

# B<sup>x</sup>UILT<sup>x</sup> – BIM to FM

## An Introduction to the Revolution

Modern innovation is complex because modern problems are complex. Thus, modern solutions are complex. This complexity creates opportunities for innovators who can tame it. Integrated Project Delivery (IPD), Building Information Modeling (BIM), and Lean business processes are enabling more stakeholders in the \$4.6 tril-

lion global construction industry to overcome complexity and deliver better value to clients. Lean experts contend the construction industry's deeply flawed delivery processes cost trillions of dollars annually.

### Global Construction Output (2006)

Total: \$4.6 trillion

**Construction Waste  
Totals 30% to 50%**

**Potential savings  
\$1.1 to \$2.3 Trillion**

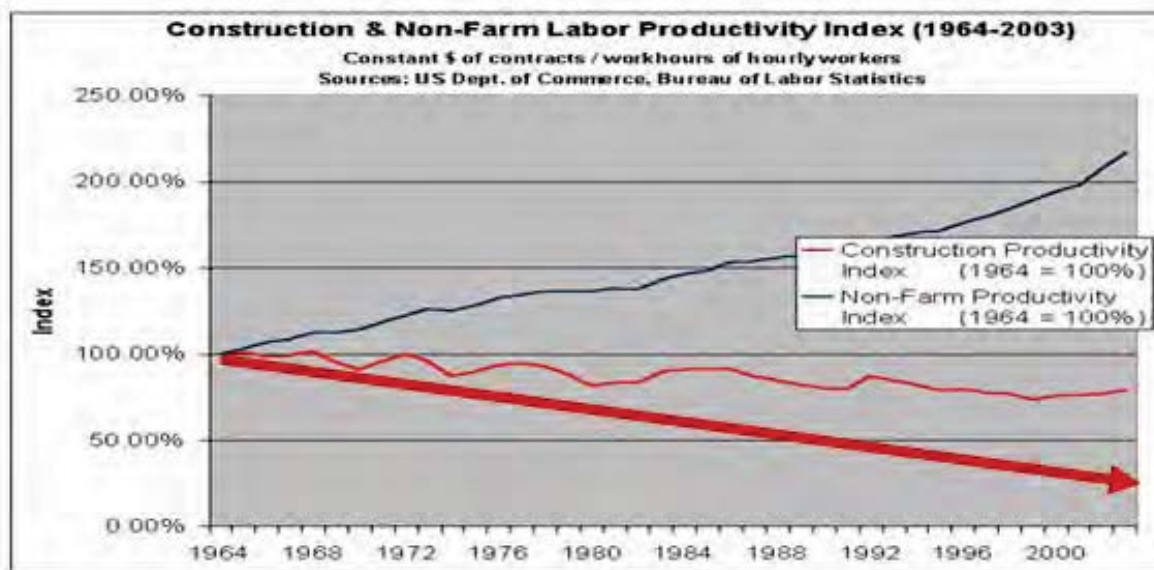


Articles in the BUILT – BIM to FM Series© will explore how IPD, BIM, and Lean processes are improving delivery processes in the construction industry and enabling more efficient procure-

ment and delivery of planning, design, construction, operation, and maintenance services for complex facilities and infrastructure around the globe.

