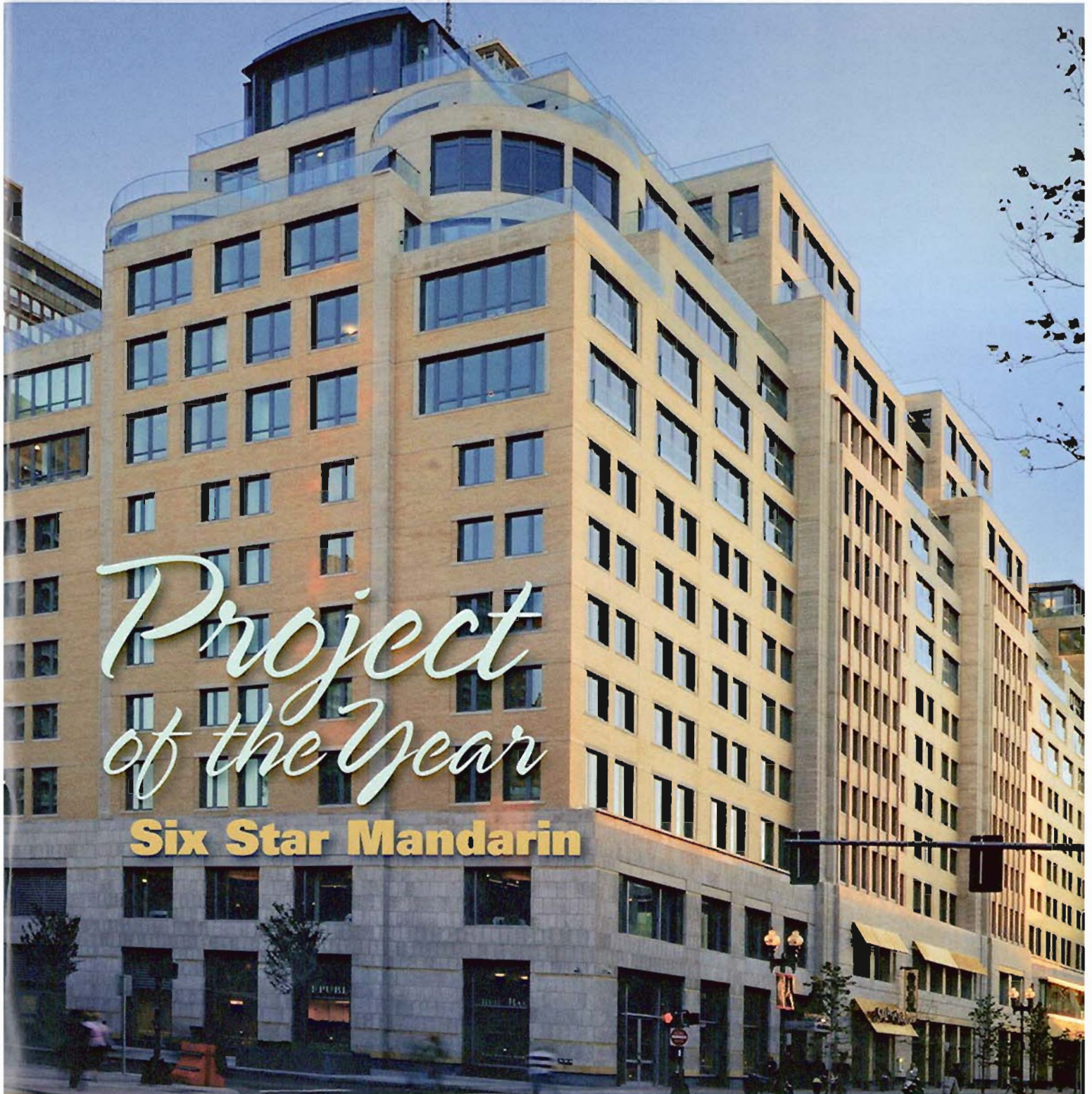


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*Project
of the Year*

Six Star Mandarin

A SUPPLEMENT TO BANKER & TRADESMAN



Forty subcontractors, 10K square feet, 15 days

By Linda Goodspeed



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Fast track construction took on a whole new meaning this fall when a team of some 40 subcontractors, led by Commodore Builders, outfitted 10,000 square feet of Class A office space at 10 Post Office Square in Boston's financial district in just 15 days.

