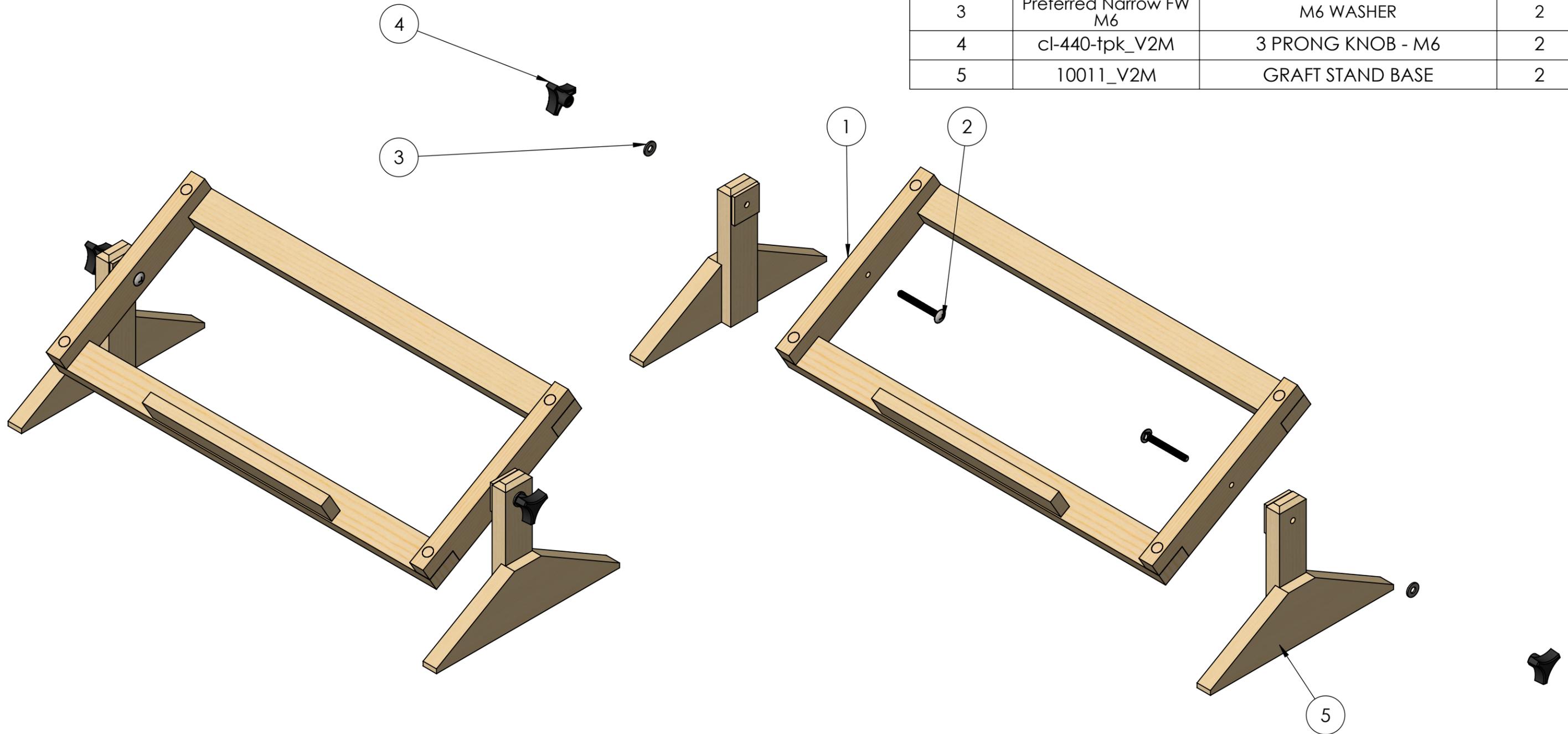


NOTES:
 1. COMPLETE ASSEMBLY BY ADDING
 CARRIAGE BOLTS, WASHERS AND THREE
 PRONG KNOBS.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10012M	GRAFT STAND FRAME	1
2	90185A105	M6 Steel Square-Neck Carriage Bolt	2
3	Preferred Narrow FW M6	M6 WASHER	2
4	cl-440-tpk_V2M	3 PRONG KNOB - M6	2
5	10011_V2M	GRAFT STAND BASE	2



10010_V2M	01	GRAFT STAND
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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 ANY FORM, WITHOUT WRITTEN PERMISSION.

CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/4/2024
CHECKED BY P.G. KELLY	DATE 3/4/2024
APPROVED P.G. KELLY	DATE 3/4/2024



