NEHRP Consultants Joint Venture Formed by ATC and CUREE to Conduct NIST-Funded NEHRP Earthquake Structural and Engineering Research Contract

Redwood City and Richmond, California. The Applied Technology Council (ATC) and the Consortium of Universities for Research in Earthquake Engineering (CUREE) are pleased to announce the formation of NEHRP Consultants Joint Venture, a partnership of ATC and CUREE, in cooperation with the Mid-America Earthquake (MAE) Center, the Multidisciplinary Center for Earthquake Engineering Research (MCEER), and the Pacific Earthquake Engineering Research (PEER) Center. The Joint Venture has been formed to conduct the National Institute of Standards and Technology (NIST)-funded National Earthquake Hazards Reduction Program (NEHRP) Earthquake Structural and Engineering Research Contract, which was awarded in September 2007.

Under this 5-year contract with an expected cumulative budget of $30 million, the NEHRP Consultants Joint Venture will conduct a broad problem-focused research, knowledge development, synthesis, and technology transfer program for NIST, lead federal agency for NEHRP. The purpose of the NIST contract is to develop a partnership with practitioners and research institutions that will be used to implement the program, which follows a “roadmap” prepared by ATC for NIST in 2003 and published in the ATC-57 Report, The Missing Piece: Improving Seismic Design and Construction Practices.

Through a series of specific NIST task orders, the NEHRP Consultants Joint Venture will be tasked to use its structural engineering, earthquake science, and earthquake engineering experience and expertise in the following areas:

1. Provide technical support for the seismic and structural engineering practice and National model building code development process.
2. Perform problem-focused, practitioner-directed research and development to develop the technical basis for Performance-Based Seismic Design (PBSD) or other, similar performance-based structural design.
3. Perform problem-focused, practitioner-directed research and development to develop the technical basis for practical and cost-effective evaluation and reduction of hazards in existing buildings. Such hazards may be earthquake-related but may also involve other extreme loading conditions (e.g., wind, blast, fire).
4. Perform problem-focused research and develop technical resources (e.g. guidelines and manuals) to improve seismic, structural, and geotechnical engineering practice.
5. Evaluate and synthesize available seismic and other extreme hazard mitigation data, information, and technology, including the results of many years of NSF-funded research results, to prepare succinct...
information summary documents ("technical briefs") that address single, focused topics and have clear, actionable guidance for designers or construction professionals.

6. Improve design and construction productivity by incorporating and integrating seismic and structural design codes, analysis tools, and analytical methods in the building information modeling and electronic data exchange efforts of organizations such as the International Alliance for Interoperability (IAI).

7. Provide expert planning for problem-focused research in each of the six above-mentioned areas, as well as technical review of research program plans and individual research efforts.

The NEHRP Consultants Joint Venture issued a broad Request for Statements of Interest and Qualifications to the structural and earthquake engineering research and design communities in early October 2007, in preparation for conducting the initial set of task orders. These initial task orders call for (1) a set of studies to beta test the recommended methodology for reliably quantifying building system performance and response parameters for use in seismic design that are currently under development on the FEMA-funded ATC-63 project; (2) to perform the first phase of work required to produce a seismic design guidance document for critical port and harbor facilities, keying on containerized shipping activities; and (3) to prepare an initial Technical Brief (TechBrief).

Additional information on (1) the joint venture’s Request for Qualifications, (2) the details of the anticipated contract work, and (3) key personnel is provided on both the ATC and CUREE web sites (www.ATCouncil.org, www.CUREE.org).