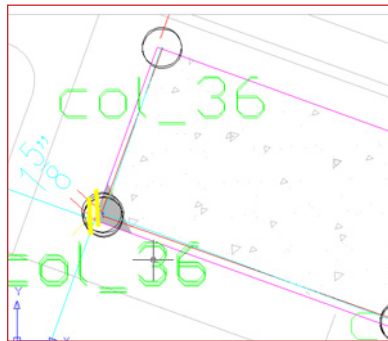
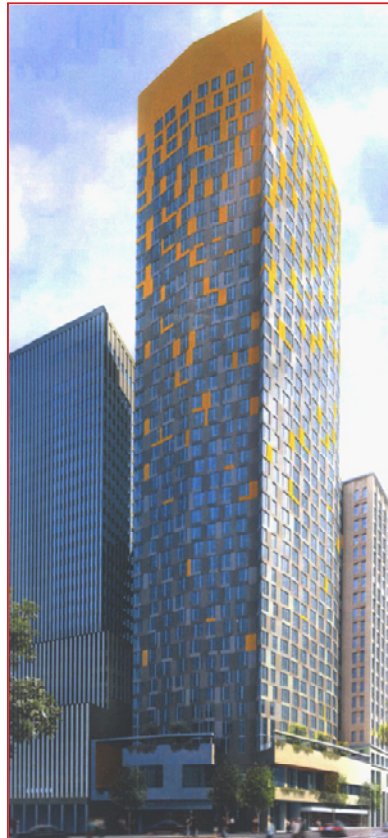


# REFERENCE PROJECT : WILLIAM BEAVER TOWER



**Building Type:** 47 Story Superstructure  
**Use:** Residential  
 350,000 Square Feet - \$500MM  
**Location:** New York, NY  
**Acceptable tolerance:** ¼ inch  
**Observed Deviation:** Column #36 was offset by 1-1/2 inches

A single measurement and layout error caused a structural column to be misplaced and brought construction of the William Beaver Tower to a standstill for two weeks.

The misplacement of the column was discovered as the trades proceeded to layout their own work. One tradesman measured off of a column instead of the local axis line and determined that the column appeared to be as much as 6 inches from where it was supposed to have been placed. The construction team could not determine reliably exactly how far off the column was.

When a construction project of this scope stops for two weeks the financial ramifications can be far reaching, affecting all parties and especially the owner. Trades demobilize, claims are placed and the potential of completing the job past deadline puts the owner at risk of losing income and going over budget before completion.

Theometrics was able to perform a forensics study of column and axis line placement related to proposed placement. In one afternoon the Theometrics team was able to measure and draw a dimensionally accurate 3D CAD drawing of all of the structures and features in question. The Engineers and Construction team were able to see, measure and compare actual conditions to proposed design the same day. Once analyzed the Theometrics study revealed the error and action was taken to make correction and get construction underway again.

The real-estate and construction industries suffer great losses estimated to be in the billions each year from relying on obsolete measurement and layout practices. A Theometrics Forensic study is a fast and accurate means of documenting and determining the magnitude of a construction error in CAD with great precision. A dimensionally accurate 2D or 3D as-built study informs proactive decision making that reduces the impact of measurement and layout errors.



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TIMELINE	CONSTRUCTION COSTS CLAIM	OWNER'S INTEREST EXPENSE	TOTAL COST
When Discovered	\$600,000	\$1,000,000	\$1,600,000
After 1 Month	\$1,000,000	\$2,000,000	\$3,000,000
Upon Completion	Unimaginable Toll		