

DoD Minimum Antiterrorism Construction Standards - Checklist version 4 dated 2 May 2019

This checklist is required to be completed for all DoD military funded projects contracted by Louisville District for new and existing building work. The design team members shall complete and sign this checklist for preliminary and final design milestones in the project's design analysis for record. Describe intent and method to meet each Standard or indicate the Standard as Not Applicable (N/A).

The Unified Facilities Criteria (UFC) system is prescribed by MIL-STD 3007, to provide planning, design, construction, sustainment, restoration, and modernization criteria, and to apply to the Military Departments, the Defense Agencies, and the DoD Field Activities in accordance with DoD Directive 4270.5 (Military Construction) and USD(AT&L) Memorandum dated 29 May 2002. **UFC 4-010-01 are minimum standards set for DoD funded projects unless otherwise determined during project planning by the Installation using UFC 4-020-01.**

Date:	Facility Name/Location/P2:		
Is this facility new construction or is the 50% renovation threshold met? If yes, enter NEW or if renovation threshold exceeded, indicate which triggers from the list below apply.	YES	NO	
Does a Design Basis Threat exist per UFC 4-020-01 for more than minimum level of protection? If Yes, indicate required Level of Protection or that minimum stds apply.	YES	NO	

TRIGGERS

A. MAJOR INVESTMENT: Implementation of these standards to bring entire inhabited buildings into compliance is mandatory for all DoD building renovations, modifications, repairs, revitalizations, and restorations where project costs exceed 50% of the replacement cost of the existing building in accordance with UFC 3-701-01 except as otherwise stated in these standards. The 50% cost is exclusive of the costs identified to meet these standards. Where costs do not exceed the 50% threshold, compliance with these standards is recommended, but not required.

B. CHANGE OF OCCUPANCY: Implementation of these standards is mandatory when any building or portion of a building is converted from its current occupancy to a higher occupancy. Examples would include a warehouse (low occupancy) being converted to administrative (inhabited) use.

C. WINDOW/SKYLIGHT/GLAZED DOOR REPLACEMENT: Because of the significance of glazing hazards in a blast environment, implementation of all provisions of Standard 10 is mandatory for existing inhabited buildings any time a window, skylight, or glazing is being replaced. This also applies to installation of supplemental windows behind existing windows (inside face) and to installations of windows in new openings. Because of the significance of door hazards in a blast environment, implementation of all provisions of Standard 12 is mandatory for existing inhabited buildings any time doors are being replaced.

D. BUILDING ADDITIONS: Inhabited additions to existing buildings must comply with the minimum standards for new buildings. If the addition is 50% or more of the gross area of the existing building, the existing building will comply with the minimum standards for existing buildings in Chapter 3. Cost of building additions will not be included in calculating the 50% trigger for major investments. Throughout these standards references to new construction will be considered to be inclusive of additions to existing buildings.

E. LEASED BUILDINGS: In accordance with DoD Instruction 2000.12, the security standards established by the Interagency Security Committee (ISC) in Physical Security Criteria for Federal Facilities must apply to all off-installation leased space managed by DoD and all DoD occupied space in buildings owned or operated by the U.S. General Services Administration (GSA). The ISC standards apply to leased space in the U.S. and in foreign countries. Current tenants and tenants who initiated lease requests prior to 7 December 2012 must apply the ISC standards in accordance with existing lease agreements to the extent practicable.

F. PURCHASE OF EXISTING BLDGS: Existing inhabited buildings purchased for use by DoD will comply with the minimum standards for existing buildings.

G. NON-DoD TENANT BUILDINGS ON DoD INSTALLATIONS: Tenant buildings on DoD installations other than those that meet one of the exemptions below are required to comply with these standards because it is assumed that the tenant buildings are likely to be turned over to DoD sometime during their design life and that they will then be occupied by DoD personnel. For the purposes of these standards, occupancies for non-DoD tenant-built building will be calculated assuming that building occupants are DoD personnel.

H. NATIONAL GUARD BUILDINGS: National Guard buildings that use Federal funding for new construction, renovations, modifications, repairs, or restorations that meet the applicability provisions above, will comply with these standards.

I. VISITOR CENTERS AND MUSEUMS: Where DoD or non-DoD visitors to visitor centers, museums, and similar buildings on DoD property routinely increase the occupancy of those buildings to levels meeting the definition of inhabited buildings, those buildings will comply with these standards.

