

MIDWEST HIGH SCHOOL SKI CONFERENCE COURSE SETTING GUIDELINES

Revised 11/06/2023.

PURPOSE:

Provide course-setting parameters for the Midwest High School Ski Conference coaches, assistant coaches, and course setters. Therefore, all conference ski-racing athletes will have an opportunity to compete on consistent course sets for each scheduled race event.

OBJECTIVE: To set safe, fair, rhythmic, and fun racecourses. Special attention should be given when setting to follow current and best practices in Alpine ski racing.

SLALOM:

1. Use FIS/USSA rules as a guideline not an absolute.
2. Gate sets consist of open, closed and oblige configurations with a flex or hinged turning pole. The first and last gates of the course will be open gates with the outer gate set with a flex pole. All other gates will be single pole, except for vertical combinations, which will consist of two or three closed gates.
- 3. Setting a Course: Single Pole/Single Gate; (Note: for additional reference, see below Figure A & B)**
4. Single pole / single gate courses are mostly set using only a turning pole
5. Some double poles / double gates are required - First and last gate for SL & GS; Combinations, e.g., flushes & hairpins for SL delays for both GS and SL
6. Distance from turn pole to outside gate should be 4-6m (meters). A gate shaft is 200 cm or 2m in length, use it for a handy measuring stick.
7. Distance between gates: 9-12 meters open gates, Delay 13-16 meters (optional) and not mandatory.
8. A minimum of 2 to 3 vertical combinations [hairpins or flushes] with Little Switzerland being a minimum of only 2 vertical combinations because of length of run; all other hills to be minimum of 3-combinations.
9. Delays or through gates are included as an option in the course setter's available tools. The distances are as follows. Distance from top gate to through-gate to be 4-6m with delay turning pole to turning pole at maximum of 16m.
Delayed gates must have a minimum distance of 13m and a maximum distance of 16m from turning pole to turning pole. Always set the outside gate of the through gate with a flex pole.
See diagrams following this section of Figures A & B, for further reference.
10. Vertical combinations will be set with closed gates usually down the fall line. Oblique combinations may be used if the setter desires to direct racers across the hill.
11. Minimum distance between gates is 0.75m and maximum at 1.0m. This is the space used in setting vertical combinations.
12. Vertical distance in combinations from turn pole to turn pole is 4-6m. Vertical combination should be set on flatter terrain in order to maintain speed. A "hair pin" can be set on the flat just before a transition of terrain (before a drop off) to allow the racer to gain speed into a steeper section. A hairpin can also be set to guide the racer across the fall line to avoid an obstacle.

13. Due to current slalom ski design, when setting open gates, turn pole to turn pole should be set 9-12m. The maximum distance is 12m (Measured from gate base to gate base).
14. When a course is set rhythmically, looking up hill at the course, the reds and blues will line up and look like a corridor. In setting a combination, the course will shift laterally across the hill. It is best practice to move across the slope equal to the amount of uphill offset.
15. Set the first turn straight down the fall line from the start. Set the last gate to direct the racer safely through the middle of the finish.
16. The amount of the offset is dictated from turn pole to turn pole by the terrain. Keep in mind that the offset may be increased on steeper slope to maintain control and speed. You may set a slightly greater offset just before a steep section for speed control.
17. In High School races, there is no minimum/maximum numbers of gates required.
18. Ask for assistance if unsure of conditions, discipline, or terrain. Think safety first. MAKE IT FUN!
19. **Correct Passage: Double vs Single** - Completing correct passage of a missed double pole/double gate, requires the competitor to hike up and cross the imaginary line that extends from the inner pole to inner pole (from either direction) with both feet and both tips
20. **Completing correct passage of a missed single pole/single gate**, requires the competitor to hike up and **loop around** the top of the turning pole/gate **(in either direction) with both feet and both tips**
21. **Correct Passage: Single Pole SL & Single Gate GS**
22. **Correct Passage** – No outside Pole/Gate: Both feet & ski tips must pass the turning pole of the turning gate on the same side following the normal race line & crossing the imaginary line from turning pole to turning pole.

