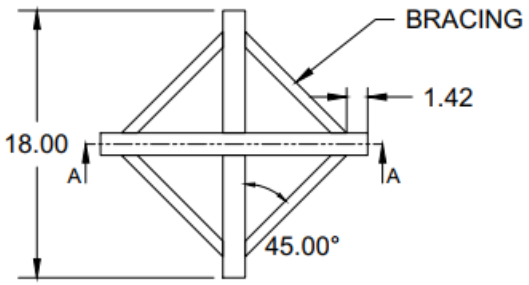
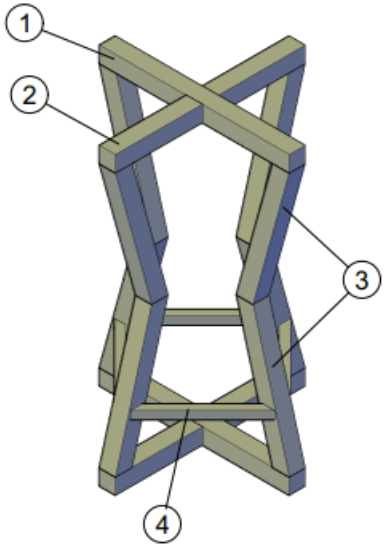
Welding Fabrication

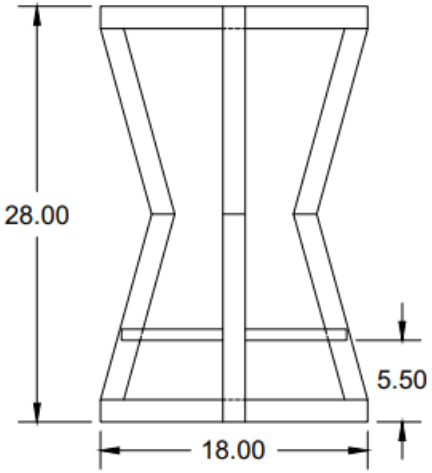
Date	February 27, 2026	**Orientation Time**	08:30 A.M
Location	Mahoning Co. CTC 7300 North Palmyra Drive Canfield, Ohio 44406	**Contest Time**	Immediately following orientation (CLOSED contest)
Scope of Contest	The skill performance assessment includes the completion of a metal project according to a provided technical drawing. Please see Exhibits A, B and C below. **Procedures for building the project:** • Only the three students participating in the competition are to work on the project. • Students should complete a portfolio of their planning and production of the project with photos of work along the way. • The finished project is to be brought to the location of the Regional Welding Competition. • All three team members must be present at the Regional Welding Competition and be prepared to display their finished project and participate in an interview with the judges. • The projects will be graded based on their accuracy and quality in relation to the blueprints. • The portfolio will be used to validate the process and work completed in the project. • Schools will be able to keep the projects. **Rules and Requirements for Project:** • Project is to be assembled/welded as show in the drawings. • NO post-weld grinding. Points will be deducted for any post-weld grinding. • Students may cut materials with any cutting process desired (I.e. Metal shear, plasma, oxy-fuel, CNC etc.) • SMAW/FCAW/GMAW/GTAW are the only processes to be used in fabrication and assembly of the project. • Project can be welded with just one or any combination of the processes listed above. • No paint or clearcoat is to be used on the project. • Student will decide type/size/location of welds on fabricated parts and be able to explain those decisions during the interview. • Student will add weld symbols to drawing that were used during fabrication of the project and the weld symbols may be drawn in ink. • Project needs to have a top; but the material is the competitor's choice and cannot be fastened (i.e. set on top with cork or felt discs so the judges can lift off). **At the regional contest your team will need to:** • Provide the completed project. • **Provide a portfolio with elements listed on scoring rubric.** • Participate in an interview presentation.		
Testing	NO		
Eligibility	1 team for every 50 members enrolled in program		

