

Hamzah Shanbari, Director of Innovation
The Haskell Company
Jacksonville, FL
Hamzah.shanbari@Haskell.com

AI IMPACT 2024
40th Annual FPC Seminar + Expo
Sept 29 - Oct 1, 2024

AI Infusion: Redefining Healthcare's Design, Construction, and Operations

Course Number: AHCA 2024.09

Credit Designation: 1 LU/HSW

AIA CES Provider Number: E240

October 1, 2024



The seminar has teamed with a registered provider of AIA - approved continuing education under Provider Number E240. All registered AIA CES Providers must comply with the AIA Standards for Continuing Education Programs.

Any questions or concerns about this provider or this learning program may be sent to cessupport@aia.org or 800-242-3837 Option 3.

This learning program is registered with AIA CES for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.

AIA continuing education credit has been reviewed and approved by AIA CES. Learners must complete the entire learning program to receive continuing education credit. AIA continuing education Learning Units earned upon completion of this course will be reported to AIA CES for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.

1

OBJECTIVE

Explain what AI is and how it's being used in our everyday lives

2

OBJECTIVE

Learn how AI can be a tremendous aid in the design and construction of healthcare facilities

3

OBJECTIVE

Recognize what AI can help us accomplish from a healthcare facilities operations standpoint.

4

OBJECTIVE

Understand how to use these tools to improve overall efficiencies in healthcare design, construction, and operations.

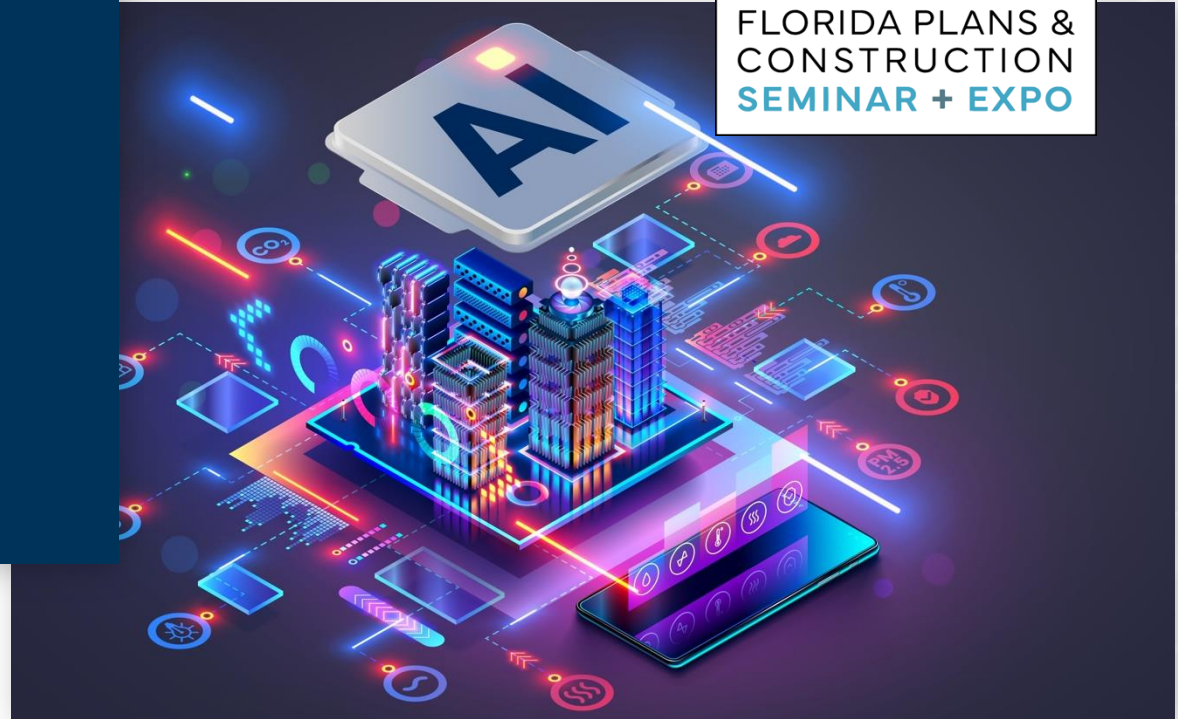


AI INFUSION

REDEFINING HEALTHCARE'S DESIGN,
CONSTRUCTION, AND OPERATIONS

HAMZAH SHANBARI, PhD

FPC
FLORIDA PLANS &
CONSTRUCTION
SEMINAR + EXPO



40th Annual FPC Seminar + Expo

is AI just another hype?

