



# CASE STUDY:

First Community Credit Union -  
Chesterfield, MO



## ACKNOWLEDGMENTS

*Special thanks to all project partners  
who made this vision a reality:*

Bill VanGels (FCCU)  
Wright Construction Services  
ACI-Boland Architects  
KPF&F Engineering  
Excel Engineering  
Sto Corp  
Radius Track  
Negwer Materials  
Kinder Crane

## BACKGROUND & PROJECT OVERVIEW

TJ Wies Prefab proudly partnered on a distinctive and challenging project to deliver a prefabricated modular roof structure for the First Community Credit Union (FCCU) in Chesterfield Valley, Missouri. The mission was to bring the entrance of the existing office building up to FCCU's brand standards—specifically, the installation of a barrel roof—without significantly disrupting daily operations. Prefabrication was selected as the ideal solution to limit construction impact during business hours while ensuring a high-quality, efficient installation.

### Project Scope:

Type: Financial Institution, commercial  
Location: Chesterfield, MO  
Dimensions: 26'L x 10'W x 6'T  
Build Duration: 2 weeks (off-site)  
Install Time: Less than 4 hours (on-site)  
Fabrication Site: St. Peters, MO

## DESIGN & PLANNING

To accommodate prefabrication, the updated architectural components were designed off-site using precise logistic planning. The team leveraged the existing hidden structural framework and original building documents to work around the constraint of not being able to demolish the existing structure until the day prior to installation.





## FABRICATION & ASSEMBLY

The modular roof unit was fabricated entirely at the TJ Wies Prefab & Innovation Center in St. Peters, Missouri. Once complete, it was transported to the job site via tractor trailer and installed in a single, seamless operation. The structure came fully assembled with the following components:

- StoTherm Insulated Acrylic Finish System (front and rear)
- Metal Decking
- Wood Blocking (CNC cut to match the barrel radius)

No on-site assembly was required—just a one-and-done set by TJ Wies Contracting, Inc., which minimized on-site disruption and maximized safety.

## SCHEDULE & EFFICIENCY

Prefabrication drastically improved the construction schedule. By building off-site, FCCU was able to keep their main entry operational for 10+ additional days compared to traditional methods. Despite minor weather delays, both the off-site build and on-site installation were executed without any unforeseen issues.

## COST & OPERATIONAL BENEFITS

While direct cost savings were not the primary goal, the value was delivered through:

- Improved safety (building at ground level instead of 14 feet in the air)
- Minimized business disruption
- Increased productivity during fabrication due to controlled conditions

These operational efficiencies provided substantial intangible value to the client.

## CHALLENGES & SOLUTIONS

**Challenge:** Designing around existing conditions that couldn't be revealed until just before install.

**Solution:** Close coordination with First Community Credit Union and use of original construction documents allowed the team to model accurately and prepare for a precise fit.



## OUTCOMES & LESSONS LEARNED

This project is a clear example of the value of prefabrication in high-traffic, operational environments. By minimizing disruption, increasing safety, and accelerating delivery, the TJ Wies Prefab team was able to exceed client expectations.

### Key Takeaways:

- Prefabrication preserved building access and operations
- Precision fit and finish achieved in one day
- Next time: Earlier coordination with other trades could expand the scope of finishes integrated into the prefab unit



SCAN OR CLICK THE QR CODE TO  
WATCH THE PROJECT VIDEO!