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This Issue:
Master Planning

Master Planning	3
Successes	26
Technical Support	36
Professional Development	40



Fort Hunter Liggett, Calif., plans to build three-level townhouse barracks along a new transit corridor, a plan that will support walkability and infill development. Image courtesy of The Urban Collaborative LLC. Page 14



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Master Planning

- 3 Planning essential for maintaining installations, *by Maj. Gen. Jeffrey J. Dorko*
- 4 Fort Hood: Master planning for 2020 and beyond, *by Brian Dosa and Kristina Manning*
- 6 Back to basics: The next generation for master planning, *by Mark Mitsunaga*
- 8 Planning with SRM and OPM for a sustainable future at Fort Hood, *by Mark L. Gillem and John Burrow*
- 10 Solutioneers wanted; inquire within, *by Jerry Zekert*
- 12 Army to establish enterprise real property utilization tool, *by Dwayne Melton*
- 13 New guidance on master planning on its way, *by Jerry Zekert*
- 14 Using townhome barracks to meet sustainable planning goals, *by Mark L. Gillem and Cyndi Skinner*
- 16 Housing and master planning, *by Jonathan Winkler*
- 18 Master planning more important during downsizing than ever, *by Kathryn J. Haught*
- 20 Capacity planning: Preparing for an unknown future, *by Jill A. Schreiber*
- 21 Bulletin presents smart-growth strategies, *by Natalie Myers*
- 22 Balancing the TAB: Fort Wainwright's experience, *by Kate Siftar*
- 23 How to build area development plans, *by Anne de la Sierra*
- 24 Capital investment strategy important to carrying out master plan, *by Michael Hipp, Alexandra Peet and Joseph Tomley*

Successes

- 26 Fort Belvoir transportation management: Becoming multimodal, *by Steve Gleason, Jennifer Wiley and Christopher Landgraf*
- 28 Huntsville planners work with Fort Carson, Joint Base Lewis-McChord to plan new combat aviation brigade campuses, *by Jimmie Lee Jackson*
- 29 Master Planning Institute earns environmental award, *by Andrea Wohlfeld Kuhn*
- 30 Joint Base Lewis-McChord designs modern, efficient Lewis North post, *by Thomas Tolman, Leah Anderson and Gary Stedman*
- 31 Master planners help name Lewis North education center for hero, *by Duane Denfeld and Gary Stedman*
- 32 Joint Base Lewis-McChord builds to plan for special forces, *by Tanya King*
- 33 Huntsville Center plays role in chemical agent disposal facility, *by Debra Valine*
- 34 At Fort Hood: Daring to go net-zero waste, *by Christine Luciano*

Technical Support

- 36 Wizards' magic is just warming up, *by Susan Nachtigall and Nadia Abou*
- 37 Bulletin describes novel erosion control method using compost mulch, *by Heidi R. Howard*
- 38 Center assesses check dams for erosion and sediment control, *by Heidi R. Howard*
- 38 Guidance to ensure successful vegetation and hard armoring, *by Niels Svendsen*
- 39 Bulletin offers insight into composting for explosives remediation, *by Giselle Rodriguez*
- 39 Schultz is Corps' acting chief of Installation Support, *by Mary Beth Thompson*

Professional Development

- 40 Dreams can come true, *by W. Chris Hinton-Lee*
- 41 Federal Planning Division regional conference report, *by Andrea Wohlfeld Kuhn and Jill A. Schreiber*
- 41 Planning conferences to convene in April
- 42 Department of Defense Master Planning Institute 2012 classes, *by Andrea Wohlfeld Kuhn*
- 43 Career Program18 centrally funds web-based training, *by Dana Gunter*



Using townhome barracks to meet sustainable planning goals

by Mark L. Gillem and Cyndi Skinner

On Nov. 23, Lt. Gen. Michael Ferriter, the assistant chief of staff for installation management, issued master planning policy guidance for sustainable design and development. The guidance requires that:

“Planners will incorporate the following key principles of sustainable planning in their Master Plans, area development plans, and other planning products: compact development, infill development, transit-oriented development, horizontal and vertical mixed-uses, connected transportation networks, low impact development, multi-story construction, narrow buildings, sustainable planning and energy efficiency practices that embrace district energy, as well as holistic energy, water and waste management, facility utilization and building reuse as well as lifecycle planning.”

Implementing Armywide policy like this at the local level can be a challenge, especially when planners are confronted with outdated plans, a culture resistant to change and overly rigid facility standards. How can this be done? This article highlights one specific case that demonstrates how planners can use known requirements to meet this new ACSIM guidance.

The process, however, does not begin with requirements. Rather it begins with the creation of a shared planning vision anchored in the needs and context of the installation. At Fort Hunter Liggett, Calif., using a collaborative training practicum conducted by Headquarters U.S. Army Corps of Engineers and with the participation of Headquarters Installation Management Command staff, installation planners and other stakeholders determined that their planning vision is, “to create a flexible training environment surrounding an attractive small town with walkable main streets and a usable town square, where Soldiers, civilians, and their families enjoy living and working.”

In support of this vision, new area development plans sited smaller scale

buildings facing streets and parks, much like historic Paso Robles, about an hour south of the installation. When the requirement for a new barracks emerged, installation planners faced the choice of finding a site for a traditional barracks, which would have perpetuated the old vacant lot planning model, or meeting the barracks requirement in a way that conformed to the master plan vision. They chose the latter path.