[illegible]

Your Trip:

MapQuest

111 Riverside Ave
to 9939 Universal Blvd

2 hr 13 min

153.6 miles

IRS reimbursement: \$102.88

↑

Head north. Go for 95 ft.

Then 0.02 miles

↱

Turn right toward Riverside Ave/SR-211 N. Go for 344 ft.

Then 0.07 miles

↱

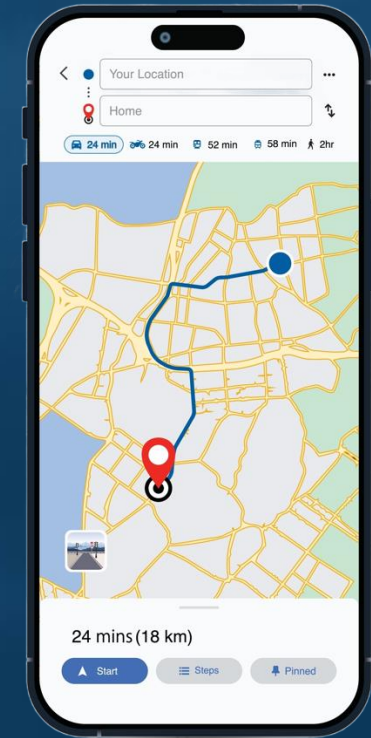
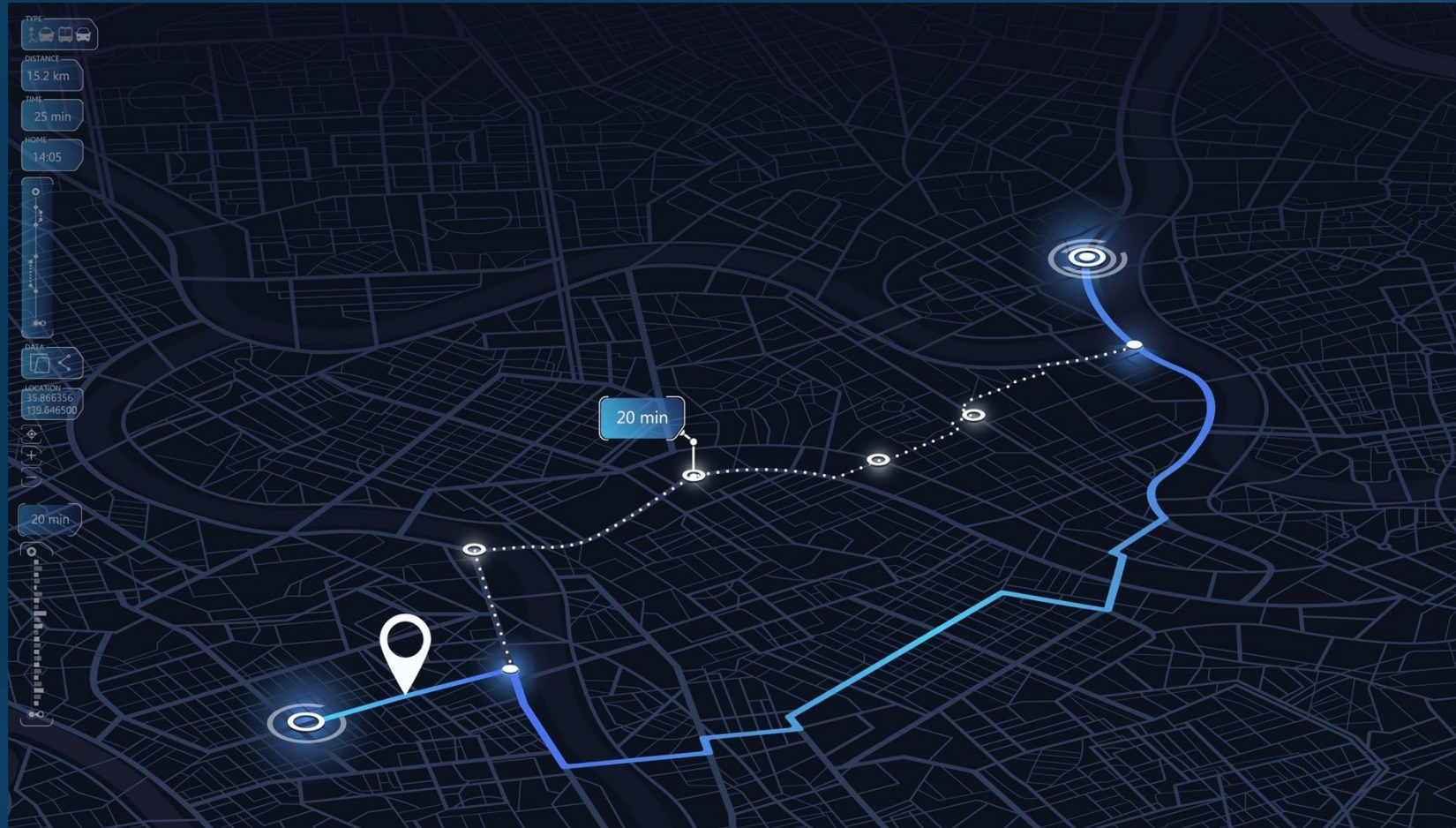
Turn right onto Riverside Ave (SR-211 N). Go for 0.1 mi.

