

Pole Vault Basics For Officials

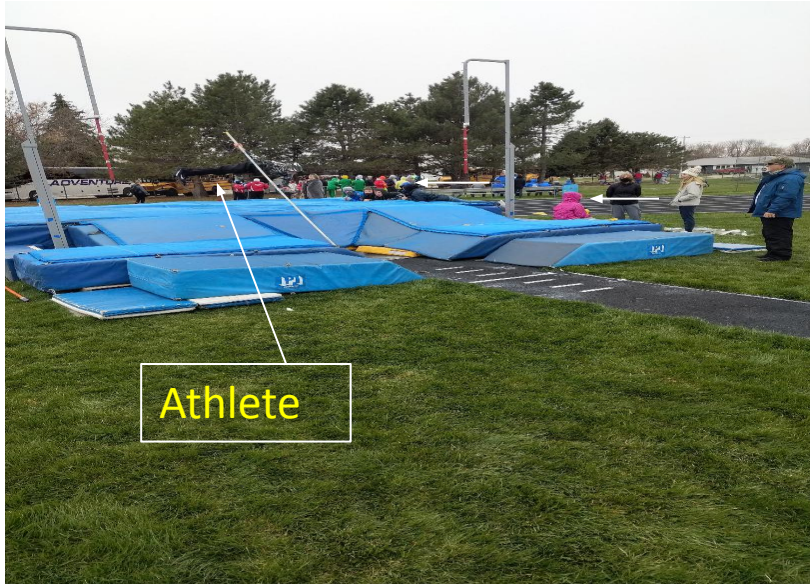
Recommend arriving 90 minutes prior to the competition to prepare the venue -- Landing pad, standards, check-in location for weigh-in and pole inspection.

Upon arrival, contact the Meet Director and Head Field Referee to obtain to following information: will there be an officials' meeting, location of the coaches' box, use of electronic devices, excused athlete procedure, where to pick up and return event sheets, what are the starting heights and increments, spike length and type limitations, windy conditions considerations, meet and state records. For state record attempts, the Head Field Referee must measure the height with a certified measuring device before the record attempt.

EVENT JUDGE RESPONSIBILITIES: Provide a safe and fair competition (do not make up a rule)

Safety Concerns

- Evaluate pit, runway, landing area, equipment
- No hard surfaces surrounding pit
- Remove items/obstacles near pit
- Limit access to runway and pit
- Avoid conflicts with other venues



Kids sitting on the pit



Pole resting on pit



Keep
venue
clear



Clear the area by
at least 15'



Venue Preparation

- Landing pit – proper size and placement
- Box collar – in use & properly positioned
- Standards move within allowable range:
18 - 31.5” from zero

Pole Vault Safety and Set-up Considerations

Run backs are not allowed during warm-up or competition! Rule 6-2, Article 7.

All pole vault coaches must have proof of NFHS Course; Coaching Pole Vault: Successful Skill Development. Send certificate to Lane at lververs@chsaa.org. A list of coaches who have submitted a valid certificate to the CHSAA office can be found by going [HERE](#). (The course is free through [NFHS](#))

Athletic Directors and coaches need to inspect their track equipment and venue on a regular basis to ensure safety and compliance with NFHS and CHSAA rules and guidelines. Prior to every competition, the host school coach, meet director, meet referees and event officials must inspect the venue to ensure it is safe and set up properly. Most pole vault accidents are attributed to things that are controllable, and thus, preventable.

Runway: The recommended minimum length of the runway is 130 feet.

Landing Pad: Is the landing pad legal size (minimum 19'8" wide by 20'2" deep)? Is the pad too soft and is there a common top cover or pad extending over all sections of the pit? Is the leading edge of the landing pad no more than 3" from the inside edge of the top of the back of the plant box (zero line)? Consider the location of the landing pad. Is the landing pad too close to the track? Is it possible that poles or crossbars could land on the track and hit a contestant during a race? If so, the pole vault event may have to be conducted at a separate time, either before or after running events. (See NFHS Rule 6-9 Articles 26 and 27)

Standards/Uprights: Are the standards properly aligned with the zero indications? Is the width between the standard pins more than 13'8" and less than 14'8" apart? Crossbars are between 14'8" and 14'10" long. Are the pegs tight? Will the crossbar remain on the pegs for all heights and standards settings with the end pieces in the correct position? If the crossbar does not remain on the pegs, the standard bases may be too close or too far apart, or the equipment being used may be from different companies. It is not appropriate to tape the end pieces to the crossbar or to slide the end pieces in or out to fit on the pegs. Is the crossbar level? The ground may not be level between each standard and markings on the standards may not be accurate. Are all exposed portions of the standard framework padded? Are the standards anchored or weighted to prevent them from tipping over? Are there any gaps that need additional padding between the standards and the landing pad? (See NFHS Rule 6-9 Articles 29 and 30)

Hard Surfaces: Concrete, metal, wood or asphalt that extend from under the landing pad or between the planting box and the landing pad shall be padded with a minimum of 2 inches of dense foam or other suitable material. (See NFHS Rule 6-9, Article 28, 33, 35). Although polyurethane, rubberized surfaces or even hard/frozen grass surrounding the pole vault pit are not addressed, CHSAA recommends padding these surfaces. How far should one place additional padding out from the pole vault pit? In most cases, three to four feet of additional padding may be sufficient.

