

Valley Interior Systems goes from 30 to 300 linear feet of wall layout per hour with a single operator

Highlights



Improved Accuracy



Reduces The Risk Of Back Injuries



10x Faster



One Operator

Improving resource allocation for other critical tasks

Project Background

Description

Print interior layouts for multiple types of projects

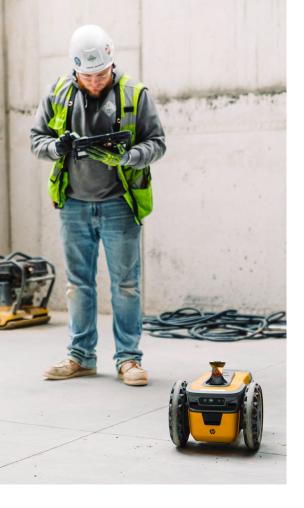
Project Size

Over 120,000 ft of wall track across a total area of 2 million sq ft across 18 different projects

Valley Interior Systems is a specialty construction services company operating in six locations across the Midwest and the Southeast. With a workforce of more than 1,000 carpenters and finishers, their diverse range of projects includes commercial buildings, data centers, healthcare facilities, and much more. Accustomed to working on tight schedules and completing projects with varied requirements, Valley Interior Systems has always been a company that seeks technological innovations to increase efficiency.

However, their traditional approaches to layout services remained time-consuming and labor-intensive. Though the company owned total stations and a CAD-based laser positioning system, the usage of these tools was limited, and the company sought an improved solution for faster layout processes.





The Challenge



Valley, with a rapidly growing project backlog, including many different project types, faced challenges keeping up with layout. To meet these needs, they used a combination of manual layout techniques and a CAD- based laser positioning system. This approach included marking layouts with tape measures, chalk lines, and manual calculations and, depending on the project size, required two to four person layout crews.

In an effort to achieve faster layout processes, Valley deployed a CAD- based laser positioning system. While the laser system helped identify points, a significant portion of the work still had to be done manually. The CAD-based laser positioning system improved layout efficiency but had limitations in precision and required manual intervention for complex areas like soffits and columns. The limitations of the mixed layout process led to several inefficiencies that increased costs and labor.

Manual layout processes required multiple people, consuming significant time and resources. Physically measuring and marking floors required two to four workers to spend weeks completing larger layout projects. The process was also subject to error, leading to costly rework and project delays. Valley needed a modern solution to help them achieve faster layout processes.

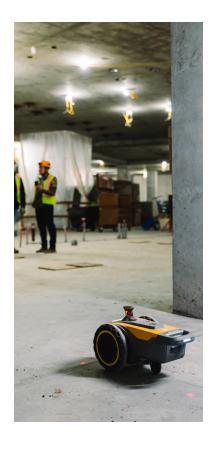
The Solution

Valley Interior Systems' goals of continuously improving project efficiency led them to invest in robotic layout tools. After evaluating the different options available on the market, they chose HP SitePrint for superior support and a convenient pay-as-you-go pricing model. The backing from the HP team and extensive network of HP SitePrint Specialists ensured they had the necessary support to successfully implement the new technology. The pricing structure differed from the flat monthly fee required by other models to ensure they only paid for what they actually printed.

Valley purchased a fleet of five robots and added a sixth (one for every office) after seeing the positive results. Since Valley doesn't have a specialized department to handle CAD preparation, they rely on the HP SitePrint Specialist who onboarded them and provided the team with CAD preparation services to ensure a smooth integration into the HP SitePrint ecosystem.

Some team members were initially hesitant about using the technology. However, it quickly became the new normal within the company.

To date, Valley Interior Systems has printed over 2 million sq ft across 18 different projects in various sectors, including healthcare facilities, hospitals, hotels, offices, banks, and other commercial construction projects.



"It actually took me a couple of months, At first, I was a big skeptic. I've done it so much manually that I was like 'I don't need that thing.' But every day it got a little better. Five months later, I was like, 'This thing is a godsend. I love it.' It definitely made my life easier. This is the kind of tool where once you figure it out, you never want to go back."

