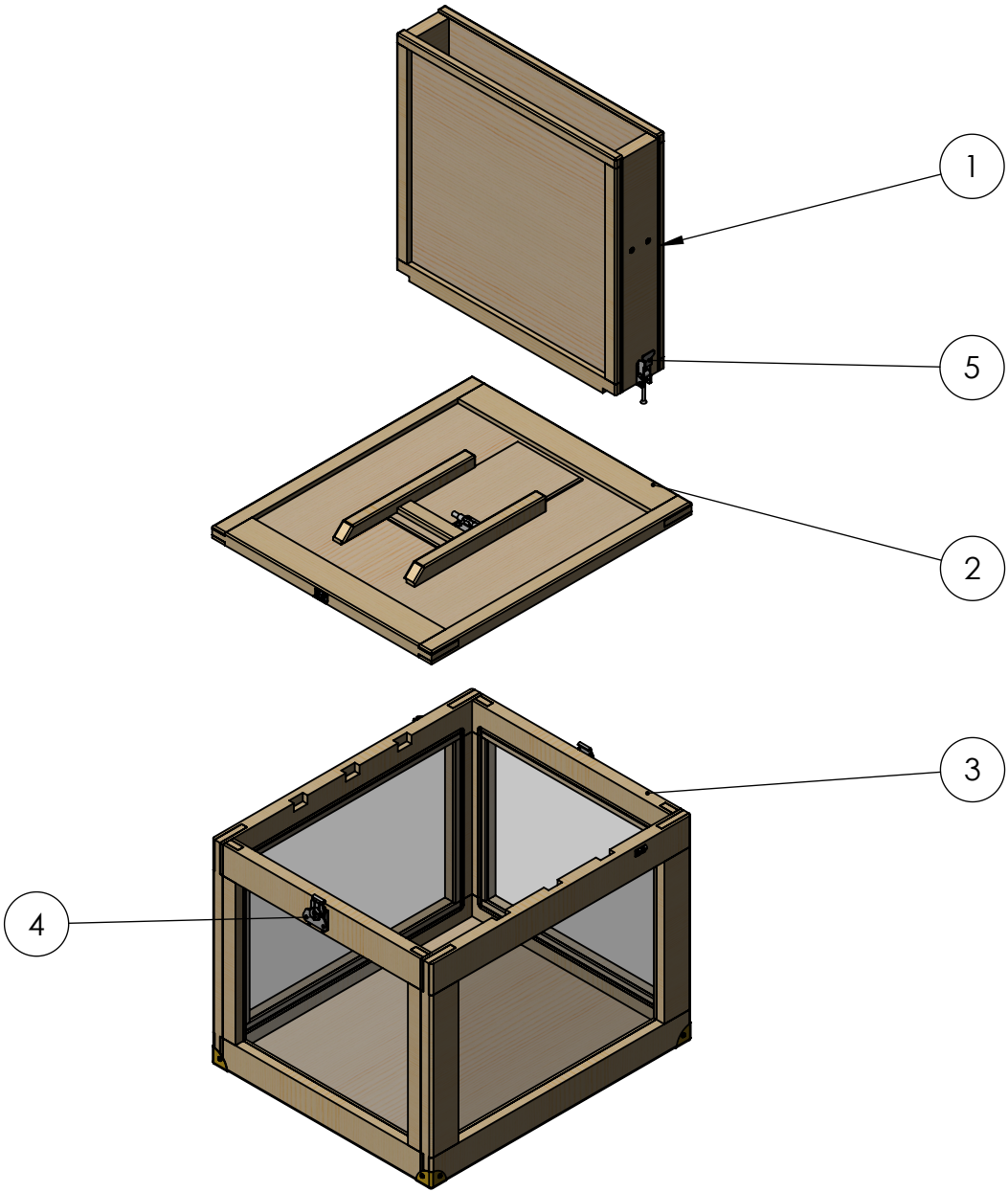
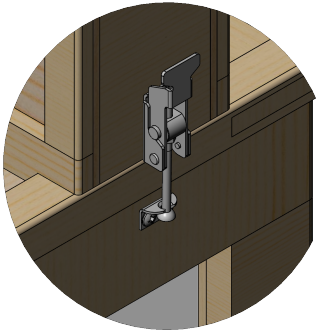
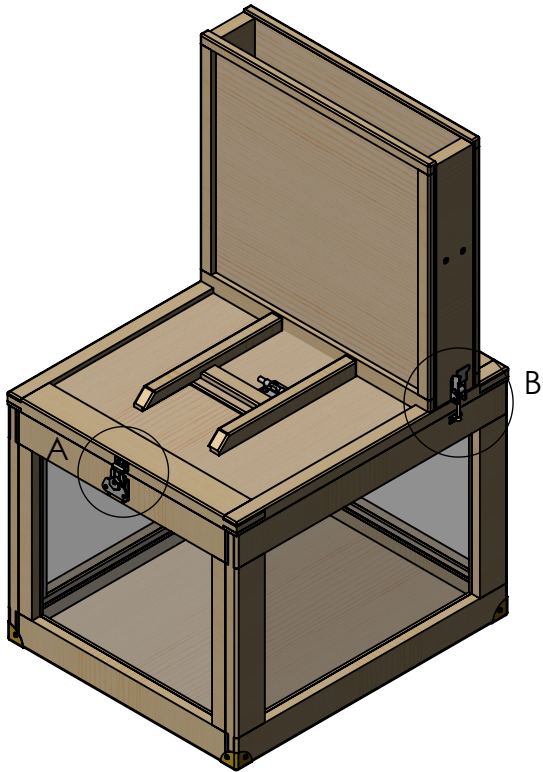


NOTES:
1. ADD HARDWARE AFTER ASSEMBLY.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10026M	HRBC BULK BEE BOX	1
2	10028M	BULK BEE BOX LID	1
3	10031M	BULK BEE BOX	1
4	1406A47	Turn-to-Open Draw Latch	2
5	1141A32	Lift-and-Drop Barrel Side-Bolt Latch	2



DETAIL A
SCALE 1 : 4



DETAIL B
SCALE 1 : 4

10032M	-	HRBC BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

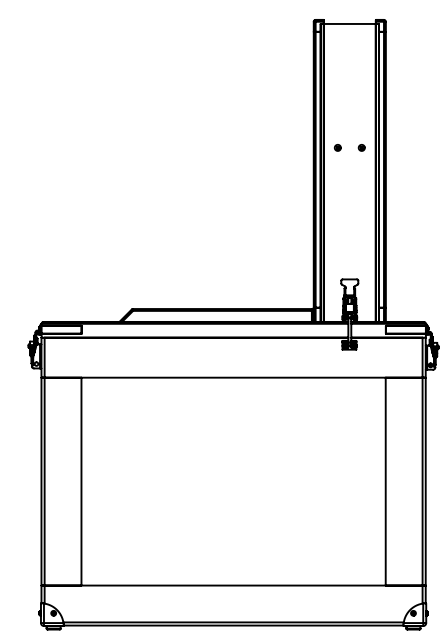
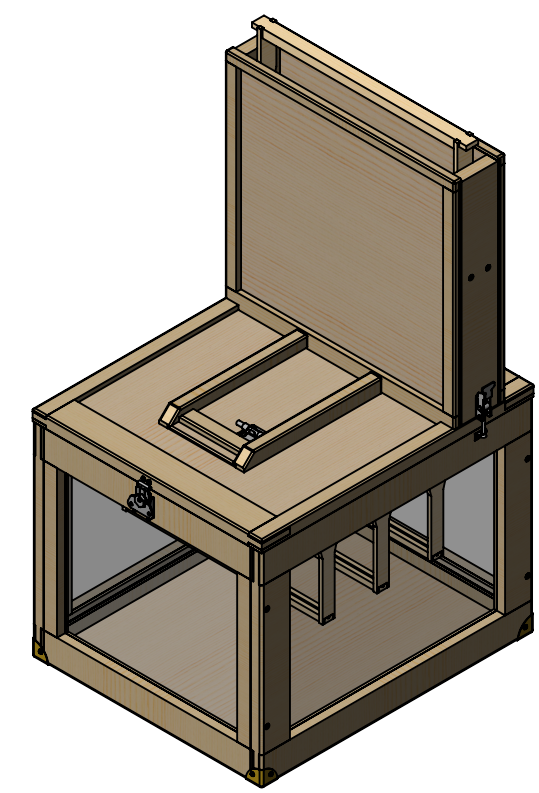
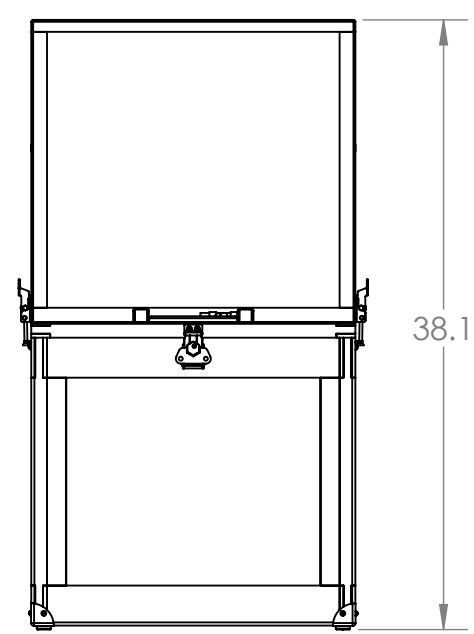
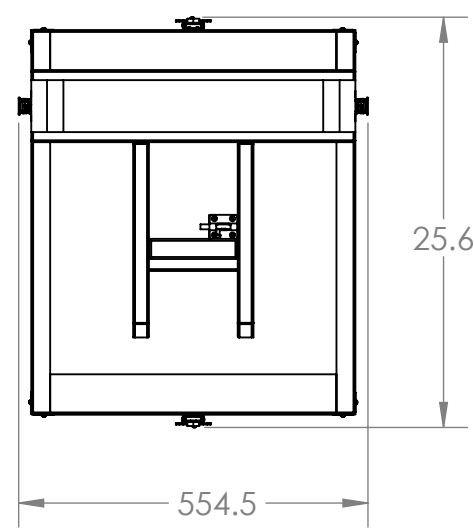
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THE UNIVERSITY OF GUELPH

TITLE

HRBC BULK BEE BOX

SIZE	DRAWING NO	10032M	- REVISION
B			
SCALE	1:12	WEIGHT	12731.928618 g

SHEET 1 OF 42



10032M	-	HRBC BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

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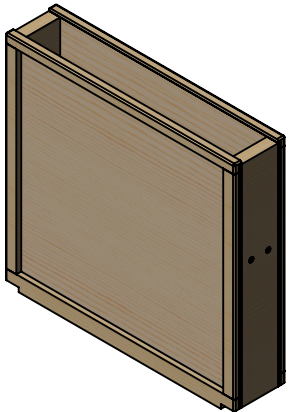
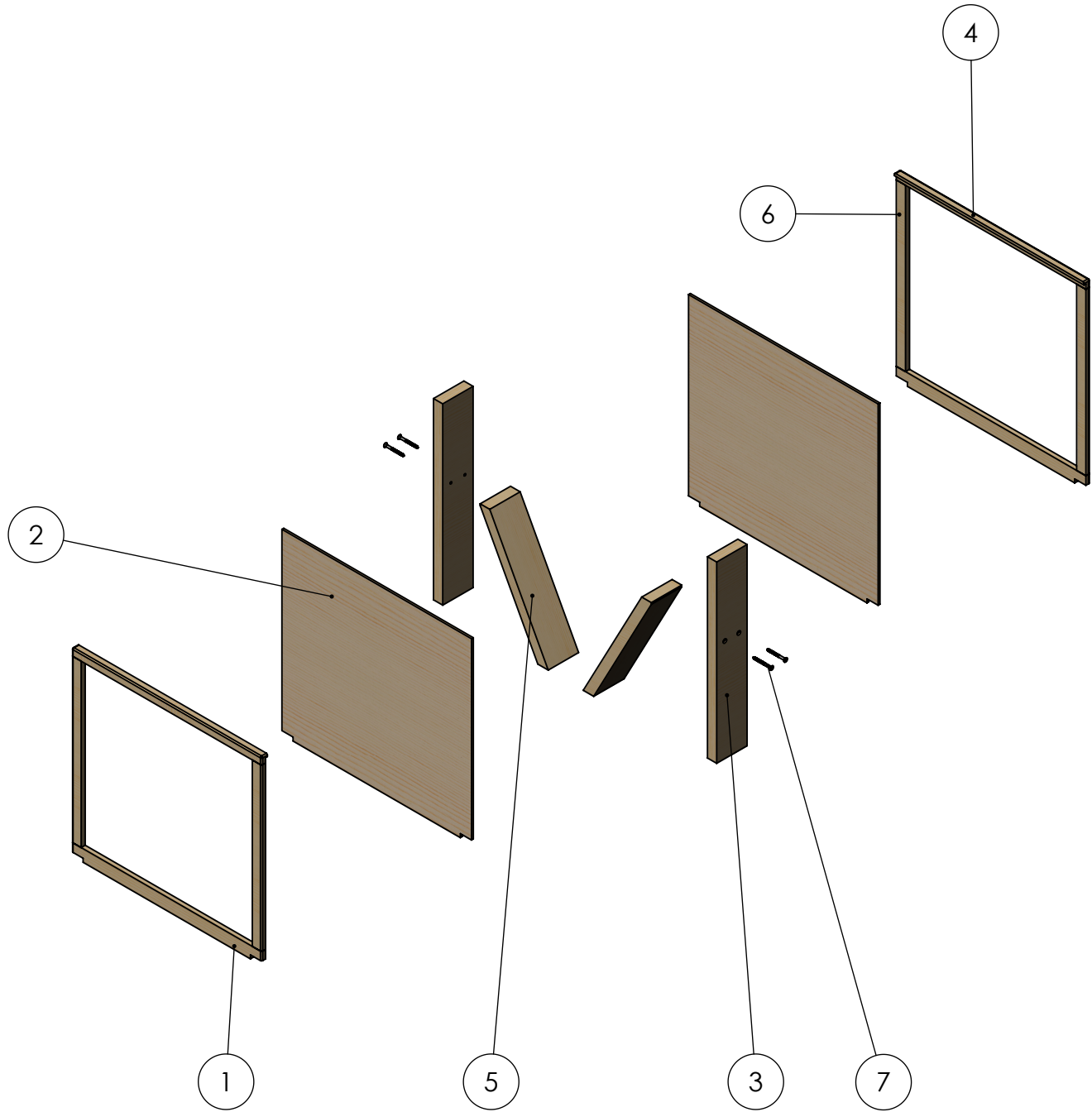
TITLE

HRBC BULK BEE BOX

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:12	WEIGHT 12731.928618 g
SHEET 2 OF 42		

- NOTES:
- 1. CLAMP AND GLUE ALL PIECES SQUARE.
 - 2. ADD STAPLES OR NAILS OR SCREWS.
 - 3. PREDRILL ALL SCREW HOLES.
 - 4. ROUND OVER EDGES.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1110M	BOTTOM TRIM	2
2	1108M	FRONT/BACK PANEL	2
3	1106M	SIDE	2
4	1107M	TOP TRIM	2
5	1109M	FUNNEL	2
6	1111M	PANEL TRIM	4
7	90610A253	Square-Drive Flat Head Screws for Wood	4



10026M	-	HRBC BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

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DIMENSIONS ARE IN MILLIMETERS

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PROJECT
HIVE PRODUCTS

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CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

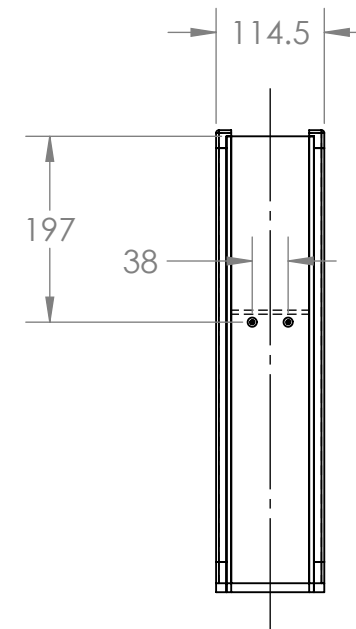
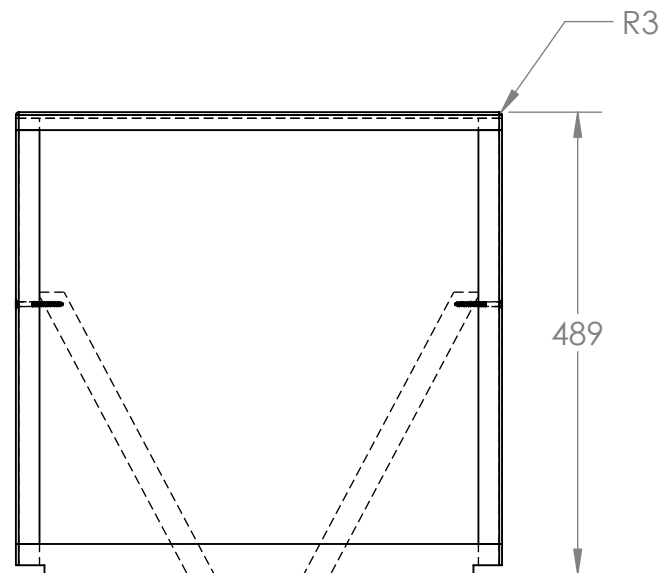
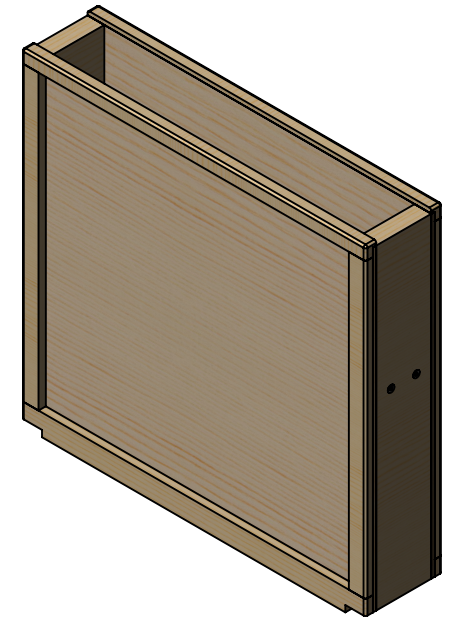
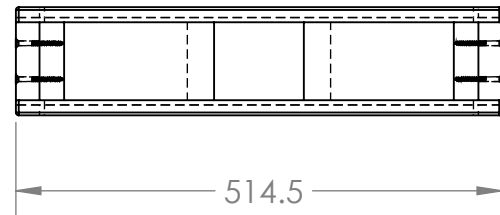
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THE UNIVERSITY OF GUELPH

TITLE



HRBC BULK BEE BOX

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:12	WEIGHT 2346.677138 g

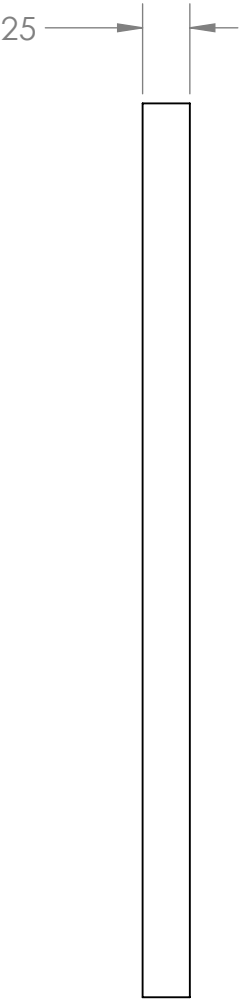
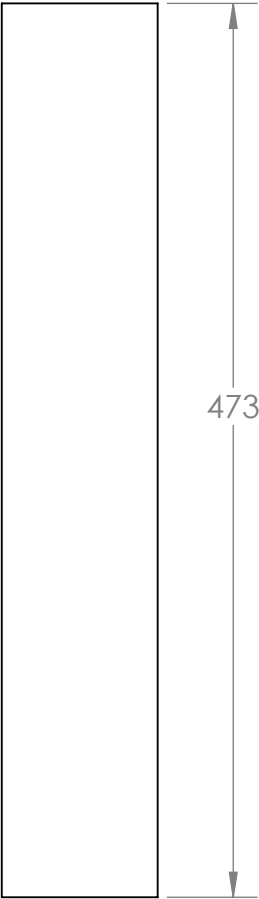
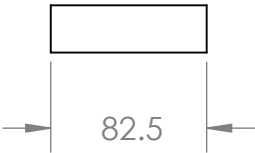
SHEET 3 OF 42



10026M	-	HRBC BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS	SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH			
	PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.					
	CUSTOMER BEE KEEPERS		HRBC BULK BEE BOX			
	PROJECT HIVE PRODUCTS					
THIRD ANGLE PROJECTION 	DRAWN BY F. FULKERSON	DATE 3/12/2024	SIZE B	DRAWING NO.	10032M -	
	CHECKED BY P.G. KELLY	DATE 3/12/2024	SCALE 1:8	WEIGHT 2346.677138 g		SHEET 4 OF 42
	APPROVED P.G. KELLY	DATE 3/12/2024				

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



1106M	-	SIDE
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

3/12/2024

CHECKED BY

P.G. KELLY

DATE

3/12/2024

APPROVED

P.G. KELLY

DATE

3/12/2024

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TITLE

SIDE

SIZE

DRAWING NO

B

10032M

SCALE

1:4

WEIGHT

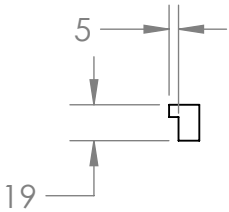
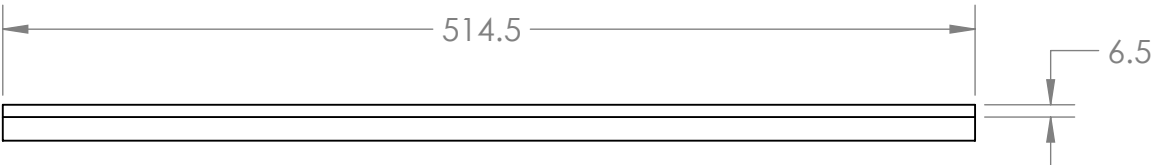
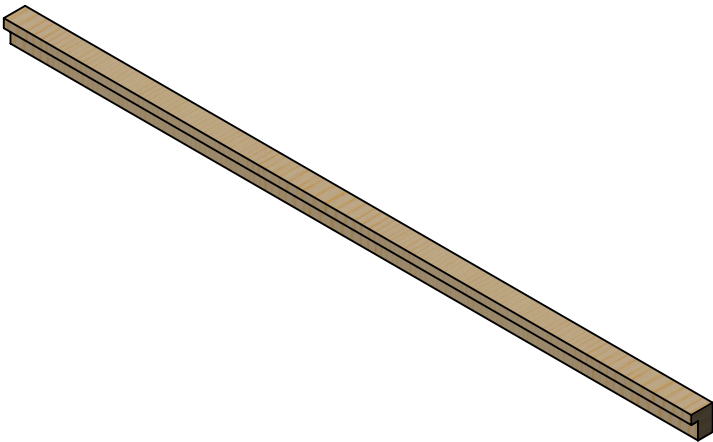
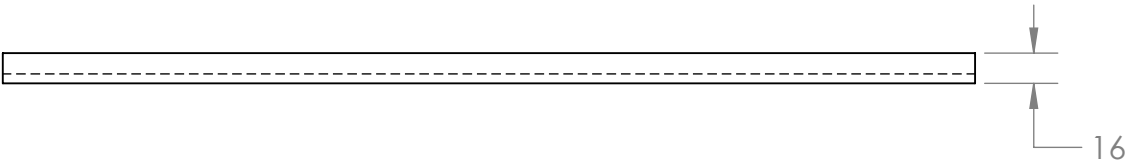
331.691250 g

REVISION

-

SHEET 5 OF 42

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



1107M	-	TOP TRIM
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

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APPROVED P.G. KELLY	DATE 3/12/2024

