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# ENGINEERING AND CONSTRUCTION BULLETIN

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**Subject:** Renovation of Existing Buildings and Requirements for Incorporation of Seismic and Antiterrorism Upgrades

**Applicability:** Information

1. Purpose: This ECB is to remind everyone of the requirement for seismic and progressive collapse for renovations. Specifically, if the cost of the renovation exceeds 30% of the replacement costs, a seismic evaluation and mitigation must be performed and the budget needs to include any seismic mitigation cost; and, in addition, if the cost of the renovation exceeds 50% of the replacement costs and the structure is three stories or more, the budget needs to include cost of evaluating and mitigating the risk of progressive collapse. It is the responsibility of all managers and designers to insure that these requirements are considered for all renovation projects. This bulletin highlights the requirements and applicability of [UFC 3-310-04](#), Seismic Design for Buildings and [UFC 4-010-01](#), DoD Minimum Antiterrorism Standards for Buildings, including Change 1, as applicable to renovation projects. Both documents can be downloaded from the Publications of the Headquarters, United States Army Corps of Engineers: <http://www.usace.army.mil/publications/>

2. Background: The Unified Facilities Criteria (UFC) documents below provide guidance to insure that all building renovation projects are properly programmed, designed and constructed in order to protect occupants from catastrophic seismic and terrorist events.

a. Seismic Requirements: UFC 3-310-04, Appendix B, paragraph 1614.3 requires that ICSSC RP6, Standards of Seismic Safety for Existing Federally Owned and Leased Buildings be followed for evaluation of existing structures. ICSSC RP6, paragraph 2.1 gives requirements for “Situations Requiring Evaluation and Mitigation” and in particular paragraph 2.1b requires a building to be evaluated and mitigated when “a project is planned which significantly extends the building’s useful life through alterations or repairs which total more than 30% of the replacement value of the facility.” In addition, ICSSC RP6 paragraph 1.3 gives exemptions to this standard for certain types of structures.

b. Antiterrorism Requirements: UFC 4-010-01, paragraph 1-6.2.1 states “Implementation of these standards to bring an entire building into compliance is mandatory for all DoD building renovations, modifications, repairs, and restorations where those costs exceed 50% of the replacement cost of the building except as otherwise stated in these standards.” When the 50% threshold is met, implementation of all 22 Standards indicated in Appendix B is mandatory.

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Three of the major cost items are Standard 1, Standoff Distances; Standard 6, Progressive Collapse Avoidance (for buildings three stories or more); and Standard 10, Windows and Skylights.

3. This ECB applies to all MSC's, Centers, District and Subordinate offices working Military Construction Programs

4. POC: The HQUSACE point of contact for this bulletin is [Mr. Peter J. Rossbach, Jr.](#), CECW-CE, 202-761-4352.

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