



CASE STUDY

MONEY IN THE BANK

DATCU CORPORATE HEADQUARTERS
CORINTH, TEXAS

OVERVIEW

PROJECT

Use
Credit Union office building

Size
2 stories, 52,000 sq.ft.

Completion Date
April 2016

Construction Cost
\$15 million

PEOPLE

Owner
DATCU Credit Union,
Corinth, TX

Design-Build Contractor
NewGround,
Chesterfield, MO

Truss Installer
Marek Brothers Systems Inc.,
Dallas, TX



Credit Union's Switch from Wood to Cold-Formed Steel Trusses Saves \$40,000

Cutting-edge design of corporate headquarters office buildings has changed drastically in the financial services industry.

Banks, credit unions and other financial firms want centralized facilities large enough to accommodate decades of growth. They want offices with expansive interiors and lots of sunlight. They want signature looks that convey warmth to customers and excitement to would-be recruits. Of course, they also want to save money and time on construction.

That's the story of DATCU Credit Union's new, \$15 million administration building in Corinth, TX. It was built for a savings in 18 months.

NO NEED FOR SPRINKLERS

Founded in 1936 as the Denton Area Teachers Credit Union, DATCU experienced extraordinary growth and quickly outgrew its original Denton campus. NewGround, a Chesterfield, MO, design-build contractor, helped the credit union to think about its future needs.

"DATCU represents a real shift in how financial services buildings are being laid out," says NewGround's Senior Project Architect, Dean Wilcoxon. "We're seeing financial institutions build less brick-and-mortar branch facilities. There's a push at the main office, which equates to growth in call centers and loan operations."

NewGround's design allows employees to work in collaborative zones. It has modern touches, such as outdoor terraces and lots of daylight. In fact, 38 percent of the DATCU headquarters exterior is windows, a NewGround project profile states.

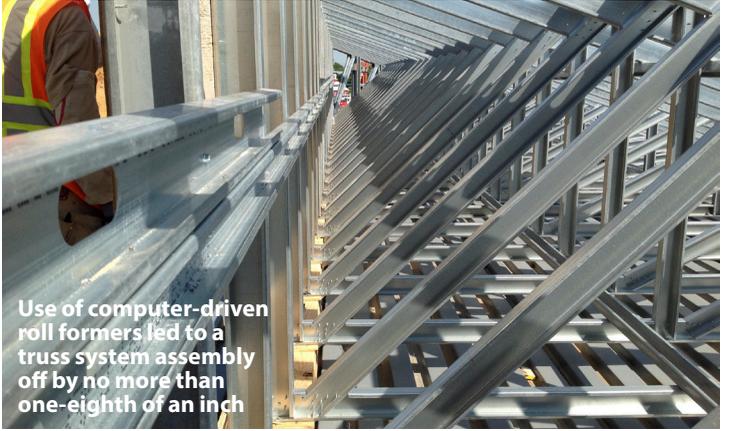
"The building has a strong, masonry base," Wilcoxon says. "As you get to the second floor, it's all glazing. With the wide roof overhang and bracket supports, it has a top hat feel."

The mansard roof gives the building a friendly look, a residential scale that's inviting and functional. It acts as a natural equipment screen and provides slope for positive drainage.

"They didn't want to be ultra-contemporary and hard-lined," Wilcoxon says. "They wanted



NewGround's Dean Wilcoxon says DATCU officials wanted their building to appeal to both customers and new recruits. "They wanted something timeless," he says.



Use of computer-driven roll formers led to a truss system assembly off by no more than one-eighth of an inch



Truss installation at the DATCU Headquarters was simple and quick thanks to the precision of cold-formed steel.



The corner trusses, made of heavier CFS components, were joined together manually on site

something timeless."

The roof trusses were originally specified to be wood. That changed when NewGround learned that local building officials would require wood-framed trusses be protected by fire sprinklers. So, the project team switched to cold-formed steel (CFS) trusses.

"By going with metal trusses," Wilcoxon says, "we were able to avoid the sprinklers and that saved [DATCU] around \$40,000."

FIVE TO SIX WEEKS SAVED

Besides saving money, the CFS trusses also saved time on the project. They were pre-fabricated. Each truss member component was made on computer-driven roll formers, which cut weeks off the delivery and installation schedules for the roof assembly.

Julio Saenz, Project Supervisor at Marek Brothers Systems Inc., Dallas, TX, says his four-man crew installed the DATCU trusses quickly, saving five to six weeks on the truss installation. Saenz says the speediness of the truss installation saved close to 40 percent on labor.

In all, the DATCU headquarters building has 154 standard trusses, 82 corner trusses and five corner ridge trusses. The CFS trusses weigh a total of 10,566 pounds. They were built out of standard C studs and track. The truss fabricator did the basic engineering, but a third-party engineer certified the truss components. Most trusses came fully assembled.

"It was like a puzzle," Saenz says. "The shop drawings told us exactly where each

truss member went."

But, the roof's corner truss pieces had to be joined together, or capped, to form strong, stable tubes. These corner trusses were made of heavier CFS stud and web components.

"These pieces were 12 gauge by 8 inches with a 1-5/8" flange — real heavy stuff," Saenz says. "They were 12 feet long with a four-foot point at the corner. We needed three guys — two on the roof and one guy on a boom lift below."

LEVEL AND SQUARE

In the end, no DATCU roof truss was off by any more than an eighth of an inch.

"An eighth is nothing," Saenz says. "Our guys used a straight line and made just a few minor adjustments to make sure the corners were level and square."

Wilcoxon says DATCU executives have given nothing but positive feedback about their new headquarters building.

"We're taking our future clients though the building," Wilcoxon says. "Everyone gets to experience the state of the art in headquarters office building design."

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Julio Saenz of Marek Brothers says truss prefabrication saved nearly 40 percent on labor.

DETAILS

DATCU CREDIT UNION CORPORATE HEADQUARTERS

BUILDING DESIGN

- Stone and brick masonry base
- Open, collaborative interiors
- Glazing throughout the building
- Mansard roof
- Wide roof overhang to block daylight

COLD-FORMED STEEL TRUSSES

- 154 standard trusses
- 82 corner trusses
- 5 corner ridge trusses
- Corner trusses capped during installation
- Total truss weight of 10,566 pounds



The DATCU truss system features 154 standard trusses, 82 corner trusses and five corner ridge trusses.



The DATCU credit union headquarters has a warm, masonry exterior, plenty of windows and a distinctively wide roof overhang

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