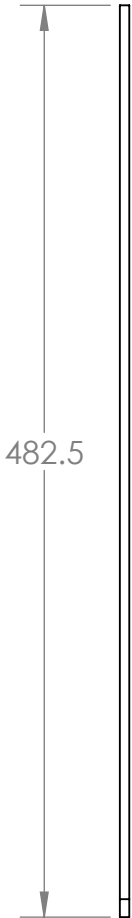
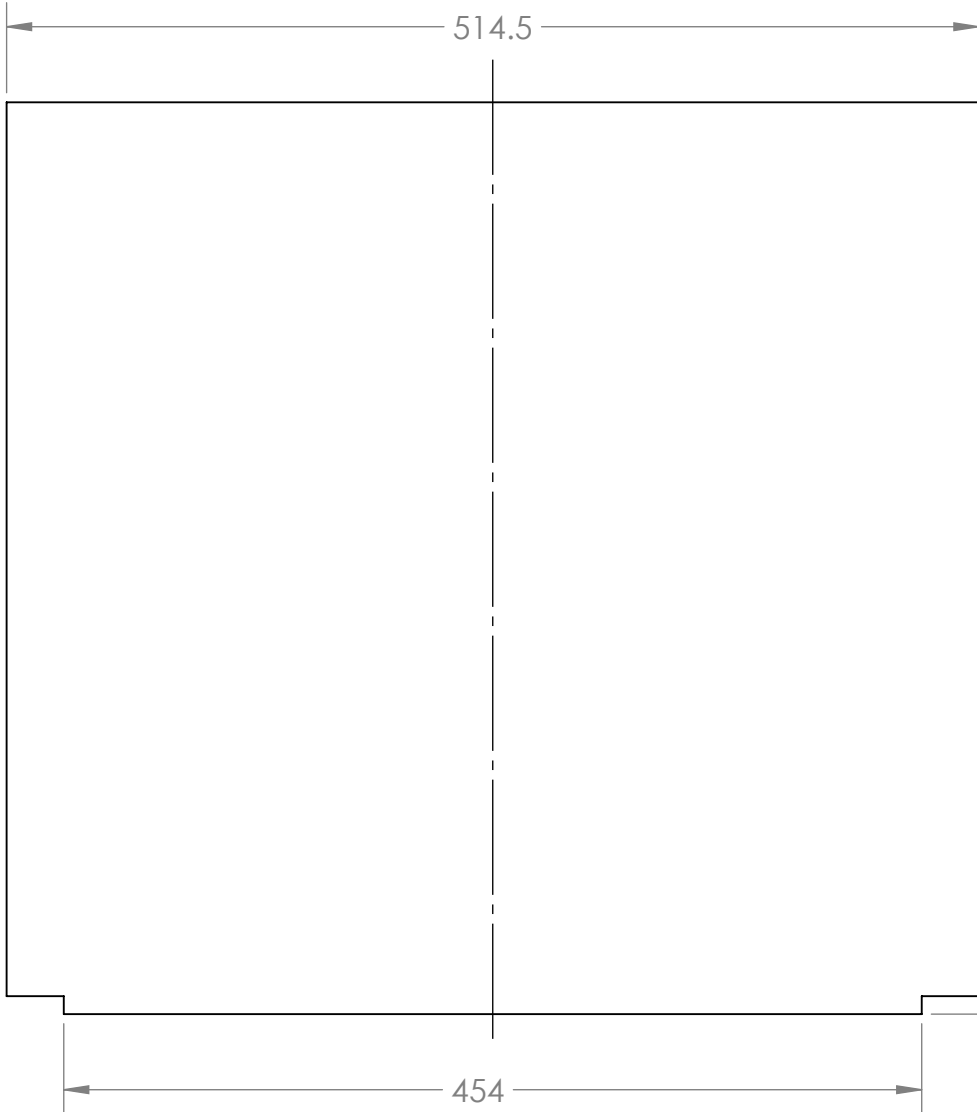
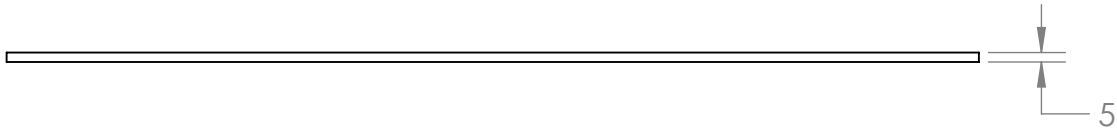
HONEY BEE RESEARCH CENTRE
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TITLE

TOP TRIM

SIZE B	DRAWING NO.	REVISION -
SCALE 1:4	WEIGHT 42.245595 g	SHEET 6 OF 42

- NOTES:
- 1. MATERIAL: Plywood.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



1108M	-	FRONT/BACK PANEL
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

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PROJECT
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APPROVED P.G. KELLY	DATE 3/12/2024

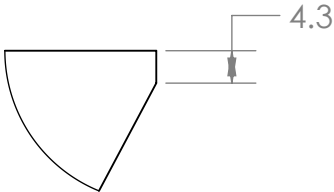
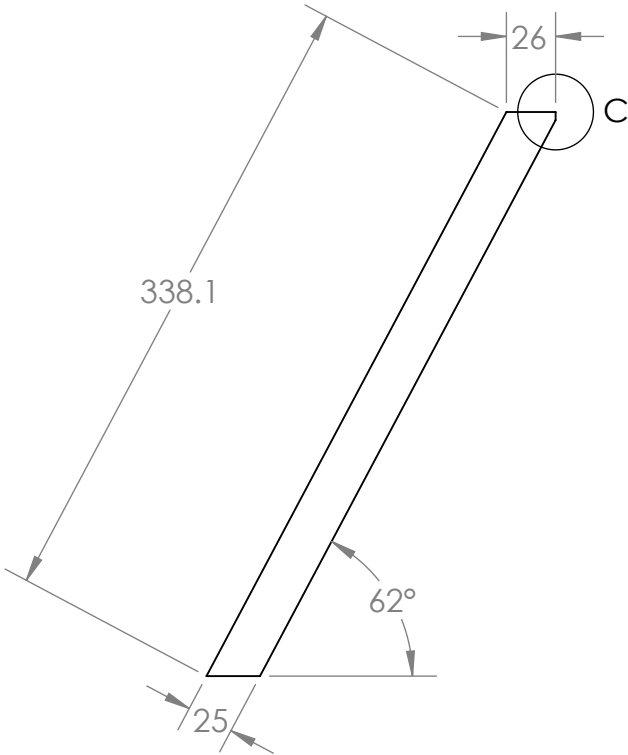
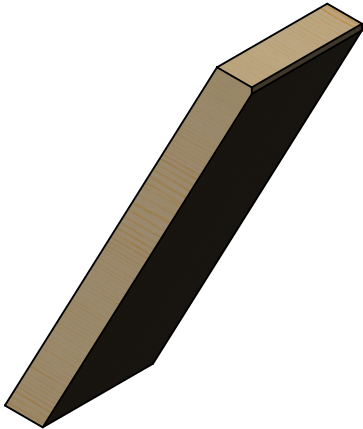
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TITLE
FRONT/BACK PANEL

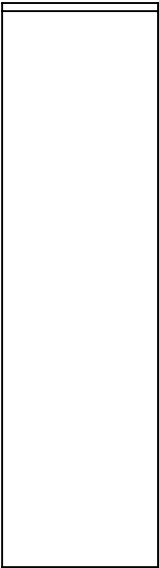
SIZE B	DRAWING NO.	REVISION
SCALE 1:4	WEIGHT 421.041550 g	10032M -

SHEET 7 OF 42

- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: NONE.
 - 3. REMOVE ALL SHARP EDGES.



DETAIL C
SCALE 1 : 1



1109M	-	FUNNEL
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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PROJECT

HIVE PRODUCTS

DRAWN BY

F. FULKERSON

DATE

3/12/2024

CHECKED BY

P.G. KELLY

DATE

3/12/2024

APPROVED

P.G. KELLY

DATE

3/12/2024

HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE

FUNNEL

SIZE

DRAWING NO

10032M

REVISION

-

SCALE

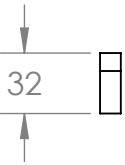
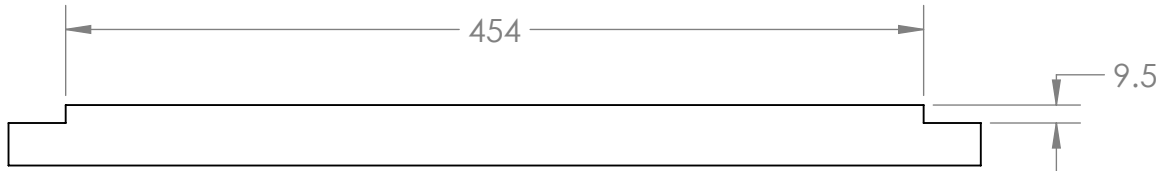
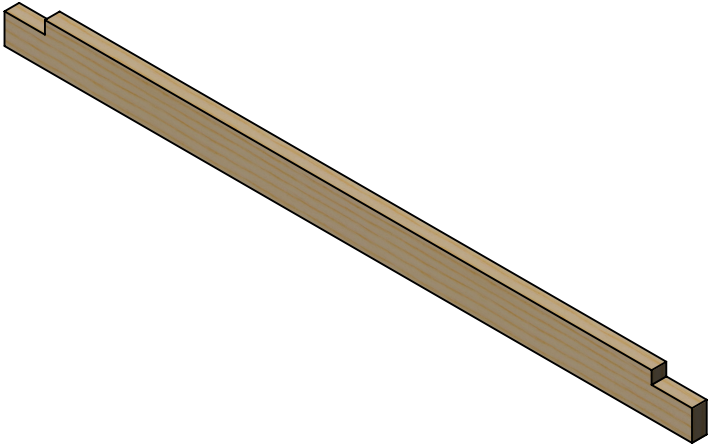
1:4

WEIGHT

236.936041 g

SHEET 8 OF 42

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



1110M	-	BOTTOM TRIM
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

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PROJECT
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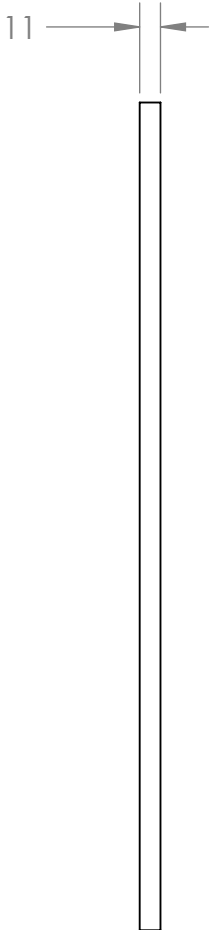
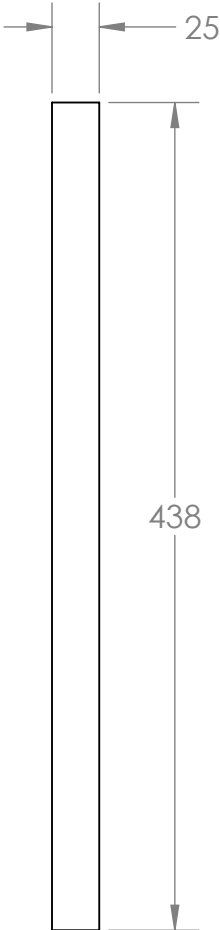
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TITLE

BOTTOM TRIM

SIZE B	DRAWING NO	REVISION
SCALE 1:4	WEIGHT 59.425795 g	10032M - SHEET 9 OF 42

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



1111M	-	PANEL TRIM
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

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PROJECT

HIVE PRODUCTS

DRAWN BY

F. FULKERSON

DATE

3/12/2024

CHECKED BY

P.G. KELLY

DATE

3/12/2024

APPROVED

P.G. KELLY

DATE

3/12/2024

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TITLE

PANEL TRIM

SIZE

DRAWING NO

10032M

-

SCALE

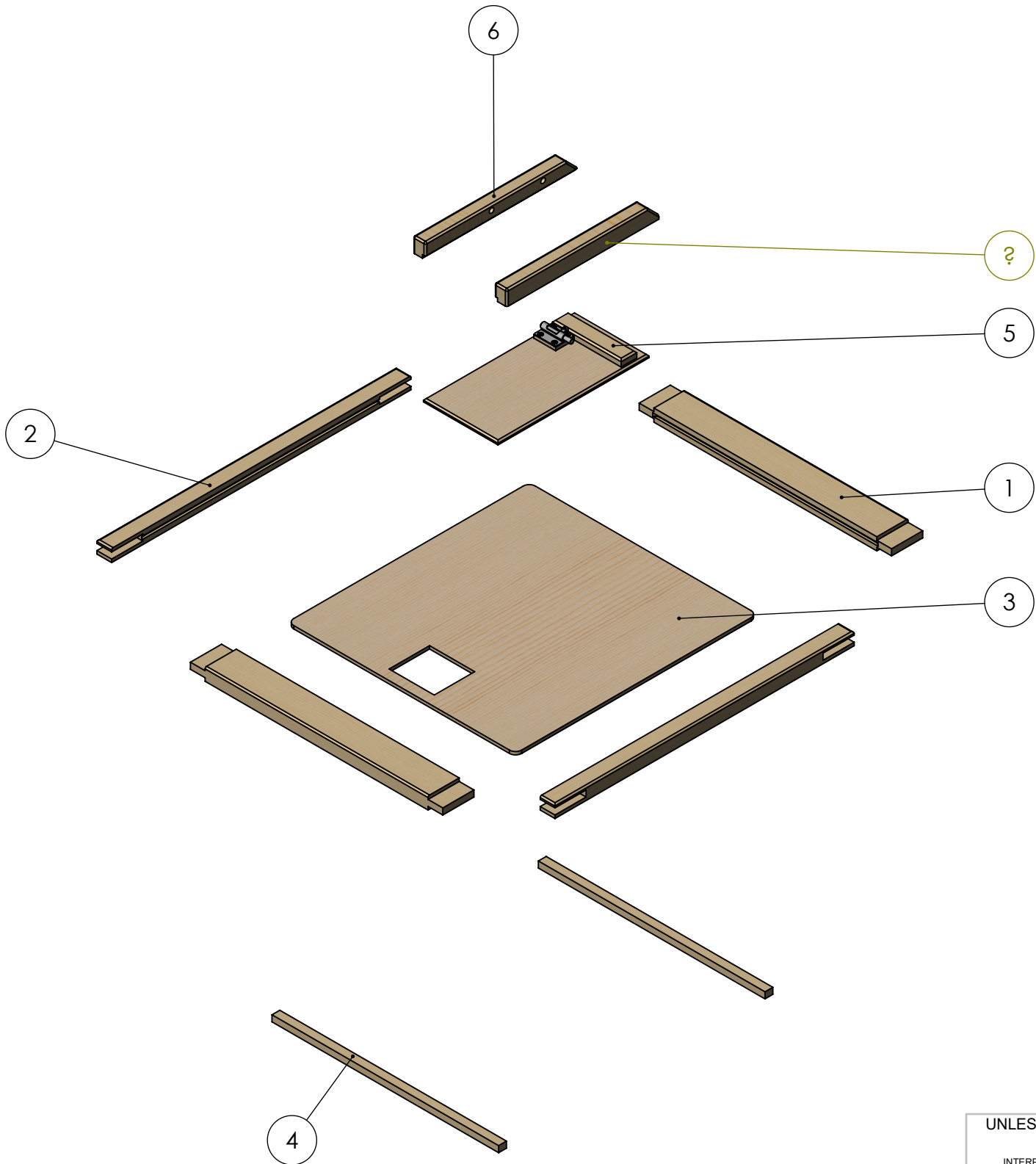
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WEIGHT

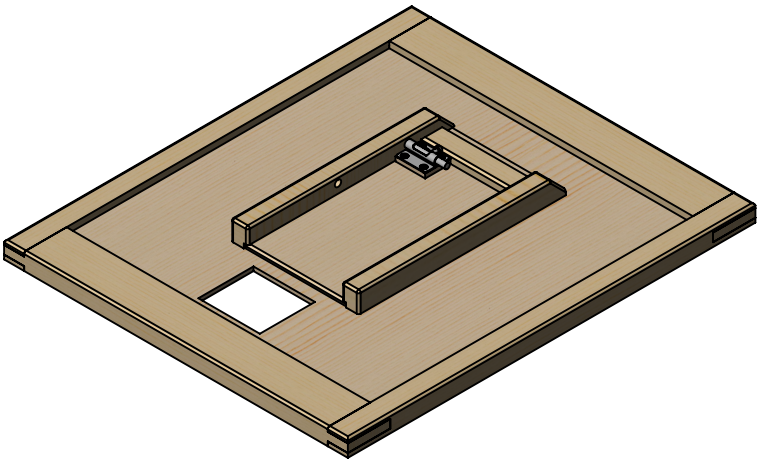
40.953000 g

REVISION

SHEET 10 OF 42



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1117M	FRONT/BACK	2
2	1116M	LID SIDE	2
3	1115M	TOP BOARD	1
4	1120M	CENTERING STRIPS	2
5	10027M	SLIDING DOOR	1
6	1118M	DOOR GUIDE - R	1
7	1119_M	DOOR GUIDE - L	1



10028M	-	BULK BEE BOX LID
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

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BEE KEEPERS

PROJECT
HIVE PRODUCTS

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APPROVED P.G. KELLY	DATE 3/12/2024

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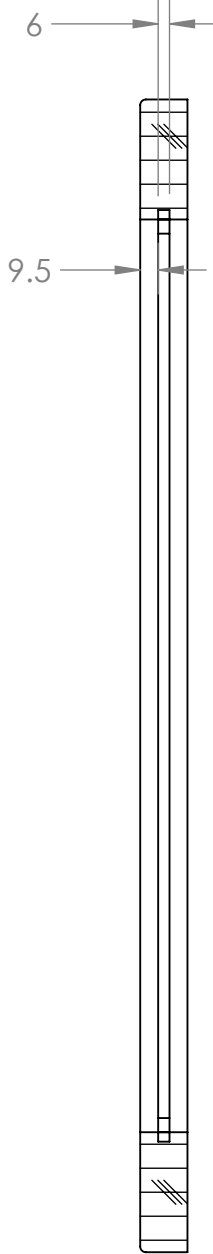
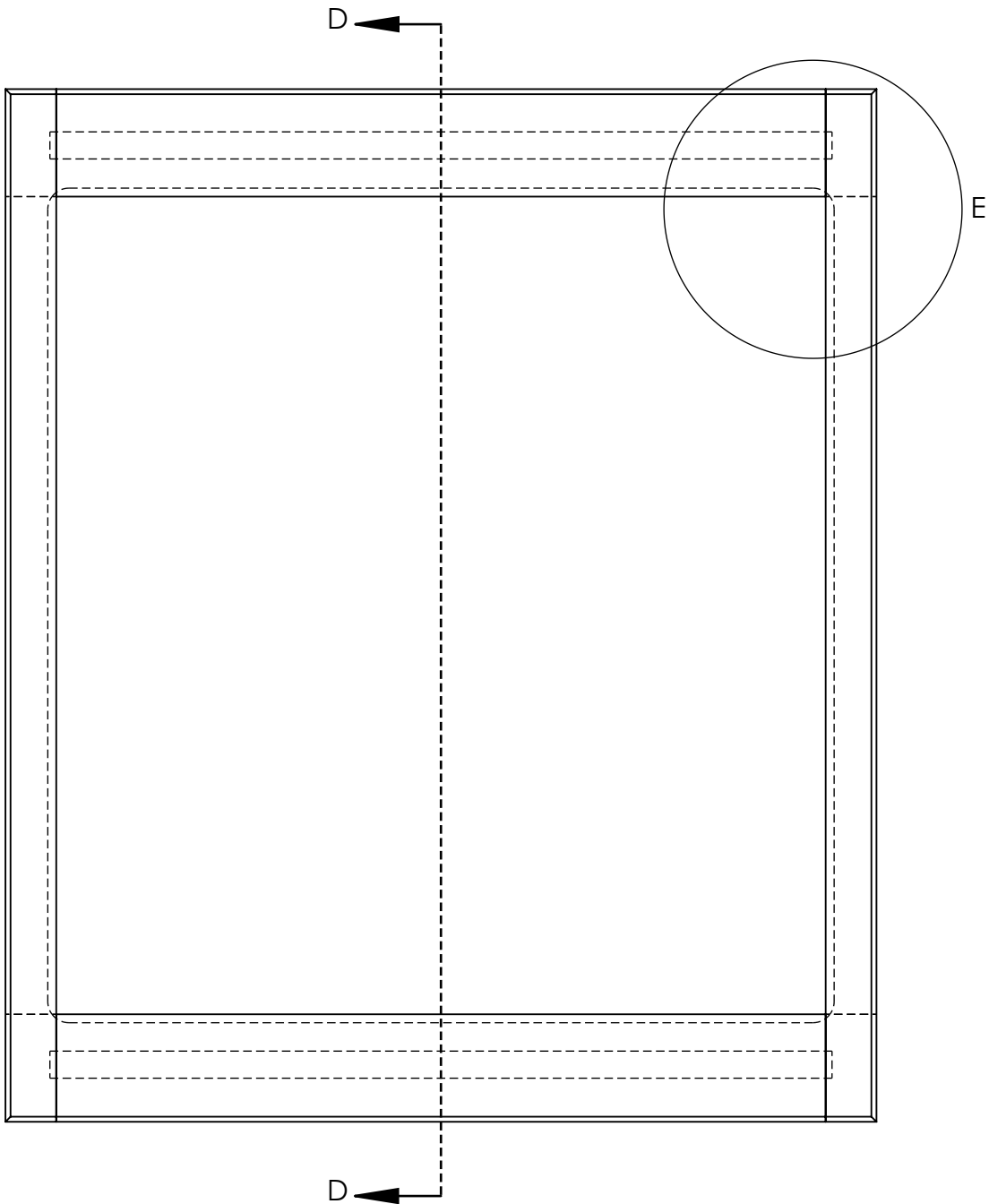
TITLE

BULK BEE BOX LID

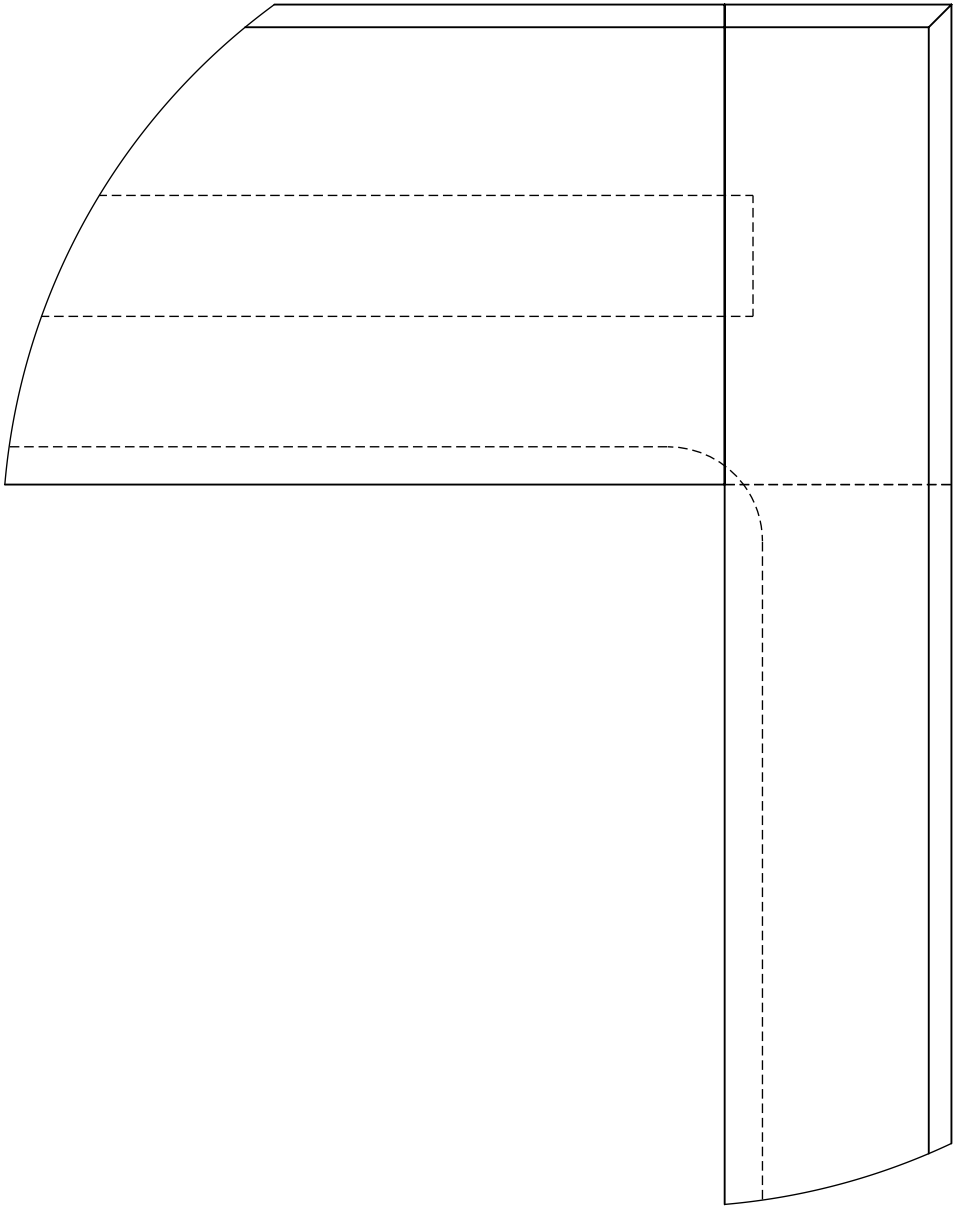
SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:8	WEIGHT 1561.863913 g

SHEET 11 OF 42

- NOTES:
- 1. ASSEMBLE FRAME SQUARE.
 - 2. CLAMP.
 - 3. ROUTER PLYWOOD GROOVE.
 - 4. DISSASSEMBLE.
 - 5. ASSEMBLE ALL PARTS SQUARE, GLUE AND STAPLE.
 - 6. ROUND OVER EDGES.



