Contractor Discovers New Scaffolding for Safer Working Conditions

The use of scaffolding in construction is almost as old as construction itself. Since humans moved out of caves and started building structures, there has been a need to reach overhead. With such a long history of use, the likelihood that there could be anything new in scaffolding would seem to be remote.

But at Gypsum Construction South in Fort Lauderdale, Fla., a part of the Southern Division of Ecker Enterprises, a contractor who performs gypsum drywall construction, painting and plastering, the Director of Safety Steve Linch found that there could be something new, and it could be better than the traditional scaffolding his crews were using.

Because of building styles in Florida, such as large open rooms with high ceilings and the extensive use of stucco as an exterior wall treatment, Gypsum Construction uses scaffolding on almost every job. Scaffolding is used so frequently that Gypsum Construction finds it more economical to own their own rather than rent it by the job, as is usually the case.

What’s New?

The traditional scaffolding Gypsum Construction’s crews were using was not the best scaffolding for stucco work, given Florida’s weather conditions. The wood planking was worn, and maintenance to keep the old components...
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in safe condition was increasingly expensive.

Knowing that the equipment needed replacement, Linch got the Gypsum Construction assignment to find what, if anything, was new. While the primary goal was to provide safer operating conditions for the crews (see the sidebar on page 118), the company also wanted a system that could be assembled and disassembled faster, as well as let crews work more efficiently once the scaffolding was erected.

The search verified the belief that there were new scaffolding developments. Just coming on the American market are entirely new scaffolding systems originally created in Europe. Gypsum Construction was able to locate prototypes at local distributors, and decided to test alternatives by having vendors set up sample units in the warehouse. After evaluating the options, Linch, his management and the crews that would be using the equipment concurred that there was a better product available. The new scaffolding was the Safway SL Frame System™ distributed by Safway Steel Products Inc. of Waukesha, Wis.

**Added Benefits**

What really sold Gypsum Construction on the SL System was its integrated design that made it more rigid and safer than traditional systems. The Safway system uses hot dipped galvanized steel “planks” that fit into star-shaped pins that are welded onto the frame. Because the planks are integrated with the frame’s studs, scaffold stiffness is increased in two directions (parallel and perpendicular) to the work surface. The planking installation method means that a flush platform without overlapping wooden planks is created. It also ensures that workers are always standing on a “locked-in” plank when erecting and dismantling the scaffold.

The finished structure is a “walk through” assembly; workers can walk along an entire run without climbing over interior obstructions. The system
The tie-tube fits directly beneath the horizontal planks so it does not obstruct headroom.

Gypsum Construction was the stucco and exterior finish contractor for the Marriott Town Place in Miami Lakes, Fla., a three-story hotel.

is three planks wide (36 inches) providing extra working width; and for more headroom, the height between platform levels is 6 1/2 feet.

An internal level-to-level ladder system has been designed into the system. Ladders are built into selected planks and held in place by a spring-loaded latch so they are readily available when one is needed. When not in use, the access hole is covered by an aluminum hatch door.

Horizontal guard rails and midrails are held in position by self-locking pivot pins, which helps to speed assembly. Toeboards drop into an interlocking pin that integrates them into the scaffolding structure, providing added structural strength.

The ties used to fasten the scaffolding to the building represent another inno-
Safe use of scaffolding and proper fall protection equipment are significant issues for contractors, but statistics indicate the magnitude of the problem is not fully appreciated. Violations of OSHA regulations pertaining to scaffolding and fall protection are consistently the two leading sources of all OSHA citations issued in the construction industry.

For the latest 12-month reporting period, half of all OSHA inspections and a quarter of all citations issued involved standards covering scaffolding and fall protection. Of the $33 million in total OSHA penalties for the entire construction industry, $11 million was levied for violations of these standards by general construction and specialty contractors (see the chart, below).

The fall protection standard, number 1926.501, requires among other things that employees be protected from falling by the use of guardrail systems, safety net systems or personal fall arrest systems when they are working 6 feet above a lower level. The scaffolding standard, number 1926.451, extensively covers design, materials, assembly, capacity and other elements of scaffolding.

If progress is to be made in construction safety, contractors must pay greater heed to the standards pertaining to overhead work, especially fall protection and scaffolding. It must be done with training and the willingness to provide workers with the proper tools and equipment for safe working conditions.

Failure not only needlessly endangers workers, there is the embarrassment of being publicly cited for unsafe practices, and the possible exposure to litigation and workmen’s compensation claims if there should be an injury.
don’t have to maneuver around an obstructing diagonal, or take the time to remove a cross brace, do the work, then re-install it.

First in Florida

After purchasing the system, Gypsum Construction South put it to work while finishing the Marriott Town Place in Miami Lakes, Fla. It is a three-story, mid-rise hotel where Gypsum Construction was the stucco and exterior finish contractor. It was one of the first times the SL System had been used in Florida, but Gypsum Construction has now used it on several jobs. And Gypsum Construction South’s feelings? They now have an inventory of Safway’s SL Frame System valued in six figures, proving that there really could be innovations in scaffolding after thousands of years of use. 📊