



**SkillsUSA California  
Introductory Woodworking  
2018 Regional Contest**

**Description:** The Introduction to Woodworking contest is a state contest only. It is open to all first year high school or any middle school construction or woodworking students. Contestants will build a beginning woodworking level project that may require the use of stationary power tools such as a power miter box, sanders or drill press under the contest coordinator's supervision. The project may also include the use of portable power tools such as a portable electric drill and a jig saw. Hand tools will also be required to complete the project. Contestants are required to bring the tools listed to the contest. All materials and stationary tools will be provided for.

A measured drawing, tool list, scoring sheet, sample written test and Introductory Woodworking technical standards has been provided for your convenience. A written test will be administered and will make up 10% of the total score.

**Process #1 (Written Test and Material Layout):** Contestants will complete a written (safety and math) test, a ruler test, and complete a material layout sheet.

**Process #2 (Tool Box construction):** This Tool Box will be made from #2 pine prepared to a thickness of 3/4". The material has been ripped to width for you, but you will need to cut each piece to length using a power miter saw that has been provided. The handle holes will be drilled and you will shape them using your coping saw, the jig saw provided (with the aid of the template) and possibly finished with a disk sander. The rest of the box will be glued and nailed together using supplied glue and the 22 - 1 1/2" finish nails. The handle will be attached with 4- #8 screws, 2" long. Please take the extra time to pre-drill for screws and set all nails and patch over them with wood putty. Attention to all surfaces should result in flat and smooth sanded surfaces making sure to soften all Corners and sharp edges.

**Contest Limit** (suggested): 20 students

**Contest Requirements**

1. Tools Required or Recommended for Contest (provided by Organizers)
  - a. Table saw, combo blade (used only for ripping and cross-cutting by organizers)
  - b. Power miter saw
  - c. Drill press with forstner bit, 2"
  - d. Jigsaws (optional - for students) (minimum 1 per 2 students)
  - e. Scissors -3-4 pair for students to cut curve template
  - f. First aid kit
  - g. Recommended:
    - i. Verification gauges for judges to use for checking projects (based on curved template). Use 1/4" hardboard material or similar.

2. Materials Required for Contest (provided by Organizers, based on 20 contestants)
  - a. #2 Common Pine, 3/4" x 11-1/2" x 16' – 6 to 7 boards (yield: 4 pcs per board)
  - b. 1½" finish nails (22 per student)
  - c. #8 Screws, 2" long (4 per student)
  - d. Wood glue two pint bottles (shared)
  - e. Wood Filler Natural Color (DAP Plastic Wood or similar) two 4 oz. cans (shared)
3. Facility Requirements for Contest (provided by Organizers; based on 20 contestants)
  - a. Workbenches/tables
  - b. chairs
4. Est. Cost of Tools, Materials & Supplies (per contestant; based on all tools on donation or loan; provided by Organizers)
  - a. Material and supply cost approx. \$19.55 per contestant
5. Suggested: seek donations "goodie bag" items for winners and contestants:
  - a. Goodie bag items:
    - i. Safety glasses
    - ii. Tape measures
    - iii. Dust masks
    - iv. Pens/pencils/notepads
    - v. Training materials (magazines, CDs, books)
    - vi. Other tools of the trade
6. **Resume Requirement:** students must present a resume on the day of competition in order to compete.
7. **Regional dress code** (Dress penalty 5% of score)
  - a. Clean black or white solid t-shirt (no school; logos, names or any identifying marks)
  - b. Khaki work pants (preferred) or clean jeans, shorts not permitted
  - c. Black or brown belt
  - d. Black or brown leather work shoes.
  - e. Non- tinted safety glasses with side shields or goggles; wrap-around safety glasses are ok.  
(Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)
  - f. Earplugs
  - g. Hats are OK; all logos must be taped or covered
  - h. No loose clothing, ties or jewelry. Hair must be tied up.