Planting box: The front edge of the planting box shall not extend above the grade of the runway surface. **Plant box padding meeting the applicable ASTM Specification Standard is required.** (See NFHS Rule 6-9 Articles 31, 33 & 35). **The ASTM F-2949-18 box collar padding must be anchored to the ground or inner walls of the plant box. Please check "Pole Vault Box Collar Installation" under a separate tab.** The CHSAA track committee requests that coaches, officials, and meet directors understand the proper installation of the plant box padding.

Illegal Poles: Cut poles, incorrectly labeled poles and pole labels with hand written numbers are illegal. Coaches are responsible to understand what constitutes a legal pole and to ensure their athletes are using a legal pole. Poles with a weight rating below the vaulter's weight are not allowed in warm-ups or competition. Officials will inspect poles prior to and during competition. (Please see pole inspection requirements in the **Pole Vault Officials Pre-Meet Guidelines tab**. (See NFHS Rule 6-8 Articles 14, 15, 16, 17 and Rule 3-10 Article 1)

Note: Typically, 3 to 4 poles are found to be illegal and subsequently disqualified each year at the state meet. Everyone needs to be aware of what constitutes legal poles.

Please visit the USATF Best Practices Library for additional information: <https://www.flipsnack.com/usatf/pole-vault/full-view.html>

Please note: Adherence to the NFHS rules may not eliminate all possible injuries. However, we must continually strive to reduce the potential for injury relating to the sport of pole vaulting.

Box Collar Installation - Pole Vault

Pole vault box collars are used to reduce the risk and severity of injury in and around the plant box area.

To be effective and compliant, the box collar needs to be installed in accordance with the ASTM Designation F2949-18 "Standard Specifications for Pole Vault Box Collars".

Officials should inspect box collar positioning prior to an event and constantly during warm-ups and during competition, repositioning it whenever misalignment is detected.

The following, extracted from the ASTM standard, provides installation guidance.

1) Minimum dimensions of the box collar - A pole vault box collar shall be **at least 122 cm (48 in.)** wide and **146 cm (57 1/2 in.)** long.

2) Width of the cutout at the front of the box collar - At the box collar's uppermost surface, the horizontal distance from left to right across the leading edge of the box collar cutout shall be **no less than 56 cm (22 in.) and no more than 58 cm (23 in.)**.

3) Maximum thickness of the box collar - A pole vault box collar shall be **no more than 10 cm (4 in.)** thick.

4) The body of the box collar shall extend rearward **at least 30 cm (12 in.)** and shall extend laterally **at least 15 cm (6 in.)** under the front buns of the pole vault landing system.

5) Installation shall not impede the bend of the pole.

6) The box collar shall be fixed to the ground or the inner walls of the planting box.

If the box collar is not positioned correctly or is not properly anchored to the ground, it may move under the landing pad creating potentially dangerous situations where the size of the plant box opening is reduced (if the leading edge of the box collar wings move closer together), or the size of the bend cavity opening is reduced, preventing the pole from rotating in the plant box.

Detailed information regarding ASTM 2949-18 terminology, performance requirements, dimensions, and impact testing can be found at the following link: <https://www.astm.org/Standards/F2949.htm>

Legal



UCS Box Collar:



Gill Box Collar:



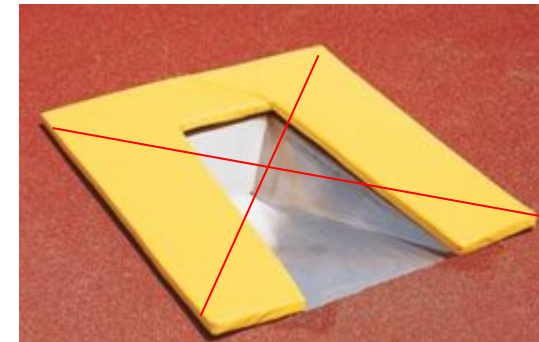
AAE Box Collar:

Opening between 22" and 23"

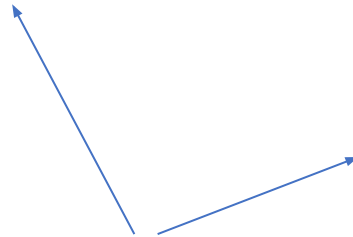
The collar shall cover all exposed areas and fit flush with the plant box on all sides of the bend cavity.

Illegal

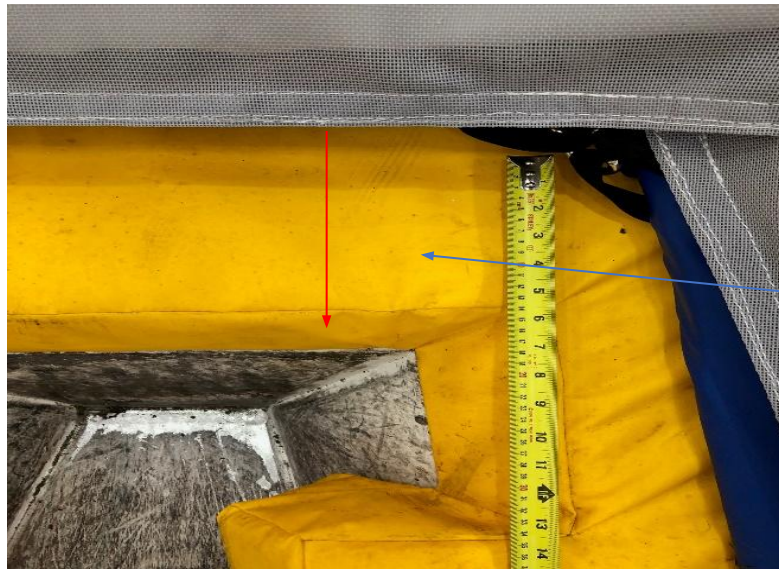
Collar is only 2" thick and does not have wings that fit into box



Collar meeting ASTM standard specifications is required for H.S. Competitions



The pole should extend in a continuous straight line from the bottom of the box, through the collar and front buns-just barely touching the collar and front buns.