Then 0.1 miles

↑

Take ramp onto SR-13 S (Acosta Brg) toward I-95 S. Go for 0.6 mi.

I DO NEED AI!



40th Annual FPC Seminar + Expo

AI IN ARCHITECTURE & DESIGN

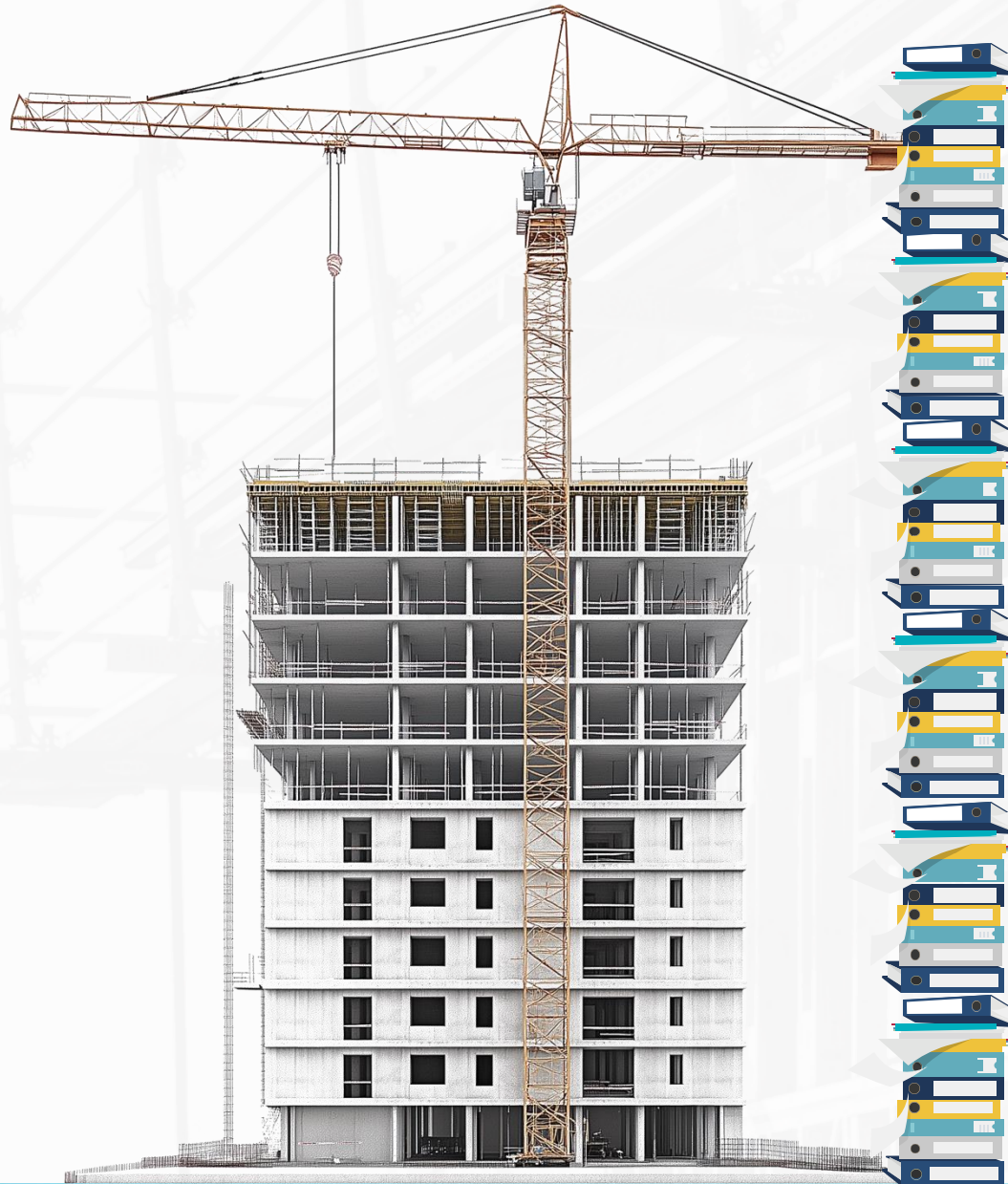


40th Annual FPC Seminar + Expo

IN CONSTRUCTION