SECTION D-D



DETAIL E
SCALE 1 : 1

10028M	-	BULK BEE BOX LID
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 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024



HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE

BULK BEE BOX LID

SIZE

B

DRAWING NO

SCALE

1:4

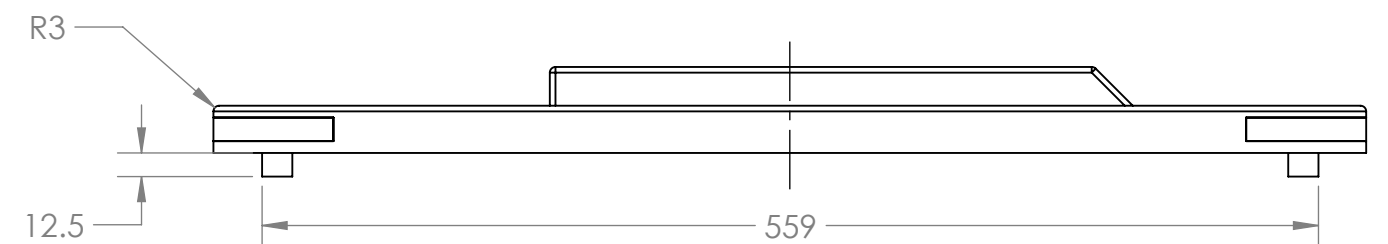
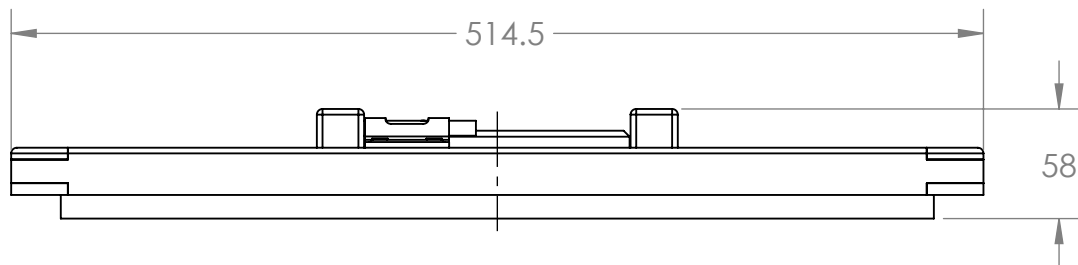
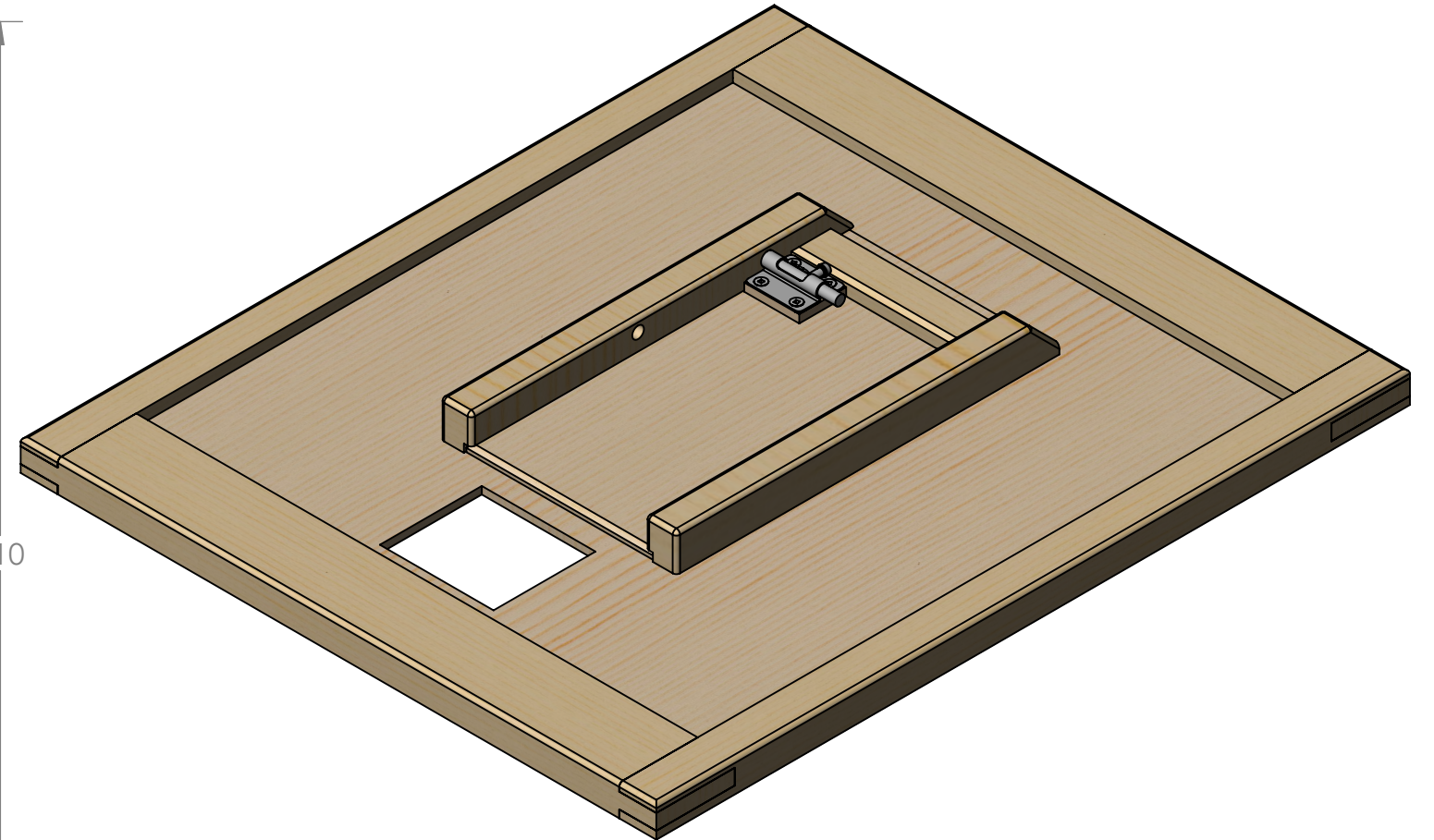
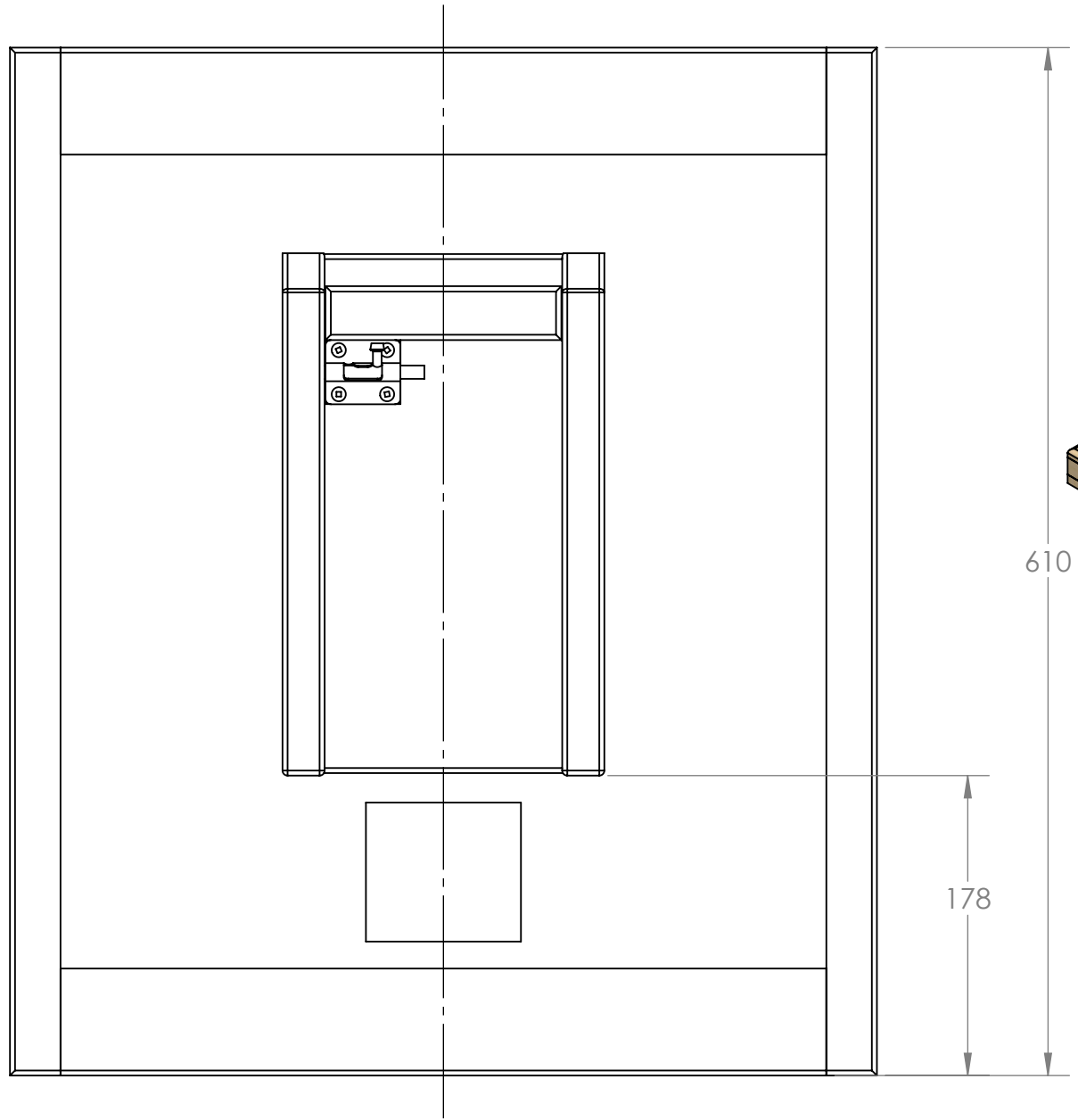
WEIGHT



1561.863913 g

REVISION

10032M -

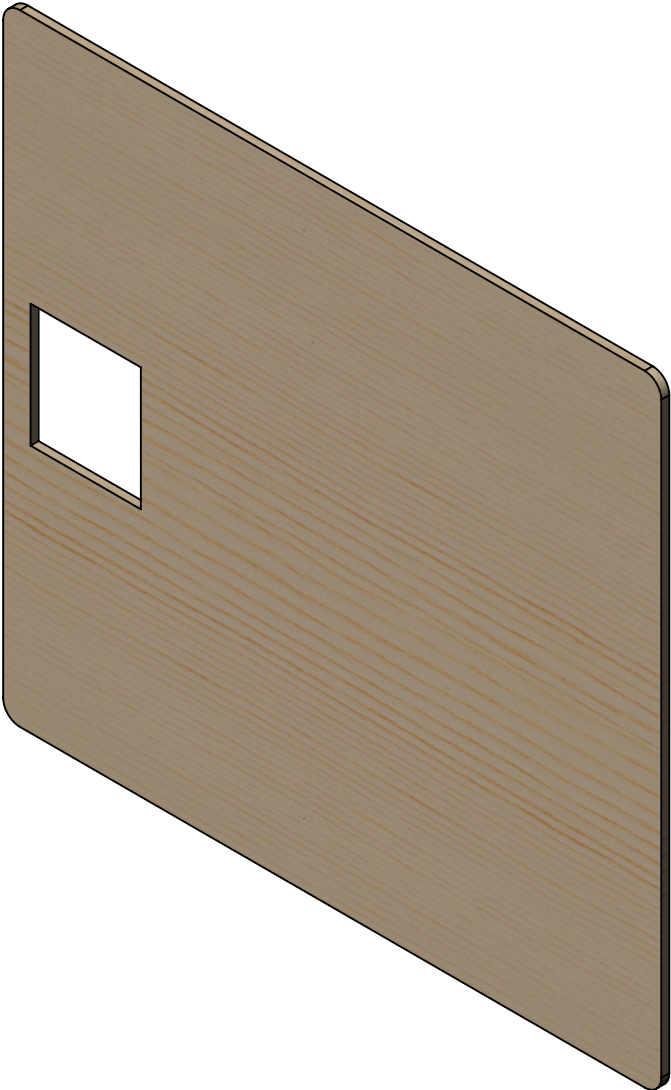
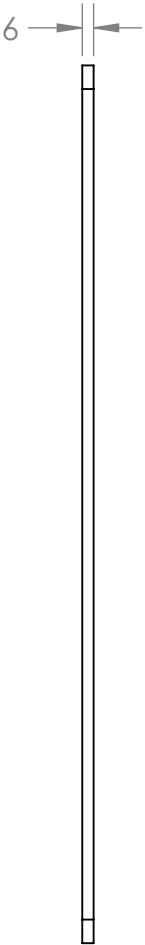
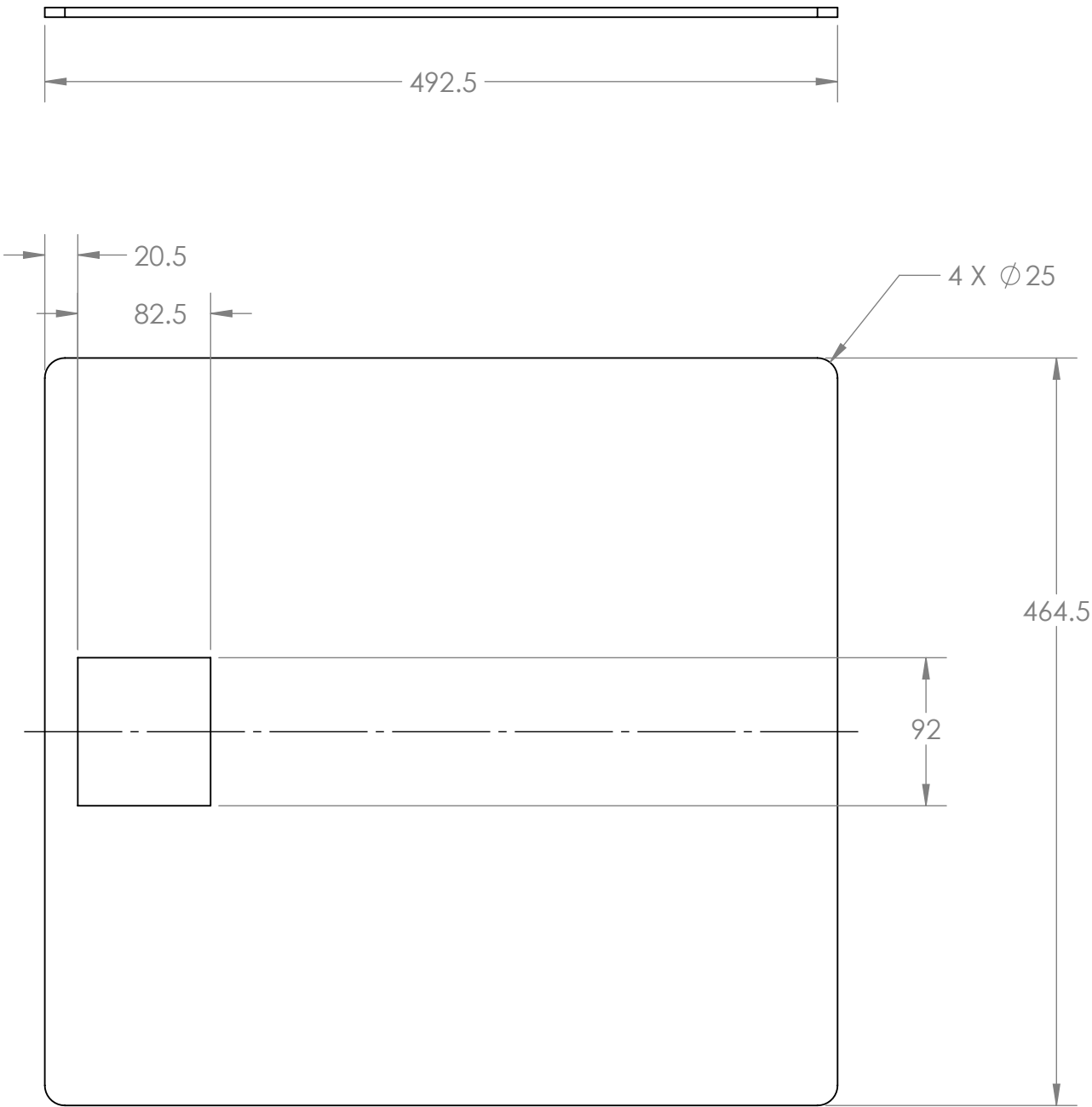
SHEET 12 OF 42



UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS		<small>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</small> PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		CUSTOMER BEE KEEPERS		TITLE HRBC BULK BEE BOX	
		PROJECT HIVE PRODUCTS		SIZE B	
DRAWN BY F. FULKERSON		DATE 3/12/2024		DRAWING NO.	
CHECKED BY P.G. KELLY		DATE 3/12/2024		REVISION	
APPROVED P.G. KELLY		DATE 3/12/2024		SCALE 1:4	
		WEIGHT 12731.928618 g		SHEET 13 OF 42	

10032M	-	HRBC BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

- NOTES:
- 1. MATERIAL: Plywood.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



1115M	-	TOP BOARD
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
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PROPRIETARY

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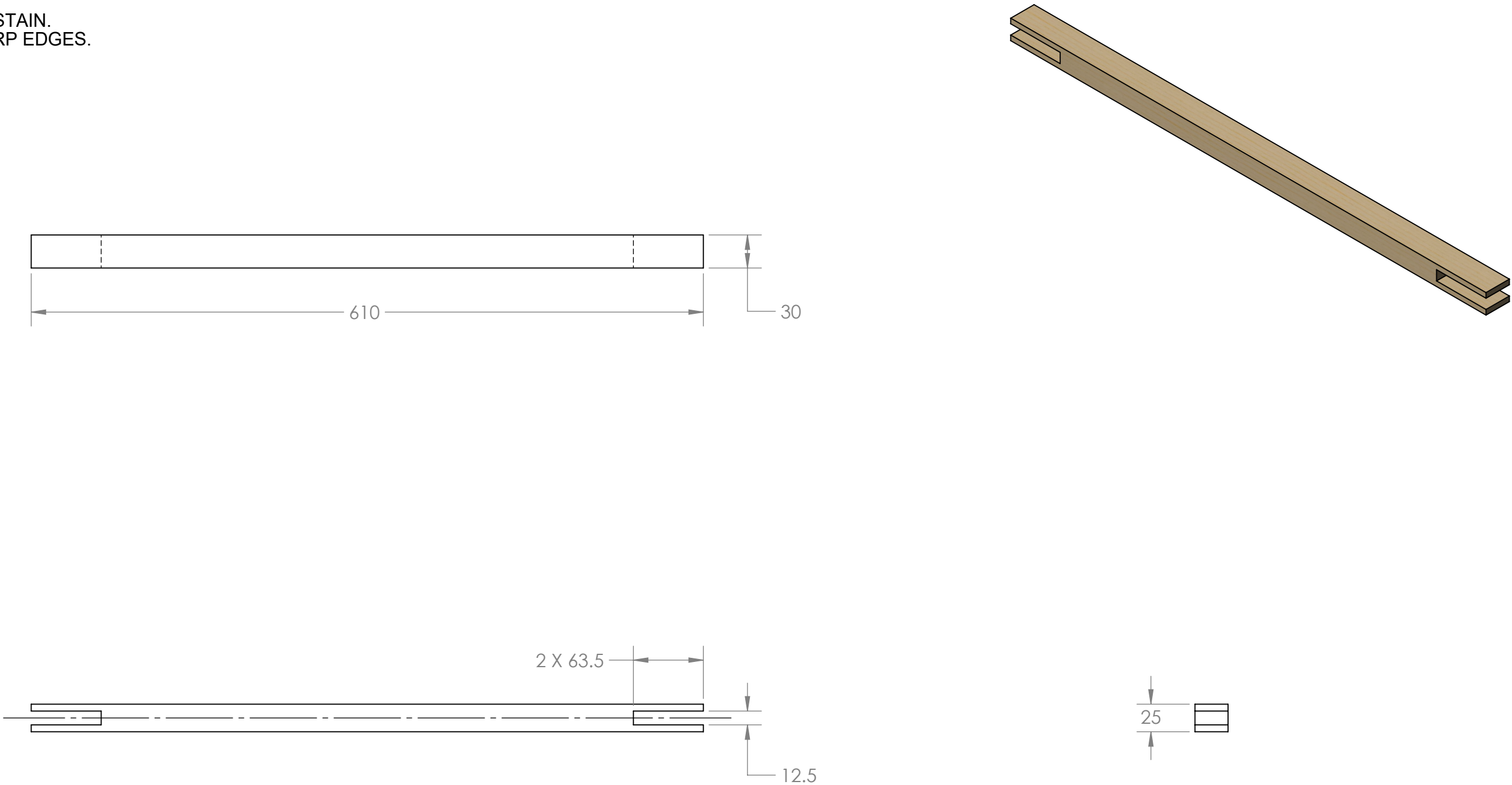
CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
TOP BOARD

SIZE B	DRAWING NO.	REVISION
SCALE 1:4	WEIGHT 450.925933 g	10032M - SHEET 14 OF 42

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



1116M	-	LID SIDE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

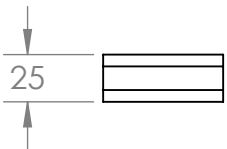
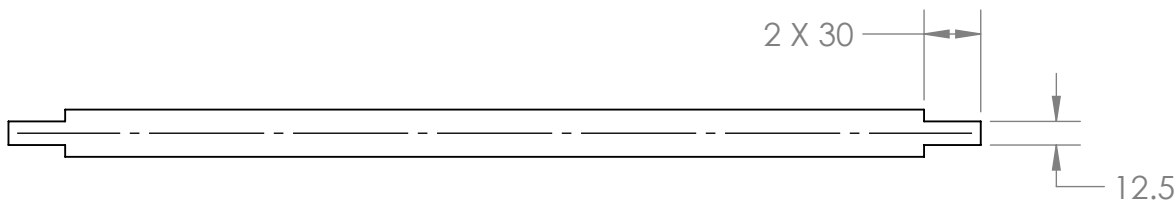
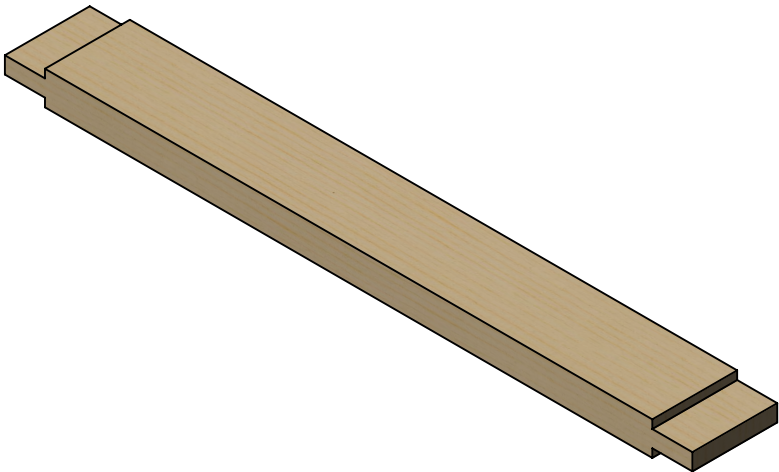
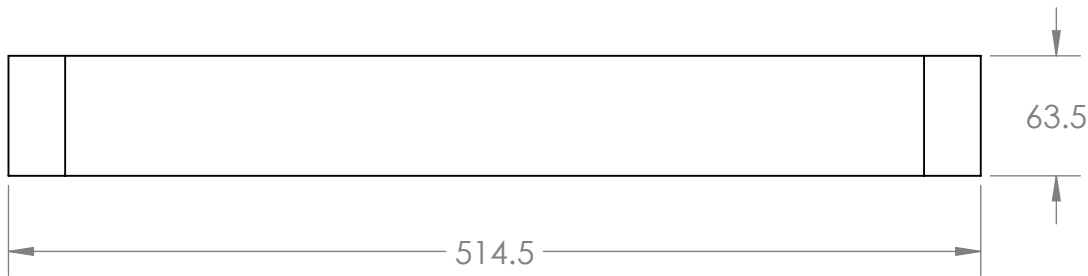
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
LID SIDE