J. VISITOR CONTROL CENTERS AT ENTRY CONTROL FACILITIES / ACCESS CONTROL POINTS : Where DoD personnel and the average daily peak occupancy of visitors routinely increase the occupancy of those buildings to levels meeting the definition of inhabited buildings, those buildings will comply with these standards. See UFC 4-022-01 for average daily occupancy calculation.

K. EXPEDITIONARY STRUCTURES: Implementation of these minimum standards is mandatory for all expeditionary structures that meet the occupancy criteria for inhabited buildings. See Chapter 4 for structure types that meet the expeditionary structures criteria.

New Structures: These standards apply to all new expeditionary structures effective as of the implementation date of these standards.

Existing Structures: These standards will apply to all existing expeditionary structures as they undergo major modifications or renovations as of the implementation date of these standards.

STANDARDS 1-21

UFC Para#	REQUIREMENT	YES	NO	N/A	DESIGNER RESPONSES
3-2	STANDARD 1 - STANDOFF DISTANCE				
3-2.1	Is this on DoD property?				
3-2.1	Are the minimum standoff distances inside and outside of the installation perimeter met?				
3-2.1	If this bldg is outside an installation perimeter, has the standoff been met as established by UFC 4-020-01?				
3-2.1.1	Are the clear zone requirements met and free of obstacles over 8" high?				
3-3	STANDARD 2 - UNOBSTRUCTED SPACE				
3-3	Is the 33' unobstructed space provided to not obstruct a 6" cube?				
3-3.2	Are trash containers located outside of the unobstructed space or enclosed per 3-3.5?				
3-3.3	Is mech/elec equipment located outside of the unobstructed space or enclosed per 3-3.5?				
3-3.4	Are fuel tanks located outside of the unobstructed space or enclosed per 3-3.5? Is distance between buildings & fuel tanks in accordance with NFPA 30?				

3-3.7	Although parking is permitted within the unobstructed space, indicate if User or Installation intention is to maintain parking outside the unobstructed space.				
3-4	STANDARD 3 - DRIVE-UP/DROP-OFF AREAS				
3-4	Standard removed; no longer applies.				
3-5	STANDARD 4 - ACCESS ROADS				
3-5	Although access roads are permitted within the unobstructed space, indicate if and how User or Installation intends to control access within the unobstructed space.				
3-6	STANDARD 5 - PARKING BENEATH BUILDINGS OR ON ROOFTOPS				
3-6	Is parking avoided under bldg or on roof? If not, indicate access control measures taken.				
3-7	STANDARD 6 - PROGRESSIVE COLLAPSE RESISTANCE				
3-7	Is this facility new construction of 3 or more stories, or is parking under or over inhabited space?				
3-7	Has the risk category of the structure been defined?				
3-7	Has the tie-force method or alternate path method of progressive collapse been incorporated into the design of the structure? Indicate which is used.				
3-7	Has enhanced local resistance been incorporated into the design of this structure?				
3-8	STANDARD 7 - STRUCTURAL ISOLATION				
3-8.1	Are building additions structurally independent from adjacent existing buildings? If not, has analysis been completed which shows collapse of either the addition or the existing building will not result in collapse of the remainder of the building?				
3-8.2	Are low occupancy areas of inhabited facilities designed structurally independent of the inhabited areas?				
3-9	STANDARD 8 - BUILDING OVERHANGS & BREEZEWAYS				
3-9	Are overhangs with inhabited space above avoided?				

3-9.1	If overhangs/breezeways with inhabited space above not avoidable, how do these areas comply with Standard 2 as extensions of Unobstructed Space?				
3-10	STANDARD 9 - EXTERIOR MASONRY WALLS				
3-10	Do all external masonry walls have vertical and horizontal reinforcement distributed throughout the wall section?				
3-10	Is the vertical reinforcement ratio at least 0.05%, space no more than 4 ft with reinforcement within 1.3 ft of the ends of the walls?				
3-10	Is the horizontal reinforcement ratio at least 0.025%, consisting of either joint reinforcement spaced no more than 1.3 ft, or bond beam reinforcement spaced no more than 4 ft, with reinforcement within 1.3 ft of the top and bottom of the wall?				
3-11	STANDARD 10 - GLAZING				
3-11.1	Do all exterior windows, spandrel glass exposed to occupied space, and/or skylights include an inner pane of at least 1/4-in laminated glass consisting of two nominal 1/8-in annealed glass panes bonded together with a minimum of a 0.030-in interlayer of a material designed for bomb blast resistance?				
3-11.1	Is glazing frame bite in accordance with ASTM F2248 for laminated glass?				
3-11.2	Do all windows, inner doors, sidelights, and transoms that are interior to exterior stairwells, vestibules, or covered/enclosed walkways, comply with the glazing in this Standard?				
3-11.3	If windows or skylights are being replaced by infill construction, is the same or similar construction as the adjacent wall or roof construction used? Or is lightweight translucent fiberglass panels used?				