40th Annual FPC Seminar + Expo



FORMS

REPORTS

PERMITS

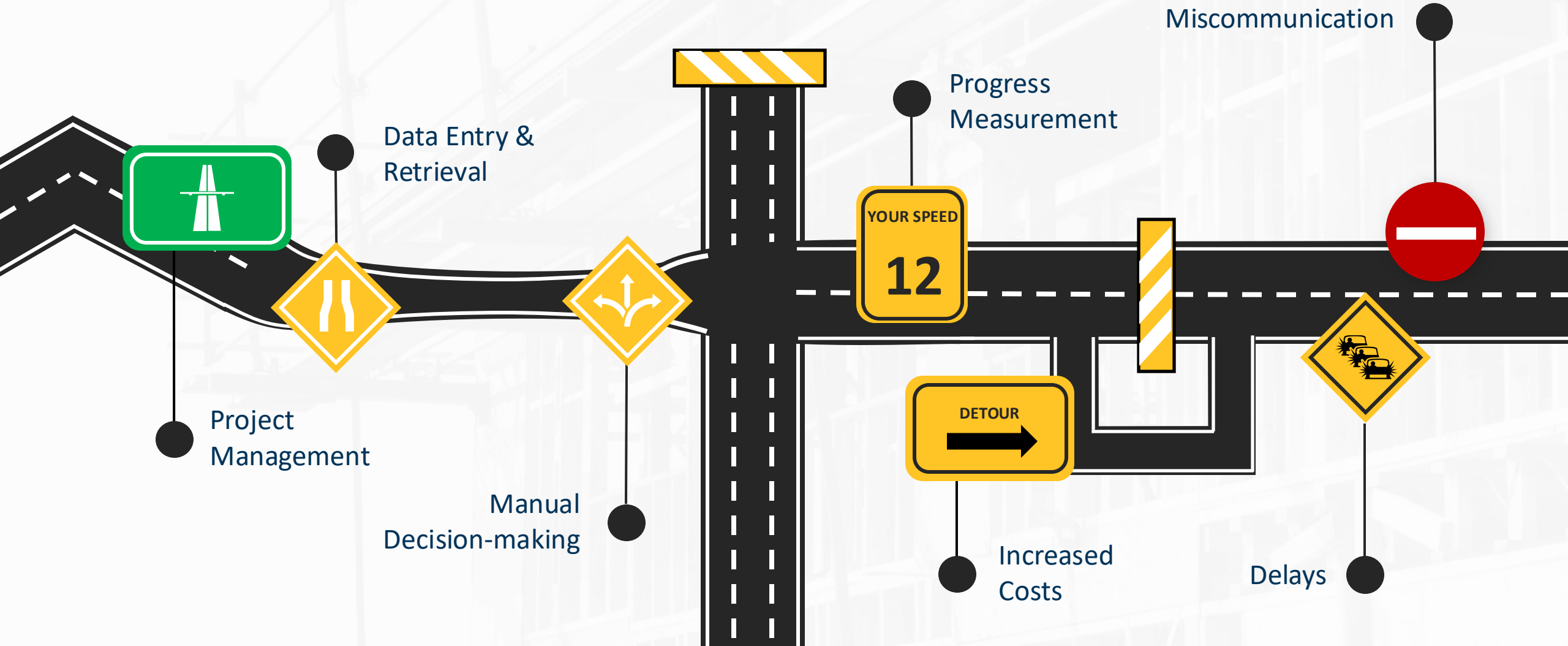
PROCEDURES

SPECIFICATIONS

DRAWINGS

40th Annual FPC Seminar + Expo

Traditional Construction Processes



40th Annual FPC Seminar + Expo

can AI help?

