

## ■ Amerika in Augsburg e.V.

### ■ U.S.Army Maintenance and Minor Construction Projects in Augsburg 1976 - 1992

#### *English Summary*

##### Introduction

For most of Augsburg's citizens, the U.S.Army installations - areas sized like city districts - with high perimeter walls or chain link fencing crowned by barbed wire, as well as the actually open Family Housing Areas were *terra incognita*, unknown territory, that could only be entered on a "day of open doors" at best. The 500 buildings utilized by the U.S. equaled approximately the number of buildings / real property owned by the City of Augsburg. However, no Army building was protected by any Historical Preservation Law as quite a number of the City's century old beautiful edifices. The kasernes were basically constructed in the thirties of the last century. After the end of WW II, the former Wehrmacht real property was utilized by the U.S. - although still owned by the German Government, represented by the Bundesvermögensamt, which, nevertheless, until up to the eighties, had almost no influence in regard to what the Army did or did not with these buildings. This was, where the Directorate of Engineering and Housing (DEH) came into the picture.

In the nineteen fifties, the Army got four huge Family Housing Areas - **Cramerton, Centerville North / South, Sullivan Heights** (in Augsburg) and **Fryar Circle** (in Leitershofen) - in close vicinity to the kasernes (**Flak Kaserne, Reese Barracks, Quartermaster Kaserne** and **Sheridan Kaserne**). **Playgrounds, Child Care Centers, Elementary and High School** were added as well as an **Army Education Center** and a even a campus of the **University of Maryland**. **PX stores, Class VI Outlet, Commissary, Snack Bars, Book Stores, barber shops, U.S.Mail and German Bundespost** offices, **Community Bank** and a **gas station** for POVs were provided. There were **gymnasiums, racquetball and tennis courts** as well as **sports fields** for typical U.S. activities like softball. There existed a **Bowling Alley, a Roller Skating Rink** and even a **Half Pipe** for skateboards. And, of course, there was a **library**. Each kaserne featured a **movie theatre**. The **Community Conference Center** was in Sheridan Kaserne. **Crafts Shops, Foto Labs, Recreation Center and Automotive Shop** were distributed all over the Military Community. **Roofed BBQ areas** were constructed. **EM, NCOs and officers** had their **Clubs** in addition to the "**Rod and Gun Club**" in Reese Barracks and the "**Bavarian Hills Golf Club**" in Stadtbergen / Deuringen. For the youth, a **YA Center** and a **Boy Scouts** building were available. And, of course, there were **Transient Billets** respectively rooms or even suites in the Officers Club for those coming or going. Last but not least, several **chapels** were located in kasernes and Housing Areas.

The Military Community offered a **Dental Clinic** for adults and one for children plus a state of the art **Hospital** in Flak Kaserne. For the pets, a **veterinary** practiced and the "**Pet Palace**" in Flak Kaserne took care of lone dogs during the vacations of their ownwers. POVs of newcomers were checked by the "**Army TÜV**" in Sheridan to make sure that cars met German technical standards.

**Rifle** respectively **Mini Tank Ranges** in Deuringen, Haunstetten and Schwabstahl plus an **Obstacle Course** and a **Leadership Reaction Course** in the Deuringen Training Area were constructed.

All of this, including the respective infrastructure, required permanent maintenance by the Facilities Engineer (**FE**), later called Directorate of Engineering and Housing (**DEH**), with its own staff of painters, plumbers, carpenters and so on.

This project costs the U.S. taxpayer...

Funds for repair and maintenance (Operation Maintenance Army, **OMA**) of buildings, real property, roads and infrastructure, plus training areas from Gablingen to Schwabstadel as well as funds for alterations and new work (**Minor Construction**) were raised by the *American* taxpayer, not by the *German*, as many Germans assumed. Projects were in most cases designed and specifications prepared by the Engineering Services Br, Engineering Plans and Services Div, DEH, and contracted by the local procurement office (part of EUD Frankfurt). Work was, in most cases, executed by local German contractors. As there were only about half a million \$ for projects available in 1976, many of the small scale projects, especially paint work, had to be done by the FE's shop personnel and / or by Army Self Help rather than by contractors. Then funds increased from year to year. From the beginning of the eighties, approximately twenty million \$ (w/o German VAT) per year were available. Signs at the construction sites indicated the type of work and also how much it cost the U.S. taxpayer in \$ & DM.