Brad Graves, Carpenter Foreman at Valley Interior Systems

The Results with HP SitePrint



Upon adopting HP SitePrint, Valley immediately recognized a dramatic improvement in layout speed.

"What we normally got hand-laying out obviously depended on the type of project and everything, but we are always probably 25 to 35 linear feet of wall per hour. With HP SitePrint, we're doing 300 feet per hour, so yeah, it's about 9 - 10x productivity increase."

Rick Hutchins, VP of Operations at Valley Interior Systems

The reduction in labor requirements was another easily recognizable benefit. Layout work traditionally required two to four person crews. With HP SitePrint, a single operator could handle the entire process, freeing up additional workers for other critical tasks. As a result, teams could ensure skilled labor was focused on value-adding activities, rather than time-consuming manual layout tasks.

Improved accuracy was another benefit that reduced rework costs and time requirements. The robot's automated markings minimized measurement errors, ensuring that every layout was executed with exact specifications. To validate accuracy, foremen conducted spot checks on HP SitePrint-generated layouts, consistently finding they were more precise than traditional methods.

"Pretty much everybody knows how precise this thing is. Other trades don't even question me anymore. They'll go back and check with their own tools and they'll be like, 'Yep, you're right. We shot it in wrong."

Brad Graves, Carpenter Foreman at Valley Interior Systems

HP SitePrint's accuracy minimized layout mistakes, reducing material waste and avoiding the need for costly corrections later in the process.

Although Valley layout teams hadn't mentioned seeking a way to reduce the physical strain of physical layouts, they immediately noticed the safer and more ergonomic work environment provided by HP SitePrint. "I pretty much spent my life crawling around on the floor. My knees hurt every night I went home. My back hurt," Brad Graves explained. "HP SitePrint is definitely a game-changer. My back doesn f hurt so much anymore." For young carpenters new to the field, adopting and learning to use HP SitePrint, is faster than learning to lay out with traditional methods. This is also helping make Valley an employer of choice.



Long Term Impact



The dramatic improvements Valley experienced with HP SitePrint made it evident how layout robots could help teams execute faster layout processes across all projects. Teams completed layout processes up to ten times faster with only a single operator, significantly reducing time requirements and improving resource allocation. Reduced material waste and eliminating rework clarified how the team could cut costs.

Valley's investment in HP SitePrint is a valuable tool that contributes to a clear technological edge in winning projects. Longterm the efficiency and precision of robotic layout is an advantage in speed, accuracy and advanced technology adoption.

Comparative Analysis

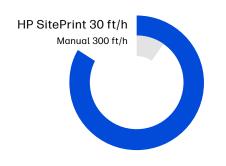
Valley has always kept up with cutting-edge technology and innovative tools to increase efficiency. When they turned to HP SitePrint to address layout inefficiencies, the obvious benefits made layout robots their new normal for faster layout processes. The table below clearly illustrates the changes the company experienced.

Total Data from 18 projects from Feb 2024 to Feb 2025

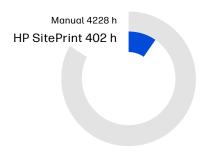




		Manual	HP SitePrint
Job Data	Printed Floor Area (sqft)	2,000,000 ft ²	
	Wall track installed (ft)	120,000 ft	
Labor Aspects	Layout Crew Size	2	2
	Layout Cost Hour	75\$	75 \$
Time And Productivity	Total Time (h)	4,228 h	402 h
	Wall marking productivity (linear ft/hour)	30 ft/h	300 ft/h
Layout Costs	Layout Labor cost	\$600,000	\$30,000
	SitePrint Usage Price	-	\$400,000
	SitePrint Amortization (6 robots over 12 months)	-	\$100,000
	Total Cost	\$600,000	\$530,000



Productivity Accelerated x10



10 Times faster

Want to learn more about how HP SitePrint can help your company achieve faster layout processes? Contact us to learn more.

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