The collar fits under the landing pad. The landing pad shall be no further than 3" from the inside edge of the top of the back of the plant box.

Check Vertical in Both Axes



- Check that standards are vertical in both axes; shim as necessary
- Ensures consistent distance between crossbar end pieces and pegs at all heights, & consistent standard depth settings
- Final check - will the crossbar stays on the pegs from 8' to 16' and 0' to 31.5"

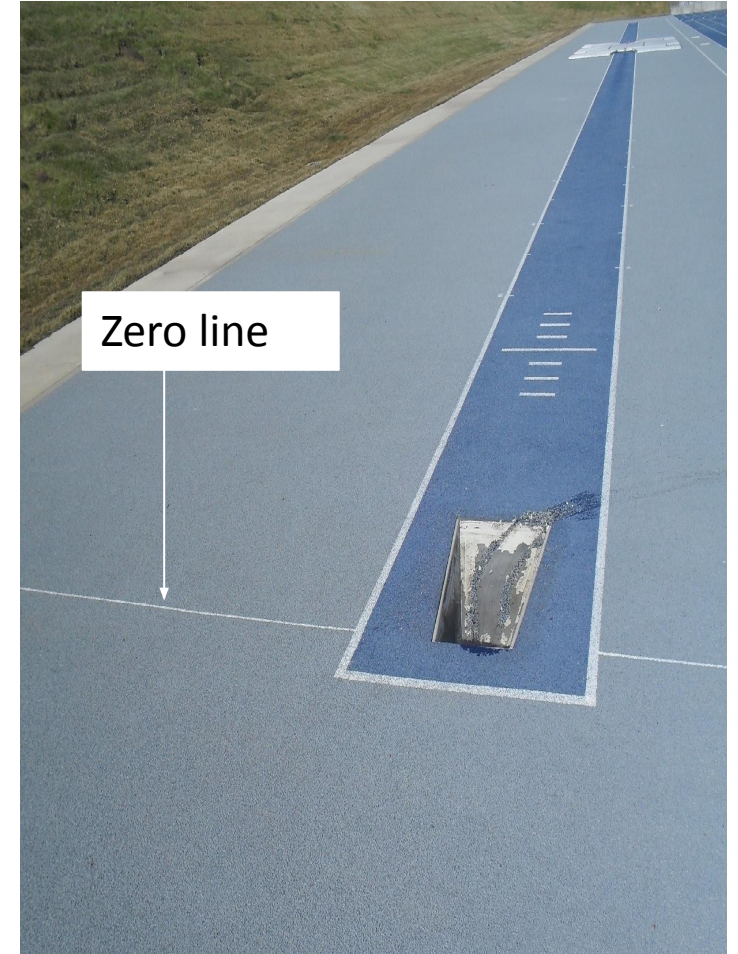
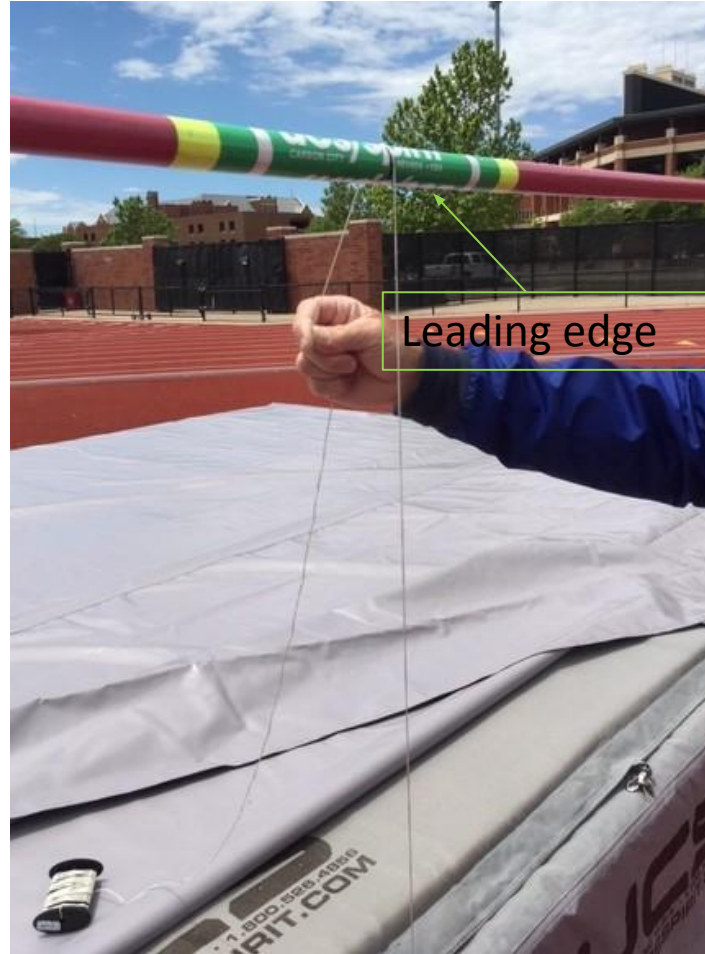
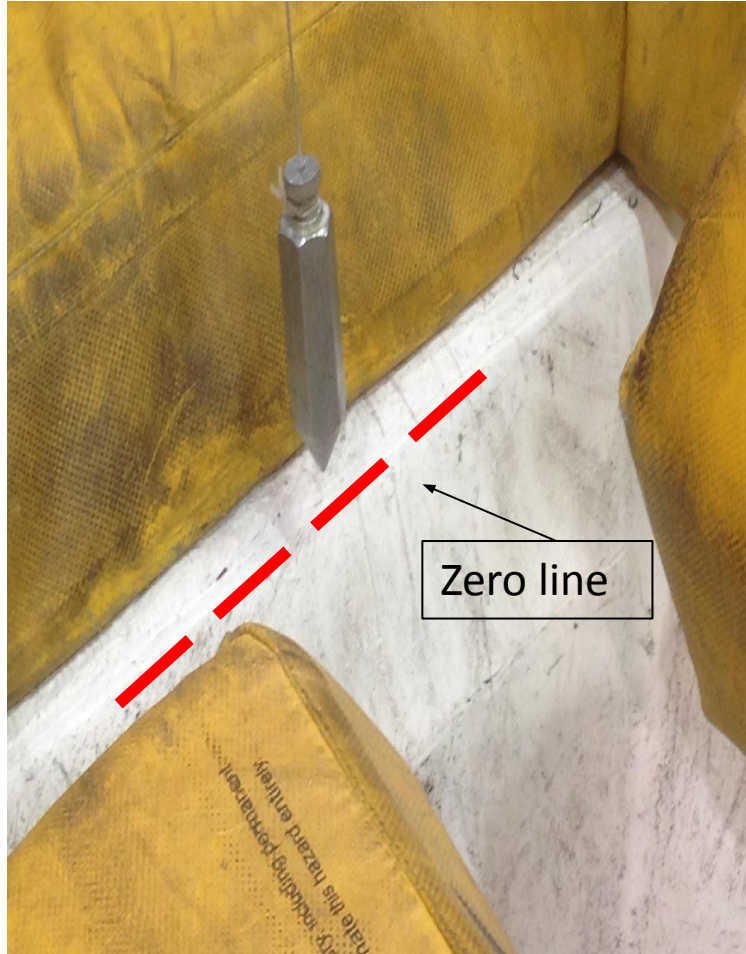
Shim the standard frames