Let's see...

40th Annual FPC Seminar + Expo

1



CONSTRUCTION

3

2

PRECONSTRUCTION



OPERATIONS



40th Annual FPC Seminar + Expo

DRAWINGS

Blueprint Bottlenecks

Manual review and close collaboration lead to misunderstandings and delay



40th Annual FPC Seminar + Expo

SPECIFICATIONS

Static Spec Sheets

Static documents prone to miscommunication

Adjustments require manual updates across multiple documents



40th Annual FPC Seminar + Expo

ESTIMATING

Time-consuming Estimations

Time consuming, error prone manual estimations



40th Annual FPC Seminar + Expo

SCHEDULING

Gantt Chart Grind

Manual schedules with tight timelines

Adjusting for delays or changes requires complex recalculations



40th Annual FPC Seminar + Expo

PROPOSAL STAGE

Paper-Based Proposals

Labor-intensive proposal drafting

Extensive paperwork, manual data entry



40th Annual FPC Seminar + Expo

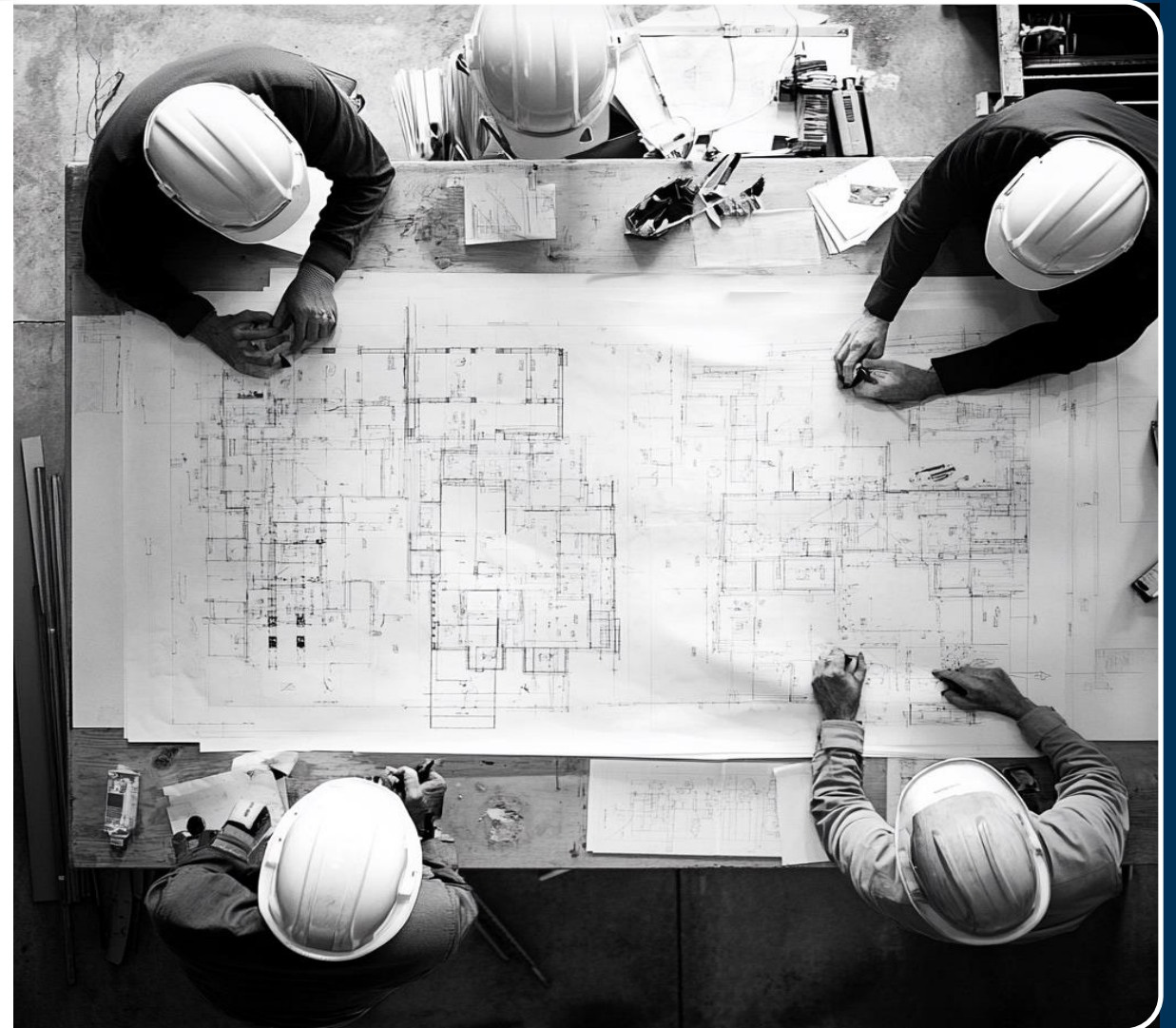
PRECONSTRUCTION

40th Annual FPC Seminar + Expo

Traditional Approach

Blueprint Bottlenecks

Manual review and slow collaboration lead to misunderstandings and delays



Traditional Approach

Static Spec Sheets

Static documents prone to miscommunication

Adjustments require manual updates across multiple documents



Traditional Approach

Time-consuming Estimations

Time-consuming, error-prone manual estimations



Traditional Approach

Gantt Chart Grind

Manual schedules with rigid timelines

Adjusting for delays or changes
requires complex recalculations



Traditional Approach

Paper-Based Proposals

Labor-intensive proposal drafting

Extensive paperwork, manual data entry



can AI help?

Potentially...

1



CONSTRUCTION

3

PRECONSTRUCTION



2

OPERATIONS



40th Annual FPC Seminar + Expo

CONSTRUCTION



40th Annual FPC Seminar + Expo

Traditional Approach

Manual Contract Management

Manual, expensive and time-consuming

Increased risk of overlooking critical terms



Traditional Approach

Paper Trails and Manual Work

Inefficient, manual document management, lost information, delays

