Session 24: BIM and The New Approaches to City Design

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INPUT

- Existing Conditions Models
- Architectural Models
- MEP Models
- Civil Models
- Construction Schedule
- Construction Logistic & Equipment

OUTPUT

- Integrated Model
- Construction Drawings
- Coordinated Design
- Quantity Takeoff
- Visualization/Real Time Apps

- 4D Model
- Cost Loaded Model
- Risk Loaded Model
- Operation & Maintenance Model

Stanford Global Projects Center
Reality Capture: As Built Conditions

- LIDAR/Laser Scanning
- Accurate As Built Conditions
- Used for Project Handoff
- Integrate and Validate Using As built Model + Design Model
Model Based Design
4D Modeling

Multiple 2D/3D CAD Data Models

Reference Link

Dynamic Synchronised Link

Construction/Planning Schedule(s)

Construction Sequencing

Side-by-side Comparisons

Public/Stakeholder Consultation
BIM + Asset Management

User Interface

3D Model

Project Element DB

- Model Element Data Definitions
- Specifications
- Unique Identifiers
- Photographic Records, etc.

Client MMS

Transaction

Master

Audit
A Visual Study of Eight Central Waterfront Scenarios

Use the grid to the left to compare different scenarios from different viewpoints.

* These images are early concepts for the eight central waterfront scenarios. Surface treatments are for illustrative and comparative purposes only. Green and red coloring along the corridor indicates public open space that is not yet designed.

www.alaskanwayviaduct.org
Project Delivery Trends

**Design-Bid-Build**
- Owner
- Arch/Engineer
- Contractor

**CM @ Risk**
- Owner
- Arch/Engineer
- Construction Manager
- Contractor

**Design Build**
- Owner
- Design Builder (Arch/Engineer/Contractor)

**Integrated Project Delivery**
- Owner
- Arch/Engineer
- Contractor
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