

DEWALT JOBSITE WiFi SYSTEM & MORTENSON CONSTRUCTION



5

ACCESS
POINTS
USED



Photography provided by Mortenson Construction

“The real savings were in the reduction of worker movement around the project site. **If we can save someone 10 minutes a day, that's 2% off the bottom line labor cost.** That's pretty important because **when you look at labor costs of a project, that can be upwards of 40% or 50% of the total project cost,** so it can have a big impact pretty quick.”

— **Taylor Cupp,**
Technologist at Mortenson Construction

64,000

SQUARE FEET

13

MONTHS

\$22.5M

PROJECT

PROJECT IMPACT



MINUTES PER DAY
SAVED WALKING
TO TRAILER



SAVINGS IN
LABOR COSTS



SAVINGS IN
LABOR COSTS



INCREASE IN DIGITAL
COLLABORATION



REDUCTION OF RISK IN
REWORK BY SYNCING
CRITICAL APPS

“An always-on connection will enable us to save invaluable time on our projects by reducing trips to the jobsite trailer. Field WiFi puts regularly accessed information like plans, requests for information, shop drawings and building information models at your fingertips.”

— **Richard Chazal,** Senior Project Manager at Mortenson Construction

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PROBLEM

Schedule and budget are two challenging components of a construction project, with productivity greatly lagging other industries.¹ While digital tools have long been the norm for designing buildings, the site itself is devoid of reliable internet connectivity. Resolving issues and keeping building models up to date in the field requires portable connectivity, but foremen are tethered to trailers and shanties for many basic tasks. Foremen spend inordinate amounts of time walking the site, returning to the trailer, and walking back through the site multiple times per day.

Contractors typically attempt to bridge the connectivity gap with solutions that are not designed for or adaptable to construction jobsites. These solutions include:

- **Cellular service** has proven unreliable with a high cost.
- **Satellite** limits bandwidth & speed, and is often cost prohibitive.
- **WiFi solutions** that are not designed for the construction site and require a knowledgeable IT staff.

SOLUTION

Mortenson Construction excels at aligning architects, engineers, and trades through the delivery of a project. During construction of Penn State University's new Intramural Center, internet connectivity ended 100 feet from the onsite office, which is common on jobsites. Mortenson worked with DEWALT to implement a Jobsite WiFi system that would work for both interior and exterior construction, that was exposed to winter conditions for three months in State College, Pennsylvania.

DEWALT's Jobsite WiFi system expanded Mortenson's single-location WiFi connectivity to the entire jobsite, allowing foremen to connect to the internet where and when needed. In this case, DEWALT GUARANTEED TOUGH® means it can meet the demands of construction and adapt to the ever-changing jobsite environment.

FINDINGS

After installing DEWALT Jobsite WiFi system, tasks that previously required a walk back to the job office could be done on site. Mortenson team members no longer had to time project updates with walks back to the office. Foremen could create, update, and close issues on the spot in Procore™, and BIM 360™ Field and BIM 360™ Glue.

With the addition of the DEWALT Jobsite WiFi system, Mortenson achieved a **greater level of digital collaboration and saved 10 minutes per day in walks to the trailer**. This resulted in saving their team **2% of their labor cost, estimated at approximately \$175,000***. Reliable internet connectivity improved efficiency and their foreman received updates and assignments immediately, giving Mortenson real-time, actionable insights that helped create a **reduced risk of rework**.

Overall, Mortenson recorded an increase in connectivity and bandwidth, saved time, and improved the project's bottom line resulting in a **more productive and profitable jobsite**.

¹Imagining Construction's Digital Future, mckinsey.com, August 2016

*Based on actual case study findings

"WiFi has been beneficial to both us and our trade partners in the field by increasing collaboration. Constantly changing documents and the collaborative **virtual design and construction (VDC) tools that enable increased efficiency are now more accessible than ever before.**"

—**Chris Pomey**, Field Operations Manager at Mortenson Construction