HONEY BEE RESEARCH CENTRE
 THE UNIVERSITY OF GUELPH

GRAFT STAND

SIZE
B

SCALE
 1:4

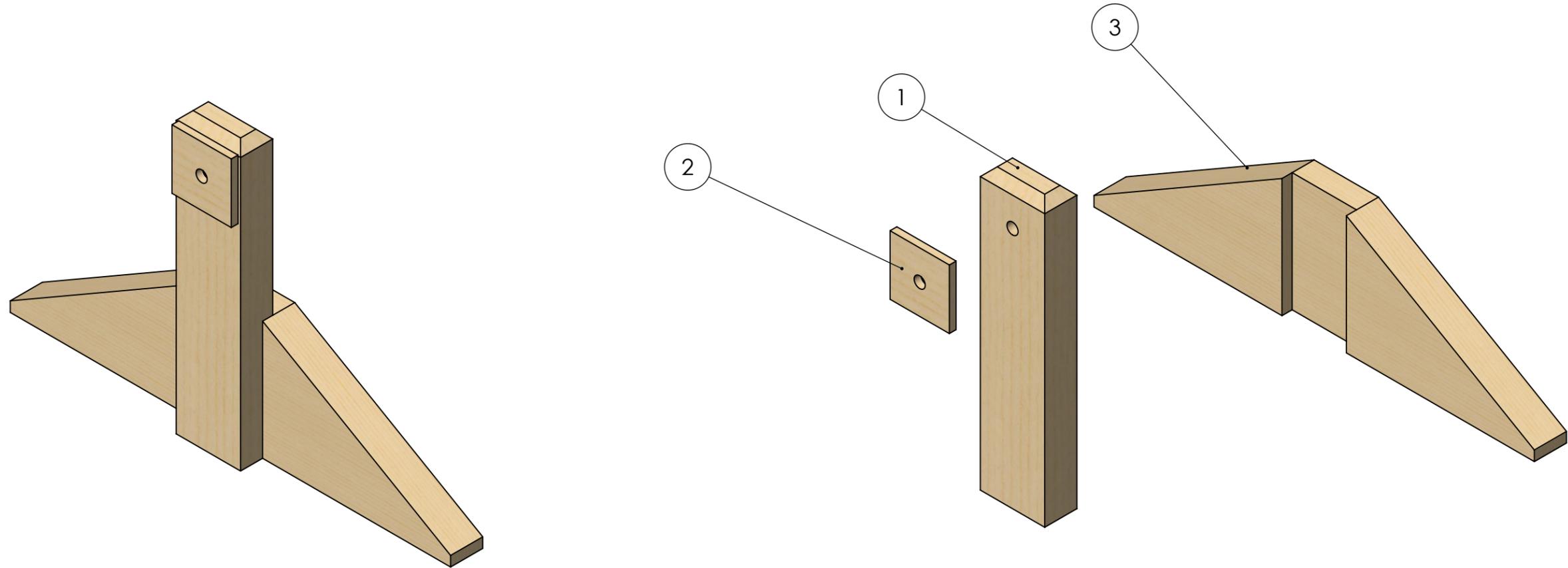
WEIGHT
 668.142 g

10010_V2M -

SHEET 1 OF 9

- NOTES:
 1. MATERIAL: PINE.
 2. FINISH: VARNISH.
 3. REMOVE ALL SHARP EDGES.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1033_V2M	BASE SIDE	1
2	1038M	SHIM	1
3	1040_V2M	FOOT	1

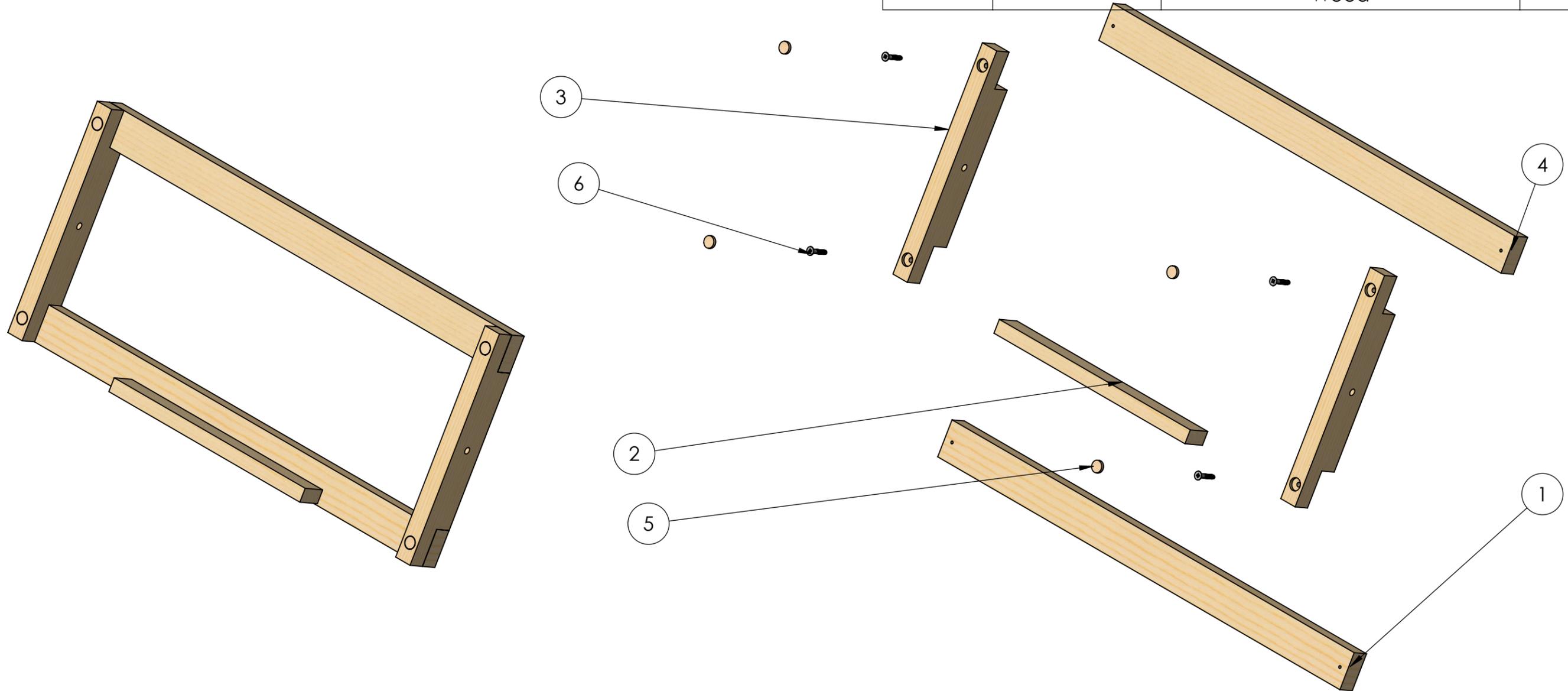


10011_V2M	01	GRAFT STAND BASE
PART NUMBER	REV	DESCRIPTION

<p>UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2018 DIMENSIONS ARE IN MILLIMETERS</p>		<p>SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY</p>		<p> HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH</p>	
<p>THIRD ANGLE PROJECTION</p> 		<p>PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.</p>		<p>GRAFT STAND BASE</p>	
<p>CUSTOMER BEE KEEPERS</p> <p>PROJECT HIVE PRODUCTS</p>		<p>DRAWN BY F. FULKERSON</p> <p>CHECKED BY P.G. KELLY</p> <p>APPROVED P.G. KELLY</p>		<p>DATE 3/4/2024</p> <p>DATE 3/4/2024</p> <p>DATE 3/4/2024</p>	
<p>SIZE B</p>		<p>DRAWING NO.</p>		<p>REVISION</p>	
<p>SCALE 1:2</p>		<p>WEIGHT 107.667 g</p>		<p>10010_V2M - SHEET 2 OF 9</p>	