Manual scheduling, resource allocation, and progress tracking



Traditional Approach

Procurement by Paper

Manual, paper-driven procurement processes



Traditional Approach

Manual Milestone Monitoring

Manual site visits and delayed reporting



Traditional Approach

Reactive Quality Checks

Rework, project delays, and increased costs



Traditional Approach

Safety by Protocol

Manual inspections with
potential oversight



Traditional Approach

Sustainability as an Afterthought

Late-stage, reactive sustainability efforts



can AI help?

Probably...

1



CONSTRUCTION

3

PRECONSTRUCTION



2

OPERATIONS



40th Annual FPC Seminar + Expo

HANDOVER

Headaches & Tons of Paperwork

Paper heavy time consuming, prone to missing documentation



40th Annual FPC Seminar + Expo

ENERGY OPTIMIZATION

Manual Tweaks, Missed Savings

Static systems, adjusted manually when issues arise



40th Annual FPC Seminar + Expo

OCCUPANCY TRENDS

Guesswork and Periodic Checks

Manual monitoring and maintenance schedules



40th Annual FPC Seminar + Expo

OPERATIONS

40th Annual FPC Seminar + Expo

Traditional Approach

Headaches & Tons of Paperwork

Paper-heavy, time-consuming,
prone to missing documentation



Traditional Approach

Manual Tweaks, Missed Savings

Static systems, adjusted
manually when issues arise



Traditional Approach

Guesswork and Periodic Checks

Manual monitoring and
maintenance schedules



1



CONSTRUCTION

3

PRECONSTRUCTION



2

OPERATIONS



40th Annual FPC Seminar + Expo

AI in Construction: The Future is Now



DRAWINGS



ESTIMATING

AutogenAI

PROPOSAL STAGE



PROJECT
MANAGEMENT



PROGRESS
TRACKING



SAFETY



HANDOVER



OCCUPANCY
TRENDS

SPECIFICATIONS



SCHEDULING



CONTRACT
REVIEW



PROCUREMENT

Kaya AI

QUALITY
CONTROL



SUSTAINABILITY

Qflow

ENERGY
OPTIMIZATION



40th Annual FPC Seminar + Expo

Key Takeaways

- AI will be embedded in many solutions
- A new paradigm for construction
- Having AI is like having the best navigation system for your projects



Q&A



LET'S CONNECT

40th Annual FPC Seminar + Expo

Thank you for your attention!