Minor Construction

Small scale new, alteration and extension work **up to \$ 200,000** (including 6% design cost for the preparation of specifications and drawings plus 5% contingencies), e.g.

- **Extension of Child Care Center**, Bldg 134, Sheridan Kaserne
- Construct Pre-Fab Concrete **Training Buildings** opposite Bldg 33, Reese Barracks

could be designed and supervised by the **DEH**..

MCA-Projects

Large scale new, alteration and extension projects **above \$ 200,000** as well as most of the repair projects above \$ one million were Military Construction Army (**MCA**) -Projects. They were executed by the Resident Engineer as part of **EUD** (U.S.Army Corps of Engineers, European Division) Frankfurt and the Oberfinanzdirektion Munich (**OFD**), represented by the Finanzbauamt Augsburg, in cooperation with the DEH:

- **Bowling Center**, Sheridan Kaserne
- **Dry Storage Area**, Sheridan Kaserne
- **Hospital**, Flak Kaserne
- **Kindergarten**, Centerville North Family Housing Area
- **Main PX**, Quartermaster Kaserne
- **Racquetball Courts** (as annexes to gymnasiums in kasernes)
- **Washers & Dryers**, Family Hsg / Billets.

MOUSF

The former Wehrmacht buildings were maintained and repaired by the Army. Due to lack of funds for actual improvement, repair work in the early years was more or less restricted to paint work (Self Help or FE personnel, utilizing U.S. paint, inside / contractors outside and in the Housing Areas). So, buildings looked OK - at least at first sight.

In the middle of the seventies, the **German Government** spent **millions of DM** to upgrade U.S. Army troop billets and mess halls to Bundeswehr standards – MOUSF (Modernization of U.S. Facilities) was born. Work was executed IAW U.S. standard specifications and drawings and supervised by **EUD** and **OFD** in cooperation with the DEH. Windows, doors, flooring, electrical distribution systems and wiring were replaced. All wet rooms were modernized.

Mess halls were upgraded and modern stainless steel kitchen equipment was installed. And, of course, everything was painted.

### GI-Proof Buildings

Especially in the days of drafting, all building components had to be GI proof to **withstand mistreatment**. Therefore, lavatories and even mirrors were made of stainless steel for a long time. Building siding and doors had to be “heavy duty” to withstand the kicks of angry boots... This changed when more and more women enlisted and instead of co-ed (at first), separate toilets as well as shower rooms with individual stalls for each female soldier had to be constructed

### Minimize Maintenance

When the **3-ply membrane roofing** in the Housing Areas started to leak twenty years after its installation, **roofs** could only be spot repaired due to lack of available funds. As soon as one area was repaired, a second and third started to leak. Repetitive leaks caused a more or less permanent dampness of the pumice slabs underneath. Therefore, when finally funds were available at the end of the seventies, it was decided to replace the flat roofs by relatively flat sloped hip roofs, covered with (asbestos-free) **corrugated fiber cement** or **brick tile roofing** material, depending on the load bearing capacity of the differing building structures. This way, we got almost maintenance free as well as long lasting roofs, without changing the character of the Housing Area too much.

The topmost (reinforced concrete) ceiling was covered with mineral fiber insulation (U.S. manufacture as long as low prices for material and shipping allowed).

### Safety Requirements

The typical German and / or American Safety Regulations - the stricter one had to be used - were applicable for all projects. This is why the Bavarian Building Code (Bayerische Bauordnung, **BayBO**) was utilized, regardless of the fact that the City of Augsburg authorities were not allowed to check this. Besides that, the rather strict American **OSHA** (= Occupational Safety and Health Administration) requirements had to be followed. This is why a lot of the troop billets needed additional fire exits and exterior steel stairwells at buildings' ends. Also, at most exit doors, panic bars instead of door handles had to be installed (by now also an EU regulation).