SIZE B	DRAWING NO	REVISION -
SCALE 1:4	WEIGHT 139.357500 g	SHEET 15 OF 42

10032M

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



1117M	-	FRONT/BACK
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

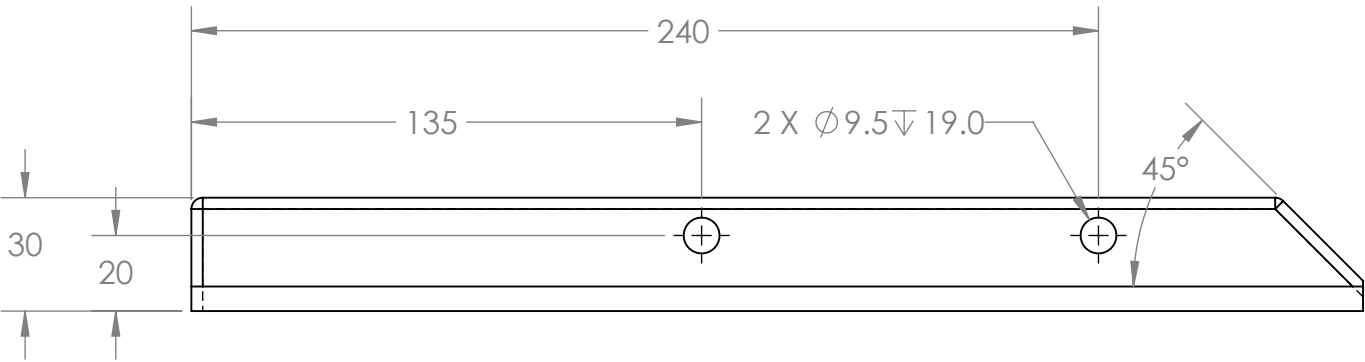
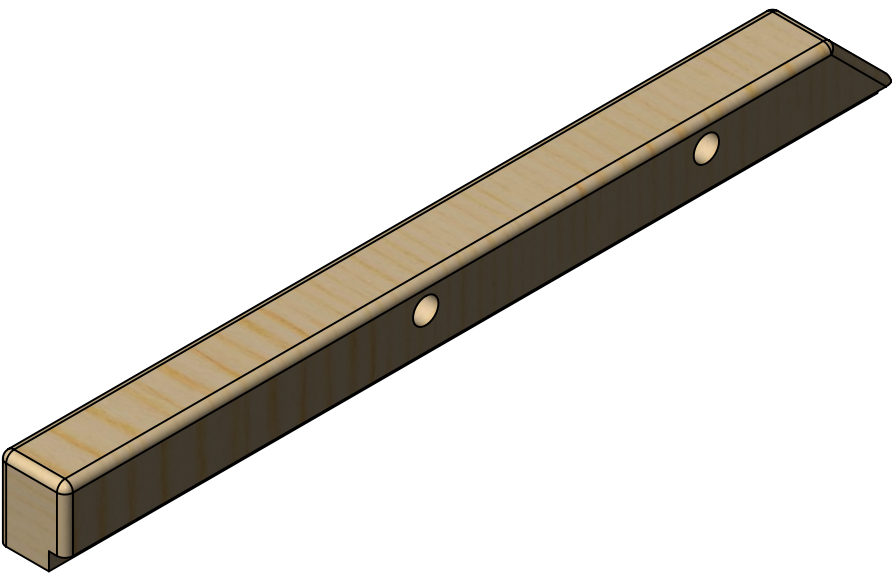
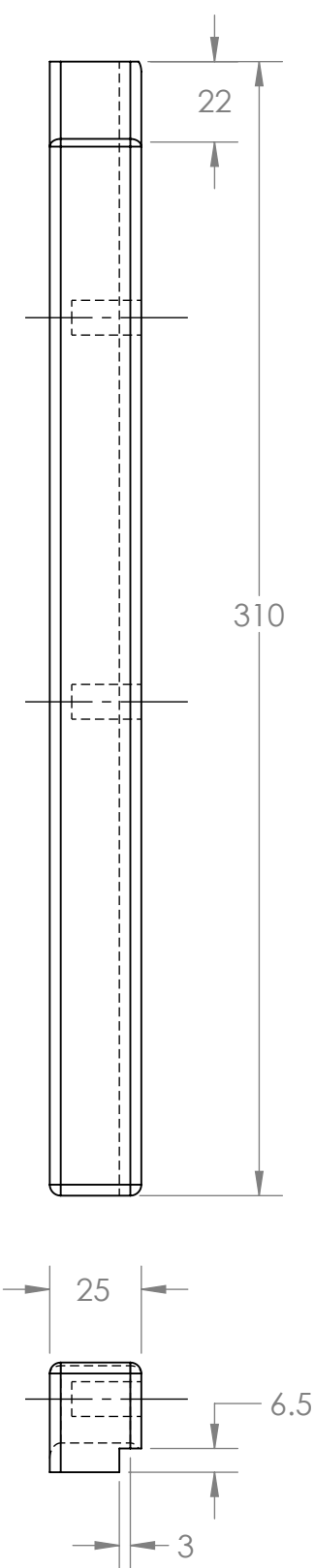
TITLE

FRONT/BACK


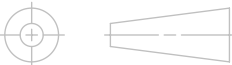
SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:4	WEIGHT 261.508875 g

SHEET 16 OF 42

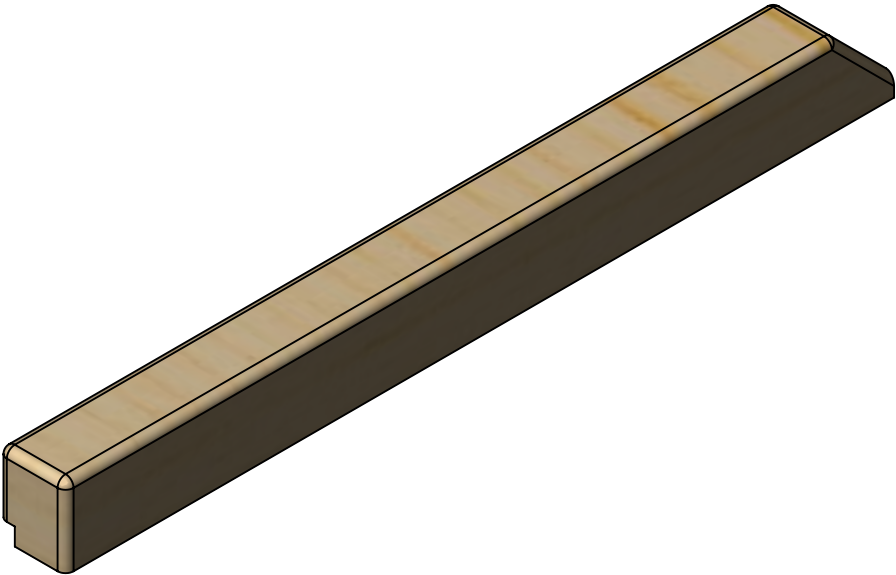
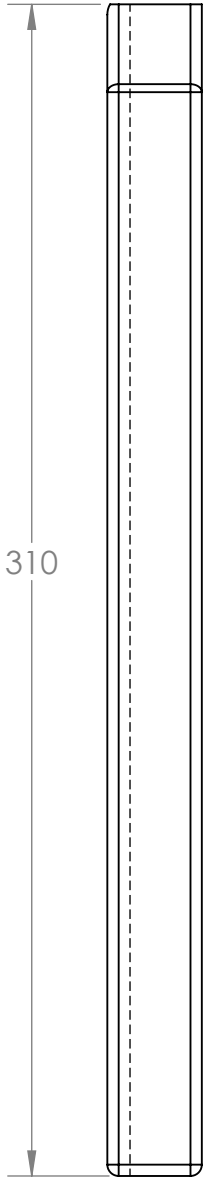
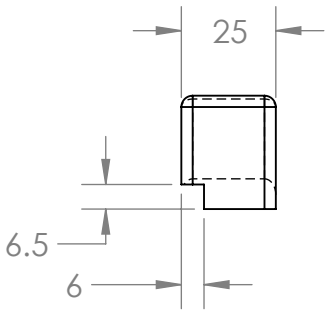
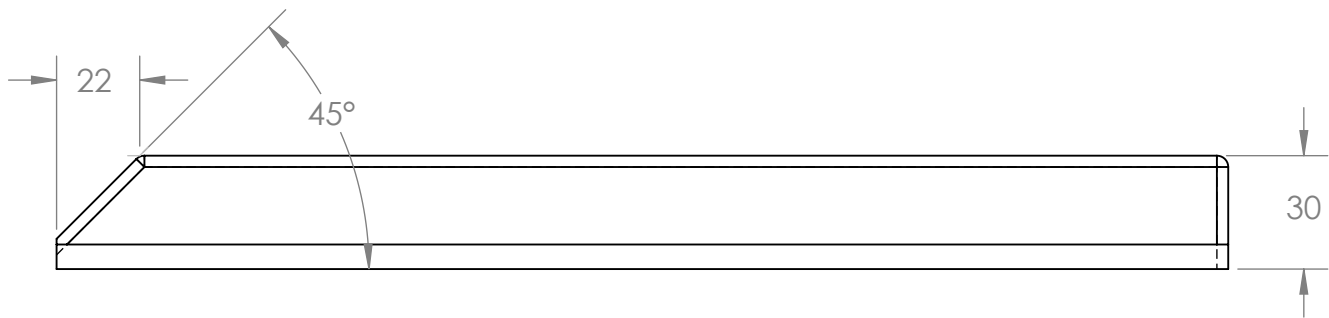
- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



1118M	-	DOOR GUIDE - R
PART NUMBER	REV	DESCRIPTION

<div>UNLESS OTHERWISE SPECIFIED</div> <div>DO NOT SCALE DRAWING</div> <div>INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018</div> <div>DIMENSIONS ARE IN MILLIMETERS</div>		<div>SolidWorks MAINTAINED DATA</div> <div>CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</div>		<div></div> <div>HONEY BEE RESEARCH CENTRE</div> <div>THE UNIVERSITY OF GUELPH</div>	
		<div>PROPRIETARY</div> <div>NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</div>			
		<div>CUSTOMER</div> <div>BEE KEEPERS</div>			
		<div>PROJECT</div> <div>HIVE PRODUCTS</div>			
<div>THIRD ANGLE PROJECTION</div> <div></div>		<div>TITLE</div>		<div>DOOR GUIDE - R</div>	
		<div>SIZE</div> <div>B</div>	<div>DRAWING NO</div>		
		<div>REVISION</div>			
		<div>SCALE</div> <div>1:2</div>	<div>WEIGHT</div> <div>71.497501 g</div>		
<div>CHECKED BY</div> <div>P.G. KELLY</div>		<div>DATE</div> <div>3/12/2024</div>	<div>10032M</div> <div>-</div>		
<div>APPROVED</div> <div>P.G. KELLY</div>		<div>DATE</div> <div>3/12/2024</div>			

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



1119_M	-	DOOR GUIDE - L
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
CHANGES SHALL BE INCORPORATED
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CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

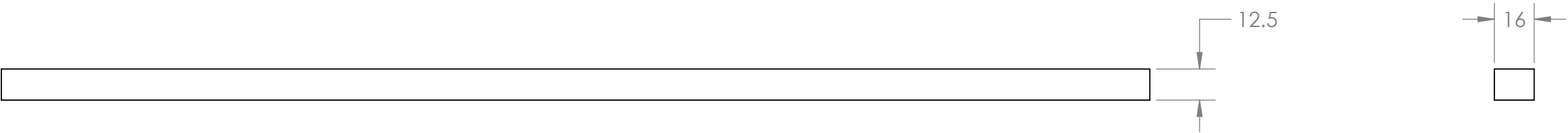
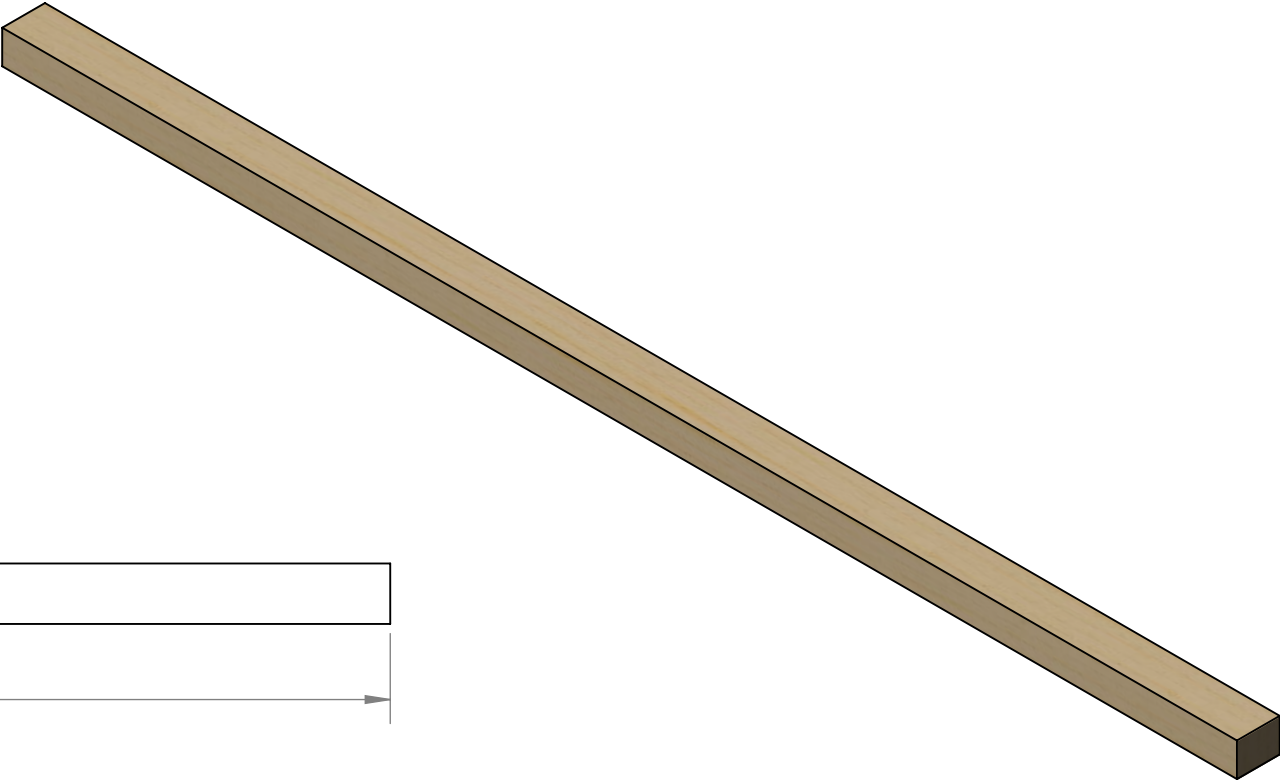
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THE UNIVERSITY OF GUELPH

TITLE

DOOR GUIDE - L

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:2	WEIGHT 72.413270 g
SHEET 18 OF 42		

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



1120M	-	CENTERING STRIPS
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA

CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY

PROPRIETARY

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CUSTOMER

BEE KEEPERS

PROJECT

HIVE PRODUCTS

DRAWN BY

F. FULKERSON

DATE

3/12/2024

CHECKED BY

P.G. KELLY

DATE

3/12/2024

APPROVED

P.G. KELLY

DATE

3/12/2024

HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE

CENTERING STRIPS

SIZE

DRAWING NO

B

10032M

SCALE

1:2

WEIGHT

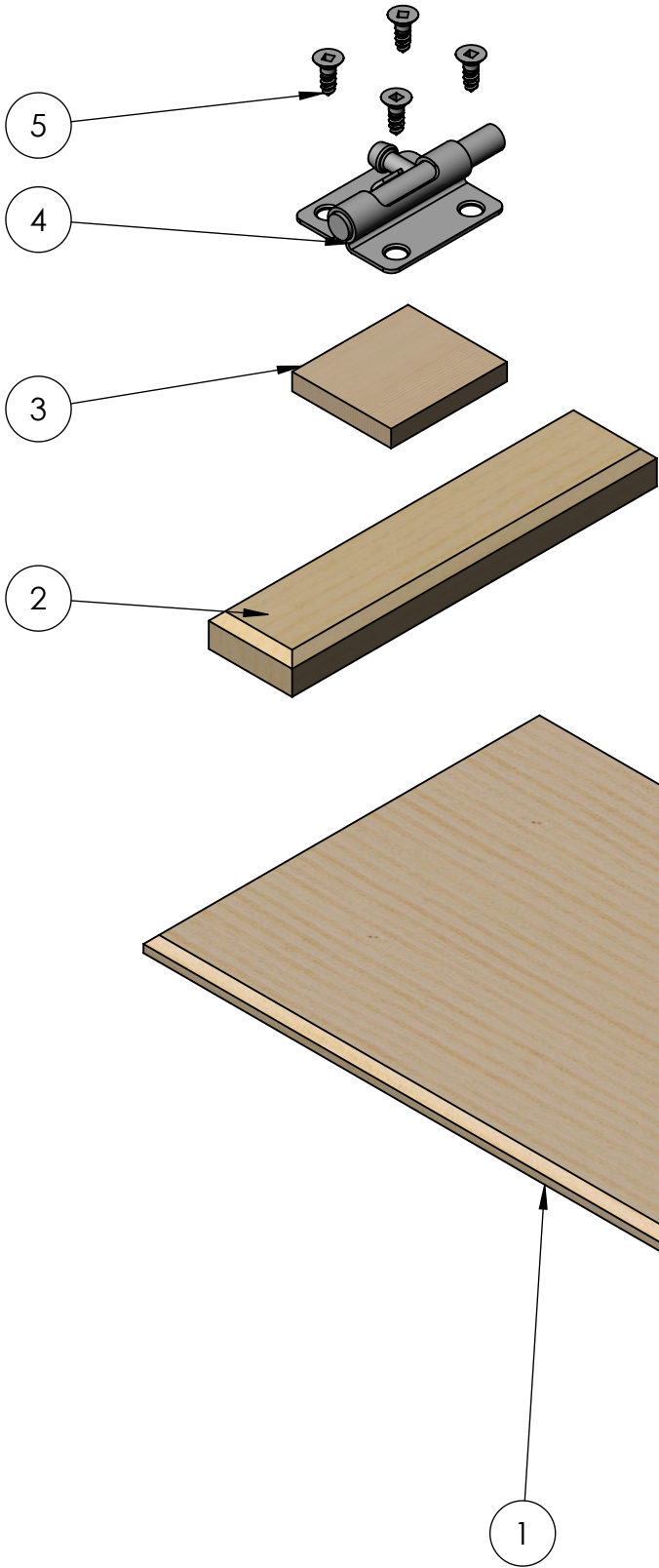
31.416000 g

REVISION

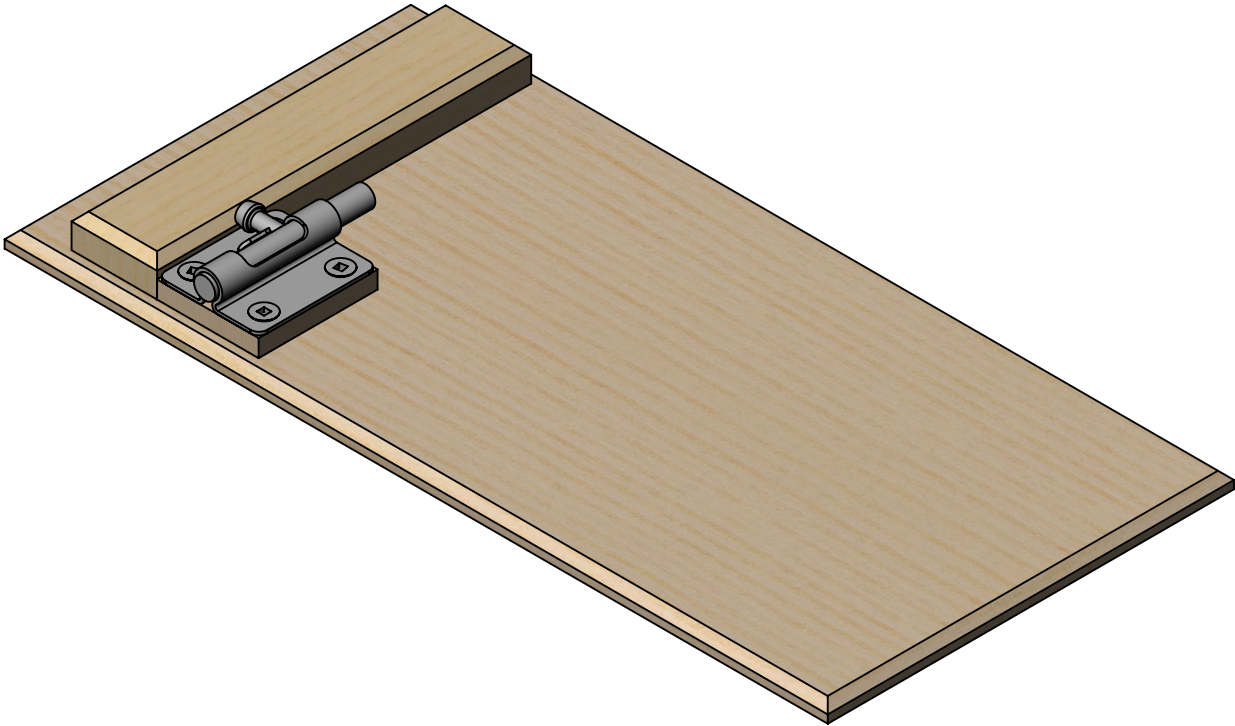
-

SHEET 19 OF 42

- NOTES:
- 1. CLAMP, GLUE AND STAPLE TOGETHER.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1112M	PANEL	1
2	1113M	HANDLE	1
3	1114M	LATCH RISER	1
4	1441A32	Lift-and-Drop Barrel Slide-Bolt Latch	1
5	90610A194	Square-Drive Flat Head Screws for Wood	4



10027M	-	SLIDING DOOR
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
CHANGES SHALL BE INCORPORATED
ELECTRONICALLY BY THE DESIGN ACTIVITY

PROPRIETARY

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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