- NOTES:
 1. GLUE ALL PARTS SQUARE.
 2. PREDRILL ALL HOLES.
 3. ADD SCREWS.
 4. ADD 12 MM DOWEL PLUGS.
 5. SAND DOWELS FLUSH.
 6. REMOVE ALL SHARP EDGES.
 7. FINISH: VARNISH.

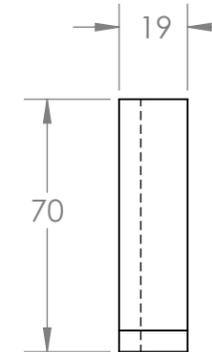
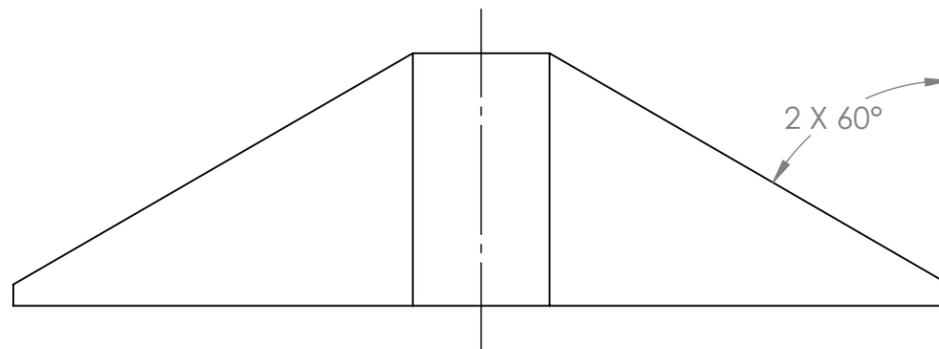
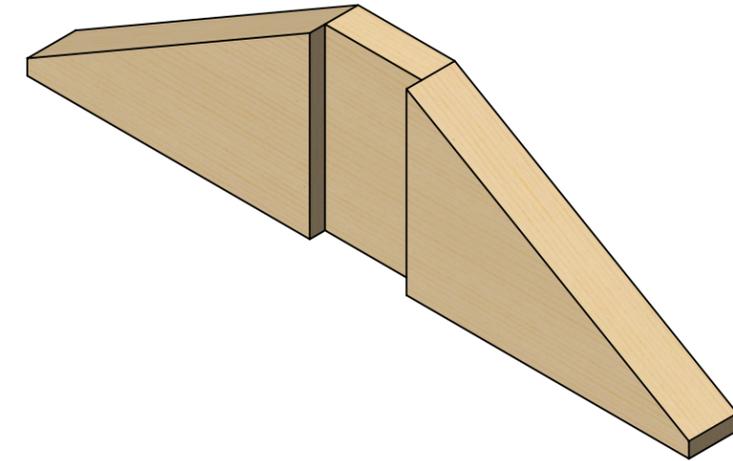
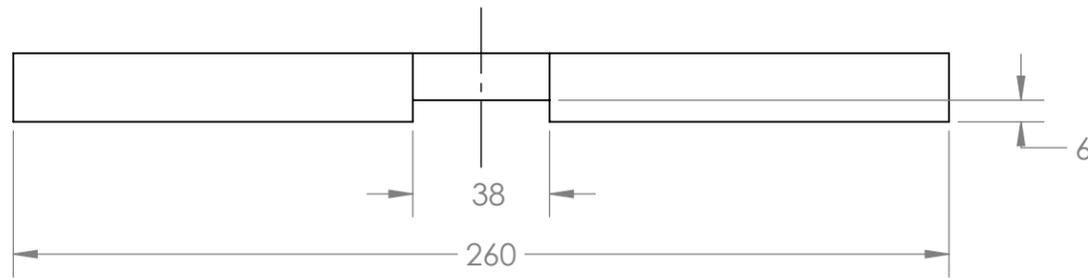
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1035_V2M	FRAME BOTTOM	1
2	1036_V2M	GRAFT FRAME SUPPORT	1
3	1037_V2M	FRAME SIDE	2
4	1034_V2M	FRAME TOP	1
5	1039_V2M	12MM DOWEL PLUG	4
6	90610A718	Square-Drive Flat Head Screws for Wood	4



10012_V2M	01	GRAFT STAND 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		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY 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 PROJECT HIVE PRODUCTS		GRAFT STAND FRAME	
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY		DATE 2022-03-23 DATE 2022-03-23 DATE 2022-03-23		TITLE 10010_V2M	
SCALE 1:4		WEIGHT 396.212 g		SHEET 3 OF 9	

