

Public Works DIGEST

Volume XXV, No. 1
January/February/March 2013

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The Linden Oaks Community Emergency Services Station (CESS) at Fort Bragg is the first Army Military Construction (MILCON) project to achieve Leadership in Energy and Environmental Design (LEED) Platinum certification by the United States Green Building Council (USGBC).
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U.S. Army Installation
Management Command
2405 Gun Shed Road
Fort Sam Houston, TX 78234-1223

Public Works Digest is an unofficial publication of the U.S. Army Installation Management Command, under AR 360-1, The Army Public Affairs Program. Method of reproduction: photo-offset; press run: 1,600; estimated readership: 5,000. Editorial views and opinions expressed are not necessarily those of the Department of the Army. Mention of specific vendors does not constitute endorsement by the Department of the Army or any element thereof.

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The Unified Facilities Criteria's Strategies for Master Planning Success

by Mark L. Gillem and Jerry Zekert

The new Unified Facilities Criteria for Installation Master Planning (UFC 2-100-01) starts by describing 10 key strategies for installation planners to follow as they prepare master plans and other planning documents. Application of these 10 strategies noted below, taken from the UFC, will help ensure that all DOD installations prepare plans that will lead to more sustainable and more secure installations.

1. Sustainable Planning

Sustainable planning leads to “lasting” development – meeting present mission requirements without compromising the ability of future generations to meet their needs. The goal of such development is to make the most effective use of limited resources, reduce fossil fuel use and increase the use of alternative fuels, and to create

more compact and sustainable communities that still meet security and safety requirements. Planners will incorporate principles of sustainable planning in their master plans, area development plans, and other planning products.

2. Natural, Historic, and Cultural Resource Management

Installations have natural, historic, and cultural resources that must be considered in the planning process. Natural resources include threatened and endangered species, wetlands, habitat areas, forests, undisturbed land, and important viewsheds. Historic and cultural resources may include historic buildings, structures, objects, districts, landscapes, and archaeological sites, as well as sacred sites to Native American tribes. Planners will coordinate planning decisions with installation cultural and natural resource managers early in the planning process to avoid project delays and additional funding needs from the inadvertent discovery of historic, cultural and natural resources within proposed project areas.

3. Healthy Community Planning

Regular physical activity is critically important for the health and well being of people of all ages, and reduces the negative impact from many chronic diseases. Physical fitness is key to readiness. Planners will incorporate health considerations and opportunities for physical activity based on advice from representatives of the installation's medical staff. Effective planning can create conditions that encourage physical activity, connect land uses and facilities, and provide safe, protected pathways for physical fitness training for our service members and their families. High connectivity, mixed land uses, and well-designed pedestrian and bicycle infrastructure decrease auto dependence and increase levels of walking, running, and cycling.

4. Defensible Planning

Military installations must be safe and secure in order to operate effectively and efficiently. Two key strategies impact planning: the Defense Critical Infrastructure Program (DCIP) and

Acronyms and Abbreviations	
ADP	Area Development Plan
AT	Antiterrorism
DCIP	The Defense Critical Infrastructure Program
UFC	Unified Facilities Criteria

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integrate their efforts. In the past, military master plans could be encapsulated into a land-use map showing an entire installation. This scale of planning did not provide adequate guidance, and led to vacant lot planning. The UFC requires installations to focus on more manageable areas and generate plans that allow planners to identify capacity for compatible growth in order to avoid vacant lot planning and build efficiently within current landholdings.

As part of the effort, U.S. Army Corps of Engineers has developed a comprehensive education and planning support strategy. Master planning courses taught by the Corps are now using the UFC as a guide. These are accredited continuing education courses approved by the American Planning Association,

the American Society of Landscape Architects and the American Institute of Architects. Hundreds of planners have already taken advantage of these opportunities. Additionally, a suite of metrics has been developed to track compliance with the UFC at every level and a series of standard Statements of Work have been created so that process consistency and conformance is improved.

The UFC is a new recipe book that guides more appropriate and sustainable development using ingredients, like roads, parking lots, buildings, and open spaces, available at all installations. The new UFC puts an end to vacant lot planning, and instead guides energy-efficient development that economically sustains our missions and our environments.

The UFC can be accessed using this link: http://www.wbdg.org/ccb/browse_doc.php?d=9224

http://www.wbdg.org/ccb/browse_doc.php?d=9224

The public release of the UFC can be viewed using this link: [http://www.ncpc.gov/ncpc/Main\(T2\)/PublicParticipation\(Tr2\)/Public%20Participation\(Tr3\)/upcomingEvents/dodplanning.html](http://www.ncpc.gov/ncpc/Main(T2)/PublicParticipation(Tr2)/Public%20Participation(Tr3)/upcomingEvents/dodplanning.html)

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Antiterrorism/Force Protection (AT/FP). The master plan must incorporate DCIP analysis to minimize risk to the installation's strategic infrastructure and networked assets that support the critical missions necessary to provide combat capabilities. The master plan must incorporate UFC 4-010-01 and the applicable Geographic Combatant Commander's ATFP Construction Standards.

5. Capacity Planning

Capacity planning allows planners to determine an installation's maximum development capacity based on conformance to the installation's planning vision, goals, and objectives. While known requirements need to be sited in the master plan, room needs to be reserved for unknown future requirements. The difference between the existing condition and the future build-out is the capacity. In this way, planning precedes programming, is proactive, and does not just account for current known requirements. Capacity planning can be shown on illustrative plans through the use of "notional buildings" or areas designated for "potential future growth."

6. Area Development Planning

As part of the master planning process, installations will be divided into identifiable and connected districts based on geographical features, land use patterns, building types, and/or transportation networks. An Area Development Plan (ADP) should then be prepared for each district. This leads to developing the Master Plan in logical planning increments. The installation planner determines the number of ADP districts.

7. Network Planning

While significant planning is completed at the ADP level, these ADPs are also linked through network planning. These networks consider linkages and systems

that span ADP district boundaries. These include installation-wide utility systems, transportation networks, and parks and open space networks. All installation master plans must plan at both the district scale and the installation scale. Network plans should also consider holistic approaches to energy-efficient development. Network planning should also include coordination and integration of planning with privatized housing or privatized utility partners.



This Illustrative Plan for a district at Fort Carson shows the elements needed to make an ADP work. These include existing and proposed building footprints, roads, and parking areas.

8. Form-Based Planning

Form-based planning guides construction by identifying the form for installation development (building types, height, set-backs, circulation patterns, landscaping, land use, etc.) and translating that form into a set of specific planning directives. The directives use products typically developed by planners, including illustrative plans, land-use plans, and street, building, and landscape standards to flexibly guide development. The form that this approach supports reflects mission needs, program requirements, environmental constraints and opportunities, and other development factors. This practice gives installation commanders the ability to exercise more control in the installation development process.

9. Facility Standardization

Service-developed standard area requirements and spatial relationships recognize the need for consistency in building types repeated across installations. These area requirements and spatial relationships can be maintained within

a variety of building designs that are consistent with the installation's Regulating Plan and Installation Planning Standards. When appropriate, standardized area requirements and spatial relationships will be included in the development of Illustrative and Regulating Plans. Planners will not site standard designs that are inconsistent with the Master Plan. Planners will pursue waivers as appropriate.

10. Plan-Based Programming

Facilities and projects will be programmed to fulfill the Master Plan's planning vision. Programming cannot be accomplished in the absence of a Master Plan.

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