



## 2013 ASCE PACIFIC SOUTH WEST CONFERENCE

### Concrete Horseshoes Competition

#### EVENT DESCRIPTION

In this event schools will design and construct two (2) concrete horseshoes which are durable, practical, and aesthetically appealing, and use them to play a game of horseshoes against other schools.

#### PARTICIPANTS

- Each school may enter only one team
- Each team must have a minimum of 2 members and a maximum of 4 members.
- Each team member must be a registered participant of PSWC 2013.
- Each team member must have at least one male and one female.

#### DESIGN REQUIREMENTS

- The horseshoes must be made of concrete. No resins or epoxies may be used in their construction.
- The mix design is left up to each individual school. A mix table must be filled out and submitted at the beginning of the competition.
- Reinforcement of any type is at the discretion of each school; however reinforcement material shall not exceed ¼” in thickness. Additionally, no reinforcement material should be exposed at the time of pre-competition measurements.
- Horseshoe thickness shall not exceed 2”. The outer dimensions of the horseshoes shall not exceed 9 in x 8 in x 2 in.
- The length of the shoe must surround a singular open space through which the target stake can protrude to deem the pitched shoe a “ringer.” The shoe must also be open-ended – that is, the shoe’s open space should **not** be closed off so that the shoe resembles a ring.
- There is no weight requirement.
- The two horseshoes submitted by each team are allowed to differ in size, shape, and appearance.
- Teams’ shoes are not required to visually resemble real horseshoes so long as they meet the design requirements.



## COMPETITION

Two teams participate in each game. A game is divided into four innings. Each inning consists of four pitched shoes – two from each opponent. Shoes shall be pitched from 25' away from the stake.

- Pitching
  - A coin flip will determine which team pitches first in the first inning. The pitching order will alternate between innings.
  - Only one team member shall pitch both shoes in an inning. Every team member must pitch at least one inning.
  - The team going first pitches both of their shoes before the second team.
  - Contestants are required to keep their feet behind the designated pitching line at all times, including after the shoe is pitched. A contestant may lean past the line, so long as their feet remain behind the line and they do not touch the ground past the line.
  - A shoe is considered pitched once it has both left contact with the pitcher's hand and any part of the shoes has crossed over the vertical projection of the pitching line.
  - A shoe may only be re-pitched if an outside force interfered with a contestant. Shoes not pitched within compliance of the rules may not be re-pitched.
- Game Scoring
  - An improperly thrown shoe will be considered dead and will receive zero (0) points.
  - A "ringer" is a pitched shoe that has come to rest while encircling the stake and is worth three (3) points. A straightedge touching both heels of the shoe must clear (not touch) the stake in order for the shoe to be deemed a ringer.
  - A shoe is given a value of one (1) point if any part of the shoe comes to rest within six inches (6") of the stake.
  - A shoe that comes to rest more than six inches (6") away from the stake shall be given a value of zero (0) points.
- Damage
  - Damaged shoes may be played so long as they weigh greater than 80% of the pre-competition measured weight.



- Teams may only pitch a shoe once per inning, therefore teams may only receive a score for one shoe per inning if one shoe is disqualified due to damage.
- A shoe will not receive a score if it is damaged so that its weight falls below 80% of the pre-competition weight during the progress of a pitch. If one or more pieces of a shoe breaks off, but the shoe is *not* disqualified due to the 80% weight constraint, those pieces shall not be judged for scoring (i.e. if a broken-off piece is within 6 inches of the stake but the intact portion of the shoe is not, no points will be rewarded).

## SCORING

Each team will be judged on the following categories, out of a total of 100 points.

- Design Requirements (20 points)
  - Teams whose horseshoes meet all of the above design requirements shall receive full points in this category.
- Creativity of the Mix Design (10 points)
  - Judges will score schools based on their creativity and ingenuity.
- Durability (20 points)
  - Both of a team's horseshoes shall be weighed before and after competition.
  - If each shoe loses less than 5% of its original weight, teams shall receive full points in this category
  - If each shoe loses less than 10% of its original weight, teams shall receive 10 points in this category.
  - A team's least durable shoe shall control scoring in this category.  
*Example: if one shoe loses 2% of its weight but the other loses 6%, a team receives 10 points. If one loses 8% and the other loses 15%, a team receives 0 points.*
- Aesthetics (20 points)
  - Aesthetics will be judged prior to the competition, with specifics left to the judges' discretion.
- Horseshoe Game Competition (30 points)
  - NHPA rules will apply, with the exception of the pitching distance, which shall be 25'.
  - A piece of steel rebar shall be used as the stake.