Standard frames
needed 2x4s to
get the standard
frames and
uprights level



Pole Vault Zero Line



- Zero line: Inside edge of the top of the back of the box.
- Drop a plumb bob over the front of the crossbar. The front edge of the crossbar should align with the leading edge of the top of the back of the box.

Align standard base with zero line

Zero mark on frame

Zero line



Mark the standard frames in case they get dislodged during warm-ups or competition

Leveling the Crossbar

Make sure the crossbar is level (horizontal)

- Set the same height on both standards
- Place level on top of bar; or tape level to the bar
- Adjust standards to get crossbar level – determine offset. Example: If the left standard is set at 12' the right standard may have to be set at 12'2" to get the crossbar level. The offset will be plus 2 inches on the right standard.
- Measure height at center of the bar



Standard Height Indicators

- Markings on the standards are not necessarily accurate.
- Need to get an accurate measurement with a certified measuring device.
- The ground surface may not be level from one standard to the other standard.



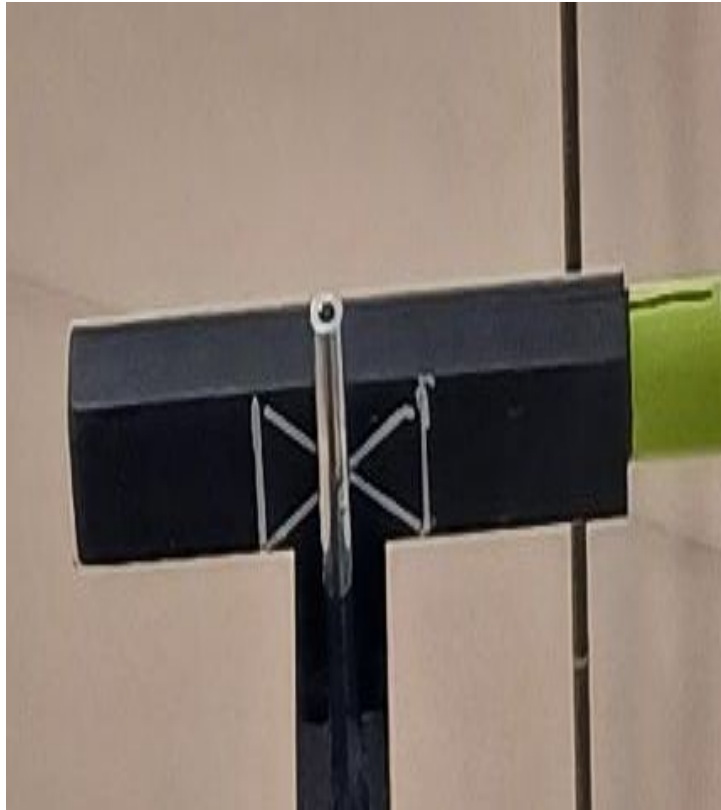
Measuring Devices



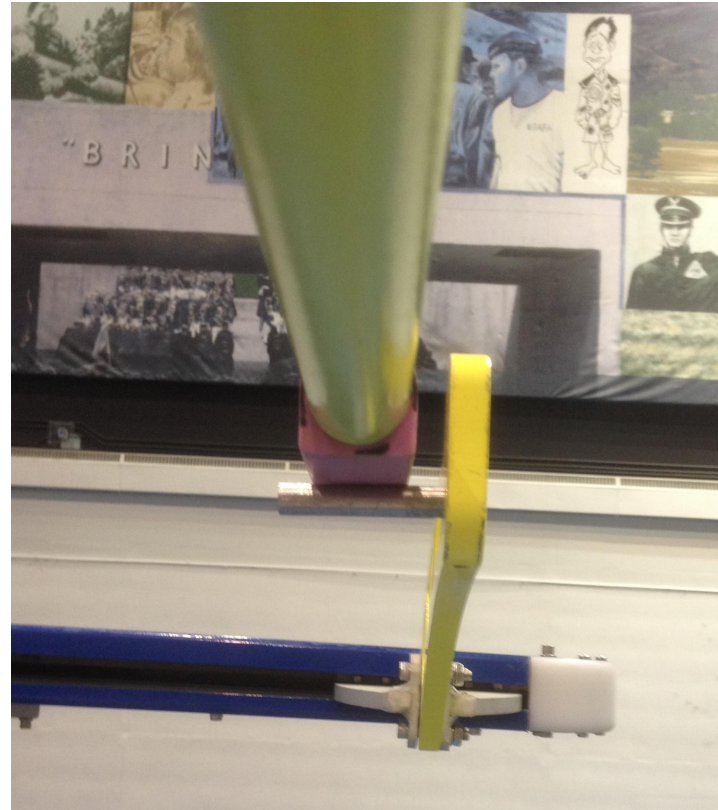
- An accurate measuring device is needed to ensure heights are recorded correctly.
- Not all crossbars have the same sag.



