

MG Construction Achieves **3.1x** **Faster** Multi-Residential **Wall** **Track Layout** with **XR Projector**

PROJECT BACKGROUND

Project: Downtown Montreal Condo Complex Layout

Location: Montreal, Canada

Type of Project: Multi-Residential Wall Track Layout & Interior Partitioning

Project Scope: 35 floors, 513 Apartment Units

Key Actors: MG Construction (Interior Systems Contractor)



3.1x

FASTER
LAYOUT TIME

100k\$

CAD IN
SAVINGS

100%

AUTONOMY
ON THE FIELD

CHALLENGE

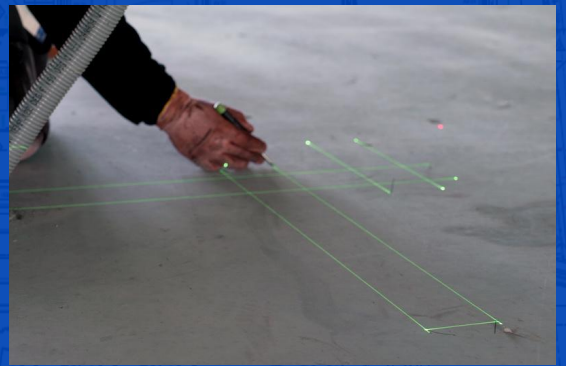
The project demanded a layout solution that could handle massive volume without sacrificing millimetric accuracy. **With 513 units across 35 floors**, the traditional "chalk line" method presented two major risks:

- **The Productivity Gap:** Manual measurements are slow and highly susceptible to human error. In a tight labor market, committing a multi-person crew to thousands of hours of manual layout threatened the overall project timeline.
- **The "Change" Bottleneck:** In high-density residential builds, architectural plans are rarely static. Door models change, bathroom dimensions shift, and plumbing centers often move once on-site. Traditionally, these discrepancies force the layout team to stop and wait for office authorization, creating costly idle time and physical burnout for the crew.

SOLUTION

To overcome these hurdles, MG Construction chose to rely on the XR Projector for their layout strategy. It acted as "Digital Truth" on the slab, projecting CAD files at a 1:1 scale to eliminate manual measurement guesswork.

By relying on the XR Projector, the layout lead gained total field autonomy. Using the system's real-time modification tools, he could shift wall positions on his tablet to accommodate new site conditions, verify the fit visually against existing plumbing, and continue marking immediately. This transformed potential days-long administrative delays into ten-second field adjustments.



RESULTS

Moving to an XR Projector-led workflow allowed MG Construction to optimize their labor from a "mostly-two-worker" crew to a "mostly-one" worker model.

Productivity: Achieved a 3.1x increase in layout speed compared to manual-only methods.

Labor Efficiency: A major reduction in layout labor costs by utilizing a single lead carpenter for the majority of the workflow.

Output: Consistently marked 7 units per day with total confidence in the "as-built" accuracy.

Human Impact: The lead reported saving "years of wear and tear" on his body by eliminating the constant manual measuring and physical strain of constantly getting up and down, inherent in traditional-only layout.



I'm doing a lot less of
"ups and downs", feeling
a lot better in my body at
the end of the day.

-Émile Beaupré
Lead Layout Worker



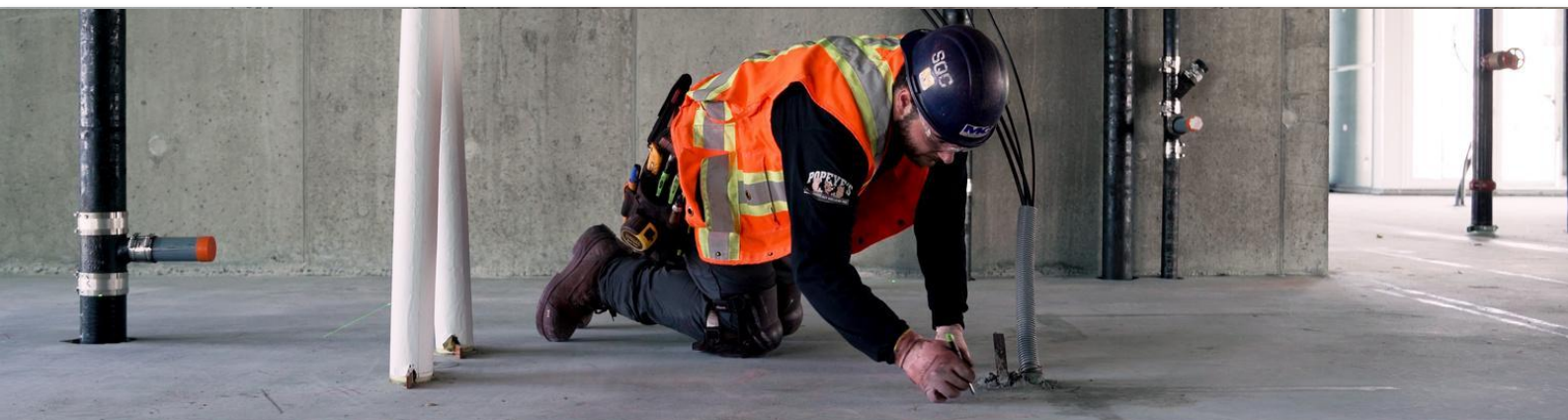
SCAN TO WATCH
FULL VIDEO

PRODUCTIVITY GAIN

3.1x
FASTER



7
UNITS PER DAY



COMPARATIVE ANALYSIS

The comparative results prove that the XR Projector's true value lies in enabling technical designs and field adjustments previously considered impossible. In an environment of rigid deadlines, an XR Projector-led workflow acts as the essential bridge for contractors to execute high-density patterns while streamlining the bottom line through maximum operational efficiency.

WALL TRACK & PARTITIONS LAYOUT

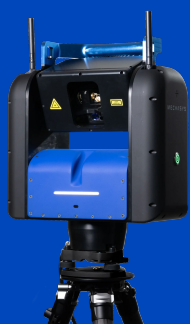
		Chalk Line	XR Projector
Initial Data	Total Linear Partition Walls (m/ft)	25,565 m (83,874 ft)	
	Total Area (m ² /ft ²)	30,260 m ² (325,716 ft ²)	
	Number of Apt. Units	513	
	Number of Floors	35	
	Hourly Labor Cost (CAD)	81.35\$	
Productivity	Average Team Composition	2	1
	Avg Productivity (Unit/Day)	4.5	7
Time	Avg Productivity Wall Length (ft/m-h)	46.0	143.6
	Total Layout Time (Days)	114	73
Cost	Total Layout Time (Man-Hours)	1,824	584
	Total Labor Cost (CAD)	148,382.40\$	47,508.40\$
Labor Cost Reduction (CAD)		\$100,874.00	
Net Productivity Gain		3.1x	

COLLABORATORS



Interior Systems Contractor

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