**8. Student Tool List - Ensure that all cutting tools are properly sharpened.**

**REQUIRED**

- a. Safety glasses
- b. Earplugs
- c. Claw hammer
- d. Measuring tape, (12 foot)
- e. Square or tri-square
- f. 2 #2 pencils,(sharpened)
- g. 1/16" nail set
- h. any drill with 3/32" and 3/16" drill bits
- i. Backsaw or Dovetail Saw
- j. Miter box
- k. Coping saw with extra blades \*Very Important
- l. clamps (6" or 12") 2 ea. Minimum (C, F or quick action)
- m. sanding block
- n. compass or divider
- o. 3 pieces of sandpaper (80, 120 & 220 grit) (minimum)
- p. 1" Putty Knife

**RECOMMENDED**

- q. Block Plane (sharpened low angle suggested)
- r. 10" half round bastard file w/handle
- s. Calculator
- t. scissors
- u. 180 grit Sandpaper

**OPTIONAL**

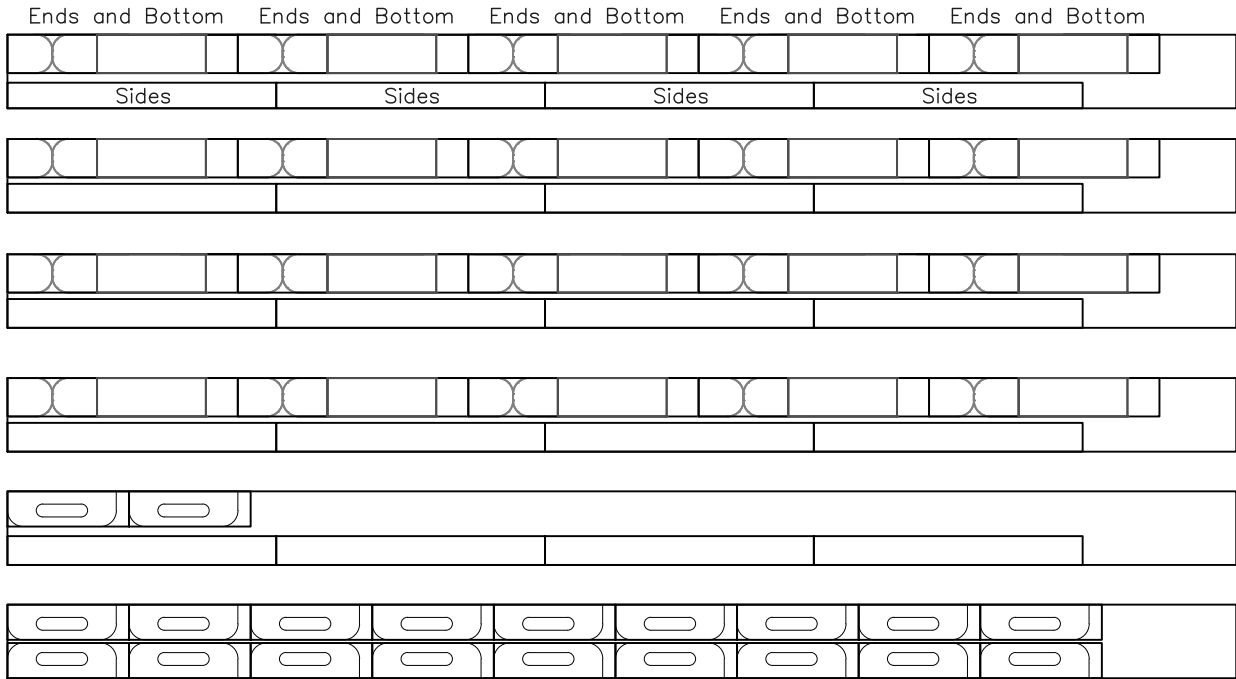
- v. nail apron
- w. Utility Knife
- x. 2 sharpened Chisels (approximately 1/2")
- y. 1/32", 3/32" nail sets
- z. cabinet scraper

