

# Notebook...

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## California GC Builds Construction Tech Program

by Kathy Price-Robinson

**T**oday's lack of skilled construction labor is like miserable, wet weather — everyone's complaining, but nobody's doing anything about it. There's always the time-honored method of getting into construction — arrange to be born into the family of a craftsman or a general contractor. But many of the hands-on training methods past generations took for granted, such as union apprentice programs, have gone the way of single-pane windows. All this tends to make GCs and their subs wonder, "Where will I find my workers in the future?"

One place to look is your local community college. If the school has a vocational bent, you might be lucky enough to find a construction technology pro-

gram already teaching students how to read plans, build forms, pump concrete, frame walls, hang doors, and other construction fundamentals.

If your community college doesn't have such a program, or if you discover a college construction program that's floundering, you might be able to help it succeed by talking with a dean, or by joining an advisory board.

### Construction Training Start-Up

Twenty-one years ago, Pete Lagomarsino had just such an opportunity to help a fledgling program. As a Sacramento, Calif., general contractor with a bachelor's degree, he was hired to head up the Construction Technology program at Cuesta College in San Luis Obispo.

Naming the program Construction Technology, though, was a bit of a stretch. "It was kind of a homeowner's do-it-yourself course," Lagomarsino recalled. "There were three courses and our text was a home repair book."

Right away, Lagomarsino went into action. The first year, he and his students built a large warehouse to house a more serious construction program. The 30x60-foot stick-framed structure, which was built with a trussed roof and stucco exterior, is still used for both construction training labs and tool storage, although the academic portion of the program is taught elsewhere on campus.

In 1979, Lagomarsino started a solar energy component. Mimicking a program at a Los Angeles community college, he then began leading students in the construction of small structures on the campus, which they tore down at semester's end. By 1985, the program had tripled in size, reaching a peak enrollment of 240 students; those who completed the program earned 33 college credits.

**Funding crunch.** "We had lots of money," said Lagomarsino. But that was before Proposition 13, the 1978 state amendment that reduced property taxes but devastated school funding. The program, however, managed to thrive in the decade following passage of Prop. 13, thanks to Lagomarsino's careful management. He had begun contracting his students out on college construction projects, bringing additional revenue into the program.



Students in the Cuesta College Construction Tech program learn the trades just as apprentices have always learned — by looking over the shoulder of a pro.

But it wasn't long before those opportunities began drying up. In 1990, the California real estate and construction industries had started to nose-dive. By 1994, there were just over 100 students in the program, and Lagomarsino was having trouble filling classes. "We were suffering. There was no budget for promoting the program to high school students. Besides, those students weren't about to enter an industry that had no prospects."

The program's advisory board, which only met for annual bull sessions, was little help. Plus, Lagomarsino's academic duties had caused him to become disconnected from the world of construction. "You have a tendency to become isolated," he admitted. "I don't want to say I was antiquated, but it's true. I didn't know what the industry needed."

The program took its worst hit in 1994, when the



The program's female students are altering the image of construction as a male-dominated industry.

college threatened to shut it down if enrollment didn't rise in a year. Faced with the program's extinction, Lagomarsino appealed to his superiors. A sympathetic dean tipped him off to the secret of job security: Stop whining to the administration, and go make your program happen.

### Help From Contractors

Lagomarsino turned to NAHB, NARI, and AGC for help. None of the organizations offered any tangible assistance, but they all agreed that without new blood, the construction industry was dying. He then put the touch on the local building industry, selling them on the idea of helping train their future employees. And Lagomarsino put together an advisory team that met every month. "I wanted all the trades on this board — cabinetmakers, masons, plumbers, you name it. And I

wanted them to be real pit bulls."

Using his advisors' connections, Lagomarsino tracked down top-notch instructors, then began needling suppliers for donations; even those few who chafed at the mention of charity were talked into selling at cost. Manufacturers donated tools, and Lagomarsino began promoting the program to high school students at local job fairs.

The program began growing again, which Lagomarsino partially credits to California's improved building climate, as well as to an advisory board that knew how to achieve progress. "We decided that the best solution to our problems was to make the program self-sufficient."

An advisory board member had already done the groundwork, getting a local developer to contract one of his houses to the program's student-builders. Previously, when students had demolished their projects at the end of each semester, they had dismantled class morale as well. Now they would get the chance to see their efforts serve the community.

The students were hired to build a home for the parents of Cathy Wright, a former student of the Construction Tech program. The complex, multi-story design was built by students ranging in age from 17 to 60-something who, in the process, met with inspectors, learned the intricacies of change orders, and redid anything they botched.

By hiring student labor, Cathy's parents will save \$136,000 on the deal, although completion is estimated to take twice as long as normal. Since they aren't in a big hurry, Cathy's parents consider the longer wait a fair trade-off for the lower mortgage. Ann, Cathy's mom and a stained-glass artist, even joked, "After all, I've got 60 windows to make for the house!"

These days, when the once-discouraged Lagomarsino rolls up to the Wright job, which won't be finished until January 2000, he's greeted by eager students. Perhaps they're a little too eager: Instead of earning an associate's degree in construction at Cuesta, many of them are leaving for construction jobs after taking a couple of courses.

The student drain might be solved with a bigger advertising budget, to entice more students into the program. Trade associations could actually start lending a hand, too. As Margaret Newton, president of a Southern California NARI chapter said, "NARI might be able to help. This is exactly the sort of program we should be supporting."

