

# Protecting the Force

Story and photos by Brian H. Temple

U.S. Army Corps of Engineers employees are working hard to keep terrorists at bay. Europe District teams and contractors are rebuilding and fortifying gates, installing retractable bollards, reinforcing perimeter fences, and equipping buildings with blast resistant windows and doors.

One such project, a \$1.9 million force protection effort at Leighton Barracks in Würzburg, Germany, will be completed in July, increasing protection for U.S. Army Europe troops there.

Frank Gonzales Jr., project engineer with Europe District's Ansbach Area Office, said the Corps is using contractor Mickan General-Bau-Gesellschaft Amberg mbH & Co. for several jobs. Mickan will build a new guard shack at the First Infantry Division (IID) gate, and

equip the IID headquarters with blast resistant windows, doors, reinforced suspended ceilings, and air ventilation systems.

The windows, some of which are more than eight inches thick and cost around \$8,000 apiece, have to be installed by crane, Gonzales said. "Looking at a drawing you try to visualize the frame, the window, the glazing in your mind, but once you actually see it, it's astonishing."



First Infantry Division Guard Shack

Gonzales said they had just four days - one training holiday, a weekend, and a federal holiday - to complete the job. "The plan was to install a protective covering [over furniture], demolish the ceilings, install the ducts and the AC systems ... and send in a cleaning crew to clean up the dust and shampoo the carpet," Gonzales said. During that four-day



These pipes will be connected to form an oil/water separator preventing water and soil contamination.

## "Horses" continued from page 15

The separator will be alarmed, notifying the Directorate of Public Works when it needs to be emptied of oil, Dolan said.

Environmental considerations also played into preparation of the site. Concrete from the demolished buildings was crushed to reuse as fill material. "It makes a nice, well-graded product," Dolan said. "They'll use that various places on site rather than haul it off to a land fill."

Some of the extra fill has been used to reduce the grade of a side road accessing a rifle range and military operations in urban terrain training area.

"We had lots of excess material so it made sense to try to utilize it and mitigate the effects of a steep road grade during winter weather conditions," Dolan said.

Karl Hübner, Chief Engineering, Planning and Services, from the 222d Base Support Battalion's Directorate of Public Works, said the project is going well and that integration into the existing base infrastructure has been no problem.

"We've had enough time to plan for it," Hübner said. "I remember maybe 12 or 13 years ago the first attempt was made for this project, ... but it's been slipping in the MCA and so on. So we had plenty of time, [along with] the Bauamt to do good design."

Hübner said USAREUR - Installation Management Activity has been involved in the design process all along, ensuring the facility meets the current standards.

Dolan said the Corps has an excellent working relationship with the Baumholder DPW. "[W]e work closely together to try to make sure the customer gets what they really need."

Dolan said that Rothhaar, as the project engineer for Project No. 1, is performing design review for maintenance facility Projects No. 2 and 3. "The lessons that he's learned on this one [can be applied] when he's reviewing plans and specs on the other ones ..." he said.



**(Left) Volker Ender, construction representative with Mickan General-Bau-Gesellschaft Amberg mbH & Co. (left); Frank Gonzales Jr., Project Engineer for Europe District's Ansbach Area Office (center); and Lt. Col. Richard Hook, director of public works, 98th Area Support Group; discuss the design for the First Infantry Division's (1ID) headquarters on Leighton Barracks in Würzburg, Germany this past May.**

**(Below) Reinforced fences near the 1ID gate on Leighton Barracks.**

time frame, windows and doors were also installed, as were lighting fixtures and the steel reinforced ceilings. "If you don't have good advanced planning your schedules are not going to work. It came together as planned," Gonzales said.

Efficient coordination between Capt. Robbin Halstead, 1ID commandant, Volker Ender of Mickan, and Lt. Col. Richard Hook, director of public works, 98th Area Support Group, ensured construction finished by the end of the four days. The team has also helped to keep other construction on schedule, Gonzales said.