After all, who would voluntarily live in a traditional barracks anyway? While the economic and accessibility benefits of living on an installation are certainly compelling, many young Soldiers cannot wait to move out of their assigned barracks. In some cases, they have even married each other, not out of love but out of a desire to get into more attractive military Family housing. The smaller scale of the latter makes the former look and feel confining and uncomfortable.

There is little argument that traditional barracks are rather large and impersonal. They frequently have long, windowless, double-loaded corridors that are more appropriate for prisons than homes. Access to natural light, natural ventilation and any sense of human scale is largely missing from many new barracks. They are neither comfortable places to live nor efficient buildings to operate.

To complicate matters, these big buildings require extensive antiterrorism setbacks and construction standards, including progressive collapse, 25-meter standoff distances and expensive glazing systems anchored into the structural members. All of this comes at a steep price.

Acronyms and Abbreviations	
ACSIM	assistant chief of staff for installation management
IMCOM	Installation Management Command
TAB	Tabulation of Existing and Required Facilities

First, the psychological toll associated with living in an impersonal dormitory-like building has been well documented by researchers on college and university campuses. Crime, violence and a general disregard for maintenance and upkeep are not uncommon. This toll is one reason why universities are moving away from the dormitory model to one that embraces smaller scale townhome units where fewer people share common areas.

Second, the added construction costs associated with antiterrorism measures make large buildings more expensive than smaller buildings, and barracks are no exception.

Third, and perhaps most important from a planning perspective, the extensive setbacks needed for larger barracks complicate infill and compact development goals.

Given the costs associated with the larger barracks model and the incompatibility such a model has with the installation’s planning vision, a new model was needed. Planners initially turned to the townhome barracks prototype at Fort Leonard Wood, Mo.



These multi-level Navy townhome barracks in Norfolk are not subject to antiterrorism requirements since they only have 10 residents. Images courtesy of The Urban Collaborative LLC.



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According to a Fort Leonard Wood brochure, townhouse style permanent party barracks house junior enlisted Soldiers in a new way. Departing from the traditional block barracks buildings, these units create a home-like feel in a neighborhood atmosphere. The townhouse barracks use the Army standard “1+1” floor plan configured into five-unit buildings. Each two-person unit has its own exterior entrance, individual bedrooms and lavatories, full kitchen with appliances and a shared bathroom.

The model was developed with the support of the U.S. Army Corps of Engineers’ Fort Worth District Barracks Center of Standardization, the Corps’ Kansas City District and the Department of Public Works at Fort Leonard Wood. Proponents of the model argue that the smaller typology increases Soldier morale and retention, minimizes common circulation area to maximize individual Soldier space, reduces construction costs since wood frame construction is less expensive, accommodates a wide variety of project sites and construction types, and easily adapts to fit local character.

Townhouse style barracks are also consistent with the 1994 Government Management Reform Act and with the

2005 *Holistic Barracks Strategy*, which remains the focal point for the barracks program, according to Zeli King, ACSIM Barracks Program manager, in the January/February 2011 Public Works Digest. Key goals of the resulting barracks modernization program include eliminating common area latrines and crowded sleeping quarters, providing a common standard of living and learning from the Navy’s barracks privatization efforts. Moreover, the Army recognizes that unaccompanied personnel housing is a quality-of-life issue that affects readiness and retention.

Given these benefits, it is hard to overlook the potential for this new model. At Fort Hunter Liggett, planners and designers are taking the model to the next level. Since these buildings have no more than 10 occupants, they do not need standoff distances or progressive collapse designs. Hence, they can fit on much smaller sites and be used to infill in already developed areas.

They can also be used to help frame connections between developed areas of an installation. At Fort Hunter Liggett, the initial plan is to build four of these small barracks directly along a new main street and close to the new town square. Porches and stoops will face the street and parking will be behind.

To maximize land use efficiencies, the buildings will have three levels, similar to Navy unaccompanied housing in Norfolk, Va., instead of the one and two levels built at Fort Leonard Wood. And to fit within the installation design guide standards, they will be built with stucco and roofing to match the installation’s vernacular theme.



Planners are working directly with the architects to ensure that the buildings achieve the installation’s planning vision. This iterative process is somewhat unique and guarantees that the plan is useful in siting actions and design decisions.

Planners have used the revised townhome barracks model to support key ACSIM goals. They allow for more compact, infill development. The land needed to site these buildings is significantly less since antiterrorism setbacks are not required, which supports the use of infill sites in compact, walkable districts.

Townhome barracks support transit-oriented development by allowing more dense development to occur along a transit corridor within walking distance of transit stops. They support horizontal mixed-uses by allowing planners to site them within a 10-minute walk of many other uses rather than isolate them in a barracks compound. As a building typology, they support goals for multi-story construction and narrow buildings, which have substantial energy and performance benefits.

Even in this era of declining budgets, planners have the ingredients to make more sustainable installations. The Army will still build barracks and office buildings as well as roads and parking. Designers just need a clear recipe to follow, which, if done right, is a real property master plan. As is the case at Fort Hunter Liggett, the plan should help drive facility siting and typology decisions that can meet the ACSIM goals for sustainability and energy-efficiency.

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Fort Hunter Liggett plans to build three-level townhouse barracks along a new transit corridor, a plan that will support walkability and infill development.