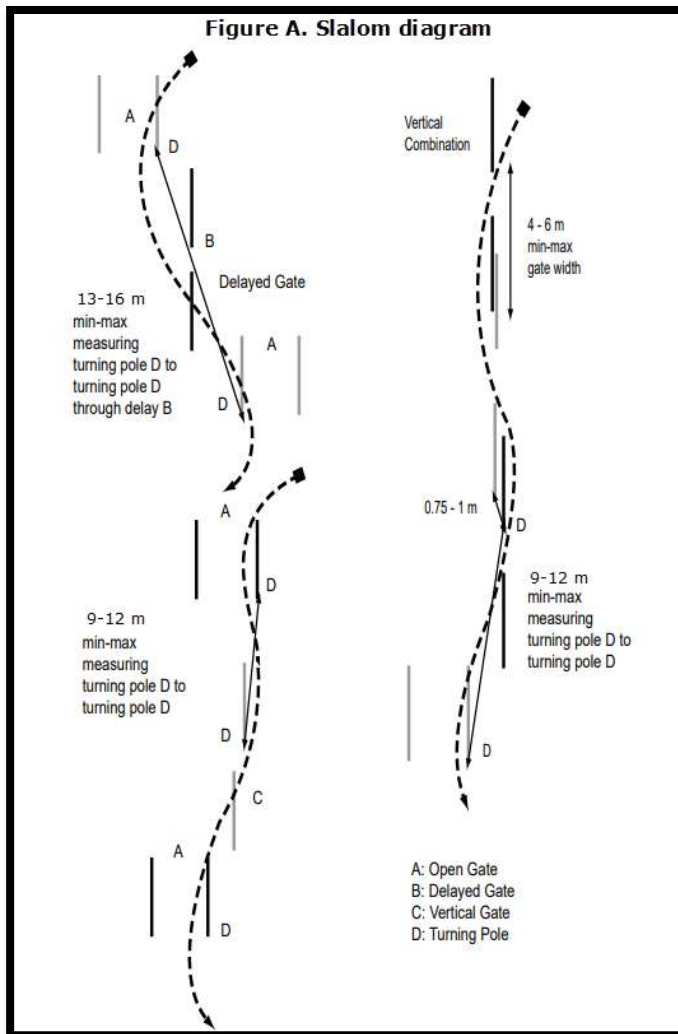


Figure: A

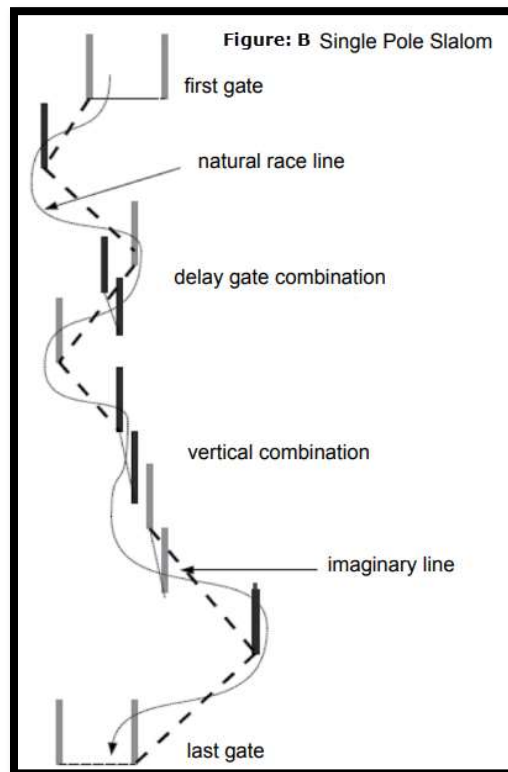


Figure: B

GIANT SLALOM:

1. Use FIS/USSA rules as guidelines not an absolute.
2. Gate sets consist of open gates and delays with two double flex poles and panels. The first and last gate in all sets will have the outer gate set. This is also a double flex pole with panel. The distance between double pole gates is equal to the panel width, approximately .75 meters. Use alternating red and blue poles and panels.
3. Some double poles / double gates are required - First and last gate for GS and delays for GS.
4. Convert vertical drop to meters (3.28 ft. /M); multiply the vertical drop in meters by 11-15% to achieve the number of gates appropriate for the hill. As a guideline Alpine Valley and Heiliger-Huegel should be 12-16 gates with Sunburst at 9-11 gates max. There is no maximum distance from turn pole to turn pole in GS. There is no minimum number of gates or time in High School competition.
5. Outside gates for the first and last gates, are set 4-8M wide.
6. Delay gates or through gates are available as an optional tool for the setter. Distances are as follows- 8-12M from top gate to through gate. Overall distance to exit gate to be less than 35M. Delay turning pole to turning pole: max 35 meters.
7. Panels should be hung approximately 1/3 down from the top of the gate. The bottom of the panel can be no less than 1 meter off the snow.

8. Open gates are to be set at the following distances- Open gates to be 15-27m measured from base to base.
9. Set the first turn down the fall line from the start and set the last gate to direct the racer to the middle of the finish.
10. The amount of offset will be determined by terrain, snow conditions, obstacles, and safety considerations.
11. In GS setting, best practices call for safety first, be clear of fall zones and possible hazards. Athletes can and will fall during a race. Ensure that you have provided enough room for this scenario.
12. Correct Passage: Double vs Single ; (Note: for additional reference, see below Figure 2.0 & 3.0) - Completing correct passage of a missed double pole/double gate, requires the competitor to hike up and cross the imaginary line that extends from the inner pole to inner pole (from either direction) with both feet and both tips
13. Completing correct passage of a missed double pole gate, requires the competitor to hike up and loop around the top of the turning pole/gate (in either direction) with both feet and both tips
14. Correct Passage: Single double flex pole gates with panels, GS
15. Correct Passage – No outside Pole/Gate: Both feet & ski tips must pass the turning pole of the turning gate on the same side following the normal race line & crossing the imaginary line from turning pole to turning pole.

Characteristics of a good course setter:

Ski the run and terrain before setting, especially if unknown to you. Note obstacles and hazards. Check snow depths and fall line changes. Free ski the turn radius of the discipline being raced before setting to get a feel for the slope, gravity, fall line changes, flats, steeps, and general characteristics of the slope. Before setting, visualize what a "best case" course set would be like and mimic that in your setting. While setting, be sure to look up hill, then downhill to determine the best placement of the turn pole. Visualize where you are attempting to direct the racer and look for the best descent. Consider the "spill zone" where a racer would fall and slide, is it there enough room? After setting, be sure to ski through your own course. Pay close attention to the rhythm and how the combinations ski. If ever in doubt, change the placement of a gate to make it work best for the racer. Remember that course setting for alpine racing is an art. There is no set formula. Every day the conditions, slope, and weather change. Be aware of these conditions and practice, practice, practice your setting skills.

Ski Fast!