### Safety for Children

The Army wrote safety in bold letters, especially when children were concerned. In the **Housing Areas**, all windows except those in bathrooms and toilets that could not be reached by children, were protected by aluminum window guards. When it was realized that kids included the small roofs above the entrance doors in the Housing Areas in their games, the new bigger porch roofs were supported by *square* (instead of round) stainless steel pipe columns, which were too wide for the small hands of the kids and therefore could not be used for climbing.

Radiators in **Child Care Centers** had flat surfaces or covers, so that children could not hurt themselves. Thermostatic valves ensured that no kid would be hurt by boiling water when washing itself. To avoid abuse, toilet partitions, for better visibility, were low and / or without doors in certain areas. Other doors had (safety) glass inserts or there were small windows in partition walls.

Of course, all **playground** equipment had to meet the ever increasing safety requirements.

## □ Perimeter Walls versus Chain Link Fencing

Due to increasing **security** demands, new regulations for the kasernes required higher perimeter walls and chain link fencing w/ barbed wire on top. Therefore, for monetary reasons, it was considered, to demolish the combined brick walls / square iron bars / brick pillars in favour of chain link fencing of the required height, which would have looked rather martial in the middle of the German housing areas that surrounded the kasernes. Instead, the existing steel grates were removed, rustproofed and painted, while the height of walls and pillars was increased with several courses of stuccoed brick. Then the original grates were reinstalled. Finally, the required strands of barbed wire were fixed (Reese, Sheridan). The height of the perimeter walls of Flak Kaserne was also increased. Only existing chain link fencing was replaced in kind, three strands of barbed wire on outriggers on the top of the new concrete filled triangular steel posts and one strand between ground and fencing material.

## □ Energy Saving

Although Americans are not generally known as being conscious of environmental pollution and energy saving, already more than 25 years ago, the Army had realized the immense amount of possible savings in case of **sound usage of energy**. Saving of energy in kasernes and Housing Areas was therefore mandatory. All applicable projects were designed to save energy. E. g.:

- **Aluminum windows and doors** made of **thermically separated extrusions**, with **insulation glazing**
- **Thermal insulation of roofs**
- **Body contoured bathtubs** to save approx. 1/3 of water
- **Styrofoam block supports** matching exactly the contours of bath- or showertubs to keep water warm for a longer period of time
- **Watersaving faucets**
- **Electronically activated urinal flushing valves**
- Vandalismproof **thermostatic radiator valves**
- **Automatic temperature reduction** of incoming district heat **during nights and weekends**
- **Illumination intensity** in shops and offices **per regulation** only
- **Electronically starters** for fluorescent light fixtures
- **Sodium vapor lamps** with automatic **twilight switches**
- Modern **energy saving refrigerators and ranges**

Newcomers got **handouts with instructions** for energy saving behaviour. Light switches wore "Turn me off " and "Empty rooms love darkness" **stickers**. Other stickers transmitted messages like "Save Army Energy - Energy Efficiency = Combat Readiness" and "Augsburg is no place for energy waste". At each **kaserne gate**, switchable metal plates indicated the current Military Community's energy consumption:

- red = increased energy consumption (in comparison to previous year)
- yellow = unchanged energy consumption
- green = decreased energy consumption

These combined efforts of the Community were recognized by several **Energy Saving Awards**<sup>\*)</sup> won in worldwide annual competitions, even 1<sup>st</sup> place winner - with one million \$ cash for Community projects like the modernization of the U.S. Mail , Bldg17, Reese Barracks.