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THE UNIVERSITY OF GUELPH

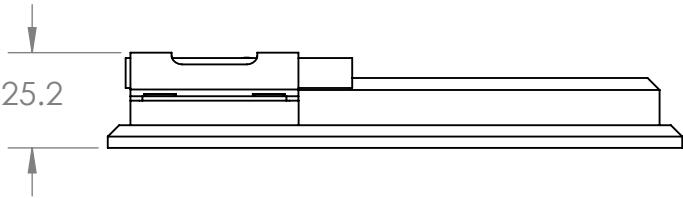
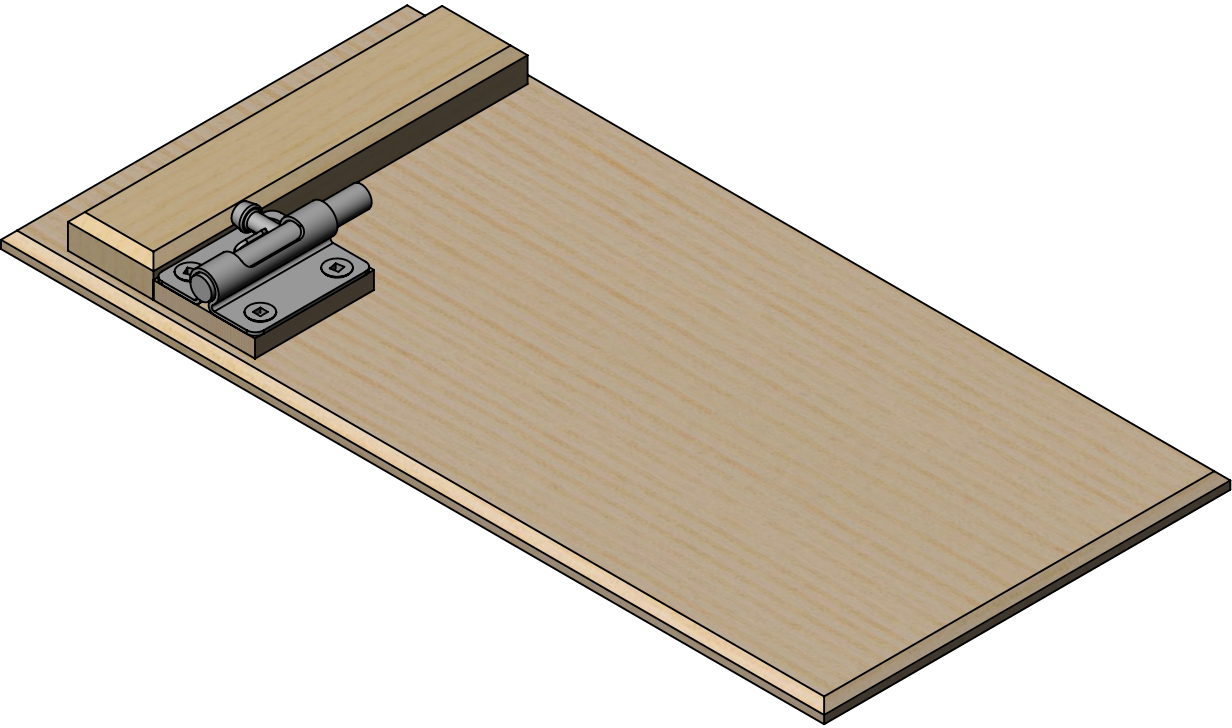
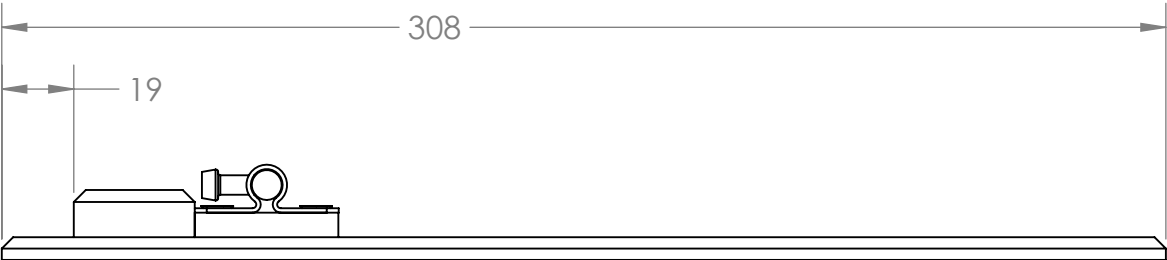
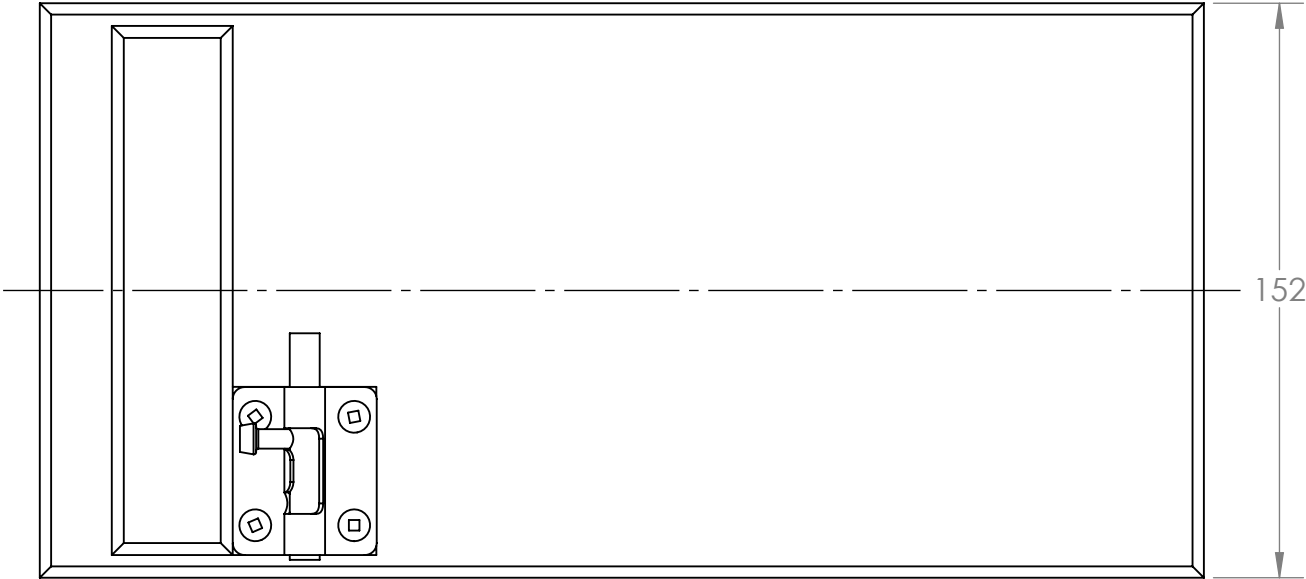
TITLE

SLIDING DOOR

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:2	WEIGHT 122.990503 g

SHEET 20 OF 42

- NOTES:
- 1. CLAMP, GLUE AND STAPLE TOGETHER.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



10027M	-	SLIDING DOOR
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
CHANGES SHALL BE INCORPORATED
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CUSTOMER	BEE KEEPERS		
PROJECT	HIVE PRODUCTS		
DRAWN BY	F. FULKERSON	DATE	3/12/2024
CHECKED BY	P.G. KELLY	DATE	3/12/2024
APPROVED	P.G. KELLY	DATE	3/12/2024

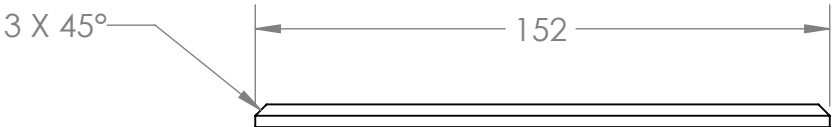
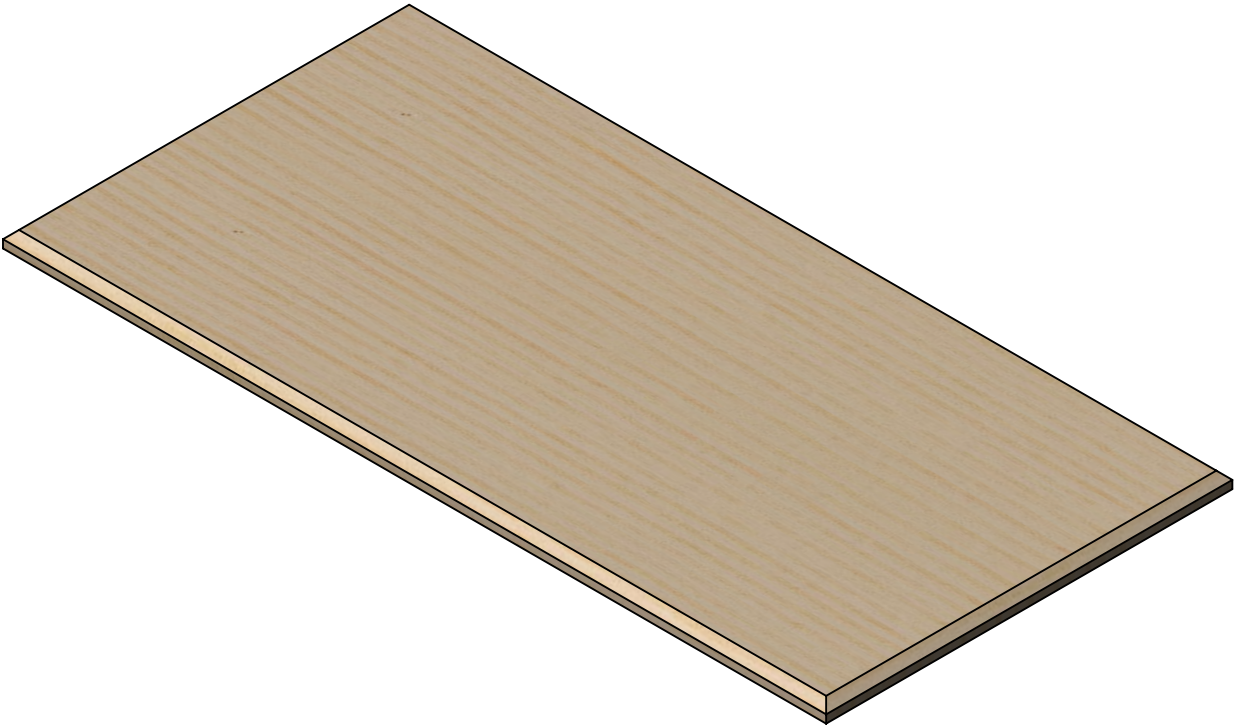
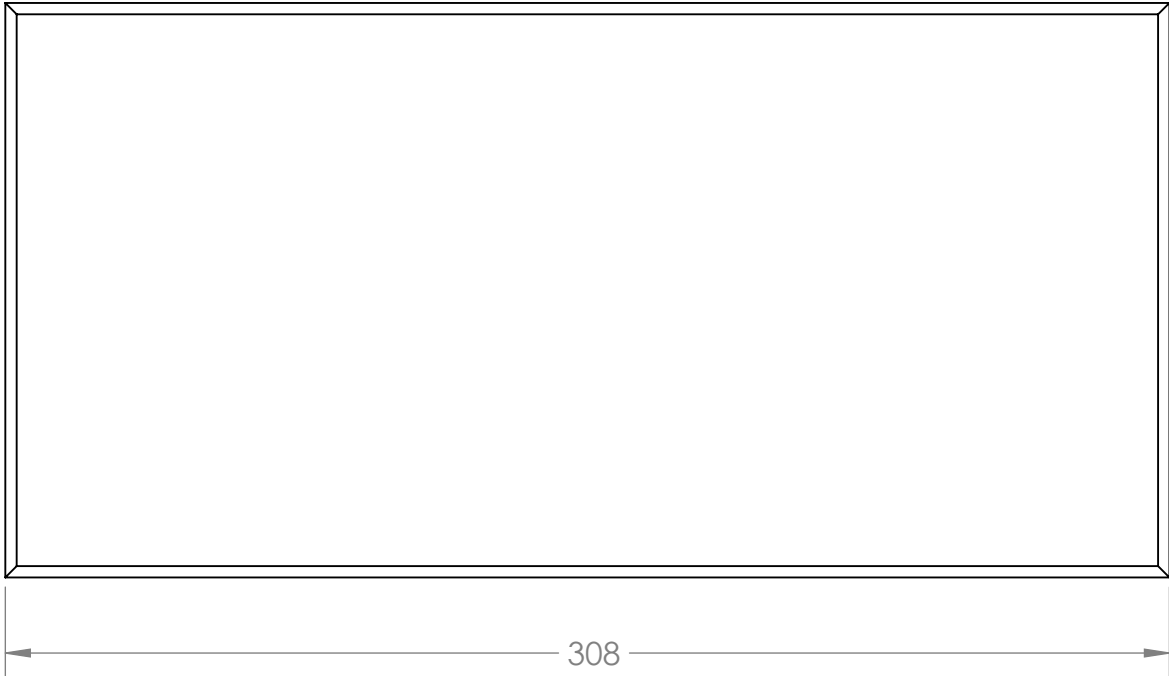
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THE UNIVERSITY OF GUELPH

TITLE

SLIDING DOOR

SIZE	DRAWING NO	10032M	REVISION	-
SCALE	1:2	WEIGHT	122.990503 g	SHEET 21 OF 42

- NOTES:
- 1. MATERIAL: Plywood.
 - 2. FINISH: STAIN OR PAINT.
 - 3. REMOVE ALL SHARP EDGES.



1112M	-	PANEL
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
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CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

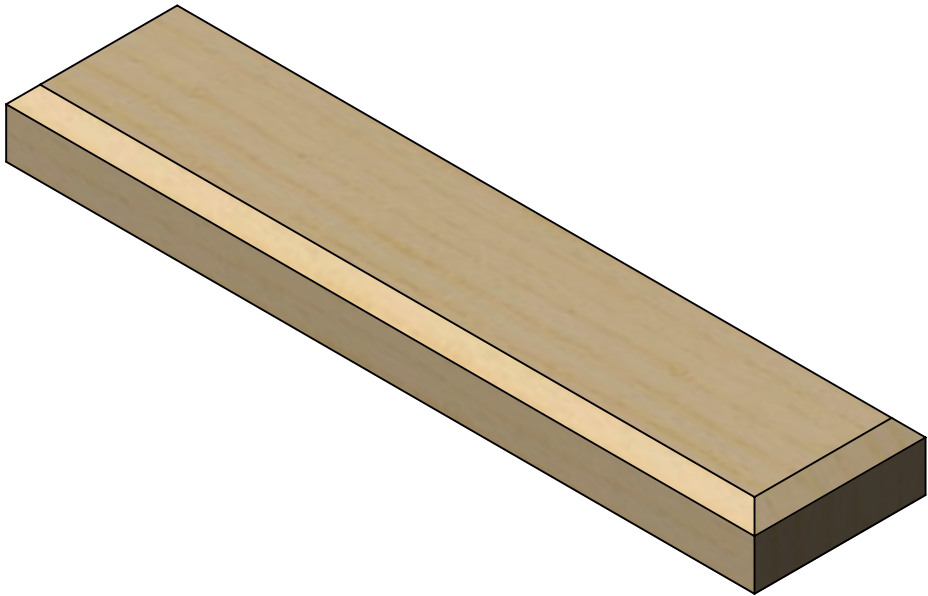
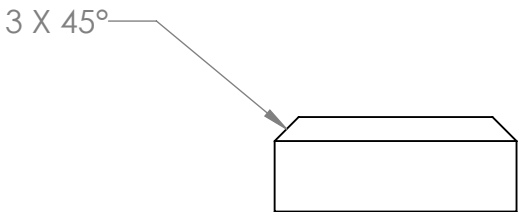
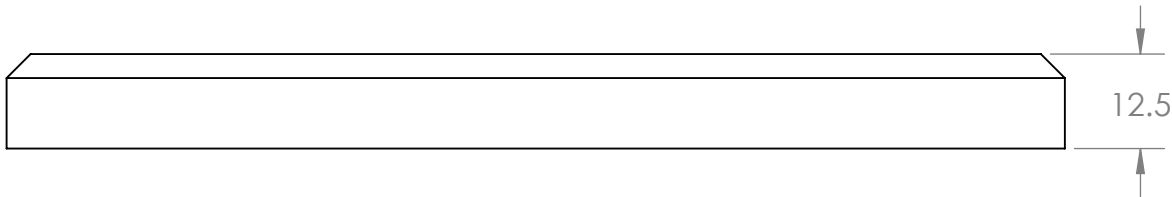
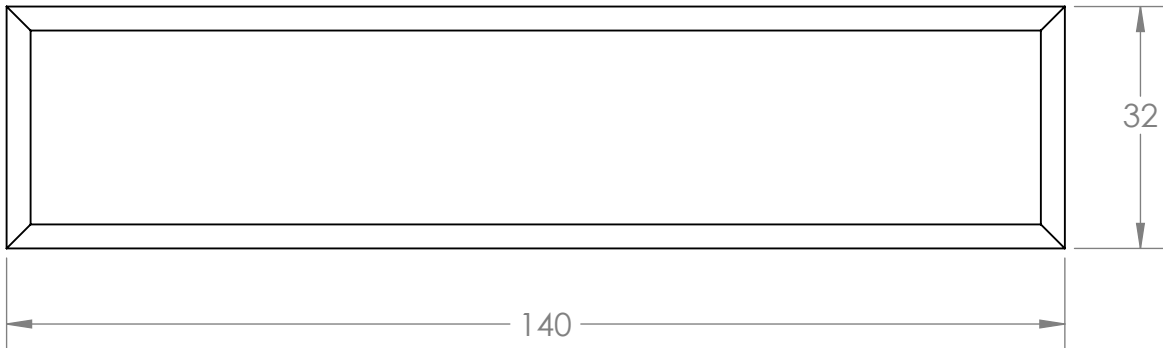
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THE UNIVERSITY OF GUELPH

TITLE

PANEL

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:2	WEIGHT 94.109280 g
SHEET 22 OF 42		

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



1113M	-	HANDLE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
CHANGES SHALL BE INCORPORATED
ELECTRONICALLY BY THE DESIGN ACTIVITY

PROPRIETARY

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CUSTOMER	BEE KEEPERS
PROJECT	HIVE PRODUCTS
DRAWN BY	F. FULKERSON
CHECKED BY	P.G. KELLY
APPROVED	P.G. KELLY
DATE	3/12/2024

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THE UNIVERSITY OF GUELPH

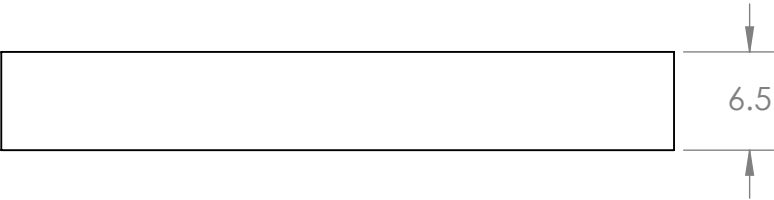
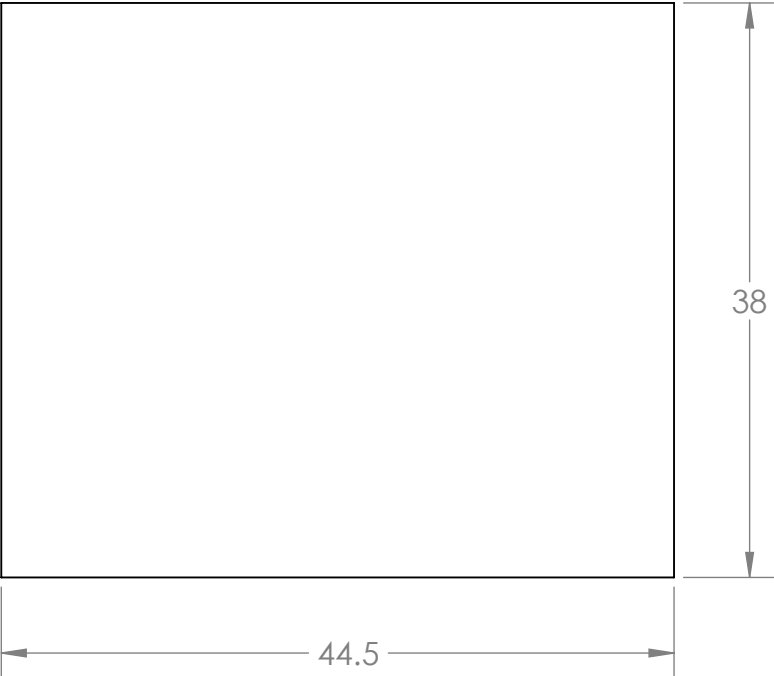
TITLE

HANDLE

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:1	WEIGHT 18.464994 g

SHEET 23 OF 42

- NOTES:
- 1. MATERIAL: Plywood.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



1114M	-	LATCH RISER
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

SolidWorks MAINTAINED DATA
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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

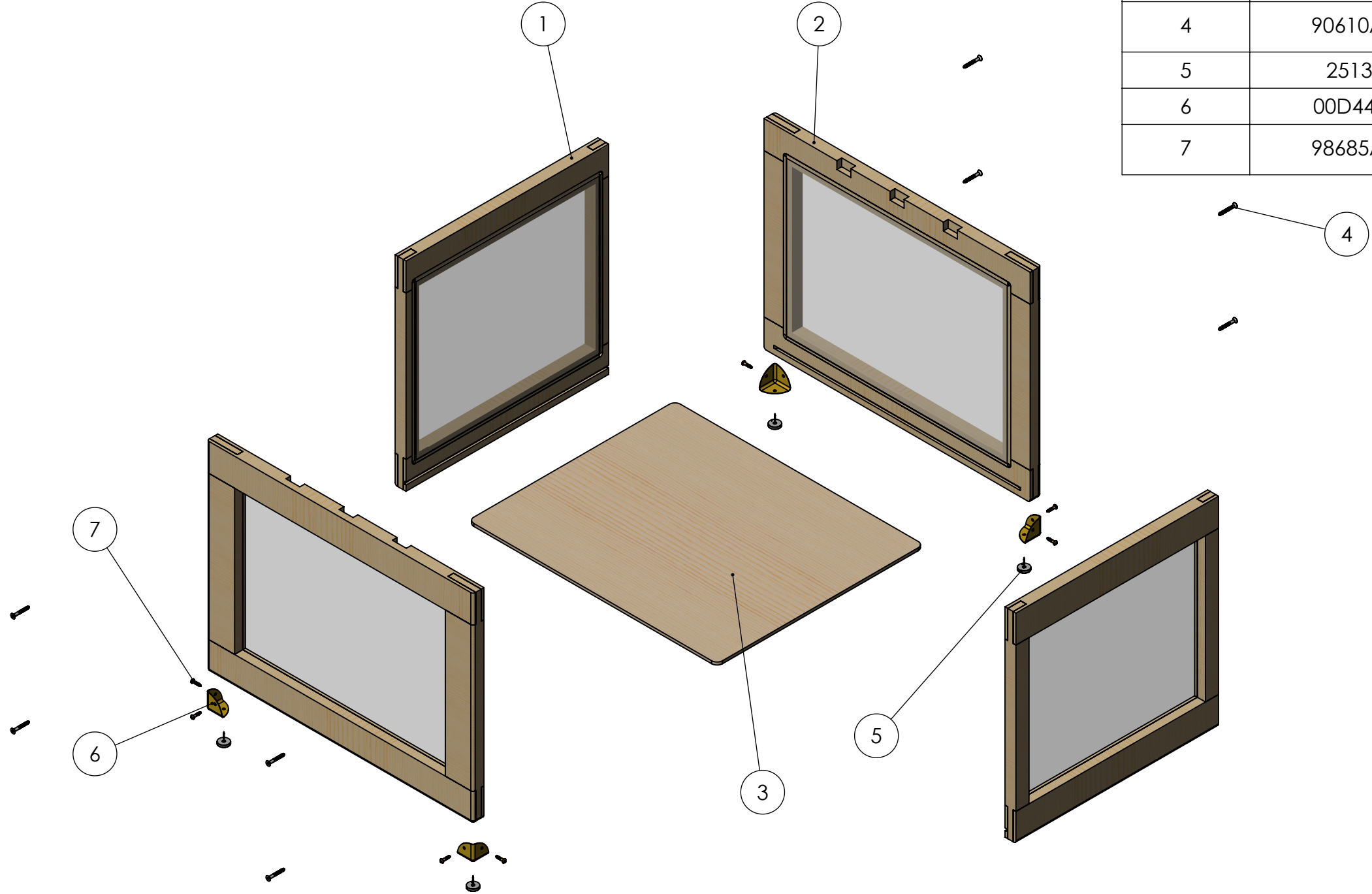
HONEY BEE RESEARCH CENTRE
THE UNIVERSITY OF GUELPH

TITLE
LATCH RISER

SIZE B	DRAWING NO	REVISION -
SCALE 2:1	WEIGHT 3.737110 g	SHEET 24 OF 42

- NOTES:
- 1. GLUE, ASSEMBLE SQUARE ADN CLAMP.
 - 2. PREDRILL ALL HOLES AND ADD SCREWS.
 - 3. FINISH: PAINT OR STAIN.
 - 4. REMOVE ALL SHARP EDGES.
 - 5. ROUND OVER EDGES.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10030M	BULK BEE BOX FRONT	2
2	10029M	BULK BEE BOX SIDE	2
3	1135M	BULK BEE BOX BOTTOM	1
4	90610A251	Square-Drive Flat Head Screws for Wood	8
5	2513T17	Hammer-on Feet	4
6	00D4460M	CASE CORNER	4
7	98685A730	Brass Phillips Decorative Rounded Head Screws	8