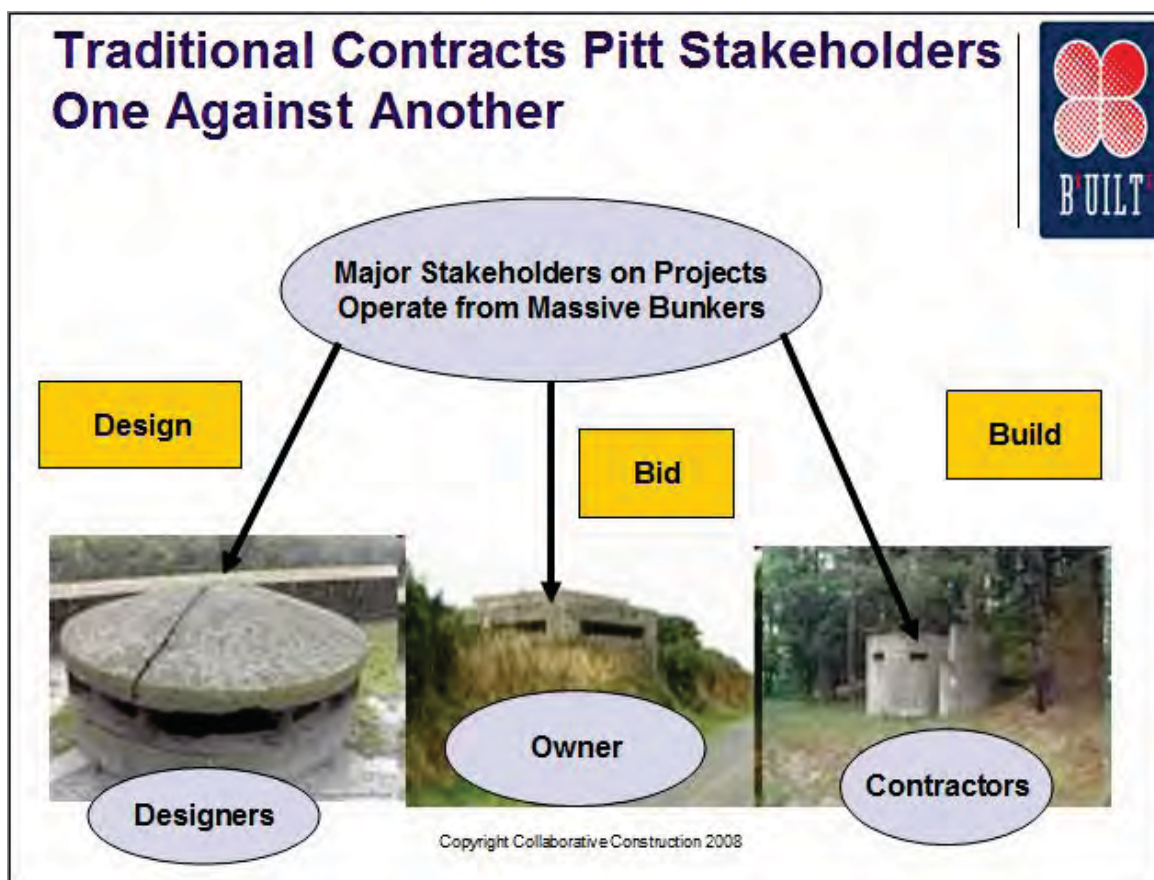
Historically, the construction industry has failed to leverage integrated business processes. Most recently, the industry has failed to effectively access information over the Internet as efficiently as

other industries. Planners, designers, constructors, and others continue to deliver projects—not products—in a piecemeal fashion that exponentially increases waste.



Stakeholders in the construction industry operate in bunkers—a product of the financial instruments and legal agreements stakeholders sign—and fail to share knowledge across disciplines. Revolutionizing, integrating, and upgrading the construction industries

defective delivery models will save clients billions of dollars and earn innovative firms that deliver simple solutions billions in increased profits.





## SOPHISTICATED OWNERS WILL DEMAND INTEGRATED DIGITAL ASSETS

Manufacturers pioneered business process integration and are now reaping benefits globally. Conceptualization, design, fabrication, sales, distribution, warranties, service, and every other facet of a product's life cycle can be tracked by a sophisticated manufacturer. Operating on sophisticated, enterprise-level software platforms, manufacturers routinely track their products throughout their life cycles, enhancing consumer satisfaction and increasing profits. By mirroring those efforts, integrated teams in the construction industry can use IPD, BIM, and Lean processes to solve complex facilities and infrastructure puzzles.



Currently, there are few in the construction industry committed to solving those puzzles. Planners, owners, designers, constructors, and other stakeholders treat facilities and infrastructure as one-off projects rather than repeatable products. However, emerging market forces—driven in large part by economic and environmental concerns and government mandates—are putting pressure on the fragmented and dysfunctional construction industry to deliver high-performance buildings and infrastructure that increase energy efficiency and add value. This cannot be done effectively until stakeholders in the construction industry recognize the value of integration. Sophisticated owners are beginning to demand BIM to FM, and innovators who deliver cost-effective solutions to those owners will earn billions.

## THE BUILT – BIM TO FM SERIES

James L. Salmon, the founder of Collaborative Construction Resources will oversee the BUILT – BIM to FM series and will be co-authoring articles in this series with innovators from around the globe. The articles will be premised on Collaborative Construction concept of B\*UILT<sup>x</sup> Solutions®, an acronym coined by Collaborative Construction that references facilities and infrastructure, “Built by BIM Builders Utilizing IPD, BIM and Lean Technologies Today and Tomorrow.” The phrase, “BIM to FM” refers to the need to capture digital assets authoritatively throughout the life cycle and deliver those digital assets to facilities management personnel and software programs as part of a fully functional and integrated Building Information Model.

In the coming months we will explore the mechanisms for delivering BIM to FM in a B\*UILT<sup>x</sup> Environment®. We will consider the legal framework required, the best practices for trust based team building, the use of strategic alliance agreements by cluster groups, ROI on IPD, BIM, and Lean, use of alternative dispute resolution in a B\*UILT<sup>x</sup> Environment®, and other topics. If you are interested in co-authoring an article in the series please contact James L. Salmon at [JamesLSalmon@gmail.com](mailto:JamesLSalmon@gmail.com).



*James L. Salmon, Esq. President, Collaborative Construction Resources, LLC is a collaborative consultant and the creator of these IPD in 3D™ concepts. Salmon advocates the use of advanced BIM technologies, Lean Construction methods, Collaborative Agreements and other IPD in 3D™ processes. His Collaborative BIM Advocates group provides free membership, national networking opportunities, custom symposiums and online webinars.*