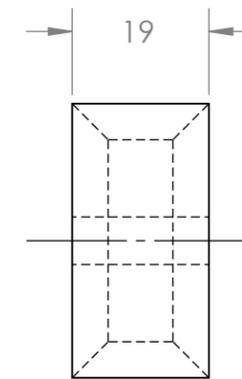
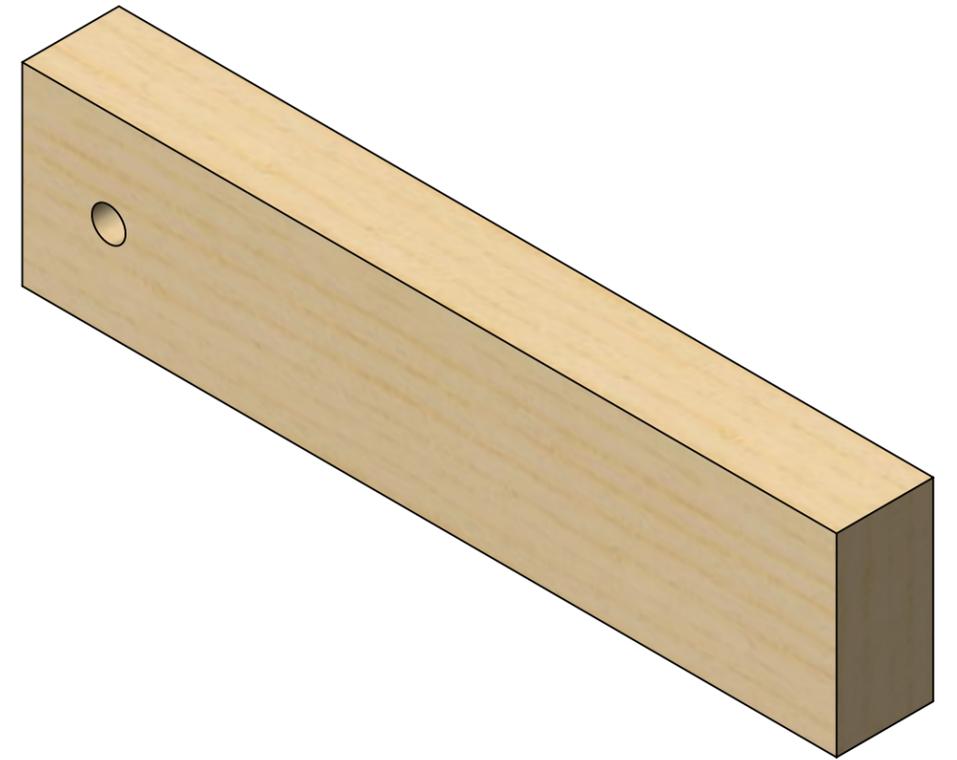
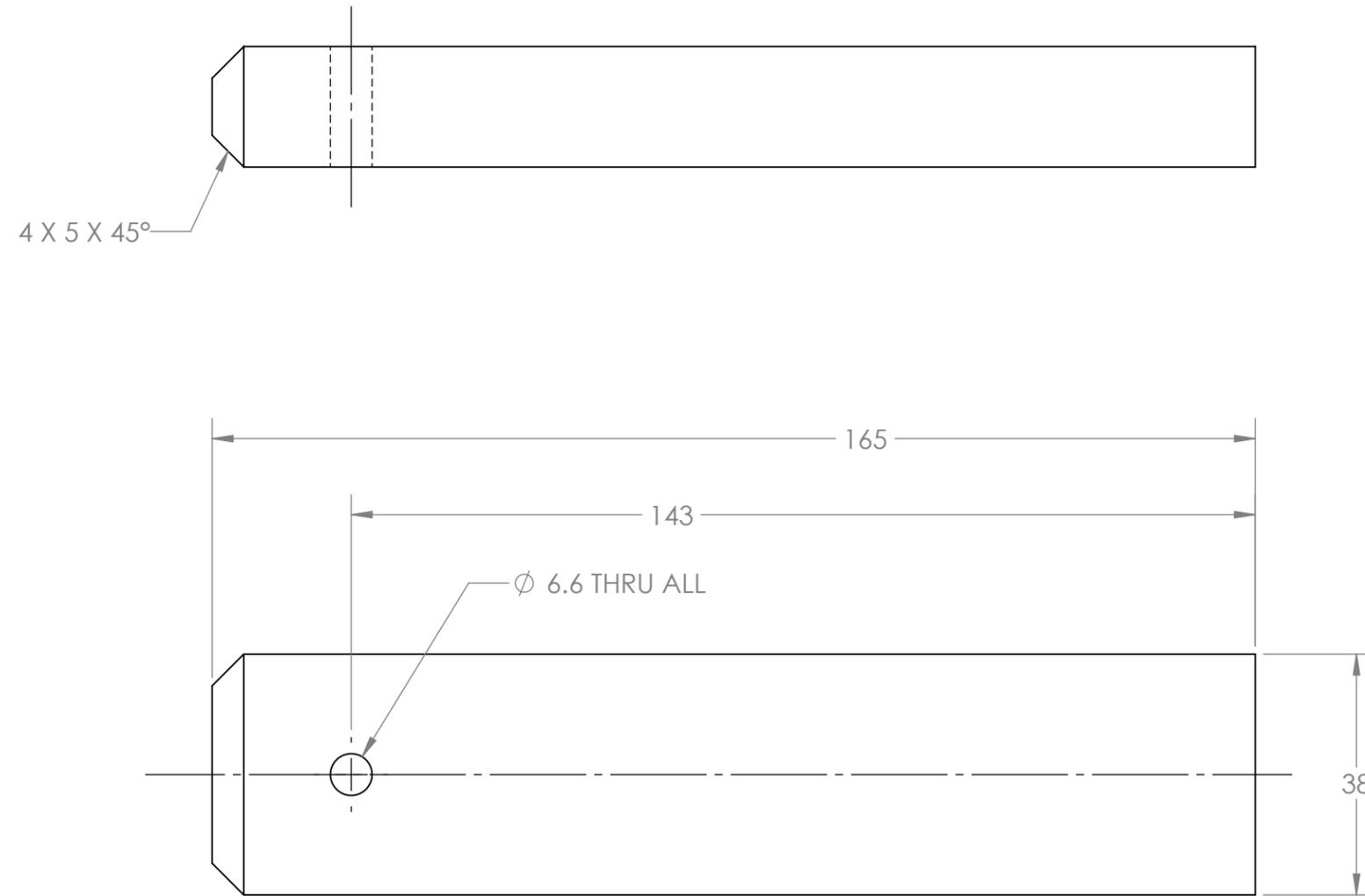
- NOTES:
 1. MATERIAL: Pine.
 2. FINISH: VARNISH.
 3. REMOVE ALL SHARP EDGES.



