

**University of Nevada Reno
Department of Civil and Environmental Engineering**

University of Nevada, Reno – NEES Shake-Table Equipment Site

Site Access Plan

October, 2004

The NEES Equipment Site at the University of Nevada, Reno is a biaxial, multiple-shake-table facility (with three identical biaxial shake-tables) that is suitable for conducting research on long, spatially distributed, structural and geotechnical systems. The facility is also capable of testing conventional structural and non-structural systems by using the tables in large-table-mode, and operating them as a single unit. The University of Nevada, Reno – NEES Shake-Table Equipment site is funded in part by the George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Program of the National Science Foundation under Award Number CMS-0086624.

NEES researchers will have fair and reasonable access to the Reno site, depending on schedule and budget and in accordance with the Guidelines set by the Consortium Site Operations and Shared-Use Committee. Experiments using one, two or three tables will be possible in a variety of possible alignments.

The Laboratory is located on the UNR Campus in downtown Reno, close to the Reno-Tahoe International Airport and adjacent to Interstate I-80. The campus is a 4-hour drive from the San Francisco Bay Area, and a 2-hour drive from Sacramento.

Assistance will be given to visiting researchers to prepare proposals, design experiments, oversee fabrication and instrumentation of specimens, and prepare test matrices. Tests will be conducted by on-site personnel according to an agreed test plan, in close consultation with the researcher. Data collected will be immediately available to the researcher in a variety of formats and transferred to the national NEES repository. Office space will be provided for visiting researchers (faculty and students), together with phone, fax and email privileges. Assistance with finding temporary accommodation for visitors will be provided on request. This 'level of service' is offered at no cost to the researcher provided the level of MOM funding from the NEES Consortium to UNR does not fall below that stated in the Subaward Agreement OMSA-2004-SSL-UNR dated 9/30/04.

Items not covered by the above 'level of service' include:

- modification of equipment, instrumentation, or facilities to meet specific experimental needs
- construction of test specimens (materials and labor)
- construction of experiment-specific test fixtures (materials and labor)
- use of non-NEES facilities, equipment, or instrumentation in NEES experiments, and
- other experiment-specific special needs requiring modification purchase or construction.

These costs will be charged by UNR to the researcher together with indirect costs, and should be included in the researcher's proposal to NSF. Travel and accommodation expenses while in Reno and financial support for student and faculty, should also be included in the researcher's budget.

Training will be offered to assist researchers with the design and conduct of shake table experiments as well as safety procedures in the laboratory. The safety course will be mandatory for any visitor working in the lab. The shake table course will also be mandatory for those researchers who have not had significant previous experience in this area.

Safety is the ultimate responsibility of the Laboratory Director, who has delegated this responsibility to the Laboratory Manager. The Manager has the authority to stop any activity in the Lab or fabrication yard that in his opinion is unsafe. This includes performing a shake table run on a specimen that has been damaged in earlier runs and is now considered unsafe to proceed with further testing. Such concerns take precedence over previously agreed test plans.

All visitors working in the lab will be required to show evidence from their home institution of health insurance while working at UNR. Furthermore each visitor will be required to agree to hold UNR harmless against any losses, costs, damages, expenses, liabilities, and claims (including reasonable attorney's fees and costs) arising out of, or resulting from (a) any breach by UNR of any of the terms implied when agreeing to conduct testing on behalf another researcher or institution; or (b) any act of negligence, misconduct, or other omission by UNR.