3-11.4	Are alternative window treatments such as fragment retention film and blast curtains avoided since such treatments are not acceptable?				
3-12	STANDARD 11 - BUILDING ENTRANCE LAYOUT				
3-12.1	For new construction, is the main entrance to the facility screened or faced away from the DoD property line or installation perimeter or other uncontrolled vantage points having direct lines of sight?				
3-12.2	For existing buildings, is the main entrance to the facility facing away from the DoD property line or Installation perimeter, or is the main entrance screened from the direct lines of sight?				
3-13	STANDARD 12 - EXTERIOR DOORS				
3-13	Do all exterior doors (other than sliding, revolving, or overhead doors) into routinely occupied space swing outwards, increasing the likelihood that the doors will not enter the building as hazardous debris?				
3-13.1	Does glazing in and around exterior doors comply with Standard 10?				
3-14	STANDARD 13 - MAIL ROOMS & LOADING DOCKS				
3-14.1	For new construction where mail rooms or loading docks initially receive mail or supplies (not thru central handling facility), is the mail room located on the perimeter of the facility?				
3-14.1.1	For new construction where mail rooms or loading docks initially receive mail or supplies (not thru central handling facility), is the mail room located away from heavily populated areas of the building and critical infrastructure?				
3-15	STANDARD 14 - ROOF ACCESS				
3-15.1	For new construction, is external roof access eliminated, using internal stairs or ladders only?				

3-15.2	For existing buildings, have exterior roof access points been eliminated or secured with locked cages or similar mechanism?				
3-16	STANDARD 15 - OVERHEAD MOUNTED ARCHITECTURAL FEATURES				
3-16	Are overhead-mounted features weighing 31-lbs (14kg) or more mounted to resist forces of 0.5 times their weight in any horizontal direction and 1.5 times their weight in the downward direction?				
3-17	STANDARD 16 - AIR INTAKES				
3-17	Are outside air intakes located at least 10-ft above the ground or within enclosures constructed per paragraph 3-3.5? And if air intakes are within an enclosure, are the intakes a minimum of 10-ft from the enclosure perimeter?				
3-18	STANDARD 17 - MAIL ROOM & LOADING DOCK VENTILATION				
3-18.1	For new construction do mail rooms and loading docks initially receiving mail or supplies (not thru central handling facility), have a separate, dedicated HVAC or ventilation system?				
3-18.2	For new construction do mail rooms and loading docks initially receiving mail or supplies (not thru central handling facility), have an exhaust system that maintains a slight negative air pressure?				
3-18.3	For new construction do mail rooms or loading docks initially receiving mail or supplies (not thru central handling facility), have ventilation system outside air intakes, relief air, and exhausts with low leakage isolation dampers that have a maximum leakage rate of 3 cfm/sq-ft with a differential pressure of 1 inch of water gage across the damper that can be automatically closed?				

3-18.4	For new construction do mail rooms or loading docks initially receiving mail or supplies (not thru central handling facility), have dampers that are switched to automatically close to isolate the mail room and loading dock?				
3-18.5	For new construction do mail rooms or loading docks initially receiving mail or supplies (not thru central handling facility), have walls extending floor to deck with all joints sealed and doors to inhabited areas with gaskets or weatherstripping to minimize leakage?				
3-19	STANDARD 18 - EMERGENCY AIR DISTRIBUTION SHUTOFF				
3-19	Does the facility have an emergency shutoff switch in the HVAC control system that can immediately shut down the air handling system throughout the building?				
3-19	Is the switch(s) located to be easily accessible by building occupants similar to mass notification local operating consoles so that the travel distance to the nearest shutoff switch will not be in excess of 200 feet?				
3-19	Are shutoff switches labeled and of a different color than fire alarm pull stations?				
3-19.1	Do all outside air intakes, relief air openings, and exhaust openings have low leakage dampers which automatically close when the emergency air distribution shutoff switch is activated?				
3-19.1	Do the low leakage dampers have a maximum leakage rate of 3 cfm/sq-ft with a differential pressure of 1 inch of water gage across the damper?				
3-19.2	Do critical area HVAC system dampers that lead to outside, close upon switch activation, rather than shutting down HVAC to the critical area?				