**9. Sample Agenda for Regional Contest**

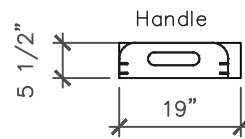
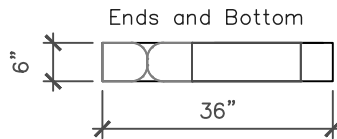
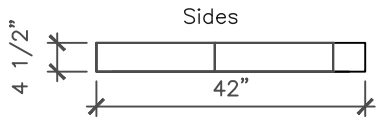
- 8:00 a.m. Students report to contest site; begin contest orientation and safety review
- 8:30 a.m. Begin written test portion of contest
- 9:00 a.m. Collect written tests to score; Begin hands-on technical portion of contest
- 12:00 noon End contest/lunch
- 12:30 Students return to clean up contest site; judges complete scoring and turn in
- 12:45 Contest wrap-up discussion
- 1:00 Students dismissed

# SkillsUSA 2018 Regional Intro to Wood Material 20 Contestants

## #2 Common — $\frac{3}{4}$ " PINE — 16'



#8 Screws, 2" long — 4 per student  
Finish Nails, 22 per Student



Solid Stock  
6+ Planks #2 Common Pine —  
 $\frac{3}{4}$ " X 11  $\frac{1}{2}$ " X 16'

20 PCS EA.



INTRO TO WOOD  
TOOL TOTE MATERIAL SHEET  
(FOR COMP. COORDINATOR)

DATE: 11/28/17	JOB #: 2018
DRAWN BY: AK	SCALE: 3" = 1'-0"
DWG. NO. COORD	



**Directions: Circle true or false.**

- |  |   |   |
|--|---|---|
| 1. Safety glasses should be worn at all times.               | T | F |
| 2. Reporting an accident or an injury is not necessary.      | T | F |
| 3. Use power tools only if you have been given instructions. | T | F |
| 4. Cutting with the grain is called "ripping".               | T | F |

**Directions: Neatly write your answer in the provided space.**

5.  $3 \frac{1}{4}'' + 1 \frac{1}{2}'' =$
6.  $6 \frac{1}{4}'' + \frac{7}{16}'' =$
8. What is the area of a rectangle measuring 7" x 8"?
9. What is the volume of a block that measures 2" x 3" x 4"?
10. What is the radius of a circle with a diameter of  $8 \frac{1}{2}''$ ?
11. What is the diameter of a circle with a  $3 \frac{1}{4}''$  radius?
12. If 24 screws come in a package for \$ 2.16, how much is one screw?

**Directions: Choose best answer for these multiple choice questions**

13. A board footage calculation is needed for one piece of  $6/4'' \times 6'' \times 10'$  board of Claro walnut received Palomar College's Cabinet and Furniture Technology program located in San Marcos California

$$\frac{T'' \times W'' \times L''}{144} = \text{Board feet}$$

- A) 9.25 board feet      B) 7.5 board feet      C) 6.25 board feet      D) 5 board feet

14. White glue (PVA), also known as wood glue, is used to bond porous materials like wood. This material is sensitive to some environmental conditions (select all that apply).

- A) Magnetism      B) Heat      C) Humidity      D) Cold

Score for this Test: \_\_\_\_\_ (68 points Maximum)

+

Score from Ruler Test: \_\_\_\_\_ (32 points Maximum)

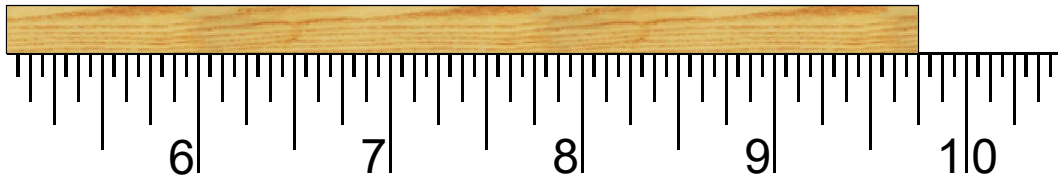
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Written Test Score: \_\_\_\_\_ (100 points Maximum)

