GEOMATICS SURVEY TEAM MAPPING TRACK TOPOGRAPHY

By Kyle Cook

A three-man crew of surveying students from the Oregon Institute of Technology's Geomatics department is mapping the topography of the field at John F. Moehl Stadium in Klamath Falls, Oregon. The effort is part of the student's senior project which requires them to apply their surveying skills in performance of a community service. The surveying team, under the supervision of Professor Mitch Duryea, PLS, and the OIT Athletic Department, is mapping the field as part of a proposed project to build a soccer field on the track's infield. Building the soccer field at this location would permit the Hustlin' Owls men and women's soccer teams to play home games on the OIT campus instead of hoping that fans will make the trek out to Steen Sports Park at the edge of town. To determine the viability of the soccer-field project, the Geomatics student team of party chief Reed Beauduy, and rodmen Kyle Cook and Michael Vail, are performing a topographic survey whose measurements will be the basis of a contour map which will give project planners an understanding of the changes in elevation on the field and its surroundings. The results of the project will determine whether or not the construction of the soccer field is a reasonable option giving the current conditions of the field at Moehl Stadium.

To perform the topographic survey, the students are using equipment and training provided by the Geomatics department. Some of the equipment utilized in the survey includes Leica total stations, Topcon GPS receivers, prism poles, and tripods. Control for the project was set by a closed traverse and a level loop performed by the team. In addition to the high-precision survey equipment, the students have used more than three software packages to complete the project. Carlson drafting software was used in map preparation, a least-squares adjustment was conducted on the project control, and Topcon Tools built GPS vectors with free information

provided by the Online Positioning User Service (OPUS) regulated by the National Oceanic and Atmospheric Association (NOAA).

For the students performing the survey, the project represents a culmination of the many skills learned during their surveying education; drafting skills and the fieldwork were a central part of the classes that provided the background for the work performed. "Without the hands-on experience we gained at school, this project would have been above our abilities. Fortunately, we are leaving the school as bonafide surveyors, and this project will be a welcome addition to our portfolio," claimed Reed Beauduy. While the senior project requires 90 hours of student work, the three students have logged many hours above the requirement to see the project finished and Michael Vail hopes the soccer field will be built soon as a result of their hard work. "I'd love to graduate and come back to OIT to get a peep at the footy kicking 'round the home stands on a pitch I had a hand in building."