10031M	-	BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

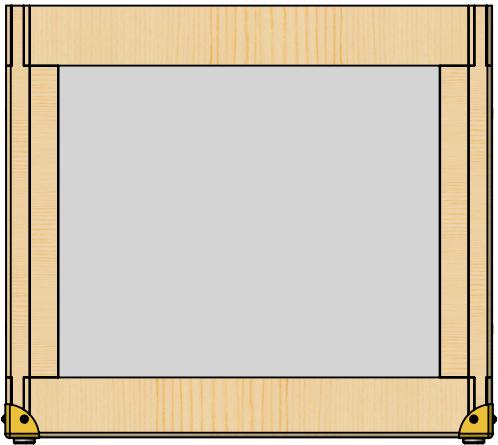
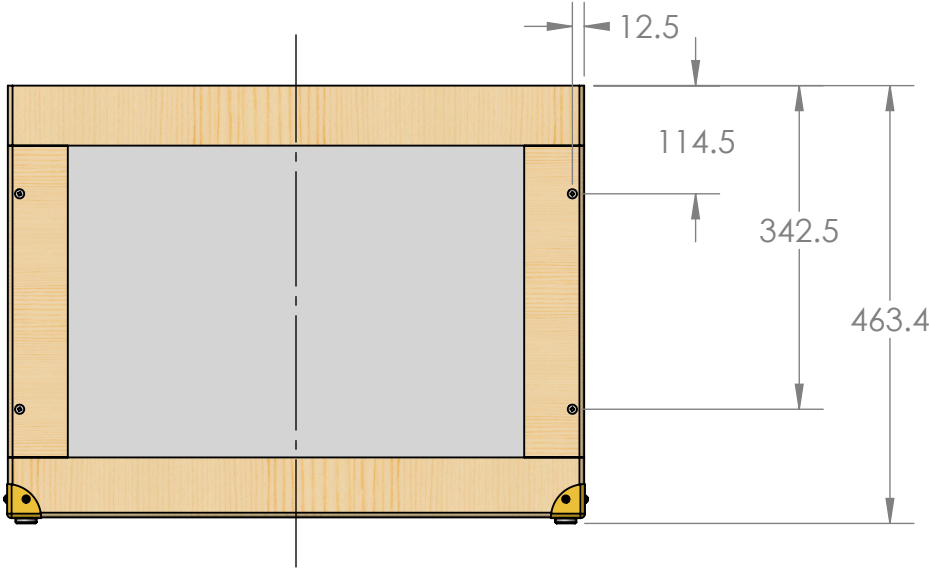
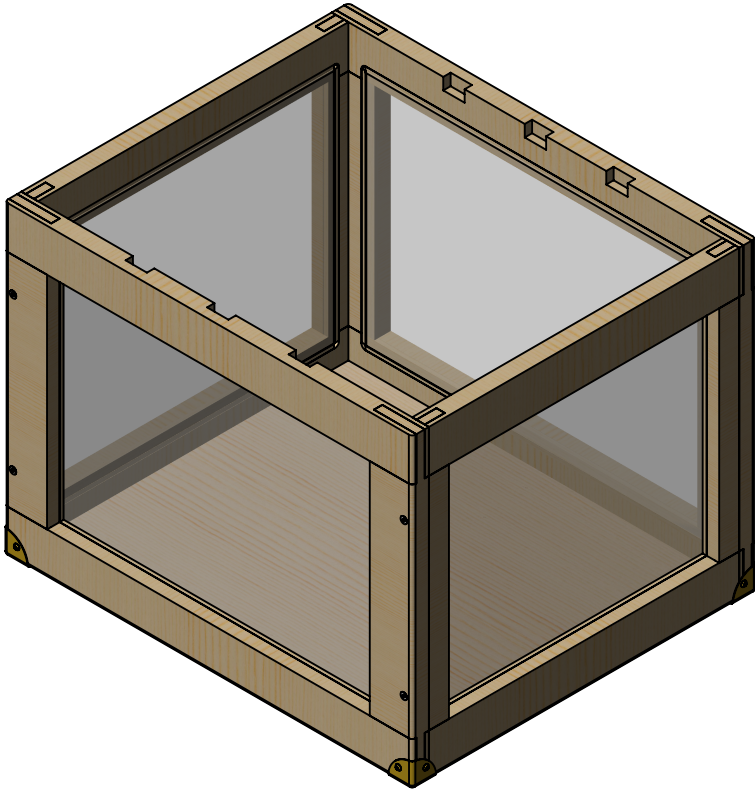
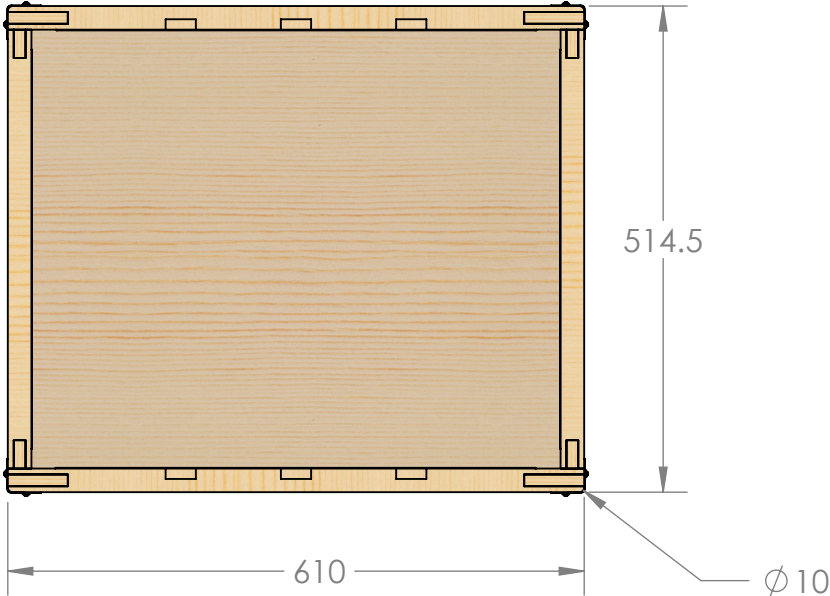
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BULK BEE BOX

SIZE B	DRAWING NO.	REVISION
SCALE 1:8	WEIGHT 8773.074831 g	10032M -

SHEET 25 OF 42



10031M	-	BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

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PROJECT	HIVE PRODUCTS	
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BULK BEE BOX

SIZE **B**

SCALE 1:8

DRAWING NO

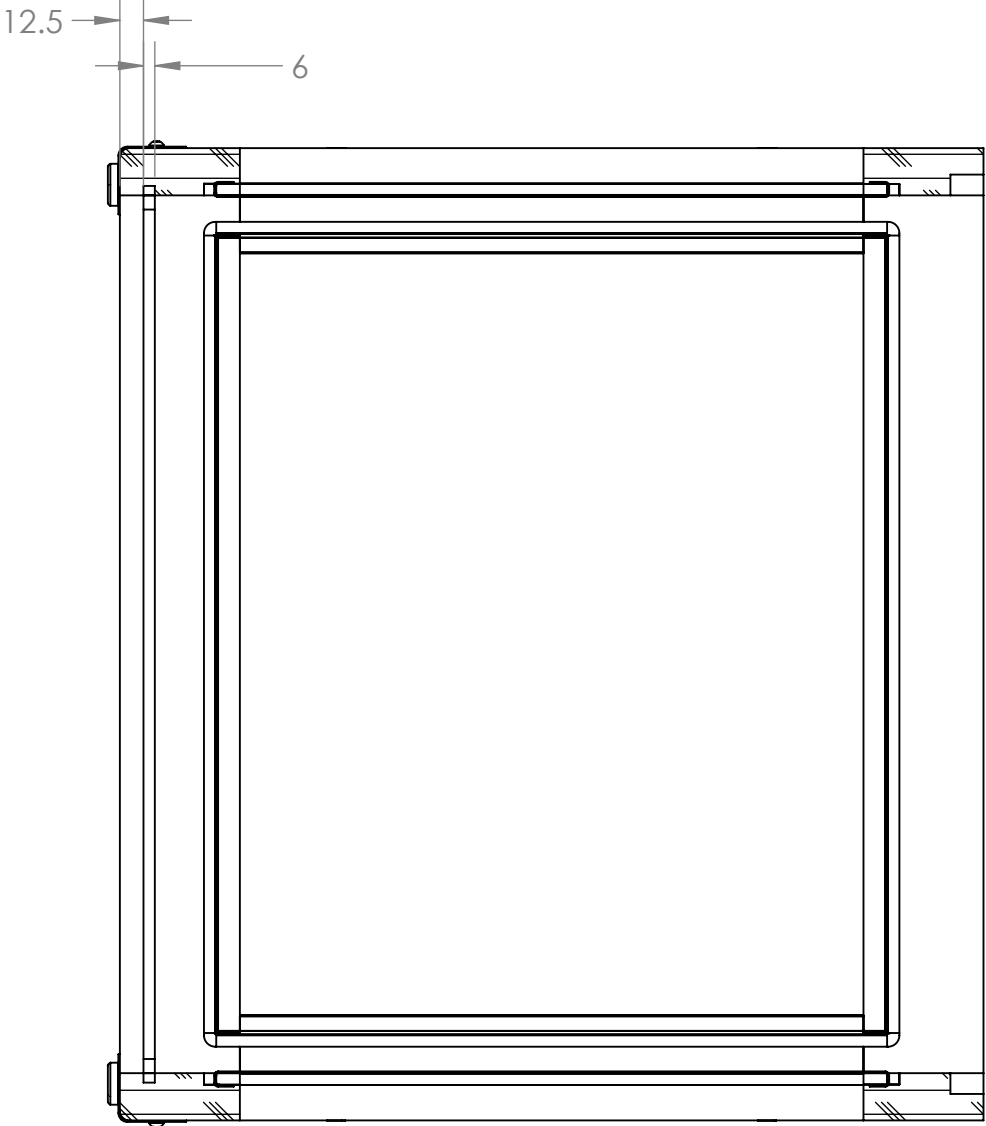
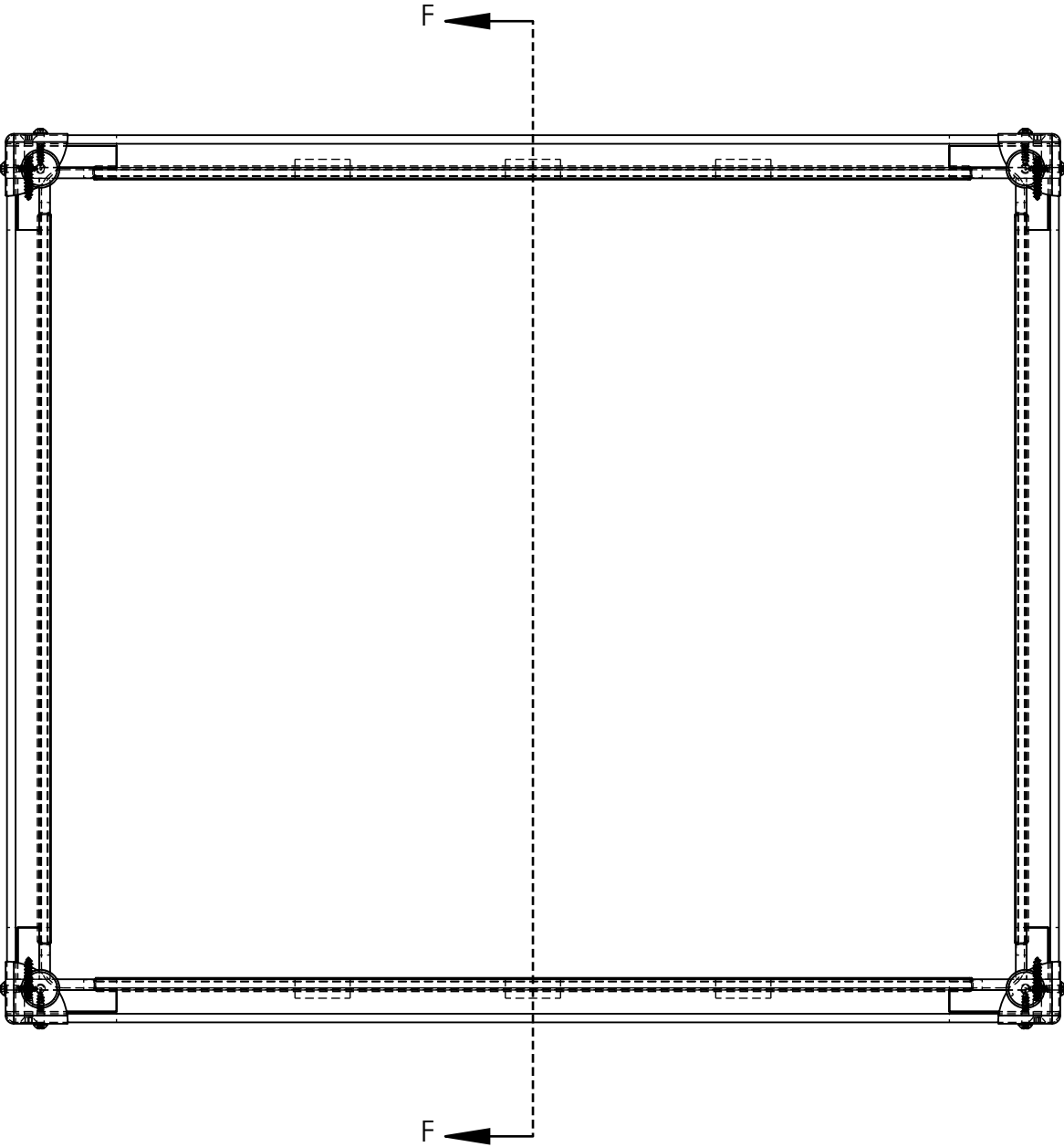
WEIGHT 8773.074831 g

REVISION

10032M -

SHEET 26 OF 42

- NOTES:
- 1. ASSEMBLE SQUARE.
 - 2. CLAMP.
 - 3. ROUTER GROOVE FOR PLYWOOD BOTTOM.
 - 4. DISSASSEMBLE.
 - 5. ASSEMBLE ALL PARTS SQUARE, GLUE, STAPLE AND SCREW.



SECTION F-F

10031M	-	BULK BEE BOX
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

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PROJECT HIVE PRODUCTS	
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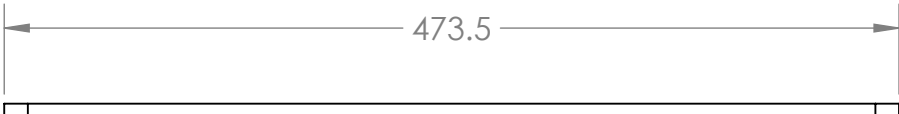
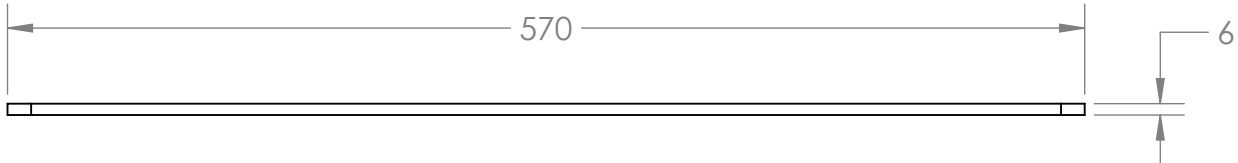
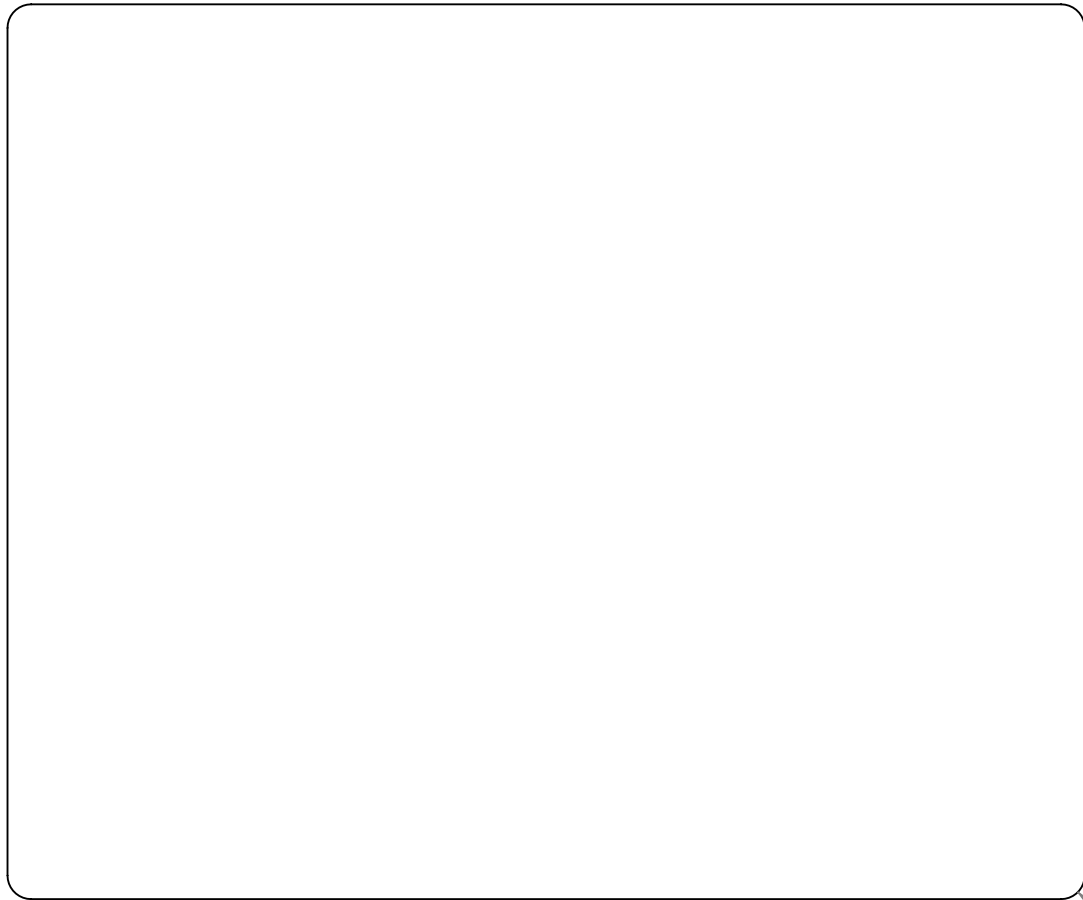
TITLE

BULK BEE BOX

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:4	WEIGHT 8773.074831 g

SHEET 27 OF 42

- NOTES:
- 1. MATERIAL: Plywood.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.



1135M	-	BULK BEE BOX BOTTOM
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

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CUSTOMER
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PROJECT
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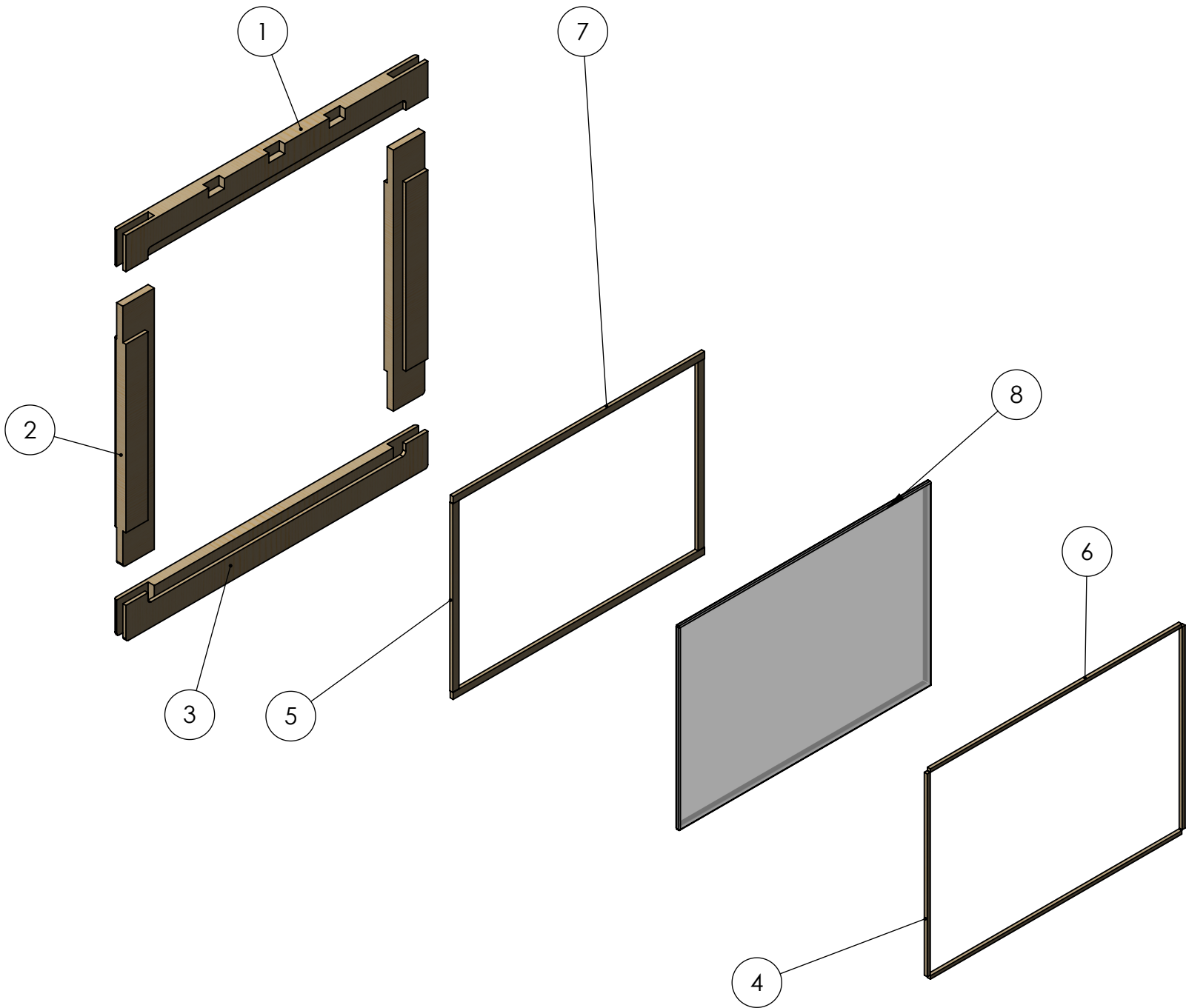
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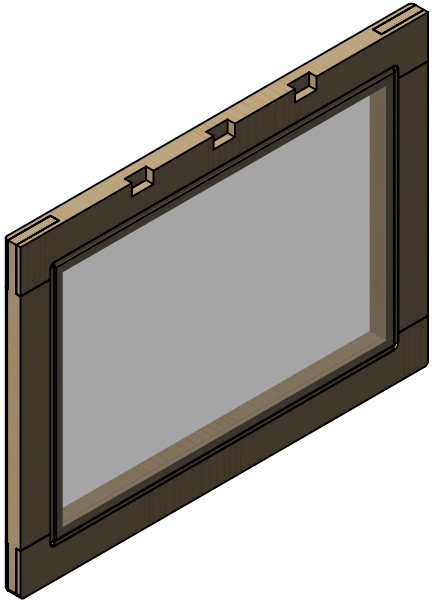
TITLE
BULK BEE BOX BOTTOM

SIZE B	DRAWING NO.	REVISION
SCALE 1:4	WEIGHT 550.312183 g	10032M - SHEET 28 OF 42

- NOTES:
- 1. GLUE, ASSEMBLE SQUARE AND CLAMP.
 - 2. STAPLE.
 - 3. FINISH: PAINT OR STAIN.
 - 4. ROUND OVER EDGES.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1121M	TOP FRAME	1
2	1123M	SIDE FRAME	2
3	1122M	BOTTOM FRAME	1
4	1132M	SIDE INSIDE TRIM	2
5	1127M	SIDE INSIDE FRAME	2
6	1124M	TRIM	2
7	1126M	INSIDE FRAME	2
8	10029_SCREENM	SIDE SCREEN	1