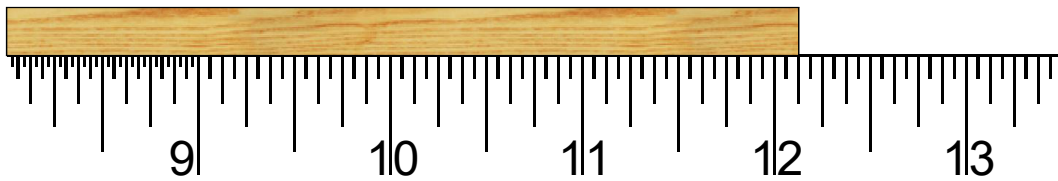


CONTESTANT#: \_\_\_\_\_

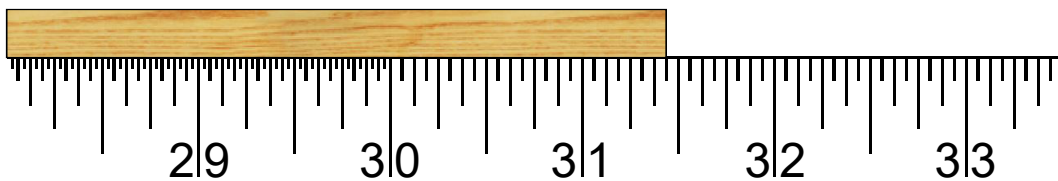
Fill in the blank with Inch (") or millimeter (mm) dimension.



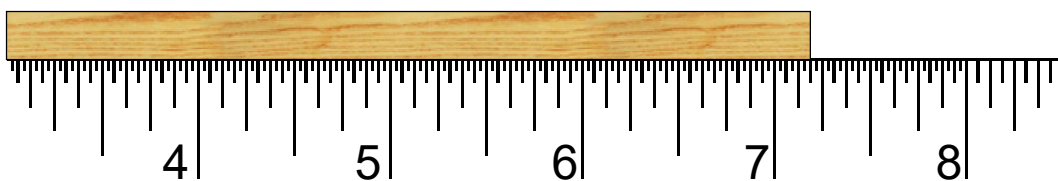
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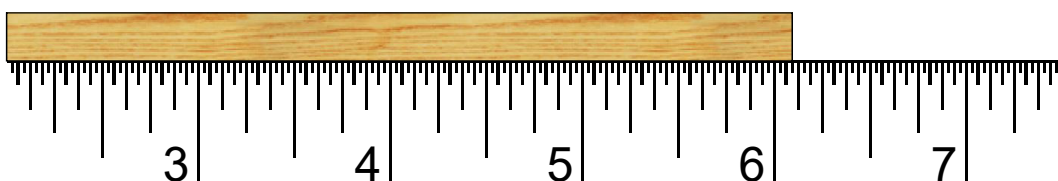
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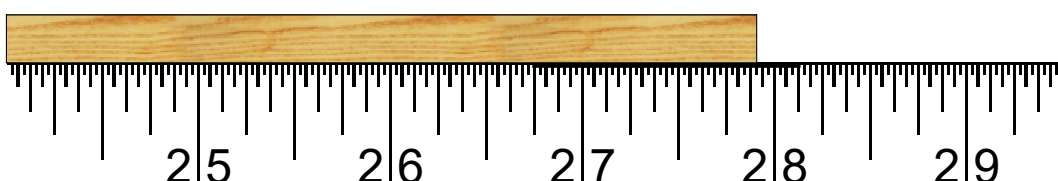
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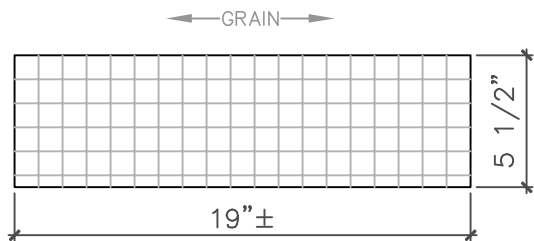
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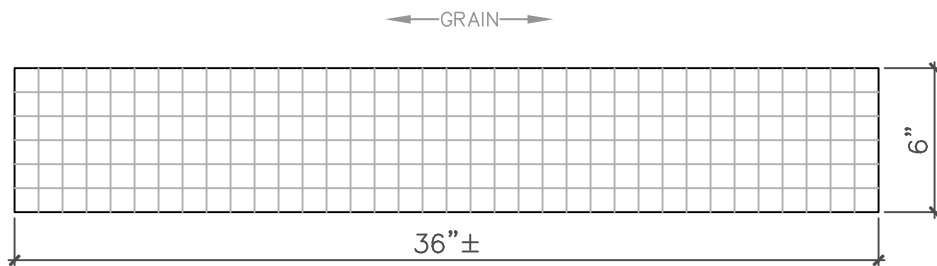
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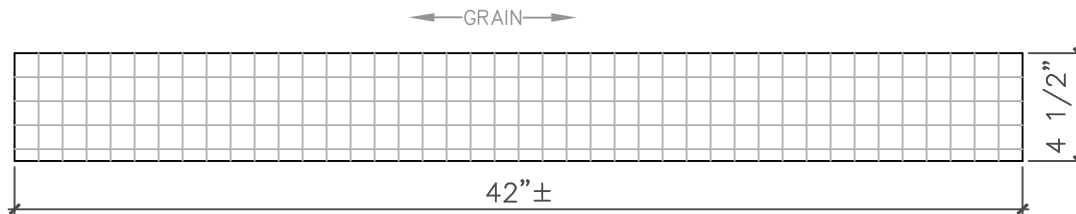
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-YOU WILL  
RECEIVE ONE  
PIECE OF SOLID  
STOCK FOR THE  
HANDLE  
1 @  $\frac{3}{4}$ " x 5 1/2"  
x 19"±