1040_V2M	01	FOOT
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.	
THIRD ANGLE PROJECTION 	CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS	TITLE 10010_V2M
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY	DATE 3/4/2024 DATE 3/4/2024 DATE 3/4/2024	SIZE B SCALE 1:2 WEIGHT 66.192 g
		SHEET 4 OF 9

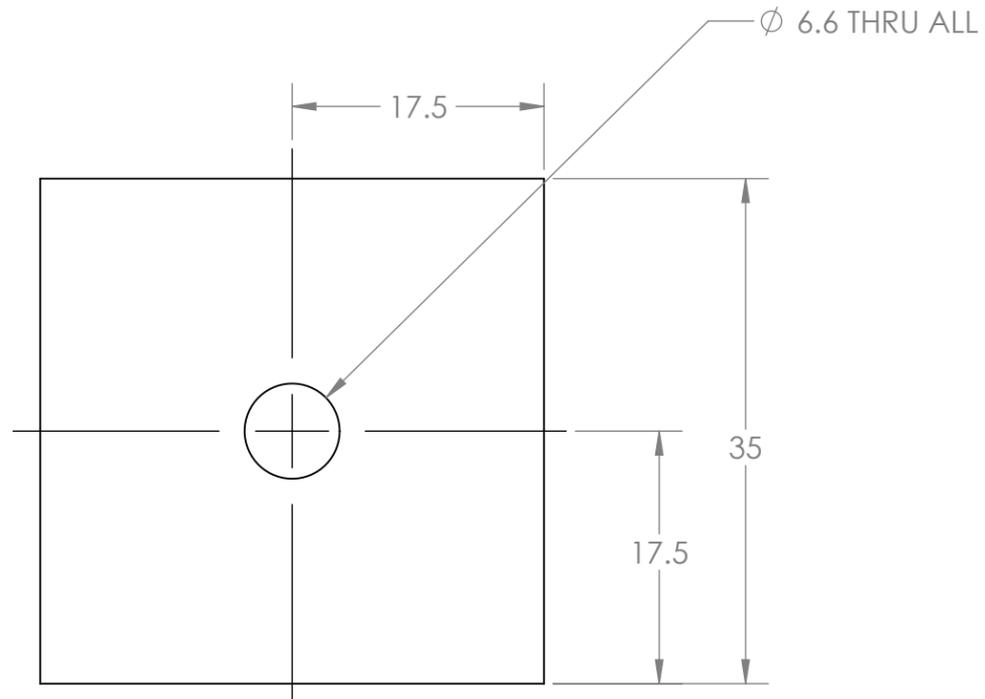
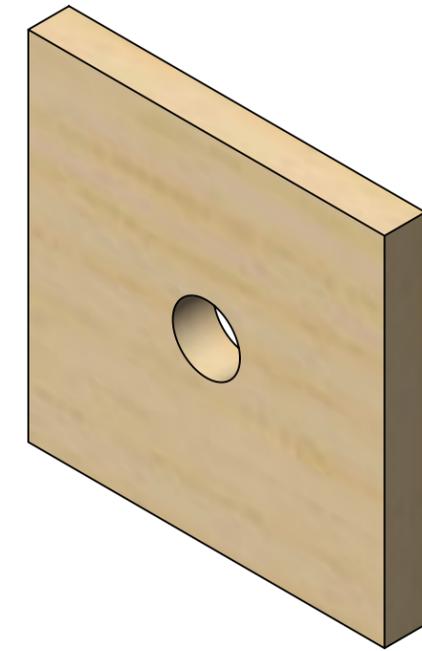
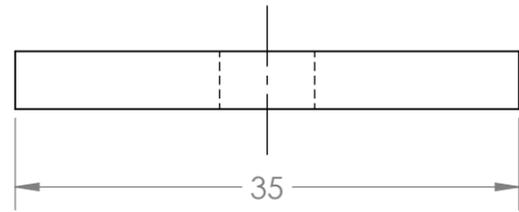
- NOTES:
 1. MATERIAL: Pine.
 2. FINISH: VARNISH.
 3. REMOVE ALL SHARP EDGES.



1033_V2M	01	BASE 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		SolidWorks MAINTAINED DATA CHANGES SHALL BE INCORPORATED ELECTRONICALLY BY THE DESIGN ACTIVITY		 HONEY BEE RESEARCH CENTRE THE UNIVERSITY OF GUELPH	
THIRD ANGLE PROJECTION 		PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		BASE SIDE	
DRAWN BY F. FULKERSON		DATE 3/4/2024		SIZE B DRAWING NO.	
CHECKED BY P.G. KELLY		DATE 3/4/2024		10010_V2M -	
APPROVED P.G. KELLY		DATE 3/4/2024		SCALE 1:1 WEIGHT 39.855 g SHEET 5 OF 9	