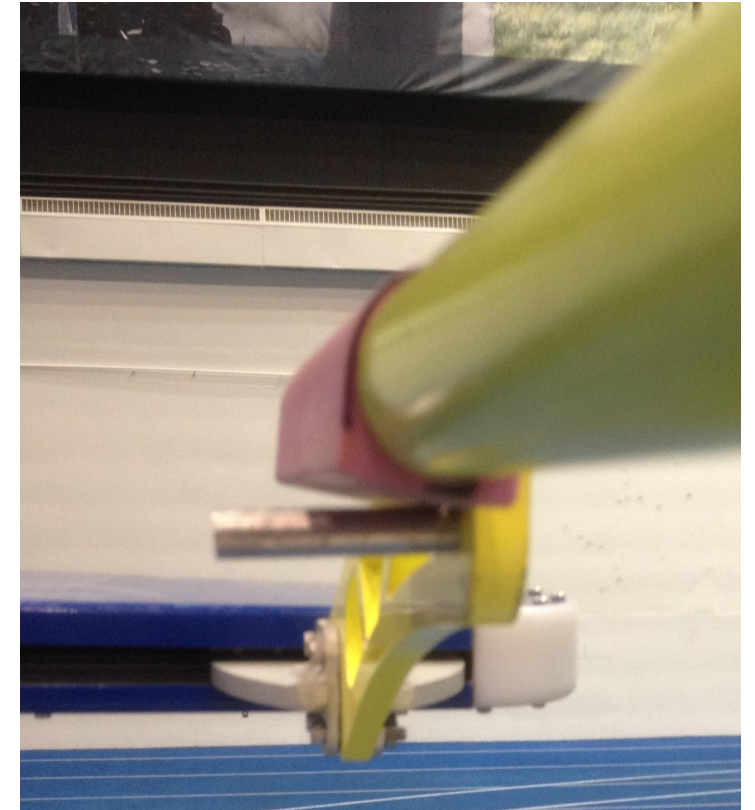
Crossbar Placement



End piece centered and EVEN



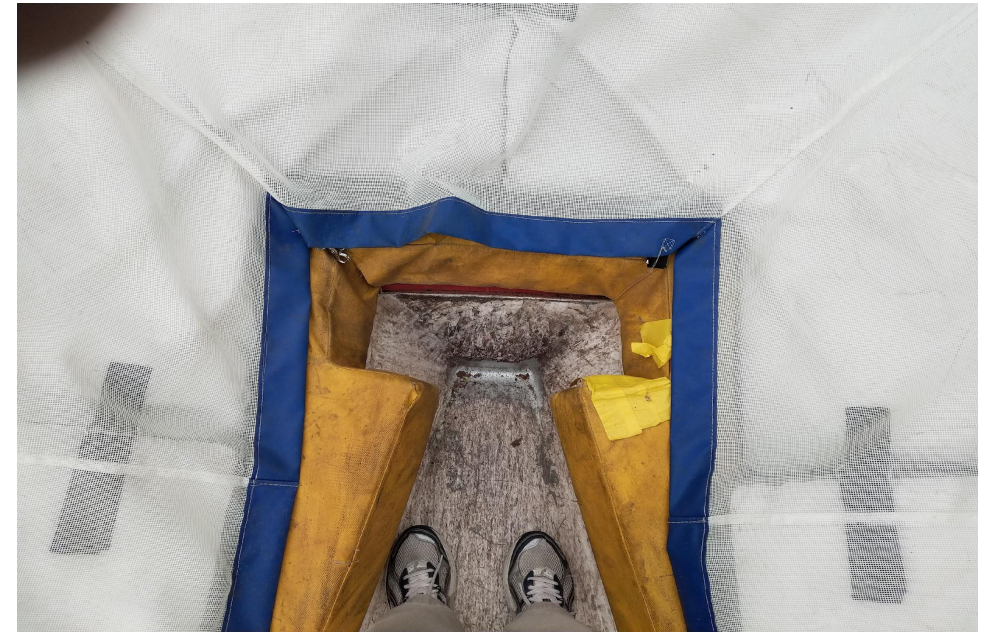
Not SNUG against cantilever



End piece not level



Good
Set
Up