<sup>\*)</sup> **USAREUR Energy Conservation Award,**  
**Secretary of the Army Energy Conservation Award,**  
**Federal Energy Award,**

## USAREUR Natural Resources Conservation Winner

### From U.S. Coal to District Heat

At first, separate heating plants in kasernes and Housing Areas utilized inexpensive American coal, stored at Quartermaster Kaserne, or oil (Reese heating plant). Due to energy saving efforts and environmental protection, the old plants were closed step by step and most of the buildings were connected to District Heat, provided by contracting the Stadtwerke Augsburg, who erected a new gas powered heating plant next to Quartermaster Kaserne. The **Stadtwerke Augsburg** provided the pipe system up to each building's perimeter wall, Engineering Services, EP&S Div, designed and provided everything inside – which meant the complete replacement of all existing heating pipes and radiators plus accessories and any number of wall and ceiling openings. All work had to be executed in occupied buildings... As the Stadtwerke payed for their own construction work, the Army had to pay higher energy prices for several years. Almost exactly at the time when the last rate had been paid, the Augsburg Military Community / base was closed!

### Environmental Pollution

Contrary to the often stated disinterest in environmental pollution, the **Army felt responsible**. That is why projects like those listed below were executed:

- **Land fills** in Deuringen Training Area and Gablingen Kaserne were checked for dangerous materials
- Cleaning of **POL** (Petrol Oil, Lubricants) -**polluted ground water** in Quarter Master Kaserne
- Replacement of old **gas stations and waste oil tanks** per German laws (TÜV-controlled)
- **Ground exchange** in the area of the laundry in Reese
- **Radon protection** in Fryar Cicle, Elementary School (Bldg 528) and Sheridan
- **Asbestos covering or removal** (e. g. in Bldg 1801, Gablingen)

The Energy & Environmental Management Office, DEH, took care of energy saving and environmental protection as ordered by headquarters VII<sup>th</sup> Corps Stuttgart<sup>9)</sup>.

### Historical Preservation

All DEH designed repair projects kept or restored the original design. This was especially important for **representative edifices** like the **Recreation Center**, Bldg 33<sup>\*)</sup>, Reese (a former Wehrmacht officers club), now City of Augsburg's Cultural Center "*abraxas*", the **Headquarters Bldg** 101, Sheridan, the **Judge Advocate Bldg** 104, Sheridan and the **Officers Club**, Bldg 180<sup>\*)</sup>, Sheridan, (also a former Wehrmacht officers club). All enamel coats on natural stone and clinker brick surfaces were removed per Army regulation and waterproofed. Marble or lime stone **flooring and wall covering** was repaired or replaced in kind.

In the Recreation Center, the original **doors** were properly restored when feasible or replaced by solid oak doors matching the original design. Exterior door replacements, now opening to the outside and featuring panic bars as prescribed by the OSHA Requirements, utilized the original wrought iron gratings. Swinging doors' handle bar holders were cast metal like the original holders. Wooden **windows** were replaced by aluminum windows that were optically identical with the original mullion and muntin design. Lead glazed windows and the round windows in the entrance tower remained in place.

<sup>9)</sup> **Mission Statement for USMCA Augsburg** per **Headquarters VII<sup>th</sup> Corps**, Stuttgart, Sep 10, 1984: para 4.b.(3)(e) "**Place special emphasis on: ... Energy Conservation ... Environmental Protection ...**"

\*) Since 2006, the former **Recreation Center**, Bldg 33, Reese Barracks, and the former **Officers Club**, Bldg 180, Sheridan Kaserne, are included in the Bavarian **Historical Preservation List** (Denkmalliste).

Existing **stucco** surface structures were restored whenever possible. **Roofing materials** were replaced in kind. Of course, all utility systems were state of the art and energy saving.

### Prefabricated Buildings

Due to the **\$ 200.000 statutory limitation** for new construction work and also due to time restrictions - military construction has to be executed ASAP - prefabricated building components and even prefab buildings out of catalogs were utilized. When prefab buildings were ordered in the U.S.A., all on site construction measurements, e.g. for foundations or base slabs, had to be converted from inch to cm. In order to save money, temporary structures in most cases were erected by U.S. pioneer units or by Civil Labor Group.

### Communities of Excellence

As of 1 March 1981, the Technical Manual Installation Design, **TM 5-803-5** mandatory for the Army (NAVFAC P-960 for the Navy and AFM 88-43 for the Air Force) replaced the old TMs of the sixties and seventies. New yardsticks for the visual improvement of U.S. installations were valid and helped those who intended to create a contemporary and attractive renewal of Military Communities IAW city planning guidelines.