10029M	-	BULK BEE BOX SIDE
PART NUMBER	REV	DESCRIPTION

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

THIRD ANGLE PROJECTION



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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

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F. FULKERSON

DATE
3/12/2024

CHECKED BY
P.G. KELLY

DATE
3/12/2024

APPROVED
P.G. KELLY

DATE
3/12/2024



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TITLE

BULK BEE BOX SIDE

SIZE

B

DRAWING NO

SCALE

1:8

WEIGHT

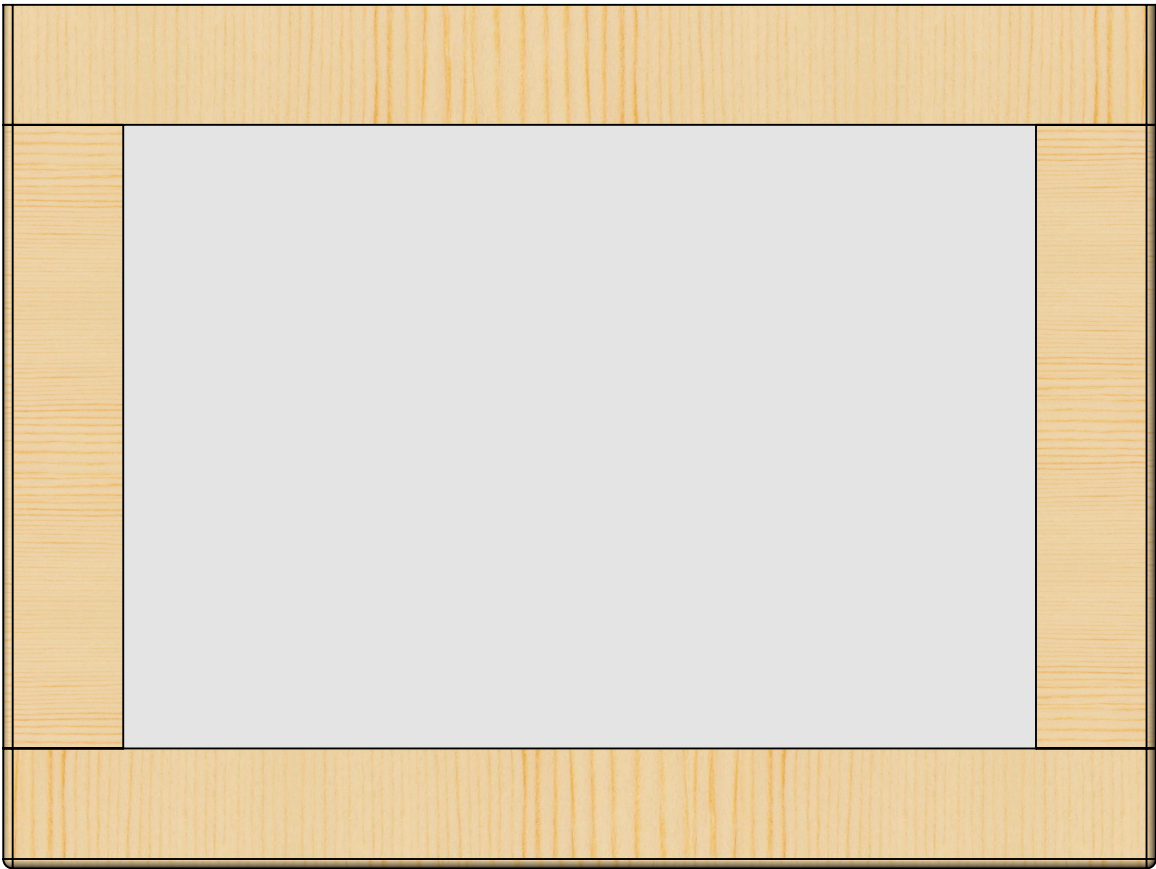
2307.824743 g

10032M -

REVISION

SHEET 29 OF 42

- NOTES:
- 1. GLUE, ASSEMBLE SQUARE AND CLAMP.
 - 2. STAPLE.
 - 3. FINISH: PAINT OR STAIN.
 - 4. ROUND OVER EDGES.



R5

10029M	-	BULK BEE BOX SIDE
PART NUMBER	REV	DESCRIPTION


UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



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HIVE PRODUCTS

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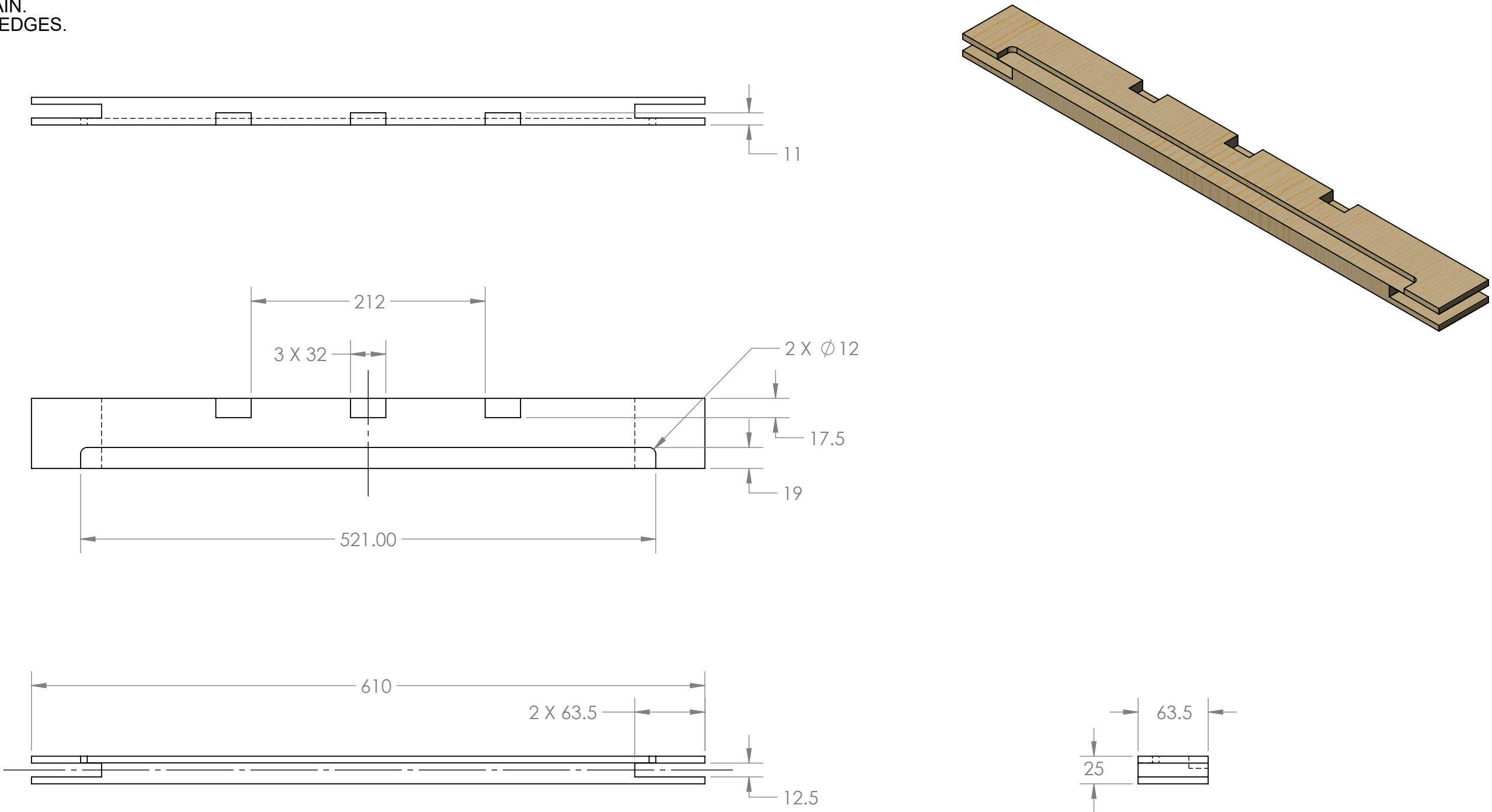
TITLE

BULK BEE BOX SIDE

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:4	WEIGHT 2307.824743 g

SHEET 30 OF 42

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



1121M	-	TOP FRAME
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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CUSTOMER
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PROJECT
HIVE PRODUCTS

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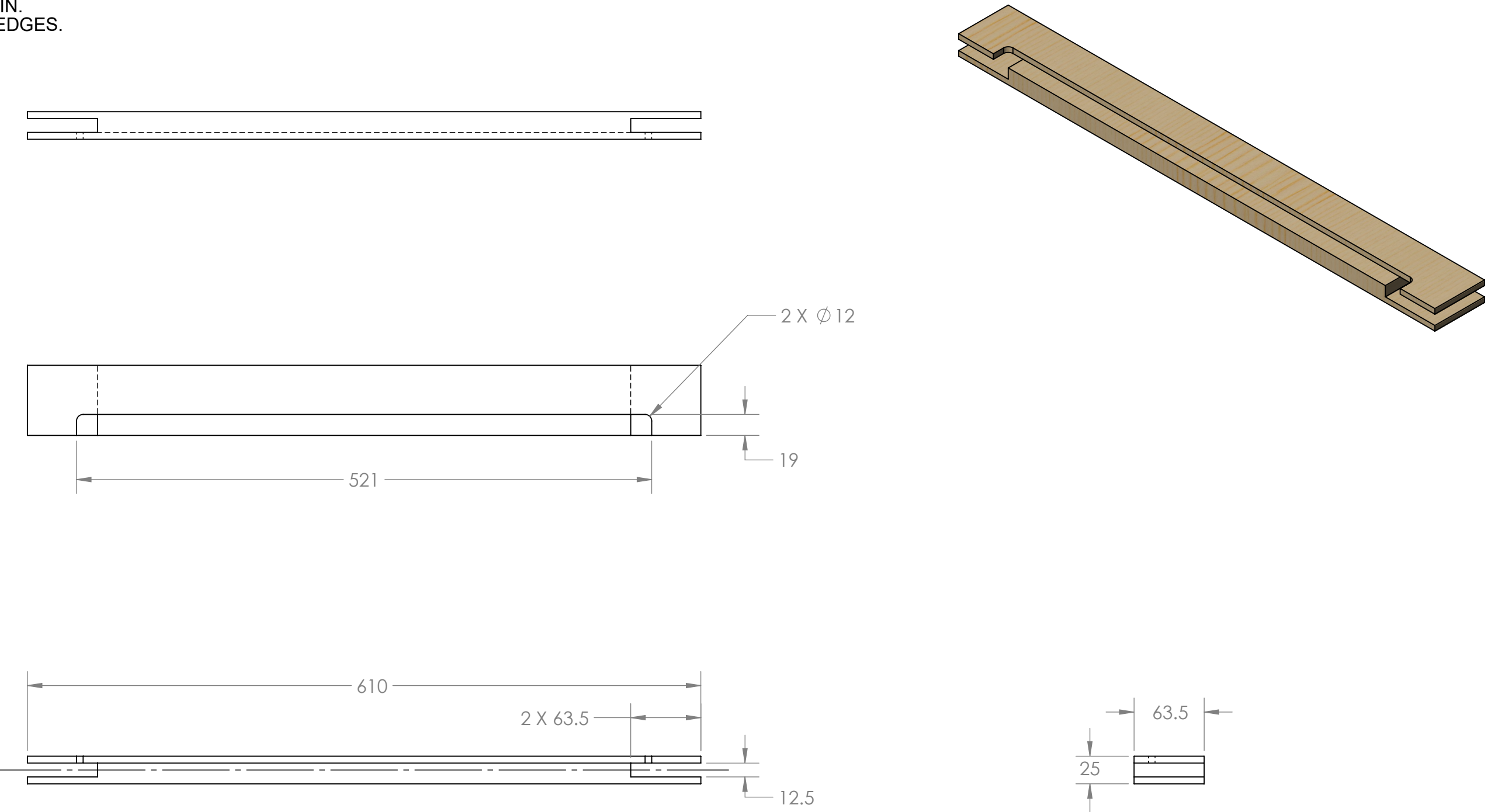
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TITLE
TOP FRAME

SIZE B	DRAWING NO.	REVISION
SCALE 1:4	WEIGHT 268.527736 g	10032M -

SHEET 31 OF 42

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



1122M	-	BOTTOM FRAME
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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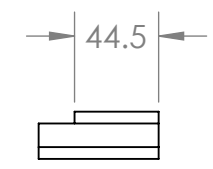
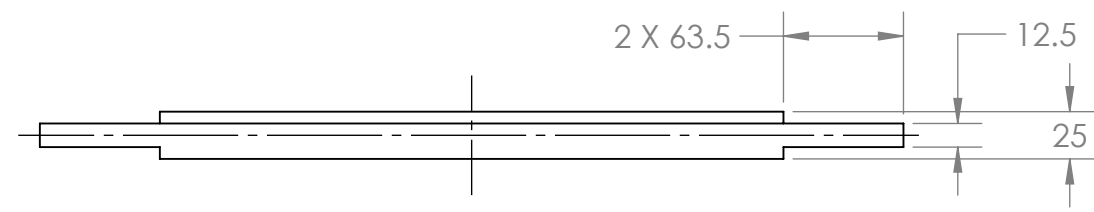
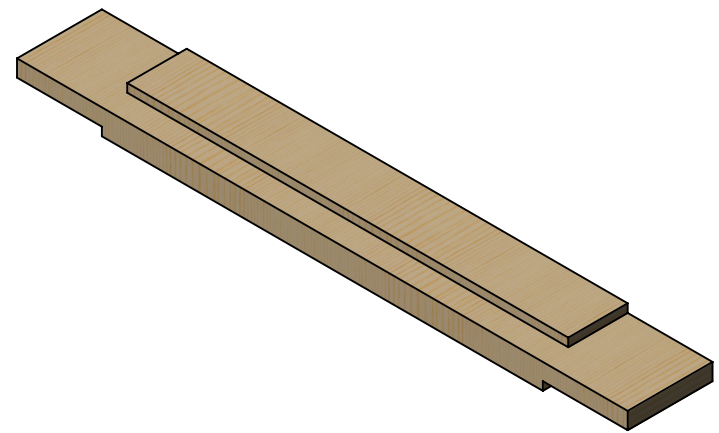
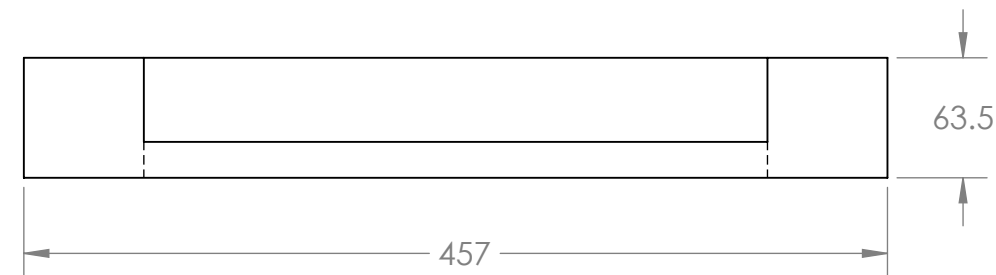
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TITLE
BOTTOM FRAME

SIZE B	DRAWING NO.	REVISION
SCALE 1:4	WEIGHT 273.970834 g	10032M -

SHEET 32 OF 42

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



1123M	-	SIDE FRAME
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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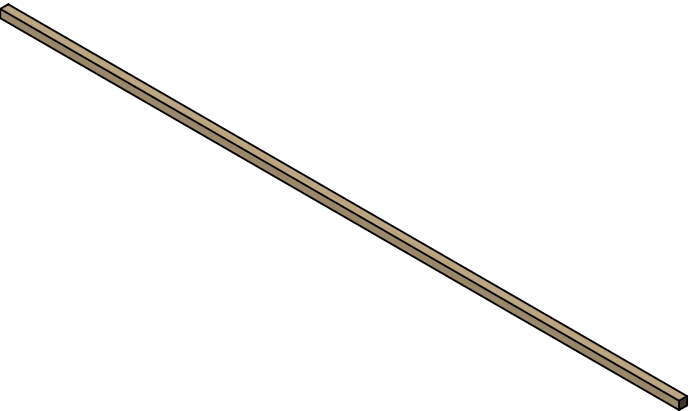
TITLE

SIDE FRAME

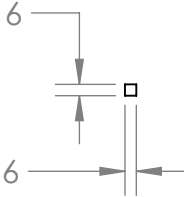
SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:4	WEIGHT 199.067875 g

SHEET 33 OF 42

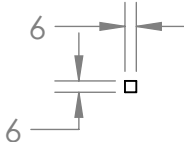
NOTES:
1. MATERIAL: Pine.
2. FINISH: NONE.
3. REMOVE ALL SHARP EDGES.



1132
SIDE TRIM



1124
TOP/BOTTOM TRIM



1124M	-	TRIM
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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HIVE PRODUCTS

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CHECKED BY

P.G. KELLY

DATE

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DATE

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TITLE

TRIM

SIZE

DRAWING NO

REVISION

B

10032M

-

SCALE

1:4

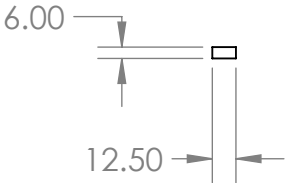
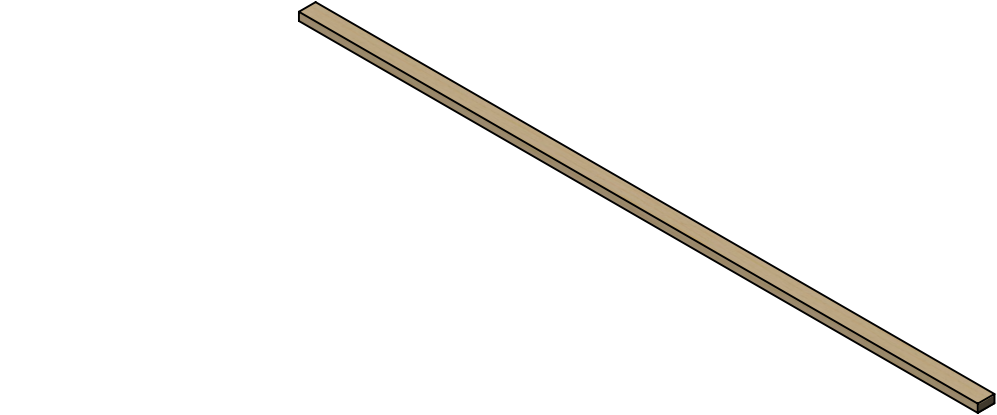
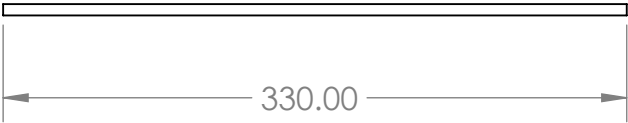
WEIGHT

6.217920 g

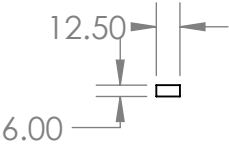
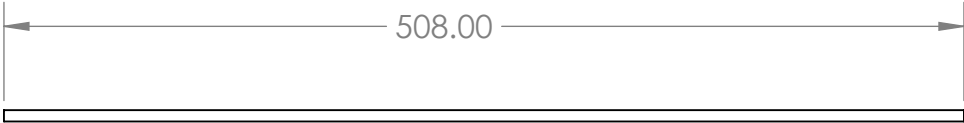
SHEET 34 OF 42

- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: NONE.
 - 3. REMOVE ALL SHARP EDGES.

1127
SIDE SCREEN FRAME



1126
TOP SCREEN FRAME



1126M	-	INSIDE FRAME
PART NUMBER	REV	DESCRIPTION

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

THIRD ANGLE PROJECTION



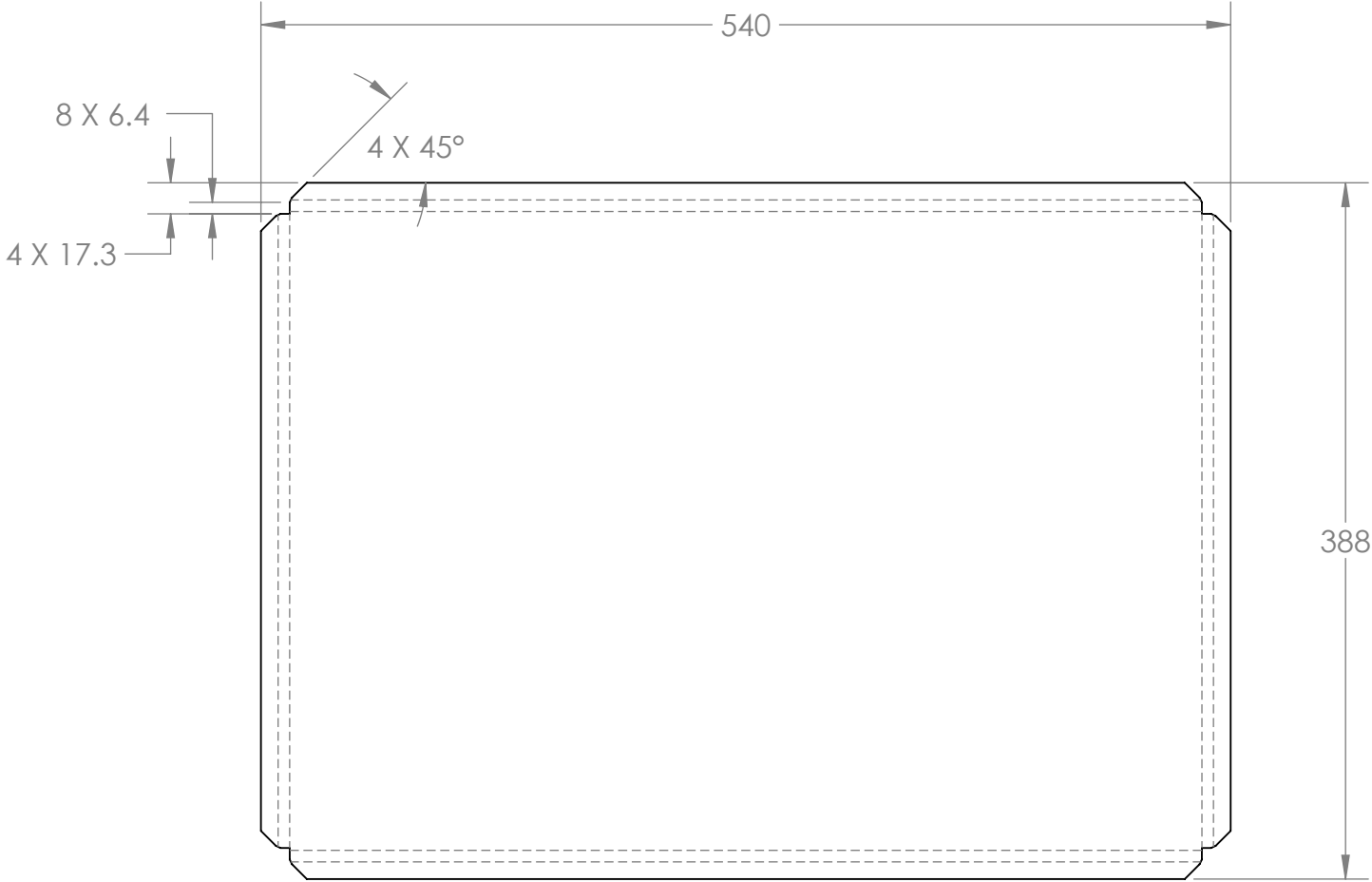
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PROJECT HIVE PRODUCTS	
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TITLE INSIDE FRAME		REVISION	
SIZE B	DRAWING NO.	10032M	-
SCALE 1:4	WEIGHT 12.954000 g	SHEET 35 OF 42	

- NOTES:
- 1. MATERIAL: SCREEN.
 - 2. FINISH: N/A.
 - 3. REMOVE ALL SHARP EDGES.



