GEOVEB® GEOCELL-REINFORCED CONCRETE SLOPE

US Olympic Park Park City, UT



Building a Steep Ski Jump In-Run Relies on Innovative Geocellular Design, Precise Construction and Ingenuity.

PROJECT SITE

In April of 2017 the mountain manager of the Utah Olympic Park contacted Presto for assistance with designs for a new 160 ft long concrete ski jump for freeskiiers and snowboarders. The site, owned by the The Utah Olympic Legacy Foundation, is an official USOC training site used by the Olympic Ski and Snowboard teams. Built for the Salt Lake 2002 Olympic Winter Games, this dynamic multi-use facility focuses on developing and growing winter sports in Utah and hosts ski jumping, nordic combined, bobsled/luge and skeleton events.

Project Design Details

Project information provided to Presto for the in-run section of the jump showed a very steep (2h:1v) structure that would lead to a large ski jump that sent the skiers and acrobatic snowboarders into a slope mounted airbag. A preliminary design was generated for a 4 inch deep concrete GEOWEB structure approximately 30 ft wide and 160 ft long.

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THE IN-RUN PROJECT TEAM

OWNER: Utah Olympic Legacy Foundation CONTRACTOR: H2J Liners, LLC. Orem UT PRESTO FIELD REPRESENTATIVE: Kaul Corporation, Lakewood, CO MATERIAL SUPPLIER: ACF West, Salt Lake City, UT





Project Construction Details

To secure the GEOWEB sections over the slope, a 6 inch Deadman anchor was buried 5 ft deep behind a 5 ft crest runout, along with six TK133 tendons per GEOWEB panel and ATRA® Tendon Clips.

Presto's Mountain States representative, Joe Kaul of Kaul Corporation, supported the onsite installation by providing assistance to the mountain manager and his construction crew.

Construction Challenges

According to Kaul, "It was important that the subgrade surface below the Geoweb material be graded very precisely for the system to work. Due to the steep slope conditions, this fine grading took quite a bit of effort."

"Once the Geoweb sections were properly installed on the slope, the next challenge was to mobilize a concrete contractor bold enough to attempt the challenging pour," added Kaul.

The contractor began pouring 15 foot sections the complete width of the ski ramp in an alternating pattern starting at the top and working down the slope. Once the concrete was placed, 4 inch x 36 inch "ski tiles" were affixed to the concrete ramp with ramset anchors. These tiles overlap from top to bottom similar to shingles on a roof.

Challenging Concrete Pour Takes Construction Ingenuity & "Bold" Moves by the Contractor.

The concrete infill was poured in fifteen foot sections the full width of the ski ramp in an alternating pattern starting at the top and working down the slope.

"Ski tiles" 4 inches x 36 inches and overlapped from top to bottom were affixed into the concrete ramp with ramset anchors.

An even surface from tile to tile is critical to provide the athlete a perfect in run on a snowboard or a pair of skis to be able to properly practice the trick. **GEOVEB**® GEOCELL-REINFORCED CONCRETE SLOPE



Top Photo: Precision grading was required to ensure a completely smooth subgrade prior to installing the GEOWEB panels.

Bottom Photo: The concrete tiles were installed in an alternating pattern down the slope.



Request a FREE Project Evaluation



GEOSYSTEMS

PRESTO GEOSYSTEMS® Appleton, Wisconsin USA Ph: 800-548-3424 | 1-920-738-1328 E: info@prestogeo.com www.prestogeo.com GEOWEB® is a registered trademark of Reynolds Presto Products Inc.

Finalizing Construction

The surface needed to be very even from tile to tile to give the Olympic level athlete the perfect in run on a snow board or pair of skis to be able to properly practice their routines.

"We learned quickly that building the steep in-run to exacting standards was critical to creating the perfect launch pad for the US Olympic Ski and Snowboard team."-Joe Kaul

Once all the tiles were affixed, the two-piece jump was assembled and the airbag installed and anchored down below the jump. This equipment is only used in the summer as the athletes prefer to practice on real snow in the winter.

The jump and airbag are removed in the fall. The GEOWEB concrete in-run with tiles stays in place—artificial snow is blown onto the super steep slope and a snow cat, winched from a large concrete "snatch block" atop the hill, is used to groom the slope.



Project Results

Installed in early June of 2017, by August the in run, jump and airbag were operational and working well.

"Proving once again, when you need to tackle a tough and steep geoconstruction project—call Presto!" *Joe Kaul, Kaul Corporation.*