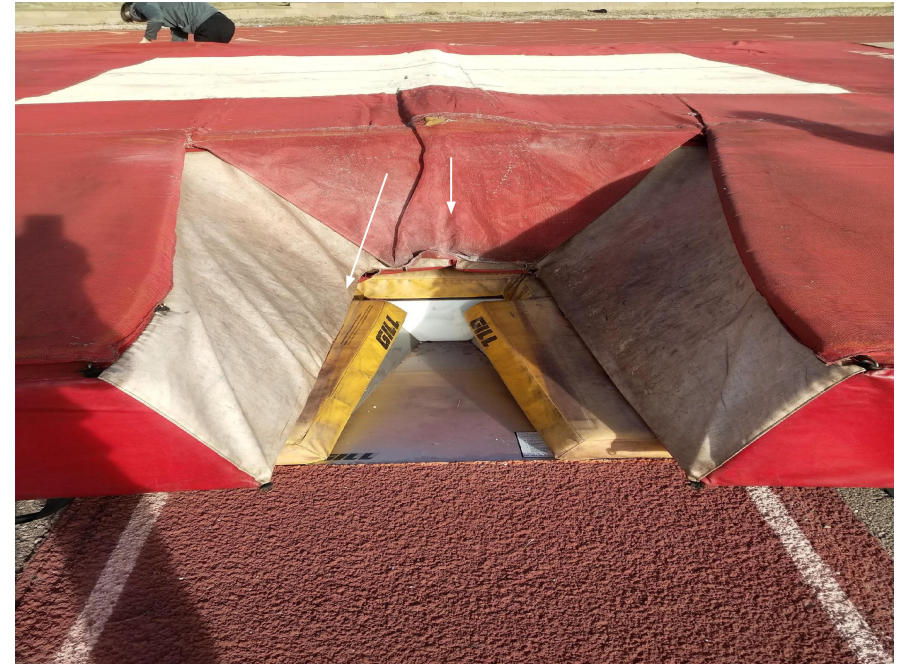
No collar
←

Concrete
edge →

Venue problems



Pit overlaps
over the
collar



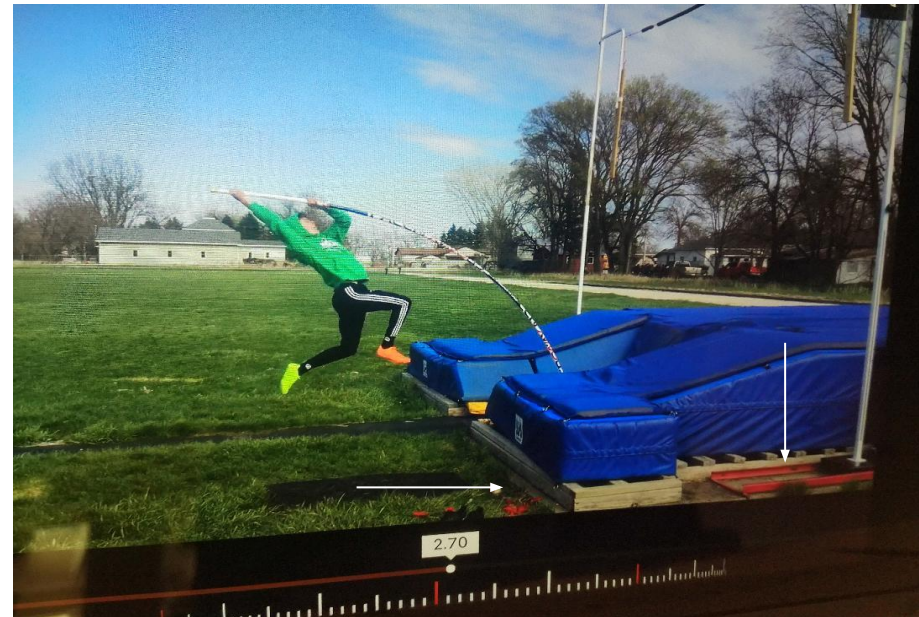


← No collar
Exposed concrete →
2" foam padding??

