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Submitted via email to: Tina.Faecke@nist.gov

RE: **Public Comment for National Earthquake Hazards Reduction Program (NEHRP) Strategic Plan**

The American Society of Civil Engineers (ASCE) is pleased to offer the following comments to National Institute of Standards and Technology (NIST) on the National Earthquake Hazards Reduction Program's (NEHRP) proposed Strategic Plan for the comment period closing on August 15, 2022.

ASCE appreciates the opportunity to offer comments to the NEHRP Strategic Plan. The nation's civil engineers have long supported and participated in the critical programs sponsored through NEHRP. Created by the Earthquake Hazards Reduction Act of 1977, NEHRP has provided the resources and leadership that is necessary to advance that nation's understanding about the risk earthquakes pose and the best ways to mitigate them. Through NEHRP, the federal government has engaged in seismic monitoring, mapping, research, testing, mitigation, and engineering, as well as supported code development and emergency preparedness. Although NEHRP is well known for its research programs, it is also the source of hundreds of innovative technologies, maps, design techniques, and standards that are used by design professionals every day to mitigate the hazards and risks associated with earthquakes.

Introduction

Founded in 1852, ASCE is the country's oldest civil engineering organization. Representing more than 150,000 civil engineers from private practice, government, industry, and academia, ASCE is dedicated to the advancement of the science and practice of engineering. We stand at the forefront of a profession that plans, designs, constructs, and operates society's economic and social engine – the built environment – while protecting and restoring the natural environment.

ASCE supports the goals of NEHRP to increase resilience of infrastructure through education, research, planning, design, construction, operation, and maintenance. Development of performance criteria and uniform national standards that address interdependencies and establish minimum performance goals for infrastructure is imperative. Furthermore, comprehensive risk assessment that considers event likelihood and consequence, encourages mitigation strategies, monitors outcomes, and addresses recovery and return to service should be routinely included in the planning/design process for infrastructure at all government levels.

Comments

ASCE applauds NIST and the other NEHRP agencies, such as the Federal Emergency Management Agency, the National Science Foundation, and the U.S. Geological Survey for creating a road map for NEHRP into the future. ASCE would like to acknowledge NEHRP's support of ASCE and other organizations, which develop the standards that are utilized in the model building codes. The model building codes are critical to save lives and increase resilience to earthquakes and other hazards.

ASCE is pleased that the proposed strategic plan will continue NEHRP support for, among others, *ASCE/SEI 7: Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. Accredited, consensus-based engineering standards such as ASCE/SEI 7, serve as the primary reference of structural design requirements in all U.S. building codes. ASCE/SEI 7 describes the means for determining flood, tsunami, snow, rain, atmospheric ice, earthquake, and wind and other loads and their combinations for general structural design.

ASCE/SEI 7 is updated regularly to reflect our changing world and to make infrastructure more resilient in the face of new challenges. It was most recently updated within the 2022 edition (ASCE/SEI 7-22) to reflect the best understanding of the influence of loads on structures and continues to be the foundation for loads specified in most building codes in the United States. The continued flow of data through NEHRP ensures that ASCE, and NEHRP, can fulfill their missions to protect the public health, safety, and welfare. This joint effort also works to minimize economic disruption.

ASCE is pleased that the strategic plan provides and blueprint for NEHRP to continue and expand its understanding of earthquakes as well as continue to evolve strategies to mitigate their impacts.

Conclusion

ASCE thanks NIST for the opportunity to comment on the NEHRP Strategic Plan. Earthquakes can be devastating to human life, infrastructure, and the economy. NEHRP and other Federal, state, and local programs exist to protect life and property by developing and modernizing best practices for seismic design and retrofit of infrastructure and other critical facilities. ASCE believes that NEHRP is critical to public safety, resilience, economic recovery, and should

continue to support and reference accredited, consensus-based engineering standards such as ASCE/SEI 7.

For more information, please do not hesitate to contact Martin Hight, ASCE Senior Manager for Government Relations at mhight@asce.org or 202-789-7843.