-YOU WILL RECEIVE  
ONE PIECE OF SOLID  
STOCK FOR THE  
ENDS AND BOTTOM  
1 @  $\frac{3}{4}$ " x 6" x 36"±

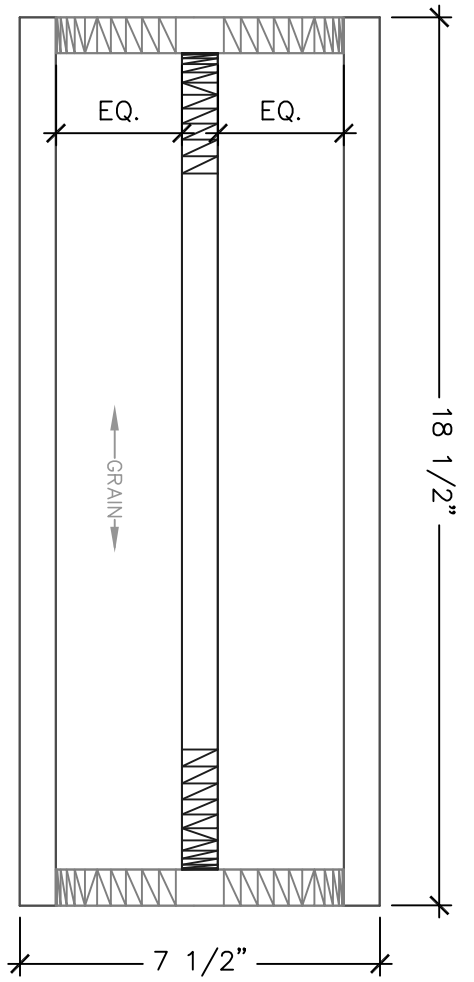


-YOU WILL  
RECEIVE ONE  
PIECE OF SOLID  
STOCK FOR THE  
SIDES  
1 @  $\frac{3}{4}$ " x 4 1/2"  
x 42"±



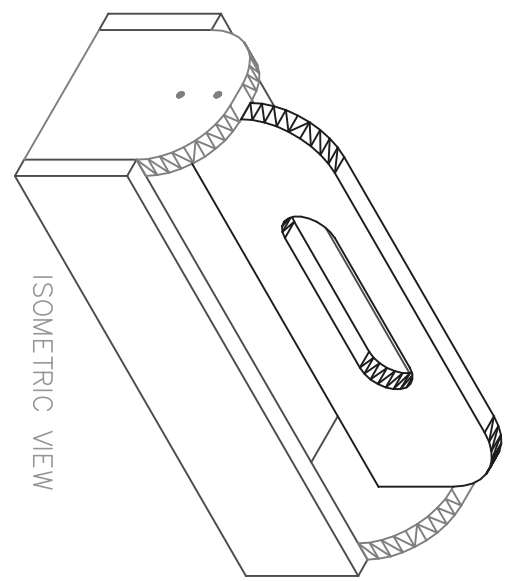
INTRO TO WOOD  
MATERIAL SHEET

DATE: 11/28/17	JOB #: 2018
DRAWN BY: AK	SCALE: $\frac{3}{32}$ " = 1' - 0"