Clothing	Clothing Classification Guide: CLASS A or F	
Provided by Contestant	Professional Resumé – typed hardcopy Emergency Medical Form (Contestants must have this to compete All elements listed in Scope of Contest <u>The following WILL NOT be tolerated and are grounds for disqualification from the competition</u>: o No smart watches, cellphones and/or other electronic devices in the contest area unless specifically stated in this document. These devices cannot be used as a calculator. o No contact with anyone outside of the contest area once the contest begins. o No inappropriate communication between contestants such as verbally degrading another contestant or informing another contestant of the skills/test prior to or during the competition. o No cheating on any portion of the contest. o The use of AI is strictly prohibited and will result in an automatic disqualification of the contestant.	
Contest Standards	**Contest Skilled Performance Standards** **WF 3.0 –** Read and interpret blueprints **WF 4.0 -** Produce welds using a Shielded Metal Arc Welding (SMAW) process to AWS QC10 standards. **WF 5.0 -** Produce welds using a Gas Metal Arc Welding (GMAW) process to AWS QC10 standards. **WF 6.0 -** Produce welds using a Fluxed Cored Arc Welding (FCAW) process to AWS QC10 standards. **WF 7.0 -** Produce welds using a Gas Tungsten Arc Welding (GTAW) process to AWS QC10 standards. **WF 8.0 -** Produce cut materials using an Oxygen Fuel Cutting (OFC) process to AWS QC10 standards.	**Aligned ODEW Manufacturing Career Field Technical Content Standard Outcomes** **Outcome 6.1** Measurement and Interpretation **Outcome 6.2** Layout and Planning **Outcome 4.3** Arc Welding Process **Outcome 4.3** Arc Welding Process **Outcome 4.3** Arc Welding Process **Outcome 4.3** Arc Welding Process **Outcome 4.6** Cutting Processes Above Outcomes can be found in the following ODEW courses: 176000 Gas Metal Arc Welding 176001 Shielded Metal Arc Welding 176002 Flux Cored Arc Welding 176003 Gas Tungsten Arc Welding 176015 Welding Fabrication

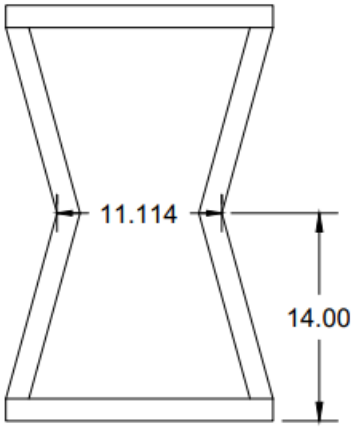


TOP VIEW





FRONT VIEW



SECTION A-A

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: ± 1/32" TWO PLACE DECIMAL: ± 0.01 THREE PLACE DECIMAL: ± 0.001 ANGULAR: ± 0.01" TUBING IS TO BE 1-1/2" x 1-1/2" BRACE TUBING IS TO BE 3/4" x 3/4"

SkillsUSA Regional Welding Fabrication Project

SIZE:		NAME:	DATE:
A	DRAWN:	M. FRANKE	11/02/25
	CHECKED:		

SCALE: 1:10

SHEET NO. 1/1

Exhibit A: Contest Blueprint

Exhibit B: Image for Visualization only	

Category Evaluated 3 team members present [ ] Yes [ ] No (Cannot medal if less than 3)	**Possible Points**	**Point Breakdown**	**Points Awarded**
Portfolio Folder Portfolio must contain the following items: 1. Cover sheet with a blank to write the contestant number (Number will be provided the day of the event) 2. Provide at least 3 photos a. Initial material mark-ups and how you will cut it. b. Materials once cut into proper dimensions. Include waste in your photo. c. Fully assembled project. 3. A copy of the plans for the project including weld symbols used (can be added by hand).	200 pts.	• Cover page – 30 • Layout photo – 30 • Material photo – 30 • Fully Assembled photo – 30 • Welding plans – 40 • Neatness - 40	
Interview Presentation: • Throughout Interview and Presentation all three students need to take a part in the presentation and demonstrate they were actively engaged in the project. • Students should have a professional presentation and appearance. • Students should use the portfolio as a reference and be able to show correlation of welds on the project to the welds on the plans. • Students should explain how they constructed the project as a team • Students should explain any challenges faced and how they worked through.	200 pts	• All 3 team members participate in presentation – 40 • Eye Contact and Professionalism – 40 • Use of Portfolio in Presentation - 40 • Decision-Making Process and weld selection - 40 • Challenges – 40	
Welds and Measurements • Correct materials (any materials not on original Bill of Materials equals 0 points) • Weld process selection • Weld quality	200 pts	• Materials – 50 • Weld selection – 50 • Weld quality – 100	
Assembly Inspection • Demonstrate ability to use the project as intended. • Project is level and safe to handle. • Project is stable when loads are applied.	200 pts	• Ability to use the project as intended - 50 • Level and safe to handle - 50 • Stability – 100	
Quality and Craftsmanship • Final product meets minimum specifications of the customer. • Quality of work and pride demonstrated in this product. • This is a saleable item to a customer, excluding post weld grinds required (customer-ready) • Individuals demonstrated pride and craftsmanship in their work and presentation	200 pts	• Meets Specifications – 50 • Quality – 50 • Customer Ready – 50 • Personal craftsmanship - 50	
TOTAL Score	1000	Record Total Here →	