

AGRICULTURAL MECHANICS TRAILER BUILD-OFF CONTEST

Superintendent – Dr. Curtis Langley – Hico, TX
Assistant Superintendent – Mr. Don Henson – Marshall, TX
Assistant Superintendent – Mr. Chase Kizziah – Richmond, TX

Thursday, October 23, 2025
Airport Road Pavilion- [11645 Almeda Rd., Houston, TX 77045](#)

Check-in Deadline:	6:30 a.m. ALL TEAMS MUST BE CHECKED IN
Safety Meeting:	7 a.m.
Contest Starts:	8 a.m.
Lunch:	Provided for teams and advisors
Contest Ends:	4 p.m.

Purpose of the Agricultural Mechanics Trailer Build-Off

1. To provide an opportunity for 4-H and FFA members to demonstrate real-world metal fabrication skills.
2. To promote the development of skills in agricultural mechanics through competition.
3. To recognize group accomplishments in the area of agricultural mechanics.
4. To provide an opportunity for public appreciation of this important phase of 4-H and FFA Youth Programs.

Special Rules for HLSR Trailer Build-Off Contest

1. **Rules:** This contest is subject to the Houston Livestock Show General Rules and Regulations, Junior Show Rules, and Regulations, and to the Special Rules of this section. Where Special Rules conflict with other rules, Special Rules prevail.
2. **Eligible Entries:** Entries in this contest are limited to TX FFA and 4-H members. Each team is allowed up to four team members. Team members must be from the same TX FFA Chapter or 4-H Club, and in good standing. All drawing submissions must be submitted exclusively by the AST/CEA. Any submissions received from third parties will be deemed invalid and excluded from consideration.
3. **Entry Selection:** Entries will be limited to 20 teams.
 - a. All interested teams will enter a drawing for a chance to take part in the 2026 Trailer Build-off. The drawing form will be open from 8:00 a.m. on September 8, 2025, and close at 11:59 p.m. on September 9, 2025.
 - b. 20 teams will be drawn from the registration pool for participation and be notified on September 11, 2025.
 - c. Each Chapter or County will be eligible for one entry into the trailer build-off contest.
 - d. Each selected team must pay the \$400 entry fee through the [Junior Entry system](#).
 - e. The payment window, for selected teams, opens on September 17th at 9:00 a.m. and closes on September 22nd at 5:00 p.m.
 - f. Accepted payment methods include credit card or “to be invoiced” (school check). All checks must be postmarked by September 19th. We recommend using FedEx or USPS tracking.
 - g. More information, exact dates, times, and web address for registration can be found at: https://www.rodeohouston.com/wp-content/uploads/2025/07/2026-Trailer-Build-Off-Contest-AST_CEA-Info-Sheet.pdf
4. **Staging and Arrival:** All teams must arrive at the Airport Road pavilion and check in prior to the safety meeting. Tools and equipment will be placed upon arrival and check-in.
5. **Tools and Equipment:** Trailers will be built using the SMAW Welding process. Each team should supply the appropriate welding, cutting, and fabrication tools to complete the building of a small utility trailer. No tools will be provided by HLSR officials. Examples of tools a team should supply: Oxy-fuel cutting apparatuses, angle grinders, hand tools, levels, clamps, sawhorses, jack stands, miter saw, etc. Cordless tools are allowed and

preferred when feasible. All tools must have appropriate guarding and be used in the intended manner. No thin abrasive cut-off wheels will be allowed on hand-held grinders. Cut-off wheels will need to be of the metal type similar to Lenox diamond edge wheel. Abrasive type chop saws are allowed, but dry cold-cut saws are encouraged. All tools and equipment must be contained inside the designated work and equipment space.

6. **Welding Process:** Trailers will be constructed using team-provided SMAW welding equipment. Multiple welding machines are allowed provided they are in the confines of the work and equipment space for each team. A team may use the electrode of their choice. The following electrodes will be provided, 3/32"-7018, 1/8" 6010, 1/8"-7018. If you wish to use a different electrode, those will need to be provided by the team.
7. **Trailer construction:** Trailers will be constructed using typical structural materials such as angle iron, square or rectangle tube, pipe, channel iron, flat plate, etc. Appropriate tools will need to be on hand to work with these types of materials.
8. **Safety Meeting:** A safety meeting will be held before any work begins. All team members and advisors must attend the safety meeting. Special instructions for the day of procedures and any updates will be given at the safety meeting.
9. **Construction:** During construction, only team members and HLSR officials are allowed in the "hot" work area. Teams will be allowed 15 minutes to consult with their advisor once the build-off begins. This time can be used at any point during the day. Construction will begin after the safety meeting and will conclude 8 hours later.
10. **Advisors:** An advisor for each team must be present throughout the day. Advisors are welcome to observe their team from the public viewing area, but advisors are not allowed to enter the work zone outside of the 15-minute consultation time. Repeated coaching from the fence will result in penalties. Repeated coaching from the fence will result in disqualification.
11. **Material Provided:** All materials will be provided for trailer construction. Material will be pre-cut; however, some final trimming or fitting may be required. A cut list and detailed plans will be provided for each team. If there is a discrepancy of the parts provided teams must let HLSR officials know within 30 minutes of the start of construction. Only material provided should be used on the trailer, limited extra material will be available for recuts if a team scraps a piece.
12. **Evaluation:** Teams will be evaluated on typical industry safety procedures for metal working. Appropriate PPE must be used at all times by those in the work zone. Typical PPE would include, but not limited to (gloves, safety glasses, cotton clothing, face shields, closed toe shoes, etc.). Additionally, site cleanliness and teamwork will also be evaluated throughout the day. At the conclusion of the trailer construction, teams will be evaluated on specific criteria such as weld quality, ability to follow design plans, placement of materials, squareness, etc.
13. **Loadout:** All teams must provide a way to transport their trailer home. HLSR will provide loading equipment.
14. **HLSR Ag Mechanics Project Show:** Trailers built during the build off will be eligible for entry in the upcoming HLSR Ag Mechanics Project Show. All trailers returning must meet the HLSR Ag Mechanics Project show rules. All trailers for the build-off will need to be entered into the dedicated trailer build-off class. Entry is not automatic and will need to be completed through the typical Ag Mechanics Project Show Entry process. Each trailer is expected to have minimum modifications to the structure. Items expected to be completed at the time of the HLSR project show would be paint, flooring, and lighting. Further, teams are allowed to add tailgates, ramps, steps, additional lighting, toolboxes, or other convenience features as long as the main function of the trailer does not change. If teams elect to change the function of the trailer it would need to show in the appropriate class. For example: if a team turns the build-off trailer into a welding trailer, it will need to show in the welding trailer class.