10029_SCREENM	-	SIDE SCREEN
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

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BEE KEEPERS

PROJECT

HIVE PRODUCTS

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F. FULKERSON

DATE

3/12/2024

CHECKED BY

P.G. KELLY

DATE

3/12/2024

APPROVED

P.G. KELLY

DATE

3/12/2024

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TITLE

SIDE SCREEN

SIZE

DRAWING NO

B

10032M

SCALE

1:4

WEIGHT

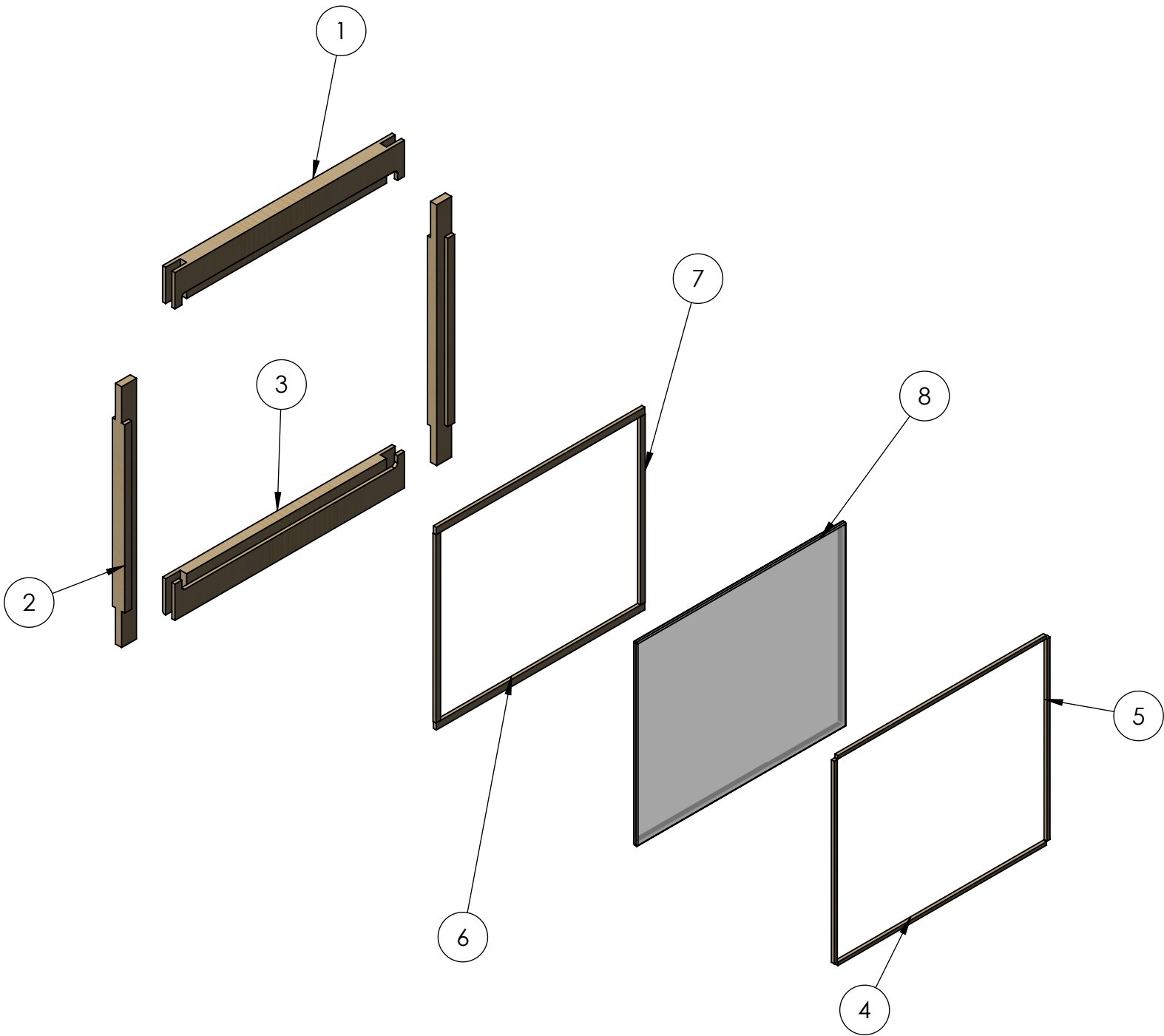
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REVISION

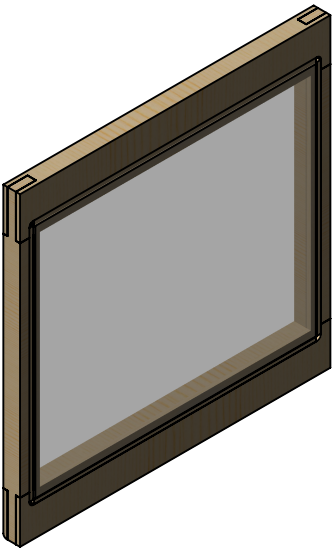
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SHEET 36 OF 42

- NOTES:
- 1. GLUE, ASSEMBLE SQUARE AND CLAMP.
 - 2. STAPLE.
 - 3. FINISH: PAINT OR STAIN.
 - 4. ROUND OVER EDGES.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1128M	TOP FRAME	1
2	1130M	SIDE FRONT FRAME	2
3	1129M	BOTTOM FRAME	1
4	1131M	TOP INSIDE TRIM	2
5	1132M	SIDE INSIDE TRIM	2
6	1133M	TOP INSIDE FRAME	2
7	1134M	SIDE INSIDE FRAME	2
8	10030_SCREENM	SCREEN	1



10030M	-	BULK BEE BOX FRONT
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

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CUSTOMER BEE KEEPERS	
PROJECT HIVE PRODUCTS	
DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

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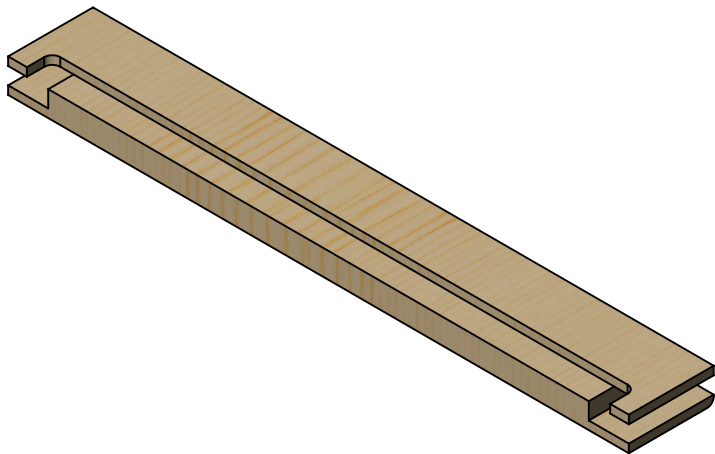
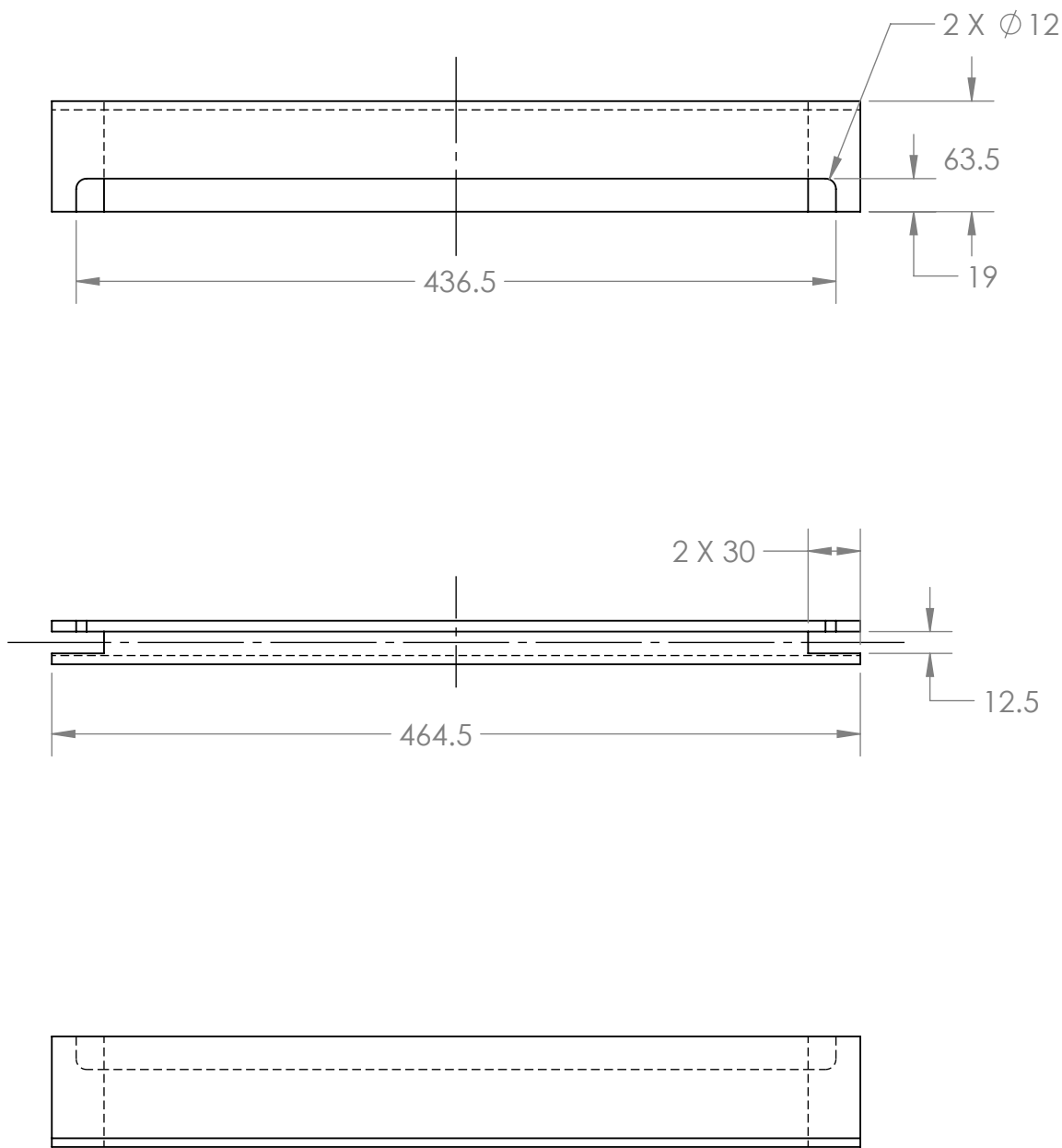
TITLE

BULK BEE BOX FRONT

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:8	WEIGHT 1767.011565 g

SHEET 37 OF 42

- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: PAINT OR STAIN.
 - 3. REMOVE ALL SHARP EDGES.
 - 4. TOP AND BOTTOM FRAMES ARE THE SAME, OMIT FILLET IN THE TOP.



1129M	-	BOTTOM FRAME
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

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CUSTOMER
BEE KEEPERS

PROJECT
HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/12/2024
CHECKED BY P.G. KELLY	DATE 3/12/2024
APPROVED P.G. KELLY	DATE 3/12/2024

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THE UNIVERSITY OF GUELPH

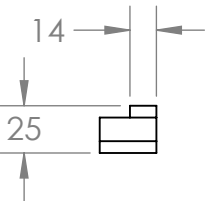
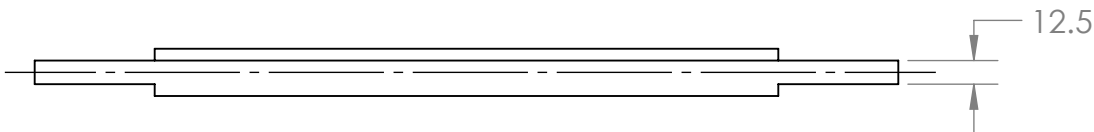
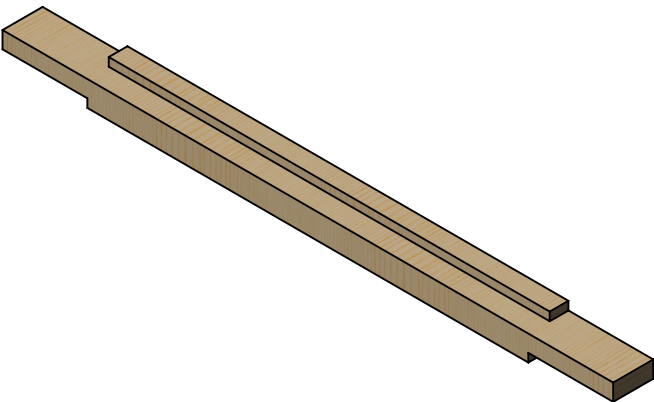
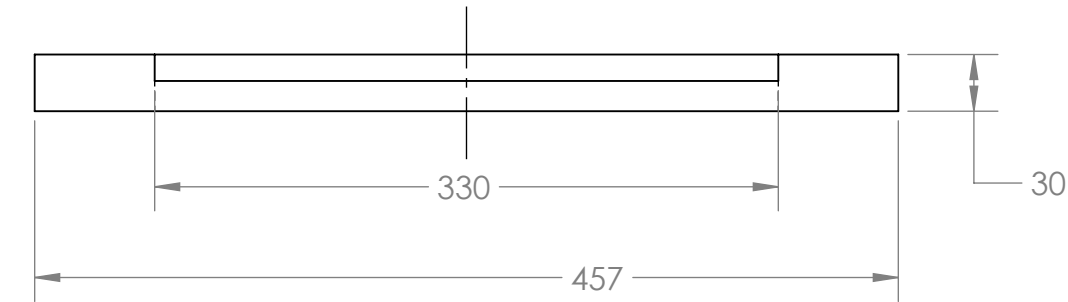
TITLE

BOTTOM FRAME

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:4	WEIGHT 216.083220 g

SHEET 38 OF 42

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



1130M	-	SIDE FRONT FRAME
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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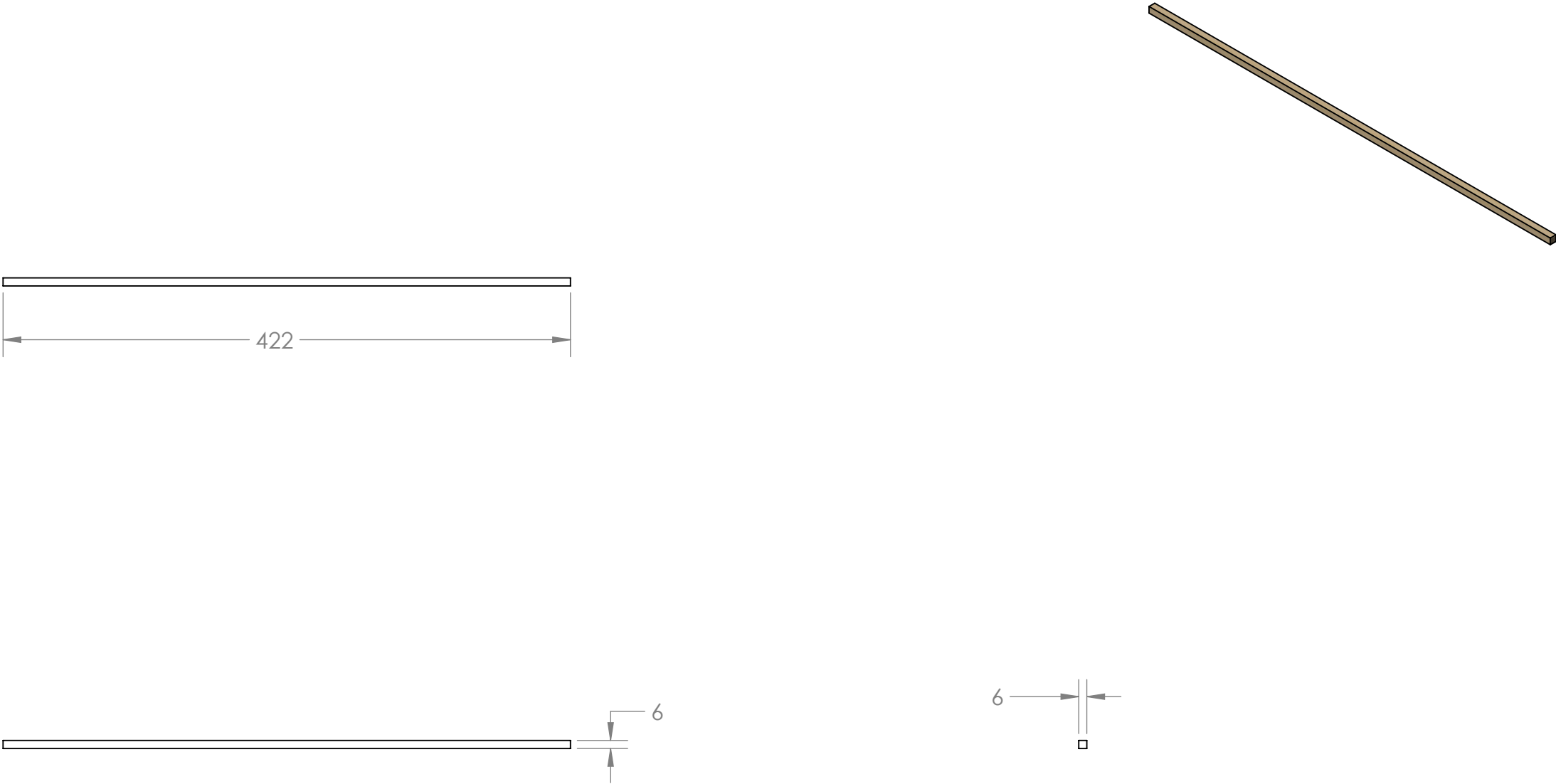
TITLE

SIDE FRONT FRAME

SIZE B	DRAWING NO	REVISION
SCALE 1:4	WEIGHT 89.122500 g	10032M -

SHEET 39 OF 42

- NOTES:
- 1. MATERIAL: Pine.
 - 2. FINISH: NONE.
 - 3. REMOVE ALL SHARP EDGES.



1131M	-	TOP INSIDE TRIM
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

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ELECTRONICALLY BY THE DESIGN ACTIVITY

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CUSTOMER	BEE KEEPERS		
PROJECT	HIVE PRODUCTS		
DRAWN BY	F. FULKERSON	DATE	3/12/2024
CHECKED BY	P.G. KELLY	DATE	3/12/2024
APPROVED	P.G. KELLY	DATE	3/12/2024

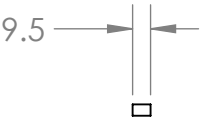
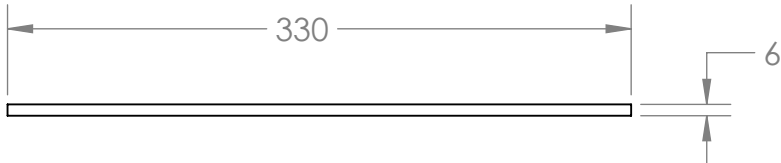
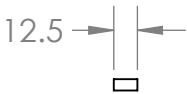
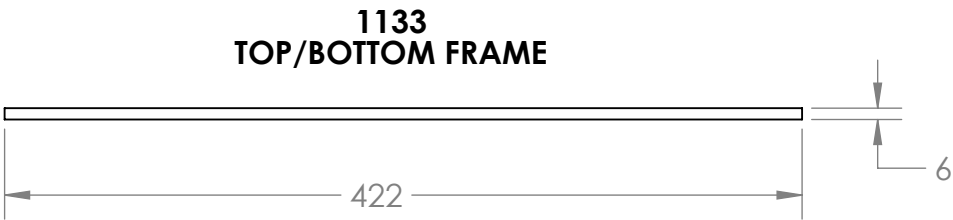
HONEY BEE RESEARCH CENTRE
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TITLE

TOP INSIDE TRIM

SIZE	DRAWING NO		REVISION
B			10032M -
SCALE	1:4	WEIGHT	5.165280 g
SHEET 40 OF 42			

NOTES:
1. MATERIAL: Pine.
2. FINISH: NONE.
3. REMOVE ALL SHARP EDGES.



1134
SIDE FRAME


1133M	-	TOP INSIDE FRAME
PART NUMBER	REV	DESCRIPTION

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

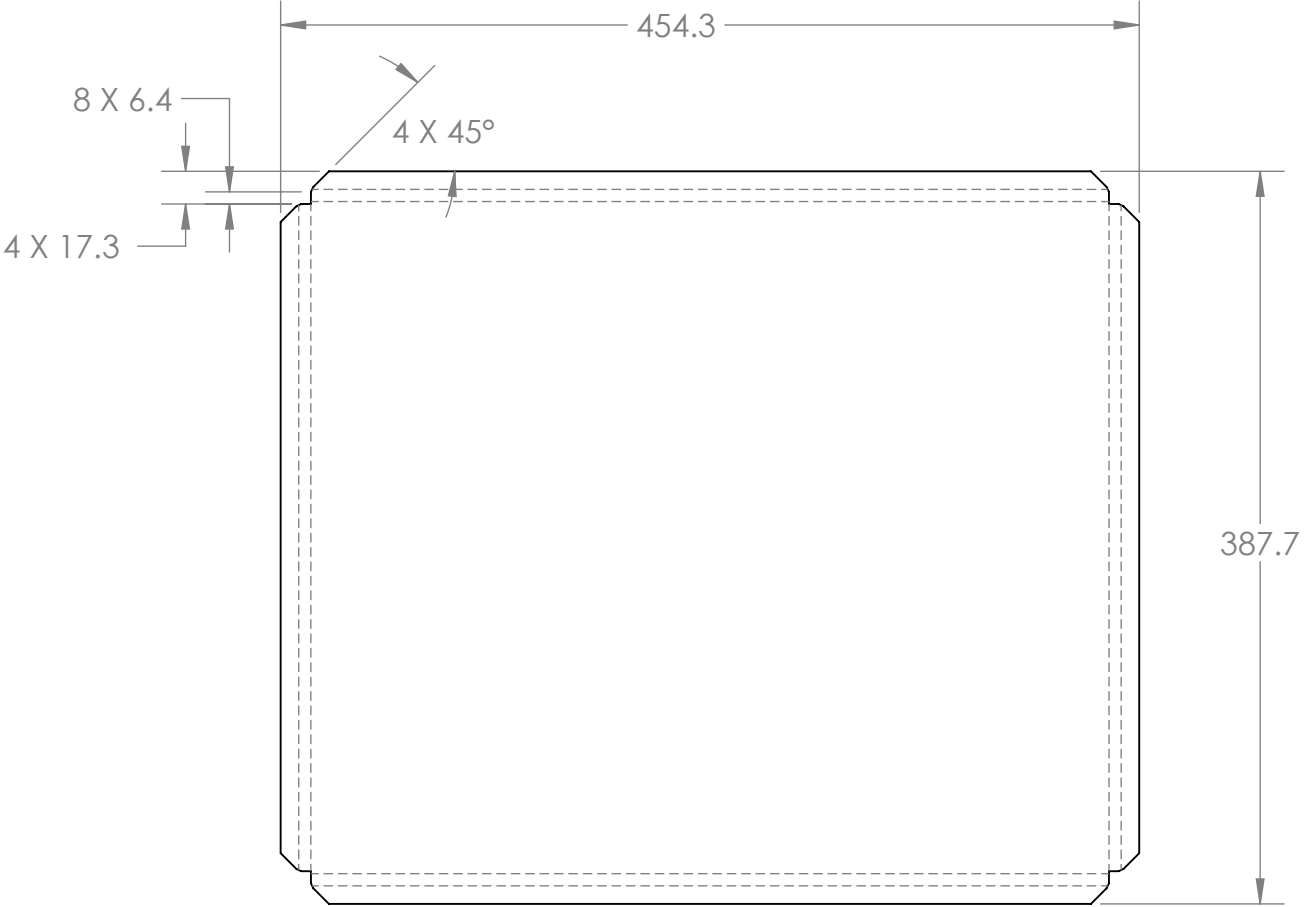
THIRD ANGLE PROJECTION



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PROJECT HIVE PRODUCTS	
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APPROVED P.G. KELLY	DATE 3/12/2024

		HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
TITLE			
TOP INSIDE FRAME			
SIZE	DRAWING NO	REVISION	
B		10032M -	
SCALE	1:4	WEIGHT	
		10.761000 g	SHEET 41 OF 42

- NOTES:
- 1. MATERIAL: SCREEN.
 - 2. FINISH: N/A.
 - 3. REMOVE ALL SHARP EDGES.



10030_SCREENM	-	SCREEN
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED

DO NOT SCALE DRAWING

INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018

DIMENSIONS ARE IN MILLIMETERS

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TITLE

SCREEN

SIZE	DRAWING NO	REVISION
B		10032M -
SCALE	1:4	WEIGHT 1097.452223 g

SHEET 42 OF 42