Normally, a project of this size and complexity, which was built to Leadership in Energy and Environmental Design's (LEED) gold standard, would take 50-60 days.

"This project demonstrated that we can build fast and build green without sacrificing quality and without costing more," said Joe Albanese, president and CEO of Commodore Builders, the construction manager for the 15 Days project.

In a project as intricately planned and executed as this, every participant played a critical role from the owner to the construction manager right on down to each and every trade.

"The risk in a project like this was the weak link," Albanese said. "Everybody needed to buy into this project. Any one vendor could have been the spoiler."

And buy in, the trades did.

"It was a total team effort," said Andy Fraser, Commodore vice president. "All the subs stepped up. Everybody took it very seriously. If one sub had slipped up, the rest of them would have fallen behind. It was a true collaborative effort between every single participant."

The vision

"Construction is an industry that time forgot," Albanese says. "Compared to almost any other industry there has been a lack of creativity and innovation in construction, especially around scheduling."

A project as 'outside the box' and normal way of doing things as the 15 Days project had to start with a vision. And that vision came from the top with the owner, Leggat McCall Properties, which was also going to be the tenant in the space.

"We are always pushing our third party clients to set more aggressive targets and budgets and not settle for the status quo," said Eric Sheffels, president of Leggat McCall. "When it came time for us to build our own space we thought we should do the same thing and set very aggressive targets while not compromising quality."

But even Sheffels' own staff laughed when he promised the LEED's quality gold standard space would be ready in four weeks. Sheffels' response? Three weeks. And virtually no overtime allowed.

The plan

After the vision came the plan drawn up by Commodore, which Leggat McCall hired as the construction manager. In

order to shorten the actual construction time, Commodore extended the preconstruction phase. Planning for the project began almost five months before the project started. Some critical subs, including McDonald Electric were brought on during this phase.

"Bringing McDonald in early was absolutely crucial to the schedule," said Dave Conner, Commodore project manager. "They were one of the first subs we brought on board. They did all the electrical work on a design build basis."

Mike McDonald, president of McDonald Electric, said the project went amazingly smoothly. "It was certainly a challenge, but being brought in early and working on a design build basis allowed us to effect design and cost effective measures that could work within the time frames."

For example, the project was built on a raised floor with all the electrical and HVAC systems installed under the flooring rather than in the walls as is usually done. To further expedite the installation, McDonald used 'plug and play' electrical wiring for both the power and telecommunication and data systems. The modular cabling greatly speeded up installation time, and with virtually no wiring in the walls expedited the on-site inspection process since everything under the floor is accessible at any time.

"Getting that flooring and wiring in that first week was pivotal in meeting the schedule," Conner said. "The modular cabling really speeded things up. McDonald was responsible for designing that entire piece. They did a great job."

The 'smart floor' and 'dumb walls' design also allowed the use of innovative modular wall panels. The LEED certified panels not only saved installation time, but also give the space more flexibility because the panel can be easily moved and the space reconfigured.

Even with modular wall panels, however, some 300 sheets (12,000 square feet) of drywall had to be hung in conference rooms and other areas throughout the space. Dave Lewis, project manager for Central Ceilings, the drywall contractor, said the job was challenging not only because of the tight schedule, but because the drywall had to extend above the ceiling.

"We had to determine the exact height of the ceiling and had to provide a nice clean edge so the ceiling contractor could rest the ceiling on top of our drywall."

"So many things hinge on getting the drywall in," Conner said. "It was critical for Central Ceilings to nail the schedule."

"When I first got involved in the project, I said, 'no way, this can be done,'" Lewis admitted. "But Commodore did a great job of thinking this through. I was amazed how smoothly the whole project went."

Lewis said excellent communication between all the participants was a big part of the job's success. "If somebody had a question, they got an answer that day," Lewis said. "There's a lot of value in that. The more time you can save in construction, the more money you can make."

With the walls up, American Acoustical could come in and install the ceiling.