3-19.3	Do unoccupied areas with direct access outside, have HVAC system dampers leading outside that close upon switch activation, or do the HVAC systems in the unoccupied areas shutdown?				
3-19.4	For new construction, have emergency shutoffs been provided for fan coil unit heaters and air conditioners?				
3-20	STANDARD 19 - EQUIPMENT BRACING				
3-20	Are all equipment mountings for equipment weighing 31 lbs or more, designed to resist forces 0.5 times the equipment weight in any horizontal direction and 1.5 times the equipment weight in the downward direction?				
3-21	STANDARD 20 - UNDER BUILDING ACCESS				
20.1	Are crawl spaces, utility tunnels, and other means of under building access controlled?				
3-22	STANDARD 21 - MASS NOTIFICATION				
3-22	Is a mass notification system provided in accordance with UFC 4-021-01?				
3-22	Does the capability exist to provide real-time info to building occupants during emergency situations, originating locally at the building and from a remote location in accordance with UFC 4-021-01?				
3-22	For Existing Building having no mass notification system, is the fire alarm control panel being renovated in a manner that requires addition or renovation of mass notification system in accordance with UFC 4-021-01, 5-3.1?				

ADDITIONAL ATFP PROJECT FEATURES

Describe ATFP features not required by UFC 4-010-01 that are included in the project, if any:

Features are:

Certification of Force Protection Requirements:

Preparers of this document certify the accuracy and completeness of the Antiterrorism Force Protection features for this project with signatures on the following page/pages.

The next two pages are for AE Designed projects only.

**ARCHITECT-ENGINEER
CERTIFICATION OF ANTITERRORISM FORCE PROTECTION REQUIREMENTS
PRELIMINARY DESIGN SUBMITTAL**

**Preparers of this document certify the accuracy and completeness of the Antiterrorism
Force Protection features of this project.**

Civil Engineer of Record:

Signature Date

Architect of Record:

Signature Date

Structural Engineer of Record:

Signature Date

Mechanical Engineer of Record:

Signature Date

Electrical Engineer of Record:

Signature Date

**ARCHITECT-ENGINEER
CERTIFICATION OF ANTITERRORISM FORCE PROTECTION REQUIREMENTS
FINAL DESIGN SUBMITTAL**

**Preparers of this document certify the accuracy and completeness of the
Antiterrorism Force Protection features of this project.**

Civil Engineer of Record:

Signature

Date

Architect of Record:

Signature

Date

Structural Engineer of Record:

Signature

Date

Mechanical Engineer of Record:

Signature

Date

Electrical Engineer of Record:

Signature

Date

The next two pages are for Louisville District In-House Designed projects only.

**LOUISVILLE DISTRICT IN-HOUSE DESIGN
CERTIFICATION OF ANTITERRORISM FORCE PROTECTION REQUIREMENTS
PRELIMINARY DESIGN SUBMITTAL**

The project specific **Antiterrorism Force Protection Checklist** has been completed and is attached.

The Antiterrorism Force Protection review, plans, and related design analysis documentation have been checked and approved by the in-house design team.

Project Design Team Leader Signature:

Date

Engineering Division Antiterrorism Force Protection Team:

Civil Team Member Signature:

Date

Architectural Team Member Signature:

Date

Structural Team Member Signature:

Date

Mechanical Team Member Signature:

Date

Electrical Team Member Signature

Date

**LOUISVILLE DISTRICT IN-HOUSE DESIGN
CERTIFICATION OF ANTITERRORISM FORCE PROTECTION REQUIREMENTS
FINAL DESIGN SUBMITTAL**

The project specific **Antiterrorism Force Protection Checklist** has been completed and is attached.

The construction contract plans, specifications, and related design analysis documentation have been checked and approved for accuracy and coordination.

Project Design Team Leader Signature:

Date

District AFTP Team Approval:

Civil Team Member Signature:

Date

Architectural Team Member Signature:

Date

Structural Team Member Signature:

Date

Mechanical Team Member Signature:

Date

Electrical Team Member Signature:

Date