Venue problems



Pit overlaps collar
←
Exposed concrete
→

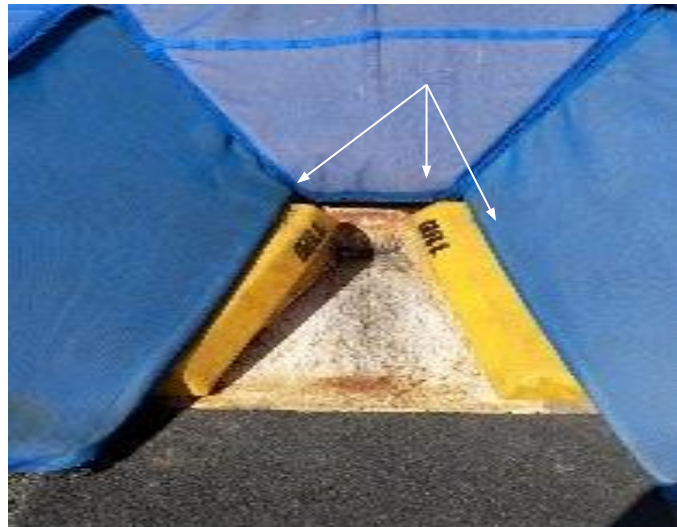




No base padding and exposed concrete ←

Pit overlaps collar and incorrect collar →

Venue problems



Pit overlaps collar



Lip of the box is above the level of the runway →



Pit impedes pole bend



Collar on top of landing pad →

Venue problems



Collar on top of the landing pad



Exposed concrete →



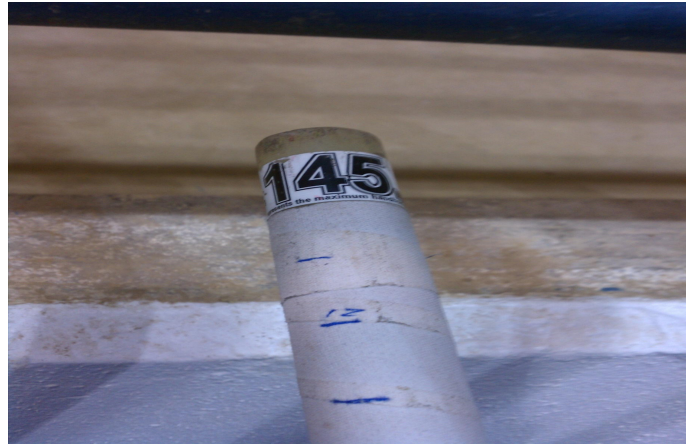
Pole Inspection Procedures: The Event Judge will inspect each pole to be used in the competition to verify that the poles are legal equipment (NFHS Rule 6-8, Article 17 and Rule 3-10, Article 1).

1. *Every pole has a safe handhold zone, which is located at the very top of the pole (Gill, Essx, and Altius) to about six inches from the top of the pole (UCS Spirit). Look for the correct placement of the manufacturer's one-inch circular top handhold band (NFHS Rule 6-8, Article 15).*
2. *The manufacturer's weight rating on each pole shall be a minimum of $\frac{3}{4}$ inch numbers in contrasting colors located either within or above the top handhold band. The weight rating numbers must be legible and verified with the etchings/engravings/embedded information and labels on each pole. Etchings, engravings or embedded information, although containing pole characteristics for the manufacturer, shall not replace the requirement for the manufacturer's weight rating label. Sometimes the top handhold weight rating labels are not readable which will render the pole illegal. Coaches may order replacement labels from the manufacturers. Be aware that replacement labels have been placed on the wrong pole. If there is a discrepancy between the numbers on the etchings/engravings/embedded information, labels or the top handhold band, the pole will be illegal, unless a letter from the manufacturer explains the discrepancy. Homemade marks placed on the pole are not acceptable. (NFHS Rule 6-8, Articles 15 & 16).*
3. *The length of each pole must be verified (suggest using a tape measure) to compare the pole length with the etchings/engravings/embedded information and labels (NFHS Rule 6-8, Article 16).*
4. *The tape at the top of the pole must be of uniform thickness (NFHS Rule 6-8, Article 14).*

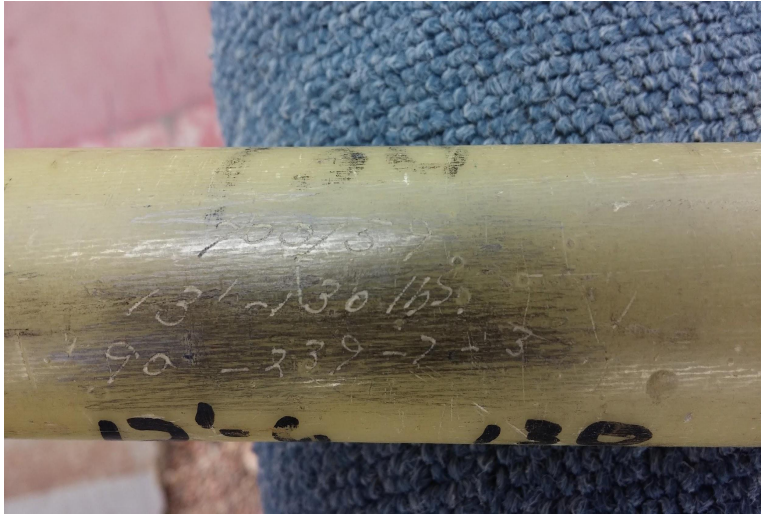
Once the poles have been verified by the official as being legal equipment, it is the responsibility of the coach, vaulter, and the event judge to ensure that only a properly rated pole is used. During warm-up and competition, a designated official will verify that a legal pole will be used for each attempt and that the athlete's weight is below the pole's rating. Officials may mark the poles so that it is obvious that they have been verified for this meet. When marking poles, do not cover up any etchings or labels with tape which could slow down pole inspections at subsequent events. Warming up without the contestant's coach or event official could result in a disqualification.