DWG. NO. 1	



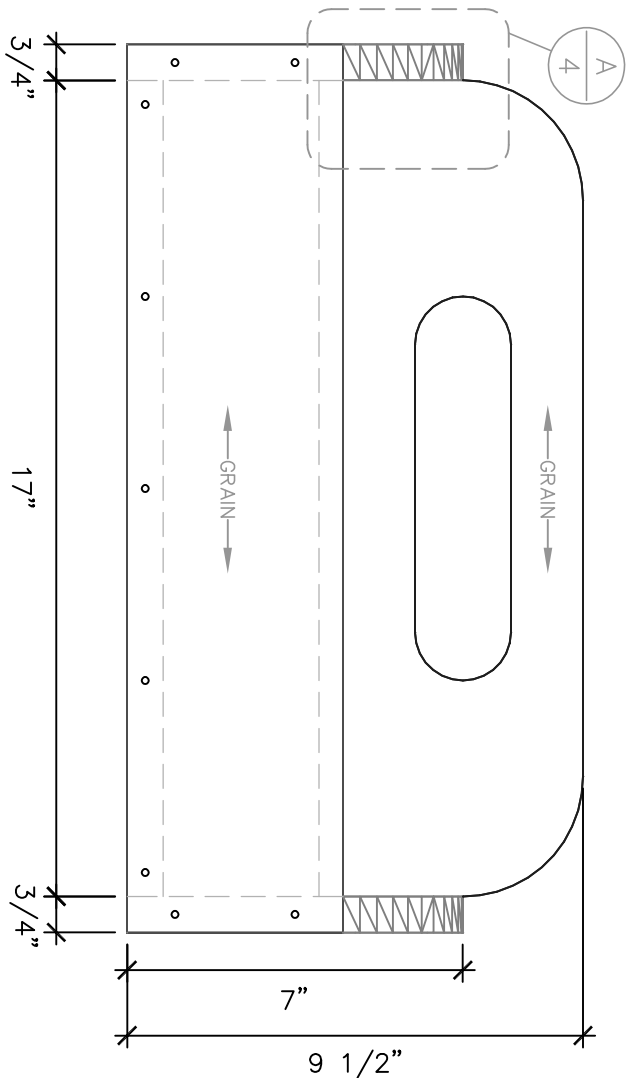
PLAN

SCALE: 1-1/2"=1'-0"



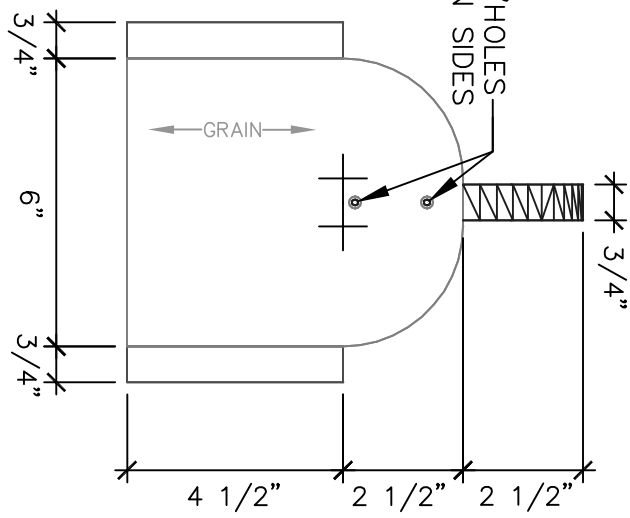
ISOMETRIC VIEW

- 1.) Glue and nail together the Ends, Sides & Bottom.
  - 2.) Pre-drill and Use (4) #8 Screws, 2" long, with glue to attach the Handle to the Ends.
  - 3.) After assembly, ease all sharp edges and corners.
- ALL DIMENSIONS HAVE A  $\pm \frac{3}{32}$ " TOLERANCE