Lagomarsino doesn't make any secrets about his plans for the program's future. "We want to be nationally recognized," he says. "We want the program to be industry driven. And we never want to become isolated from the construction industry again."

# Asbestos Linked to Rare Tumor

**D**octors in Finland believe that asbestos caused a rare form of tumor found growing in the stomach of a construction worker. The man's swollen abdomen was caused by retroperitoneal fibrosis (RF), a rare disease that strikes about two persons per million each year. The painful fibrous growth typical of RF can cause urinary tract blockage and may result in death by kidney failure.

Finnish medical studies have documented 13 cases of RF near Tampere, Finland, according to a report in the September 1997, issue of *Impact On Construction Safety and Health*. All seven of the male RF victims had been exposed to asbestos on the job; five of those patients were construction workers.

Dr. Pekka Roto, who headed a research team that examined the patients' records from 1987 to 1995, noted that of six female RF patients, three may have been exposed to asbestos. The suspected link between RF and asbestos exposure was previously documented in a 1991 medical study.

Asbestos, once found in some cigarette filters, was



Though expensive, asbestos abatement is justified by the growing list of health problems caused by asbestos exposure. Photo courtesy of Lepi Enterprises, Zanesville, Ohio.

also commonly used in the U.S. as a material in flooring, insulation, ductwork, and other building materials. For further information on asbestos safety, contact the National Institute for Occupational Safety and Health at 800/356-4674.

# Disposers Now Legal in NYC

**L**egislation lifting a decades-old ban on food waste disposers in New York City went into effect October 11, according to the November 1997 issue of *Contractor* magazine.

No governmental agency in NYC had responded to *JLC's* requests for comments by press time, but Frank Bryant, Vice President of Worldwide Marketing for In-Sink-Erator, claims the legislation was passed with the recommendation of the NYC Department of Environmental Protection (DEP). According to Bryant, the DEP conducted 21 months of tests, which found disposers would have minimal negative impact on the city's combined sewer system. "This has been a long-term effort to convince the City that there is no

problem with waste disposers," said Bryant.

Until Ordinance 71/97 took effect, New York was the only place in the country to prohibit disposers. During hearings conducted before the NYC Buildings Committee, the Natural Resources Defense Council (NRDC) expressed support for continuing the ban, according to Bryant. After considerable debate, the Buildings Committee returned a unanimous vote in favor of allowing disposers.

The minor increased load on city sewers is projected to be offset by decreased landfill use. Household cleanliness may improve where disposers are installed, since less food waste will be tossed in the kitchen trash can. And the new ordinance could mean a bonanza to plumbers who are now gearing up for thousands of potential installations. Retrofit costs (including city permits) are reportedly running as high as \$500.



# Maybe We Can All Get Along


Setting a new standard for moderation and involvement, builders, environmentalists, and regulators in Kings County, Wash., have hammered out a revision of the county's land-use regulations.

The *Surface Water Design Manual*, first adopted in 1990, was created to accommodate a growing population while protecting the area's native beauty. Without the regulations, run-off from developed areas threatened erosion and flooding; it also carried pollutants that could endanger salmon in local waterways.

Besides demonstrating a new level of cooperation among groups whose interests ordinarily compete,

the revised manual is intended to speed the Kings County permit process. "*The Surface Water Design Manual* represents an ongoing effort to streamline regulations," says Kings County executive Ron Sims, "as we have been digging our way out of the pile of development regulations over the past years."

The previous manual's ten standards are reduced to three in the new edition; 23 previous regulations have been replaced by one. The new manual will also decrease review times for shorter projects, which could result in more lots being made available for construction, and may trim \$2,800 off the cost of a new home.

The local building industry is reportedly satisfied with the new guidelines. Bob Johns, attorney for the Master Builders Association, said, "This design manual will reduce flooding, ensure better water quality, and will in most cases reduce or at least keep building costs the same. That's a trade-off our industry finds very acceptable." 

## Offcuts ...

*Someday, burying drywall scraps may be the best way to dispose of them.* The Washington Post reports that the USDA is checking the feasibility of composting gyp board waste as a soil amendment. The gypsum is useful in correcting clayey or acidic soils, although current EPA standards require removal of paper or paper facings.

*An English do-it-yourselfer's "hammer" has been confiscated by the Newcastle bomb squad,* according to a report in *Salvonews*. For more than 20 years, the unidentified handyman had been driving nails with a WWII hand grenade that a police spokesperson says was still live. It's not known whether the master of the house will do future repairs himself, or simply call the SWAT team.

*Don't fill metal gas cans if they're sitting on a plastic bed liner,* says the Construction Safety Council. The plastic insulates the cans from ground, and since flowing gasoline generates static electricity, a spark could ignite the gas. Instead, fill your metal gas can after setting it directly on the ground, and keep metal filler nozzles in contact with the can at all times.

*A new lead safety hotline (800/424-5323)* has been jointly established by the Department of Housing and Urban Development and the Environmental Protection Agency. The information packet is consumer-oriented, but does list current state lead abatement offices.

*About 70% of high-profit kitchen and bath designers charge design fees,* according to a study conducted by the National Kitchen and Bath Association (NKBA). Most of the work was billed at a flat rate, with an average price tag of \$450. While the NKBA report focuses on a niche market, it's tantalizing enough to make any contractor rethink that next "free estimate."

*Builders hit by the labor shortage are responding with higher wages to skilled workers,* or offering prevailing wages to less experienced workers, according to the September 1997 issue of *Housing Economics*. They've also been toying with modular or panelized construction techniques, which require smaller, less-skilled crews.