PROJECT MANAGEMENT
CENTER FOR EXCELLENCE
A.J. CLARK SCHOOL OF ENGINEERING
Civil & Environmental Engineering Department

INTEGRATED PROJECT DELIVERY: COMPLICATED COLLABORATION OR IMPROBABLE PANACEA

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2017 Project Management Symposium

http://pmsymposium.umd.edu/pm2017/

Presenter – Nadia Arafah, ABD

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Presentation Agenda

- Executive Summary
- Background to Constructed Facility Project Delivery
- Integrated Project Delivery [IPD] Primer
- IPD Benefits & Challenges
- Questions & Comments

Background

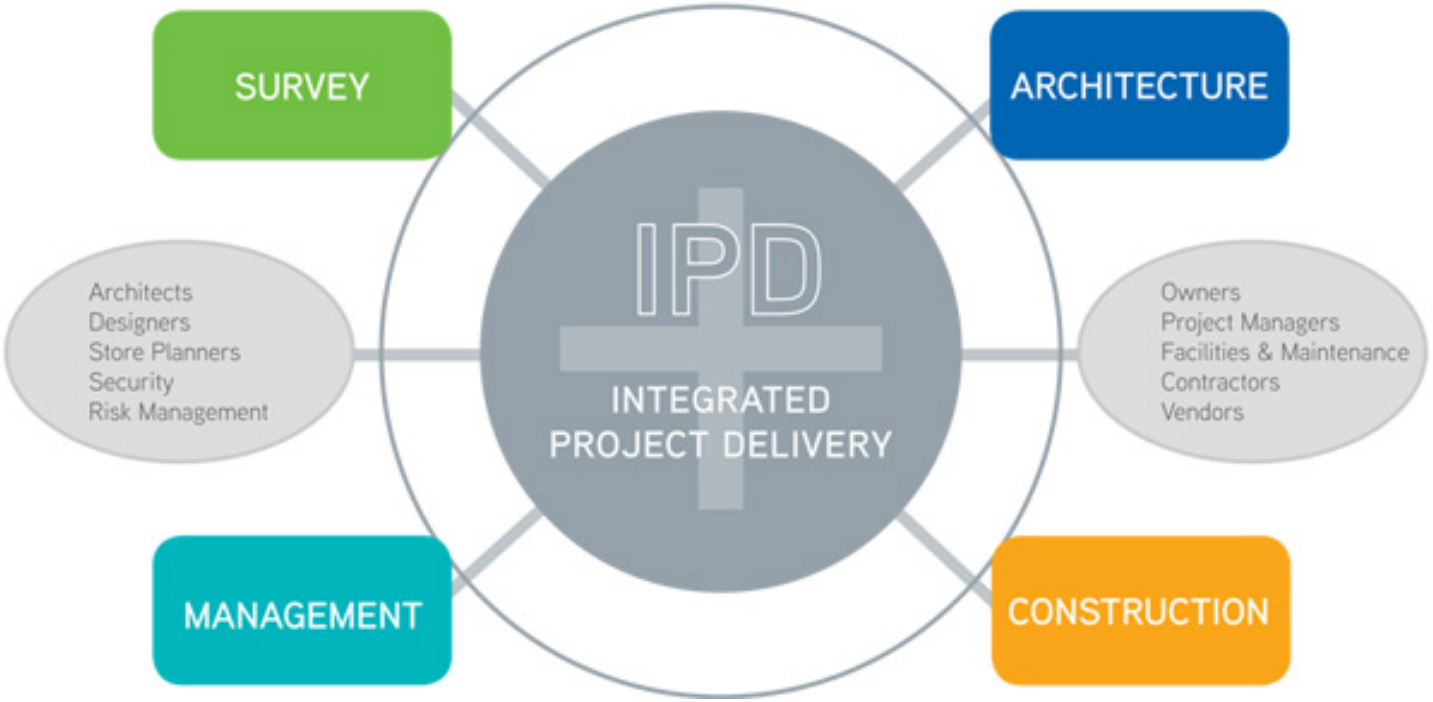
CONSTRUCTED FACILITY PROJECT DELIVERY

Construction Contractual Arrangements

- **Fixed-price or lump-sum contracts.**
- **Unit-rate contracts.**
- **Cost-reimbursable contracts**
- **Time and materials contracts**

Facility Project Delivery Approaches

- **Design-Bid-Build (traditional method)**
- **Design-Build**
- **Turn-key**
- **Construction Management**
- **Single-source, non-competitive**
- **Design-Build-Operate-Maintain-Transfer**



