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Subject: Progressive Collapse Design and Controlled Public Access

Applicability: Guidance

1. References.

a. UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings, 8 October 2003, including change 1, 22 January 2007.

b. UFC 4-023-03, Design of Buildings to Resist Progressive Collapse, 14 July 2009, including Change 1, 27 January 2010.

2. Recently, there has been some confusion as to when the provisions of reference 1.b. have to be applied to the internal load bearing structural elements of buildings when using the alternate path (AP) method in reference 1.b. This ECB is intended to provide interim guidance for Army projects for which progressive collapse is a requirement. Because progressive collapse can be a significant hazard to the soldiers and civilians who occupy Army buildings, the guidance in this ECB should be incorporated as detailed below until formal, permanent guidance is established.

a. Design-bid-build or adapt-bid-build projects. These provisions should be incorporated into the design if it is currently less than 35% complete.

b. Design-build or adapt-build requests for proposals. These provisions should be incorporated into the RFP documents prior to receipt of proposals. It is not necessary to modify an RFP after award of the contract.

3. When using the AP method, paragraphs 3-2.9.2.3 and 3-2.9.2.5 of reference 1.b. require the removal of internal columns and/or load-bearing walls if a structure has underground parking or other areas of uncontrolled public access. However, neither referenced document provides any guidance for determining what constitutes uncontrolled public access, which has led to multiple interpretations of what is required to have controlled public access. The DoD Security Engineering Working Group (SEWG), the group responsible for all security engineering UFC documents, recently agreed that having a “controlled perimeter” per the definition found in reference 1.a. is not sufficient to mitigate uncontrolled public access in buildings. Their

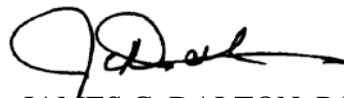
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reasoning was that operations at access control facilities at controlled perimeters have a reasonable likelihood of screening for vehicles containing explosive weight I in reference 1.a. but it is unlikely that those operations will result in the detection of packages, backpacks, briefcases, etc. containing explosive weight II. Based on that assumption, it should not be assumed that a package containing explosive weight II can be prevented from being carried into any structure unless positive access control measures are implemented at all exterior doors of the building even when the building is within a controlled perimeter.

4. Until further formal guidance is provided, establishing positive access control to buildings will be required to avoid having to apply progressive collapse provisions to interior structural elements when using the AP method in reference 1.b. Therefore, for the purposes of applying progressive collapse provisions to Army buildings, positive access control will be considered to include (but not be limited to) electronic access control devices or mechanical locks on all exterior doors. Where visitor processing makes locking visitor entrances during building operating hours impractical, providing personnel to control visitor access can be considered positive control at those entrances.

5. The HQUSACE point of contact for this ECB is Peter J. Rossbach, Jr., P.E., CECW-CE, 202-761-4352. The technical point of contact is Curt Betts, P.E., USACE Protective Design Center, 402-995-2359.



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