1 ELEVATION

SCALE: 3"=1'-0"



2 ELEVATION

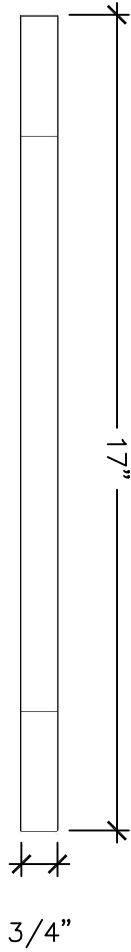
SCALE: 3"=1'-0"



INTRO TO WOOD  
TOOL TOTE  
DRAWING

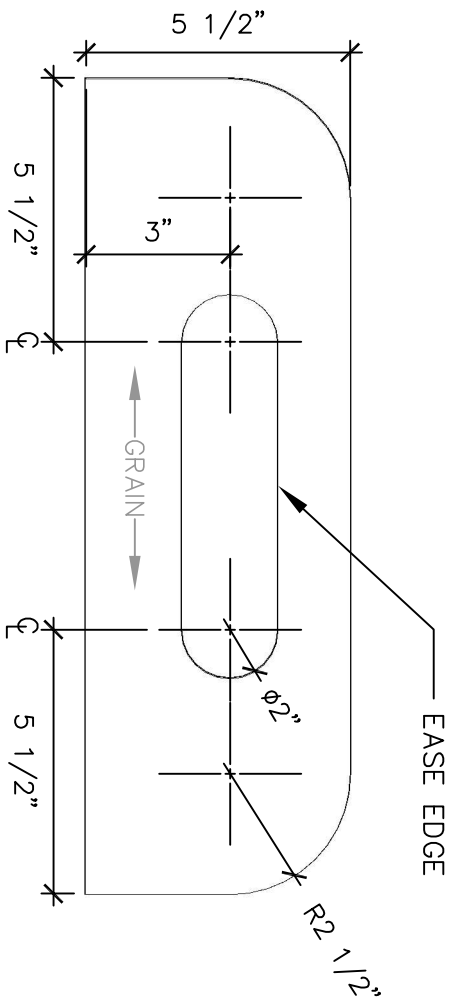
DATE: 11/28/17	JOB #: 2018
DRAWN BY: AK	SCALE: 3"=1'-0"
DWG. NO. 2	



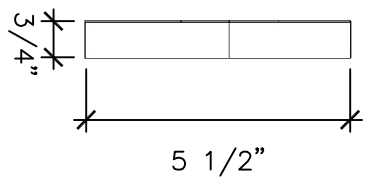


PLAN

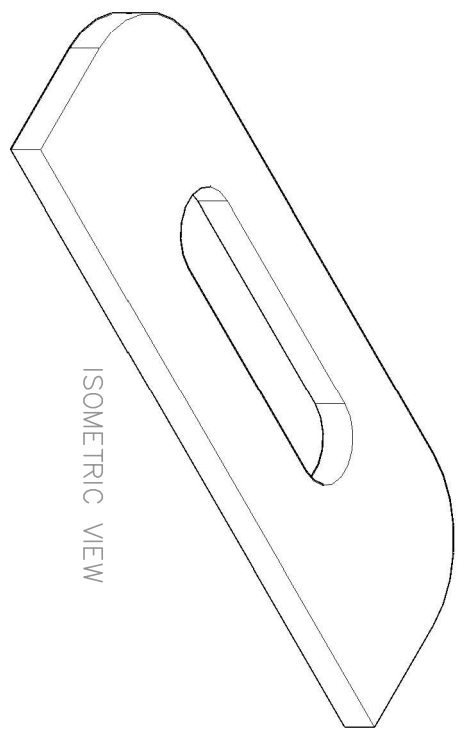
SCALE: 1-1/2"=1'-0"



