

Sustainability Fact Sheet for Reser Stadium Expansion (Phase1) Oregon State University, Corvallis, Oregon

Reser Stadium, located on the Oregon State University campus in Corvallis, is home to the Oregon State football team. Built in 1953, the stadium has undergone periodic renovations and additions that have not kept pace with the needs of a major NCAA Division 1-A football program.

A renovation of the east side was completed and opened for the 2005 season. This four-level, 300,000-sq.ft., \$80 million addition features new student and spectator seating, two patron clubs, 21 new private suites, concessions, restrooms, commissary, 2 public concourses, 3 elevators, 4 escalators and a 135' cantilever roof.

Sustainable strategies incorporated into the project include the following:

- Local erosion and sedimentation control standards for construction activity, more stringent than those required by the EPA's document #832-R-92-005, were utilized.
- To reduce the heat island effect from the site, standard grey concrete was used for the site's non-roof impervious surfaces.
- Light trespass from the building site is more contained than in the prior situation. Reflector systems on the field lighting fixtures reduce the off-field spill light and glare, maintaining the quality of light on the field. Fixtures located on the roof structure are concealed from view.
- Landscape mounted fixtures are provided with shields and louvers, where possible, to avoid spill light and promote the night sky policy. New full cut-off pole lights were installed in the plaza and are used only during events.
- Bicycle parking and close access to busses encourage alternative transportation usage.
- A water quality vault was provided to meet local water quality standards. This facility is capable of removing 80% of the total suspended solids and 40% of total phosphorus in storm water runoff.
- The Energy Star compliant white roof, with high emissivity and high reflectivity, will reduce solar heat gain and the air conditioning load on the building.
- A combination of high efficiency and standard irrigation technology was used in conjunction with a centrally controlled computer irrigation management system to reduce potable water consumption.
- Building systems were commissioned to ensure peak performance.
- A building automation system was used for operating and continuous monitoring of the building system for performance, trending & energy usage.
- The building will use 32% less energy than the Oregon Energy Code baseline, based on SEED analysis & energy modeling to date. Premium efficiency motors are used for HVAC equipment. A high efficiency condensing type boiler is used as the first stage of the heating sequence for energy savings. Variable speed fans are used for AC units. Hot water circulating pumps are used to service restroom sinks.
- Demand ventilation control (CO2 sensors) serve the Founder's Loge and Stadium Club, controlling the amount of outside air needed to provide proper indoor air quality.
- All A/C units over 5 tons utilize economizers, allowing the use of "free" cooling and 100% outside air when outdoor temperatures are below 72 degrees.
- Occupancy sensors were provided in private restrooms, suites and storage areas to control the lighting system.
- Local construction materials make up at least 35% of building materials, reducing transportation costs and environmental impacts.

- Recycled content building materials such as steel, carpeting, ceramic tile, and ceiling tiles were used throughout the project. It is estimated the structural steel contains 65% recycled content with 50% of that post-consumer.
- Reclaimed Douglas fir, salvaged from a building in southern Iowa, was used extensively in the Founder's Loge as an architectural element and was incorporated into custom furnishing items. The reclaimed select heart pine flooring, also used in the Founder's Loge, was salvaged from bridges constructed during the 1800's in Virginia.
- Low- emitting paints, adhesives and carpets were used to improve indoor air quality.
- All wood casework in the suites and club contain a strawboard core.
- A construction waste management plan was developed and resulted in a salvage/recycling rate that exceeded 50 percent by weight of total waste generated by the work.
- The AstroTurf field was recycled and replaced with Field Turf. The new turf is stabilized with "synthetic earth" which includes reground athletic shoe material.
- The plastic components of the seats are recyclable.