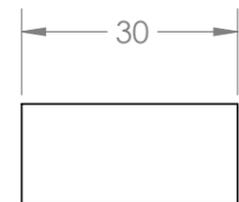
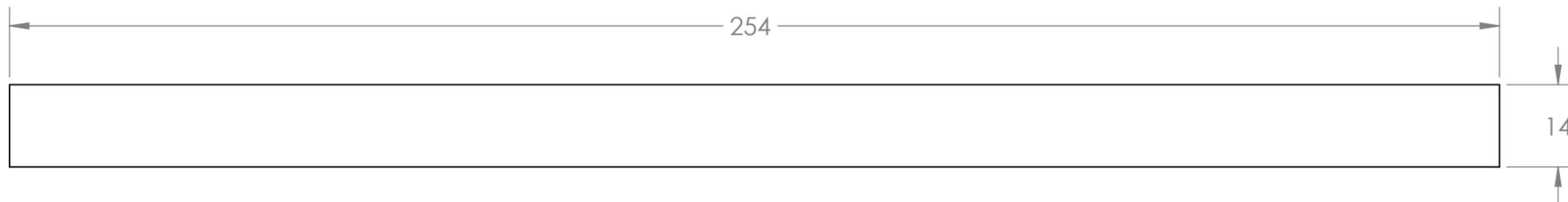
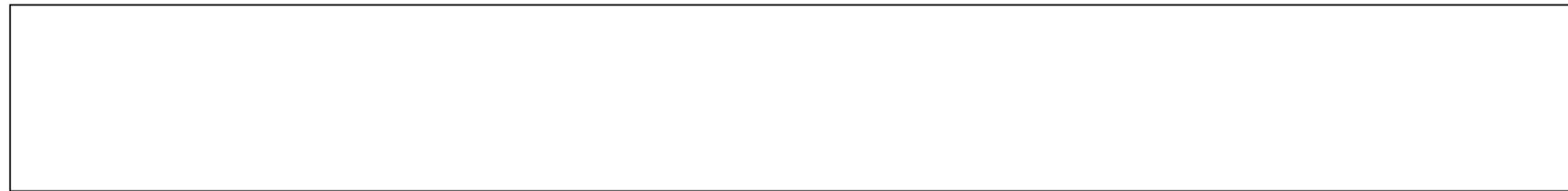
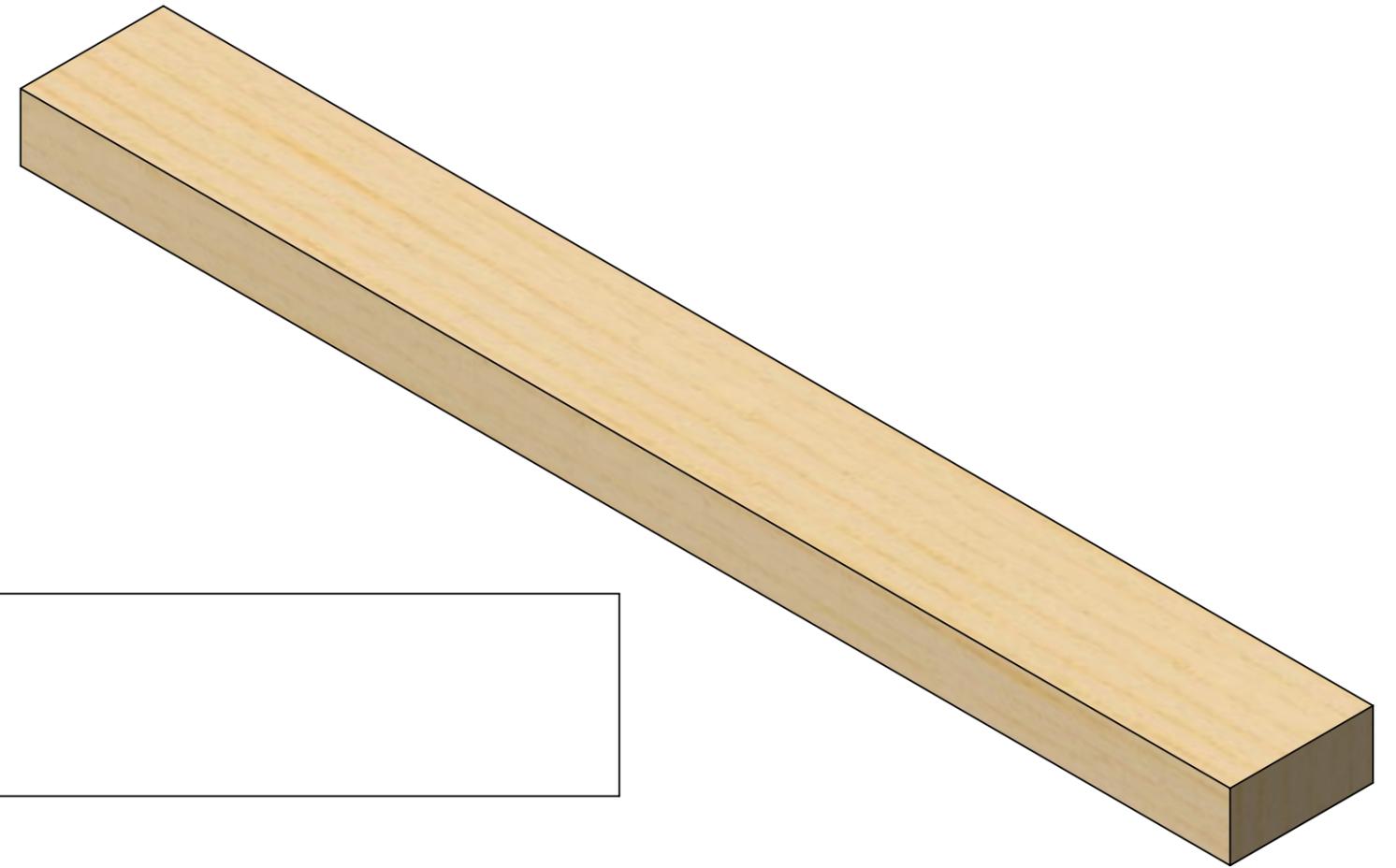
- NOTES:
 1. MATERIAL: Pine.
 2. FINISH: VARNISH.
 3. REMOVE ALL SHARP EDGES.