At the beginning of the nineties, the Army was featuring a new standard for the communities, called "Communities of Excellence". A series of standard manuals with drawings of "No Standard" vs "U-Do-It Maintenance & Repair Standard" and "Major Renovation/New Construction Standard" of **Barracks, U-Do-It Projects** and **Overall Installation Appearance** showed clear new performance standards instead of the typical improvisation and visual clutter.

### Prairie versus Planting

When the Housing Areas were constructed, either to save money or for military reasons, landscaping consisted more or less of plain lawn areas with unscreened parking – just in contrary to all those clusters of big old trees in the kasernes. According to the above mentioned **TM Installation Design**, the housing areas' visual and environmental quality, e. g. noise reduction and even wildlife conservation, was tremendously improved by planting domestical trees and shrubs which were selected in cooperation with the institutions of the City of Augsburg.

### U.S. Standard Specifications

For all projects, detailed drawings - including "typical potholes" - scale up to original size, were prepared to ensure that bidders could calculate appropriate prices and that contractors' work was executed strictly IAW Engineering Services Br., EP&S Div design.

For window replacement projects, **DA Standard Specifications** were utilized as in a lot of other cases. Of course, these specs had to be translated for the German "courtesy translation". Three-cell **plastic window** frames with zinc coated square steel pipe reinforcement were utilized in all housing areas, except Fryar Circle, where brown anodized **aluminum windows** were used for the duplexes and single houses. Many billets had aluminum windows made of thermally separated extrusions. **Wooden windows** with mullions and muntins were installed in some buildings, e. g. Headquarters Bldg 101, Sheridan Kaserne, for historical preservation. All windows that the DEH replaced had THERMOPANE insulation glazing to save energy.

When BRAND NAME materials were specified, "**or equal**" **products** could be offered to enable a fair competition.

DA standard specs were also used for our painting projects together with **U.S. end product paint material**, when price of material was above \$ 10,000. Below that, paint had to be manufactured IAW U.S. Fed Specs e.g.

TT-E-509 C Enamel, Alkyd, Semigloss, Interior, Odorless, Tints and White.

Color tones had to match TM 595A, which allowed only certain colors for buildings.

## Standard Materials

Standard specifications meant also standard materials e. g.

- **roofing tiles**
- **corrugated fiber cement roofing material**
- **rain gutters & downspouts**
- **hardware for windows**
- **electrical components**
- **plumbing components** like lavatories and faucets

to be utilized for repair by replacement by **DEH shop personnel** as well as by the personnel of the **other communities** in South Bavaria that were supported by the Augsburg **warehouse**.

## Post scriptum

The above regulations were, on one side, restrictions, but, on the other side, helped to curb excessive individualism like black painted walls in a gymnasium or an all over grey interior painting of the Elementary School, selected by a... color blind principal. In general, American and German Engineering Services employes considered it as their basic task **to make the Augsburg community a better place to work and live** - while not forgetting environmental protection and historical preservation - and while utilizing the over **\$ 250 million** (w/o German VAT) spent from 1976 to 1992 for the proper maintenance of approximately 500 buildings plus the construction of a few minor construction projects below \$ 200,000.

In June 2006, the Bayerisches Landesamt für Denkmalpflege added the former **Recreation Center, Bldg 33, Reese Barracks** (now City of Augsburg's Cultural Center "*abraxas*") and the former **Officers Club, Bldg 180, Sheridan Kaserne**, to the list of buildings **protected by the Bavarian Historical Preservation Law**. This should take care of the fact that at least these two out of the approximately 500 buildings (including those of the Housing Areas) which were properly maintained by the U.S. Army with a tremendous amount of money for about half a century – hopefully will be treated likewise by the Germans in the years to come... This is especially important, as most of the former Wehrmacht buildings that were utilized by the U.S. Army / Air Force / Navy have already been or will be demolished in favor of modern business structures and housing areas in addition to the - altered - former U.S. Housing Areas that were constructed in the nineteen fifties.

