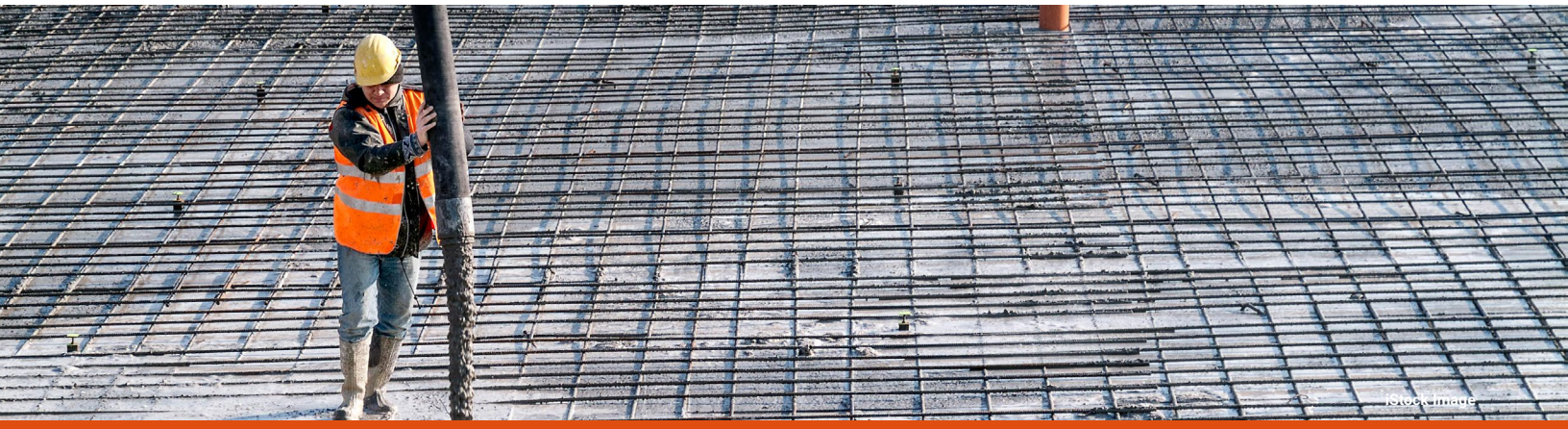
Command Alkon®



COMMANDQC

Graniterock

Formed in 1900, Granite Rock Co. is family owned and operated, with ready mix, aggregate, and construction in Watsonville, CA.

The Challenge

Like many other concrete producers whose QC programs evolved while personal computers became commonplace, Graniterock's QC information was managed in multiple programs. Aggregate gradings were calculated in Excel, concrete mix designs and tests were stored in Access, and certification information was maintained using PDF files. Because of the disparity of systems, relatively simple proj-ect submittals took 30 minutes or more to produce. People were spending too much time trying to generate weekly and monthly management reports. Sales people, who depended on providing QC information as part of their sales presentations, didn't have access to the latest, most up-to-date data. Graniterock's QC personnel were being overwhelmed by their own success. A different way of managing quality information was needed.

The Solution

When Katha Redmon arrived at Graniterock in 2012 and became their Director of Concrete Products, she already had experience with ConAd, the predecessor of COMMANDqc. She had experienced the benefits of having a single software solution that could monitor "all things QC". Aggregate information, concrete mix designs and test results, and batch information were all assembled in one location. Her previous use of Batch Watcher, a COMMANDqc module, had established the benefits of obtaining real-time reports for out-of-tolerance batches. After a visit to the Command Alkon booth at the World of Concrete, Ms. Redmon discovered that COMMANDqc was a major

LOCATION
California

INDUSTRY
Producer

RESULTS
One Data Location

improvement over the previous version she had used, so she recommended that Graniterock implement the software as their new Enterprise Quality Control solution.

The Result

Now that COMMANDqc has been installed, all the quality control information is stored in one location. According to Ms. Redmon, "As with most ready mix companies, producing accurate submittals is a vital and time consuming process. Utilizing COMMANDqc has made the submittal process much more efficient for us company-wide. The fact that all of the submittal information is contained within the COMMANDqc program has allowed us to shorten our submittal generation time by 70%." Customers have recognized Graniterock's improved responsiveness for generating submittals and now rely on Graniterock's rapid turnaround when providing project documentation. Generating submittals has become so easy that sales people at Graniterock generate routine submittals without help from the QC department.

COMMANDqc's improved ability to manage concrete test data has also helped Graniterock. Since Graniterock has its own testing lab, COMMANDqc has helped manage cylinder testing by tracking test samples made on projects that need to be picked up and preparing schedules of cylinders that need to be broken. This insures that cylinders made by the internal lab are cured and tested in accordance with ASTM standards.

Many of the local laboratories have been cooperative in providing concrete test results to Graniterock. Test results for a single mix design can be analyzed against the labs that generated them, making it easy to determine if a certain lab is producing tests with higher or lower strengths or with lesser or greater variability than the other labs. While no lab likes to be informed that their tests are low or too variable, this information can be valuable to outside labs for their own quality improvement efforts. The ability to sort and filter data by plant, project, lab or materials has made it easier for Graniterock to document their quality levels not only to their customers, but also to Graniterock management. The test data is also useful in determining overdesign requirements based on ACI criteria, allowing the company to produce more efficient and cost-effective mix designs and provide appropriate documentation for new project submittals.

Concrete mix designs are also stored in COMMANDqc. As part of its analysis, COMMANDqc can verify that a concrete mix is designed to yield the proper volume, and then make quick adjustments if the materials change or their density changes. While Graniterock's production tolerances have always been tight, COMMANDqc's Production Analysis and Batch Watcher have enabled Graniterock to quickly identify small variations and take corrective action before issues get out of control. COMMANDqc's Production Analysis can analyze historical batching accuracy and provide input when adjustments are needed to the batching system. Batch Watcher provides immediate notification when batches for critical mix designs or projects are batched out to tolerance. This allows the load to be corrected before it leaves the yard.

Even though Graniterock has embraced much of COMMANDqc's functionality, there are still new opportunities to explore. Over the coming year Ms. Redmon wants to improve batch tolerance reporting for management reports and to start implementing mix sets. Mix sets are similar to mix families, which group mixes of similar composition together so that they can be compared to make certain the entire system is working. For example, a set of "air entrained, straight cement" mixes ranging from 2500 psi to 6000 psi can be assembled and compared to make certain that strength tests are proportional to cement contents and indicate variations, even with limited quantities of data. Ultimately this will enable Graniterock to use even a limited number of test results to verify that strength tests are reasonable and adjust cementitious contents to appropriate levels.