

## Case Study:

# McCownGordon Elevates Efficiency and Accuracy with CupixWorks

## Company Overview

McCownGordon, one of the nation's largest design-build firms, focuses on building collaborative partnerships and specializes in EPC, design-build, building information modeling (BIM) and sustainable construction. Their legacy of people-oriented practices, integrity, and transparent relationships helps their 600+ employee-owners continue to lead the industry with innovative design and construction solutions.

## Cupix Impact

Pre-pour captures helped identify misaligned embeds, preventing costly rework and **saving thousands of dollars in labor and materials.**

Real-time remote collaboration with stakeholders reduced the need for frequent on-site visits, **significantly cutting travel costs and saving time.**

Improved visibility enabled McCownGordon to catch potential issues early, keeping the project on schedule and **avoiding expensive deadline penalties.**

The BIM comparison tool reduced errors during installation, saving hours of manual verification and **preventing tens of thousands of dollars in potential rework.**

Weekly virtual site walks improved communication with off-site stakeholders, **reducing meeting times and eliminating costly follow-up inspections.**



## Project Overview

McCownGordon recently tackled a large-scale, high-profile Walmart case-ready beef packaging facility, covering over 300,000 square feet. The facility, located in the Kansas City area, includes intricate systems like ammonia refrigeration, wastewater management, and hundreds of drains, posing unique challenges for coordination and precision. To handle the complexities of this project, McCownGordon integrated CupixWorks, a cutting-edge digital twin and construction management software, into their processes.



## Challenges

The Walmart beef packaging facility project presented several challenges:

- **Complex Coordination**

With several hundred drains, ammonia refrigeration systems, and compressed air and water lines housed in an interstitial space above the processing floor, precision in placement was critical to avoid costly rework and delays.

- **Time-Sensitive Schedule**

The project had a tight timeline where any delays could lead to delays to our customer's operational startup, particularly in the late stages.

- **Remote Stakeholders**

Key project stakeholders, including designers, engineers, and owners, were spread across multiple states, including Arkansas, Wisconsin, and Missouri. Ensuring clear and frequent communication was essential to meet project milestones.

- **Accuracy in Installation**

Ensuring the correct installation of critical components such as cast-in-place embeds, floor drains, and specialized piping materials required frequent validation.



“Being able to complete the captures, compare that, and coordinate all that has been beneficial, especially with the limited space and multitude of trades.”

**Isaiah Blackmon**  
Senior Project Engineer, McCownGordon

## Solution: CupixWorks Implementation

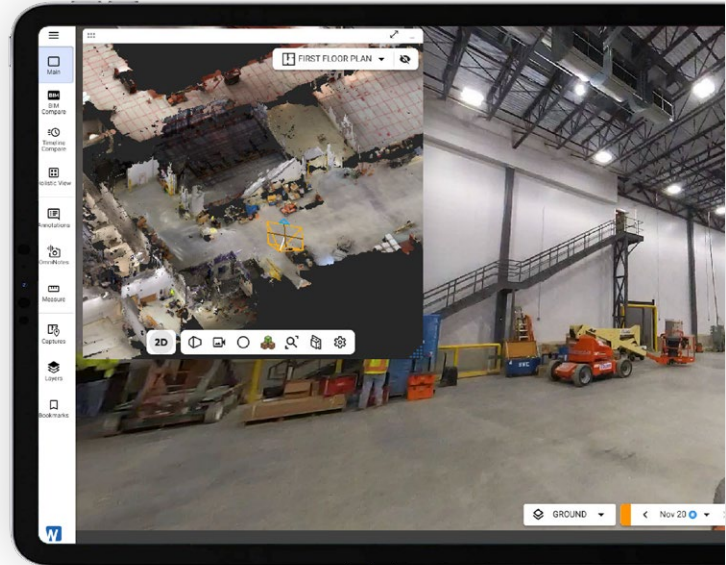
To address these challenges, McCownGordon adopted CupixWorks, using various functionalities to streamline communication, coordination, and execution on the project.

- **Frequent Reality Captures**

Senior Project Engineer, Isaiah Blackmon, used CupixWorks to perform weekly 360-degree site walks. These captures allowed the team to monitor progress and ensure accuracy before major project milestones, like concrete pours. This visual record was shared with all remote stakeholders, facilitating real-time discussions during weekly meetings.

- **BIM Integration**

The team integrated 3D models into CupixWorks, allowing real-time comparisons between the model and reality. This was particularly valuable in detecting issues like misaligned embeds, ensuring adjustments could be made quickly, avoiding costly rework.