1038_V2M	01	SHIM
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.	
THIRD ANGLE PROJECTION 	CUSTOMER BEE KEEPERS PROJECT HIVE PRODUCTS	TITLE SHIM
DRAWN BY F. FULKERSON CHECKED BY P.G. KELLY APPROVED P.G. KELLY	DATE 3/4/2024 DATE 3/4/2024 DATE 3/4/2024	SIZE B DRAWING NO. 10010_V2M - SCALE 2:1 WEIGHT 1.619 g
		SHEET 6 OF 9

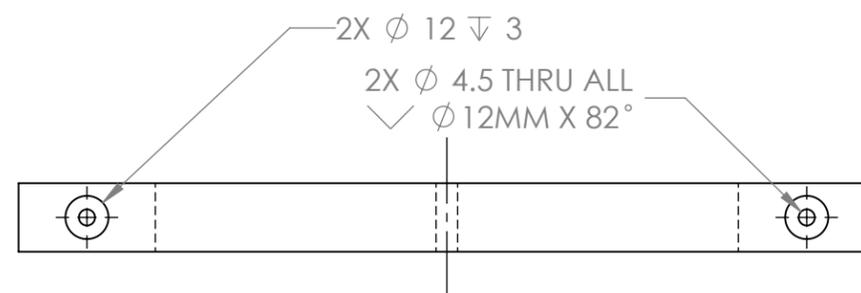
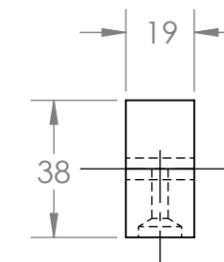
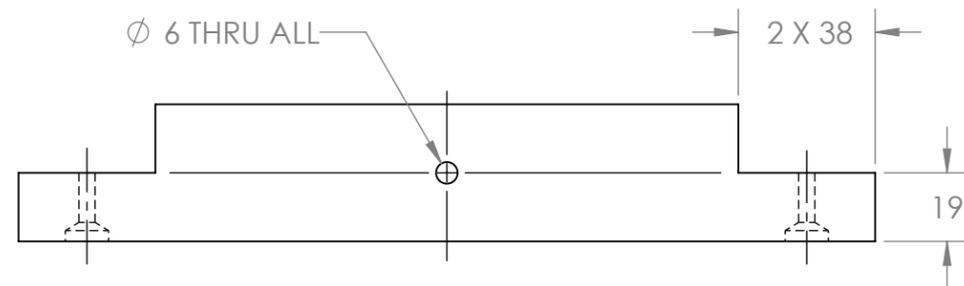
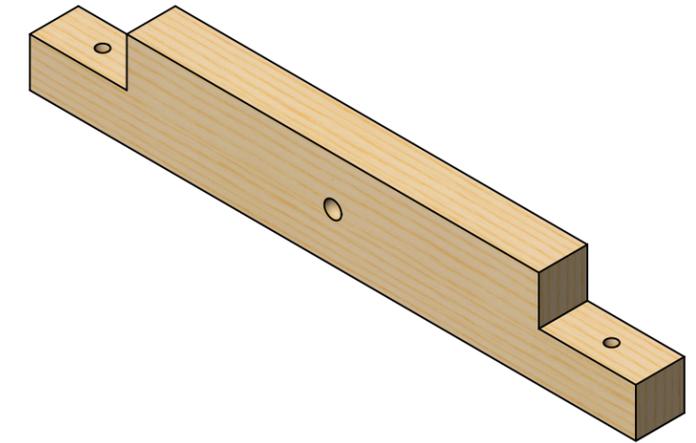
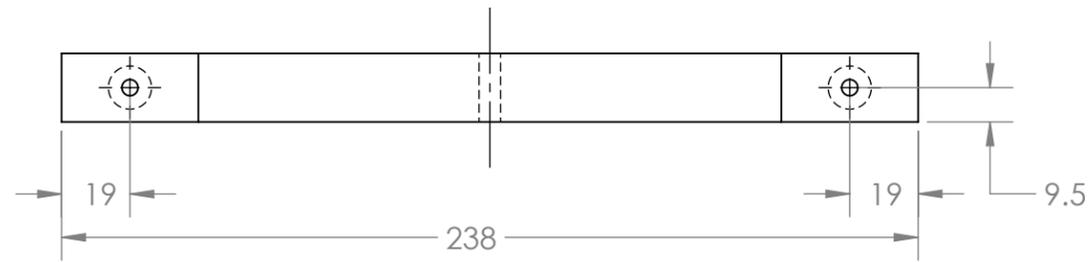
- NOTES:
 1. MATERIAL: Pine.
 2. FINISH: VARNISH.
 3. REMOVE ALL SHARP EDGES.



1036M	01	GRAFT FRAME SUPPORT
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	TITLE GRAFT FRAME SUPPORT
	PROPRIETARY NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED IN ANY FORM, WITHOUT WRITTEN PERMISSION.		
THIRD ANGLE PROJECTION 	DRAWN BY F. FULKERSON DATE 3/4/2024	SIZE B	DRAWING NO. 10010_V2M
	CHECKED BY P.G. KELLY DATE 3/4/2024	SCALE 1:1	WEIGHT 36.271 g
	APPROVED P.G. KELLY DATE 3/4/2024		REVISION SHEET 7 OF 9

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



1037M	01	FRAME SIDE
PART NUMBER	REV	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
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 PER ASME Y14.5-2018
 DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION



