BASE*Line*

The quarterly newsletter of Baldridge & Associates Structural Engineering, Inc.

July ~ September 2012

Alert! Major changes to antiterrorism UFC

There is a **new version of UFC 4-010-01 "DoD Minimum Antiterrorism Standards for Buildings"** dated 09 February 2012 that has some major changes. Perhaps the most significant change involves revisions to the Conventional Construction Standoff distances (CCSDs). CCSDs are now dependent on exterior wall material type.

This new approach is more transparent in its development and may prove beneficial in relaxing constraints on site planning and building layout. **As indicated in the table below, the new CCSDs are greatly reduced for some wall types** (i.e. reinforced concrete and masonry) and greater for others.

CCSD from Parking & Roadways within Controlled Perimeter for Primary Gathering Buildings

Exterior Wall Material	Load Bearing		Non-Load Bearing	
	Old UFC (ft)	New UFC (ft)	Old UFC (ft)	New UFC (ft)
Reinforced Concrete	82	**16**	82	**13**
Reinforced Masonry	82	**30**	82	**13**
Metal Studs with EIFS	82	**151**	82	**167**

It is important to note, however, that the new UFC eliminated windows and doors from any consideration of CCSD. **Windows (and doors) must now be analyzed/ designed for the blast pressures resulting from the applicable charge weight located at the "actual" standoff distance.** This may result in heavier and hence costlier windows and doors when using the new CCSDs.

The table below illustrates the difference in glazing requirements for a typical 3 ft x 5 ft window subjected to a Type II explosive weight at various standoff distances (all meeting the CCSDs for reinforced concrete and masonry).

Glazing Comparison for Different Standoff Distances

Standoff Distance (ft)	Estimated Required Glazing *
82	1/4" Laminated Glazing
50	3/8" Laminated Glazing
30	5/8" Laminated Glazing
16	ASTM methodology N/A. Must use dynamic analysis or testing.

* Assuming annealed glass and using the UFC 3-second design load approach (ASTM E 1300 and ASTM F 2248)

* Frames, connections etc. may also get heavier as standoff distance decreases.

Understanding the implications of AT/FP criteria on the overall building design is now more critical than ever. BASE's expertise in AT/FP coupled with our multi-hazard approach to design results in innovative and efficient solutions to the most challenging projects.

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