“CupixWorks helped a lot in pre-pours, making sure we had everything in the right location, especially for things you don’t want to go back and redo.”

**Isaiah Blackmon**

Senior Project Engineer,  
McCownGordon

- **Enhanced Communication**

With stakeholders across several states, CupixWorks became an essential communication tool. During weekly calls, Isaiah would “drive” the virtual site tour, navigating through different areas of the facility based on real-time discussions with team members. This allowed stakeholders to view the most current site conditions and make informed decisions without needing to travel to the site.

- **Pre-pour Verifications**

Before every concrete pour, CupixWorks helped verify that all elements, such as drains and rebar, were correctly placed. This prevented rework on crucial components like stainless steel drains and polypropylene pipes, where replacement costs and delays could have been significant.



## Results

The implementation of CupixWorks yielded significant benefits:

- **Cost Savings**

By using CupixWorks to verify embed placements and other critical installations before pours, McCownGordon avoided several instances of costly rework. In one example, catching misaligned embeds early allowed the team to reposition them the next morning, saving time, labor, and materials.

- **Time Efficiency**

The ability to review and measure areas virtually reduced the need for time-consuming site walks. For a project of this scale, covering over 300,000 square feet, CupixWorks saved hours of walking and measuring, allowing team members to focus on higher-value tasks.

- **Enhanced Stakeholder Communication**

Remote stakeholders were able to view the site as if they were there, leading to quicker decision-making and fewer delays. For example, during a virtual walkthrough, stakeholders identified that cooler doors were not large enough to accommodate equipment. This allowed the team to address the issue during the framing stage, avoiding a potential costly delay later in the project.

- **Improved Accuracy**

The BIM comparison tool within CupixWorks ensured that critical systems were installed in the correct locations. For instance, when floor drains or refrigeration lines were placed incorrectly, the team could detect these discrepancies early and correct them before they became more significant issues.

## Future Plans

McCownGordon plans to expand the use of CupixWorks on future projects. Key areas of focus include:

- **Preconstruction Integration**

The team recognizes the value of incorporating CupixWorks during the preconstruction phase to help stakeholders understand the project scope and challenges early on. By leveraging 360-degree captures and virtual site tours, McCownGordon can improve client communication and streamline the project estimation process.

- **Delivering Digital Twins**

McCownGordon is exploring the possibility of providing clients with final deliverables that include a fully documented digital twin of the finished project. This would allow clients to manage facility operations more effectively and reduce the need for physical site visits during maintenance and upgrades.

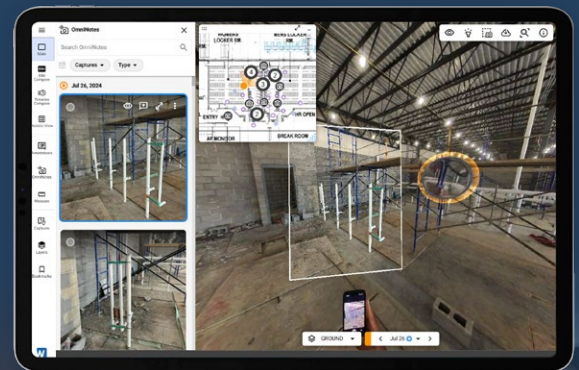
- **Increased Use of BIM and OmniNote**

The team plans to further leverage CupixWorks's BIM filtering capability to more efficiently review as-built to BIM analysis, and OmniNote functionality to tag equipment and attach documents, creating a comprehensive resource for facility management post-construction.

“We’ve really seen a benefit just from having the operations team jump into it. The frequent walks and captures Isaiah has been doing have been very helpful.”

**Dave Dalbey**

Senior VDC Manager,  
McCownGordon



“It’s like they’re on-site with us. We can answer questions in real time, and avoid the ‘I’ll get back to you on that’ moments, which makes the meetings much more efficient.”

**Isaiah Blackmon**

Senior Project Engineer, McCownGordon

## Conclusion

By adopting CupixWorks, McCownGordon not only enhanced project coordination and communication but also realized significant cost and time savings. The ability to visualize and compare BIM models with reality, coupled with frequent site captures, allowed for early detection of potential issues and ensured the project remained on track. As McCownGordon continues to innovate in the construction management space, tools like CupixWorks will play an essential role in driving profitability, improving stakeholder satisfaction, and delivering high-quality outcomes for clients.

“Being able to see things from my desk instead of having to walk half an hour across a over 300,000 Square-foot facility saves a lot of time. CupixWorks saves a lot of that time for us.”

**Isaiah Blackmon**

Senior Project Engineer,  
McCownGordon