3 ELEVATION  
SCALE: 3"=1'-0"



4 ELEVATION  
SCALE: 3"=1'-0"

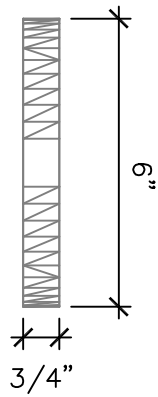


ISOMETRIC VIEW

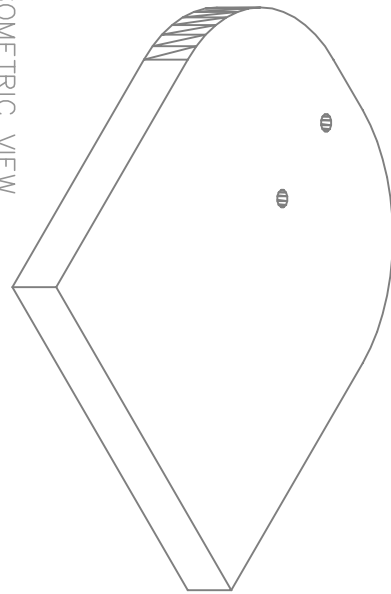


INTRO TO WOOD  
TOOL TOTE HANDLE  
DRAWING

DATE: 11/28/17	JOB #: 2018
DRAWN BY: AK	SCALE: 3"=1'-0"
DWG. NO. 3	



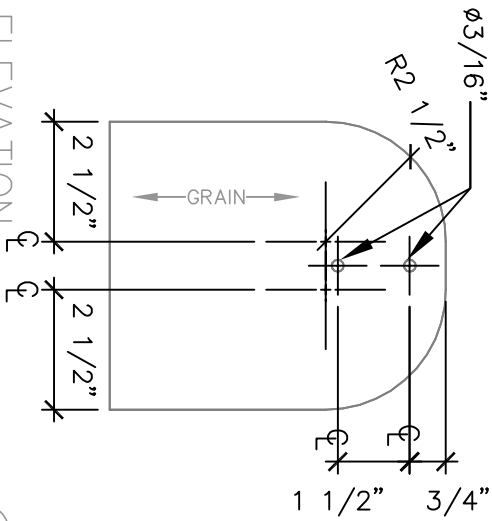
ISOMETRIC VIEW



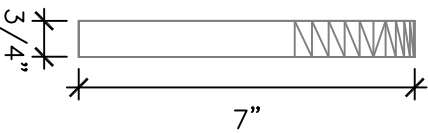
PLAN

SCALE: 1-1/2"=1'-0"

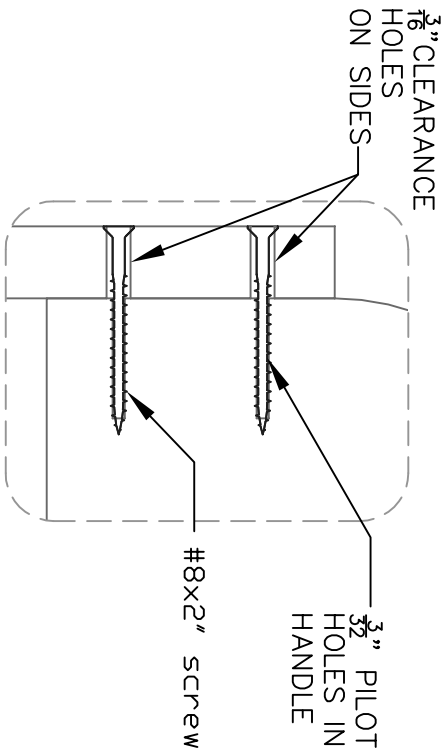
5 ELEVATION  
SCALE: 3"=1'-0"



6 ELEVATION  
SCALE: 3"=1'-0"



A SECTION DETAIL  
SCALE: 1"=1'-0"



INTRO TO WOOD  
TOOL TOTE END  
DRAWING

DATE: 11/28/17	JOB #: 2018
DRAWN BY: AK	SCALE: 3"=1'-0"
DWG. NO.	

4