"The concept was to have a continuous ceiling plane not broken by any walls which would allow flexibility and the ability to reconfigure the space," Conner said. "The ceiling had to be a continuous plane. American Acoustical had to hang big areas of grid all at once. They did a great job."

"It was an exciting but very challenging project," said Ryan Lynch, project manager at American Acoustical. "It was very well thought out but there were still more people than usual working in the space at the same time."

In order to allow the different subs safe access to the site, the planning team divided the space into five areas, allowing critical trades complete access to each area. Each area was further broken down into three zones: raised floor and below; floor to ceiling; and ceiling and above. Conner also drew up a detailed set of 15, 1-day schedules that identified all the tasks that needed to be completed in each area and zone by each trade on each day. Such detailed planning and scheduling enabled the subs to plan their workforce and equipment needs very precisely.

"We had very clear expectations of what each trade had to do each day," Conner said.

A requirement of the project was that almost all of the work had to be done during normal work days. An exception was made for a few key trades, such as flooring finishes which need a clean work area. They were scheduled for second shift.

"Scheduling was really key to this," Conner said. "We wanted to do all the work during normal working hours, but we picked certain trades that tend to be disruptive to the flow of work and scheduled them for second shift."

"Normally we don't get an area as clean as we got this one," said Bill Labo, Project manager for Allegheny Contract flooring

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which did all the carpet and tile installation. "If all projects worked like that one it would be great."

Labo said one of the biggest problems in most construction projects is, "guys working on top of guys."

"It creates a lot of roughness and guys not getting along," Labo said. "I was very impressed with how this project was set up, how each trade had its area. It was very well orchestrated. I think if more time was spent upfront on a project, scheduling, ordering materials, it would be good."

Procuring materials ahead of time was indeed a key element of the project's success. One of the few scheduling glitches on the job, however, necessitated having some of the glass doors shipped without glass. Fortunately, Salem Glass Co. was able to save the day and the schedule.

"Salem had to scramble to get the glass installed and get them to the site," Conner said. "They short-circuited

the manufacturing process from 8 to 3 weeks, and in the end we were able to get the product in on time."

Another ASM member, Pappas Co. installed folding partitions to separate conference rooms into smaller spaces.

Concept car

Sheffels said the 15 Days project cost about 10-15 percent more than a conventional buildout of this size. But he expects to reap that investment back, and more, through energy savings. When asked if the project can translate to other jobs, he says, yes and no.

"I think it's the real estate equivalent of a 'concept car,'" Sheffels said. "It's something you'll never see in production or in widespread use. But elements of those cars will ultimately be utilized. I see the same thing happening here. I think many of the things we used in this project will be more widely utilized. There's a lot of value in many of the things we did here." ▲

Linda Goodspeed is a freelance writer based in Vermont.

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green building. Leadership in Energy and Environmental Design (LEED) rating systems are widely accepted standards for sustainable green building and development practices.

"It's a beneficial system," adds Shawn Guertin, Director of Operations. "As the next generation comes into the workforce, it's only going to continue. Those workers will have had terms like sustainable design and green building engrained in their education."

In keeping with that trend, earlier this year Potter passed the exam to become a LEED certified professional, and is encouraging others in the company to do the same.

"Approximately 45 percent of LEED credits a building can get are affected by the heating and plumbing elements. The more knowledge that we have on board, the more productive we can be toward helping clients get their projects certified," says Potter.

Spotlight Projects

The company recently worked on Boston's American Cancer Society/Astra-Zeneca Hope Lodge, which provides free lodging and support for cancer patients traveling to Boston for care. TG Gallagher performed HVAC and Fire Protection services in line with the project's goal of becoming LEED silver certified.

Ongoing projects include the installation of plumbing and HVAC systems at a new 120,000 square-foot, seven-story building and parking garage at Mount Auburn Hospital in Cambridge. This project is expected to be complete in 2009.

Integrity in the Workplace

The company is very team oriented and encourages collaboration between groups. Both employees and subcontractors who come on board are expected to share the company's values.

"There are no barriers, everyone is encouraged to speak up. There's a lot of mutual respect and integrity among the workplace," states Larry Haite, Director of Pre-Construction Services.

"Client satisfaction is number one. We don't focus on profit, or how a project

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