# Doxel Increases Productivity by 38% on Major Healthcare Project

Case Study: Kaiser Permanente Viewridge Medical Office

Kaiser Permanente contracted with Doxel for its Viewridge Medical Office Building project, located in San Diego, California. The project team leveraged Doxel's automated progress tracking and quality inspection technology on the Viewridge Medical Office to increase labor productivity by 38% over the course of the project, which helped the overall project come in 11% under budget.
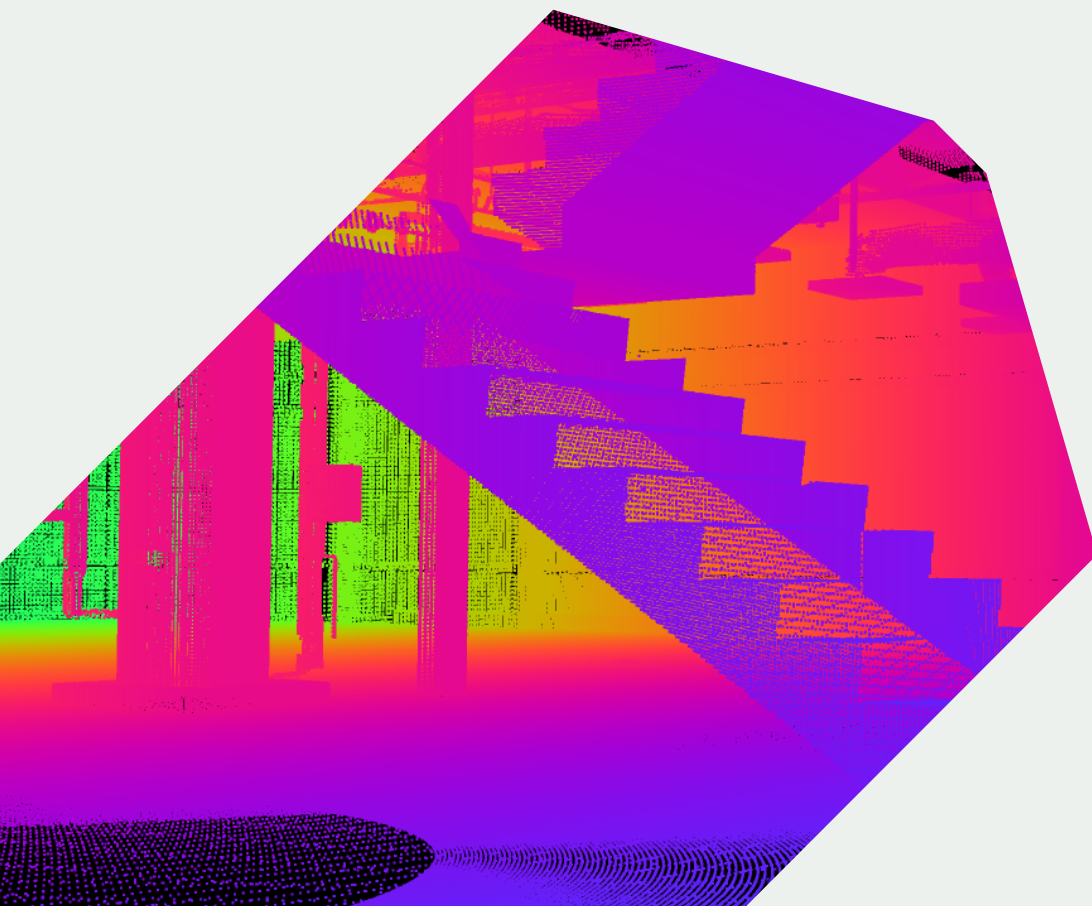
Results

KPI	Improvement with Doxel
Labor productivity	38% increase, on average, across all trades
Budget	11% under budget
Cost-at-Completion prediction accuracy	96%
Cost-at-completion lead time	6x more lead time than conventional forecast

How Real-Time Productivity Tracking Improved Results

The Kaiser Permanente Viewridge Medical Office project used an Integrated Project Delivery (IPD) contract structure, where the owner commits to reimburse contractors based on the direct costs of person-hours spent and materials installed. This arrangement passes on the cost savings from increased labor productivity directly to the owner. Owners commit to reimburse all person-hours spent on the project, and therefore bear the entire monetary risk of a team not achieving optimal productivity. Because tracking productivity was key to mitigating risk on the project, the team leveraged Doxel's proprietary technology as an early warning system to detect when the project was behind schedule, predict the potential negative financial implications, and inform effective corrective actions.

Using autonomous devices, Doxel monitored the site every day with HD cameras and laser scanners. This visual data was processed by Doxel's artificial intelligence algorithms that automatically measured installed quantities and calculated earned value for thousands of line items in the project's budget. Through proprietary cloud-based financial analytics and forecasting software, Doxel put this data in the hands of Kaiser Permanente's project team, giving them instant visibility into the precise amount of work done, the budgeted cost of work performed to date, and the project's predicted cost-at-completion based on measured productivity rates. At the completion of the project, it was discovered that Doxel had successfully predicted cost-at-completion with **96% accuracy** and with **6x more lead time** than a conventional forecast.

Doxel's artificial intelligence also compared the quality of field installations to the 3D design model of the Viewridge Medical Office. Because small errors can often create a ripple effect throughout a project that increases exponentially with delayed detection, it was important to the team that any errors be caught early. Doxel's real-time detection capabilities of even the smallest defects enabled Kaiser Permanente to identify and correct errors in real time, significantly reducing the cost of rework.

96%

accuracy with cost-at-completion predictions

6X

more lead time than a conventional forecast

In addition, Doxel's real-time progress tracking system enabled the Viewridge Medical Office project team to intervene swiftly when schedule deviations were detected, yielding a **38% increase in labor productivity** across all trades. This helped lead to the project being delivered **11% under budget**.

38%

increase in labor productivity across all trades