DRIVING EFFICIENCY:

Construction Document Management in the Digital Age

Passionate about driving efficiency and value into every project, Balfour Beatty leverages the latest technologies and Lean construction methods. Traditionally, the construction industry has relied on paper documents. But, with the reliability of cloud storage and digital file sharing platforms, Balfour Beatty believes the shift from paper to electronic files is a cost-effective solution that simultaneously improves collaboration and achieves sustainability objectives. Digital documents is a Balfour Beatty system project teams use to make all construction documents such as drawings, specifications, addendums, ASIs, and RFIs digitized and available on desktop or mobile devices. Digital documents are continuously updated and distributed as information changes.

The value of going digital

– Single source of information helps teams work more efficiently

– Eliminates use of outdated drawings

– Reduces costs (no printing/paper costs)

– Faster communication

– Increases accountability through better visibility into the process

– Immediate access to the most current information

– Improves relationships and increases confidence in the quality of the delivered product

– Eliminates need to constantly update printed materials

– Information is quickly maintained and easily archived

Our unique approach

We believe a successful digital documents system has three primary attributes:

1. It's electronic (digital)

2. It's accessible (easy-to-use with intelligent organization and hyperlinking)

3. It's centralized (stored in a location that the entire team can access)

To achieve these attributes, Balfour Beatty's digital documents approach uses a combination of software, services, and hardware such as Egnyte, BIM 360 Field, Bluebeam, Goodsync, Constructware, tablets, digital plan rooms, SmartBoxes (a compact mobile digital plan room placed directly on the jobsite), and in some cases, customized accessibility dashboards. At the beginning of each project, teams assign a dedicated digital documents controller who manages the process throughout the project lifecycle.

Ready to learn more about how construction document management can help your project? Contact us at relentlessallies@balfourbeattyus.com.

Balfour Beatty Construction

DFW International Airport Terminal Improvement Program
Dallas, Texas

Construction documentation was 100% digital on this $1.9-billion program. With each team member equipped with a mobile device, the team's robust hybrid cloud digital documents solution saved a reported $5 million in reproduction costs - that's 9,000 pounds of paper! Time savings have been significant as well considering the project trailer sits 1.5 miles from the jobsite at the third busiest airport in the United States. Due to security protocols, traveling to and from the trailer to review drawings would have wasted approximately two or more hours each day per person.

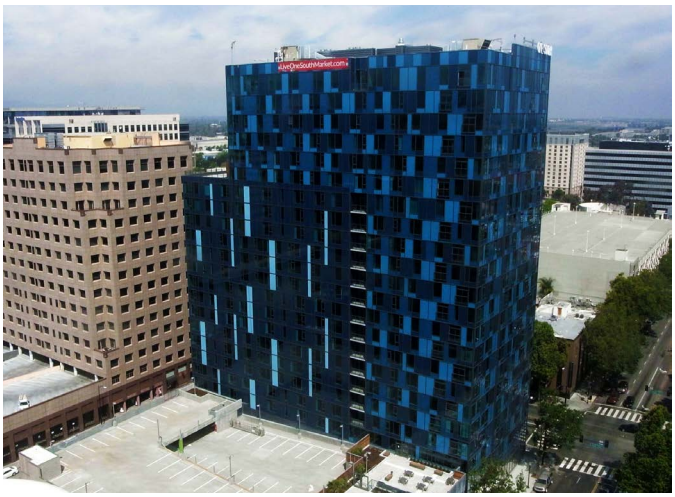
"The paperless effort is part of the project's larger sustainability mission, which plays a big role in the team's life cycle cost analysis."
- Barry Kendrick, DFW International Airport Managing Executive

Dr. Phillips Center for the Performing Arts
Orlando, Florida

This 263,000-square-foot project began as a conventional paper-based jobsite and transitioned to digital documents about a year into construction. Using a digital documents system, the team saved an average of 10 hours each week of travel time for superintendents, five hours each week of document maintenance, and the cost of printing documents, which would have averaged around $100,000.

One South Market
San Jose, California

This $91 million high-rise project implemented a robust digital documents system with a custom dashboard. The dashboard, which is accessible from multiple devices, included one-click access to construction documents from site logistics plans and permits to the LEED scorecard and a jobsite camera feed and more. The entire team, including subcontractors, saved time and effort by having quick access to this aggregated information.



Balfour Beatty
Construction

Southwestern College Central Plant and Field House
San Diego, California

It was a five minute walk from Southwestern College's field house to the jobsite. To enhance efficiency, the project team acquired a SmartBox. This provided field staff with access to digital project documents without having to waste time walking to and from the office. The time savings added up to approximately $1,000 per week per foreman at peak work levels.

San Diego County Women's Detention Facility
Santee, California

With 25 buildings spread across a 50-acre site, carrying 2,000 sheets of drawings wasn't feasible. A digital document solution was essential to keep this $220 million design-build project connected with the most current information, thereby helping avoid confusion and maximize productivity. All superintendents were equipped with mobile devices synchronized with the latest drawings, and the jobsite trailer contained three digital plan tables.

4th & Denny Apartments
Seattle, Washington

Two in-office monitors, one field SmartBox, and countless tablets comprise the digital documents system at this 200,000-square-foot apartment project. The project also employed a digital documents dashboard – a one-stop-shop for up-to-date project information from RFIs and specs to safety information and BIM images that can be accessed at the tap of an icon.