

## DEVELOPMENT OF SEISMIC PERFORMANCE OBJECTIVES FOR NONSTRUCTURAL COMPONENTS

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### Abstract

Nonstructural components and contents represent the largest capital investment in a building. While designed to remain in place in strong shaking, these components are subject to significant damage and pose a great risk to overall seismic performance of buildings. This paper is based on the recently published NIST GCR 18-917-43 report, *Recommendations for Improved Seismic Performance of Nonstructural Components*, discusses the following: (1) development of performance objectives for nonstructural components that can ultimately serve as the foundation for building code requirements, and which can be adapted for use when enhanced performance is desired; (2) findings of a comprehensive review of all factors contributing to seismic force demands on nonstructural components and systems, using the latest information from instrumented buildings, laboratory tests and analytical studies, and proposing improved design force equations for nonstructural components; and (3) findings from a detailed assessment of U.S. code requirements, with a focus on improving clarity, consistency, and enforceability; and recommending technical improvements.