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CUSTOMER
 BEE KEEPERS
 PROJECT
 HIVE PRODUCTS

DRAWN BY F. FULKERSON	DATE 3/4/2024
CHECKED BY P.G. KELLY	DATE 3/4/2024
APPROVED P.G. KELLY	DATE 3/4/2024



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TITLE

FRAME SIDE

SIZE DRAWING NO

B

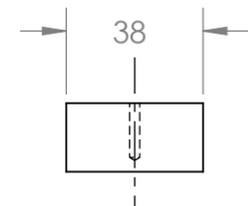
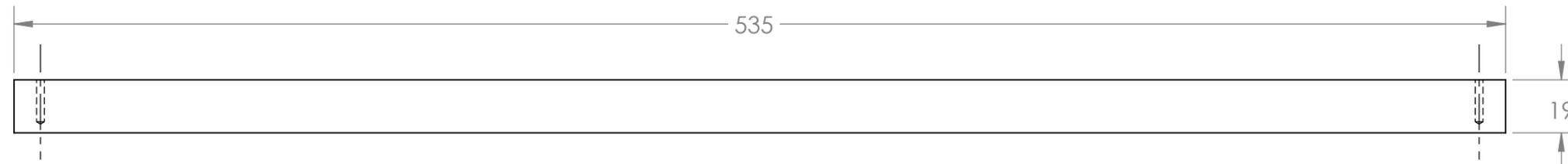
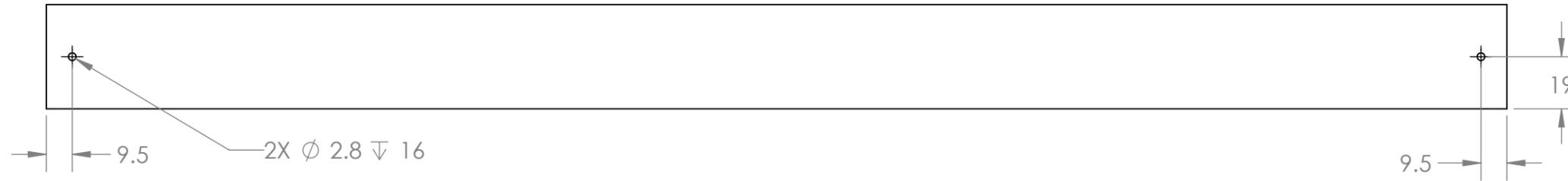
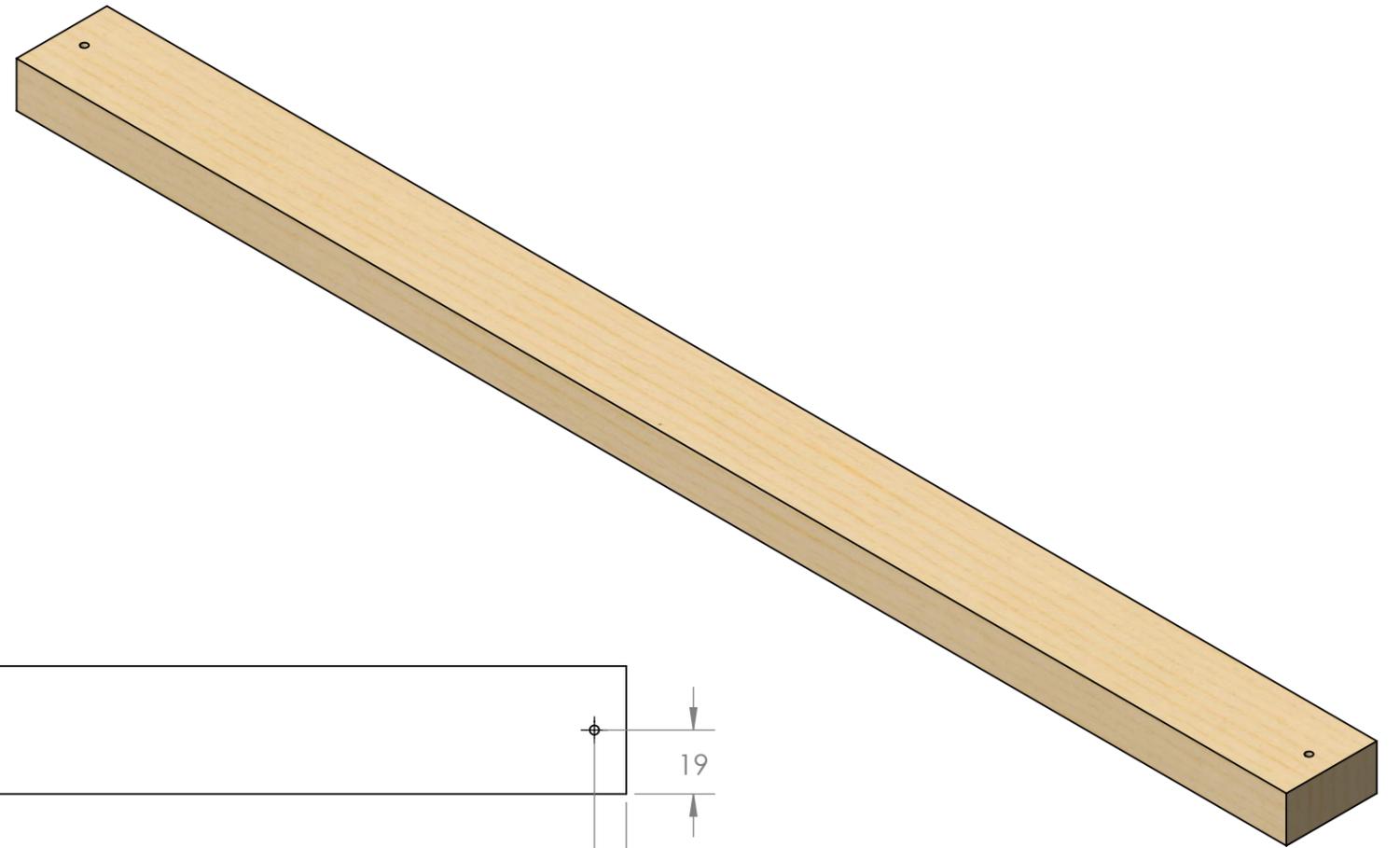
SCALE 1:2

WEIGHT 48.446 g

10010_V2M -

SHEET 8 OF 9

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



1034M		FRAME TOP
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	TITLE <h1>FRAME TOP</h1>	
	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 PROJECT HIVE PRODUCTS	SIZE B
THIRD ANGLE PROJECTION 	DRAWN BY F. FULKERSON DATE 3/4/2024	SCALE 1:2	WEIGHT 131.268 g	SHEET 9 OF 9