Hook said he specifically enlisted the Corps for their knowledge and experience in force protection work.

"I was aware that the Corps of Engineers had a lot of experience ... [with] force protection projects. For example, the Omaha District ... does a lot of studies in terms of blast affects, so that's why I picked the Corps of Engineers," he said.

He said the overall upgrades would be executed in four phases. Construction includes the now completed extension of the perimeter fence around the Leighton Barracks Chapel as well as moving the 1ID museum's vehicle and armor displays, repaving an access road and sidewalks, and combining several parking lots to provide 165 parking spaces.

Hook originally wanted the Corps to be involved with all phases of construction, but funding and timing challenges only enabled Corps management of the perimeter extension, and the more complicated construction such as the 1ID gate and headquarters reinforcements.

He said he knew the Corps could obtain specific materials such as blast protection windows and they understood the design and construction aspects of such materials.

Since September 11, 2001, the Department of Defense has





**Frank Gonzales Jr., Project Engineer for Europe District's Ansbach Area Office (left), and Michael Annand, Europe District Regional Program Manager for the 98th Area Support Group, discuss the finishing touches that need to be done on the First Infantry Division's (1ID) headquarters building, and the adjacent 1ID guard shack on Leighton Barracks in Würzburg, Germany.**

released funds for communities to reinforce the protection of troops and the U.S. Army Europe has adjusted the force protection standards, he said.

Hook contacted James Noble, an architect and Force Protection Team Leader with Europe District, in February 2002, to get guidance and cost-effective ideas on implementing the standards in Würzburg. Noble worked with Hook to get the design completed by September 2002. The 98th ASG received the money and construction began the following month.

Hook said he is pleased with Noble's resourcefulness and economic savvy.

He cites an example where Noble suggested to arrange the 11D museum's armor and vehicle displays to provide greater stand-off distance for the 11D headquarters. Stand-off distance is the measured space between any parked vehicle and the exterior of a building.

This would be completed in conjunction with the proposed combined parking lots. "Jim Noble was the one who brought that up back in February and March of 2002 saying, 'Hey, you can do this so you don't have to buy such expensive windows, especially for the back side of the building, getting

that [extended] stand-off, that's easier,'" Hook said.

Noble said he looks at the overall picture to establish what each community needs. His goal is to provide customers with a safer environment while saving them money during the process. With the 11D project Noble said, "It makes the museum nicer, you're giving them a consolidated parking area and

**"You guys talk about 'value engineering' [and are] helping us out."**

force protection actually becomes invisible. That's really the goal."

The 98th ASG has been active with executing force protection construction and things are gearing up as well in the 100th ASG community of Grafenwöhr, he added. Noble said he is taking a similar approach to Grafenwöhr's multi-million dollar expansion and renovation under the Efficient Basing-East initiative.

"Rather than taking it building by building and applying the standards to that building, we've worked with the ASG and the DPWs ... and [are] taking another several steps back to get a good overview of the whole installation," Noble said.

Solving force protection challenges

on a building-by-building basis can be costly, Noble said, but by incorporating force protection in overall design, hundreds of thousands of dollars can be saved.

By placing parking lots at either end of a cluster of buildings and transforming the current infrastructure between them into a pedestrian zone with upgraded landscaping, customers can save money and enjoy a much better design, Noble said.

"The analogy and image we often use when we present these

possible solutions to the clients is to go back and remember when you were in college, it was that campus atmosphere with a pedestrian landscape," Noble said. "There's nothing that says you can't pull back and draw down the threat level to each building and still not end up with a better design in the long run."

Noble said the Corps is reaching out to the Stuttgart community as well, but no matter what projects they tackle, or where they will do the construction, he wants to keep his customers happy.

As far as the Würzburg construction is concerned, Hook is pleased so far. "I'm very happy with what's going on. You guys talk about 'value engineering' [and are] helping us out," he said.