Legal Pole Labels

Readable, contrasting color, numbers $\frac{3}{4}$ " or greater, 1" top band



Illegal Pole Labels



↑ No label Tape covering label ↓

Wrong size numbers ↑ Unreadable ↓

↑ Unreadable ↓



Pole Etchings/Engravings & Uniform Tape

Location of etchings and engravings



Illegal grip/notch

Uniform Tape



- Etchings and Engravings must match the information on the top hand hold band.
- The length and weight of the pole must be verified.

POLE VAULT Official Briefing Considerations

Brief athletes upon arrival: Run backs are not allowed during warm-up or competition!

Confirm all athletes have been weighed and poles checked prior to the start of warm-ups. See Pole Vault Official Information separate tab.

Confirm starting heights and standard placement for each athlete during warm-ups.

Make certain that uniforms are legal as pertains to the uniform rule---school issued or approved uniform. Foundation garments (undergarments) are not subject to uniform restrictions. Waistband logos are not subject to size requirements.

Electronic devices are not allowed in the competition area. Videos or pictures may be viewed, but only outside the competition area.

Confirm standard placement prior to every attempt (range 18"-31.5").

Once called, athletes will have one minute, or the prescribed time limit, to initiate your trial. Passing a trial, must be confirmed before being called for that attempt.

Athletes competing in other events: Athletes must check out and check in with the event official. Do Not check out until the third call. Check out and check in time will be recorded on the event sheet. The Games Committee shall determine the procedure for excused athletes (Rule 3.2.3.o and Rule 6.2.3 and 4). Recommend the following procedure at local and qualifying meets to prevent long delays waiting for athletes to return to the competition. "After checking out to compete in another event, an athlete will have 10 minutes to return. If the athlete does not return within the 10-minute excused time limit, the competition will continue in the athlete's absence. All efforts shall be taken to allow the athletes to jump out of order, either before or after being excused, to preclude delays.

A competitor who has passed three consecutive heights after the competition has begun, and has not attempted a jump, is permitted two minutes for warm-up jumps without the crossbar in place. Competitors must take at least one attempt at that height and the warm-up jump must be taken at a height change.

Number of athletes competing at the start of the round**	Individual Events			Combined Events		
	HJ	PV	Other FE	HJ	PV	Other FE
More than 3	1	1	1	1	1	1
2 or 3 remaining	3	3	1	3	3	1
1 remaining	5	5	1	5	5	1
Consecutive trials*	2	3	2	2	3	2

*Consecutive trials are within a height or at a height change.

**Time limits are based the "Number of athletes remaining in the competition at the start of a round".

Meet Management should provide the following equipment:

Compliant landing pad, standards, base pads and
100' tape measure

Two Bar lifters (to raise crossbars)

25' steel tape measure

Three pole vault crossbars (they will break)

Two Standard extenders (to jump at lower heights)

Accurate vertical measuring device (measure beyond 17')

ASTM box collar

Certified scale

Bungee (Elastic crossbar)

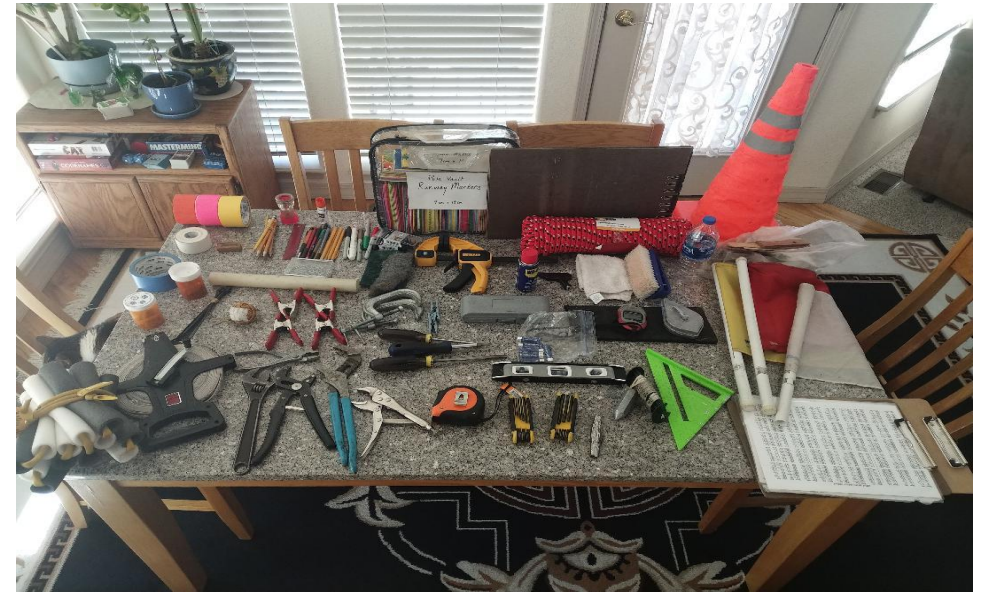
Stop watch

Flags (red, white and yellow)

Clip board and pencils

Broom

Suggested
PV officials
equipment



Pole
Vault
Summit,
13 pits,
1100
vaulters

Pole Vault Officials' Suggested Equipment:

Current NFHS Rule Book and Case Book

Measuring device

Two Lifters

25' Steel tape measure

Plumb bob with line

Level

Pole inspection marking supplies (sharpies and tape)

Stop watch

Pencils and clip board

Suggested Tools (wrenches, shims, WD-40, clamps)