IPD – A NEW DELIVERY APPROACH OF COLLABORATION & TRUST

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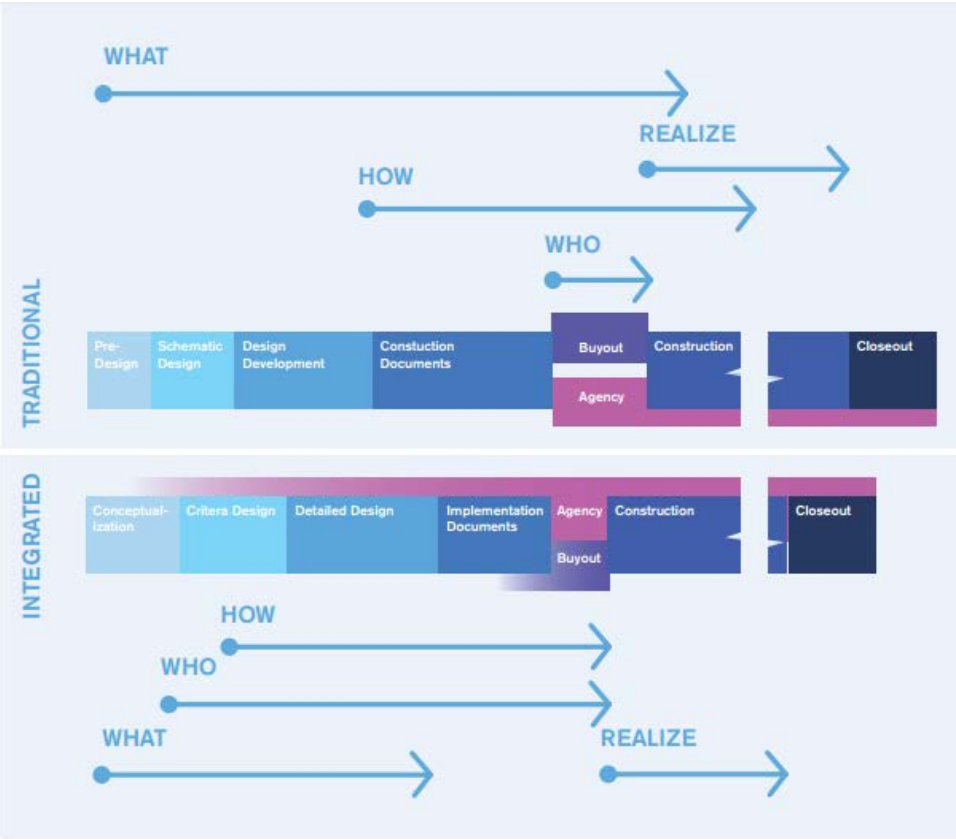
Working Definition of IPD

- Project delivery strategy that integrates people, systems, business structures, and disciplines
- Collaboratively manages the expertise of all participants in the project to reduce waste and optimize efficiency

AIA California Council (2007/2010)

IPD Methodology



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IPD Essential Principals

- Mutual Respect / Mutual Benefit
- Early Goal Definition
- Enhanced Communication
- Clearly Defined Open Standards
- Appropriate Technology
- High performance / Leadership (AIA, 2007)

IPD Benefits

- **Improved Project Execution**
  - **Cost Budget Performance**
  - **Execution Time Efficiency**
  - **Overall Quality of the Facility**

IPD Benefits

- **Trusting Partnerships**
  - **Improved Team Relations**
  - **Less Waste**

Challenges Using IPD

Facility Owners

- Must lead paradigm shift
  - Exhibit willingness to change
  - Take risks
  - Develop culture of trust (COAA, 2016)

Challenges Using IPD

Designers

- Joint responsibility
  Design and Construction
- Higher level of effort early on
- Responsibilities don't end with issuing construction documents

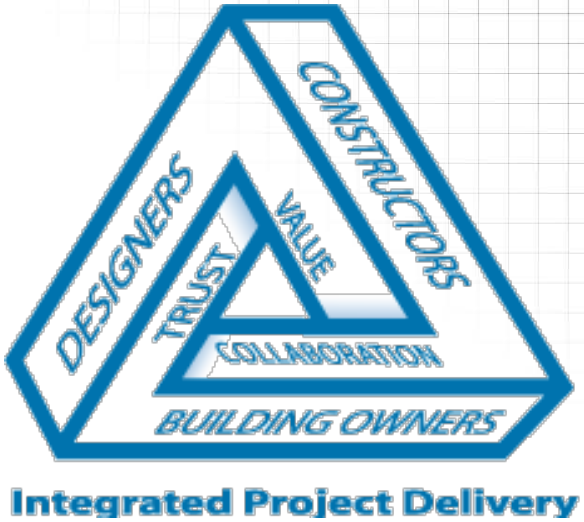
Challenges Using IPD

Construction Firms

- Involved at onset / selected on qualifications rather than lowest price
- BIM requires significant investment in set-up time and upfront training

Conclusions

- Benefits
  - Improved project performance
  - Trusting partnership
- Costs
  - Early involvement with detailed planning
  - Team development
  - Investment in BIM technology
  - Shared risks [waiver of liability]



Conclusions

- Improvements in long term relationships
  - Leads to repeat business
- Collaborative approach allows informed decision making early in project
  - When most value created
  - Eliminates waste in the design

QUESTIONS / COMMENTS

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Any Further Questions?

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Thank you