



IMPROVING PROJECT OUTCOMES

Step 1: Choosing the Right Delivery Method

September 6, 2017

SAFETY MOMENT

As is the case with each Improving Project Outcomes session, we kicked off this session with a Safety Moment. DYK – there were 937 fatalities in construction during 2015, which was a 4% increase from 2014 and this 2015 amount was the highest since 2008. OSHA's Fatal Four for 2015 had these casualties: Falls – 364; Struck By Object – 90; Electrocutation – 81; and, Caught-In/Between – 67. These Fatal Four were responsible for more than half (64.2%) the construction worker deaths in 2015.

If we, as the construction industry, are able to eliminate the Fatal Four, we would save 602 workers' lives in America annually. Education is an effective method to addressing this serious issue. Each of the four hosting groups agreed to promote safety education and training.

INTRODUCING TODAY'S TOPIC

The 2nd edition of the Improving Project Outcomes session focused on project delivery systems. The hosts (AIA of PA, COAA of PA, DBIA & KCA) view this as step one in the construction process and a vital step to having a successful project. Over sixty people representing executives from the design and construction industry attended to provide their expertise on the subject at hand. It was a diverse crowd representing Owners, Architects, Engineers, General Contractors, Sub and Specialty Contractors, Lenders, Consultants, and, Attorneys. This inclusive gathering resulted in great discussion.

SMALL GROUP ACTIVITY

After breaking up into four groups, with equal Owner representation within each group, the groups were to focus on one of the four delivery systems: Design-Bid-Build; Design/Build; Construction Management-At-Risk; and, Integrated Project Delivery. Each group was tasked with:

1. Defining their delivery system
2. Listing the top advantages and disadvantages of their delivery system
3. Sell to an Owner why their delivery system is the best option

DESIGN-BID-BUILD

Design-Bid-Build (DBB) is a traditional construction delivery system that tends to be prevalent in the public sector. In this system, the Owner procures a design and bid package from an independent designer, and typically uses a competitive procurement process to get pricing to build the project as specified and then selects a contractor to build the project through a bidding process.

DBB Advantages	DBB Disadvantages
Checks and balances between architect and contractor	Doesn't allow for contractor's expertise to help with the design
Promotes fairness to bidders	Longer delivery time due to linear process
Roles and responsibilities are understood	Open to change orders

DBB – THE SALES PITCH

DBB is a great delivery option for a well-defined project. It is an excellent option for a small renovation project when the program, goals, decision-making, and budget are well understood. Most importantly, it is a time-tested delivery method that stakeholders understand and know their roles and responsibilities to deliver the project.

DESIGN/BUILD

Design/Build (DB) is an integrated, single contract approach in which one firm assumes responsibility for both design and construction of a project. With this single point of responsibility, DB can promote interdisciplinary team approach throughout the duration of a project.

DB Advantages	DB Disadvantages
Speed	Front End/ Basis of Design
Constructability	Lack of competitive bid
Single point of contact	Checks and balances

DB – THE SALES PITCH

DB is an integrated process where design and construction overlap to fast-track construction delivery. Cost efficiencies can be achieved since the contractor and designer are working together throughout the entire project, which results in fewer changes, claims, and litigation, as well as earlier knowledge of construction costs.

CONSTRUCTION MANAGEMENT-AT-RISK

Construction Management-At-Risk (CM@R) is a delivery system defined by the separate contracts for design and construction with the total construction cost not necessarily factoring in the final selection. CM@R usually includes a contractor-provided Guaranteed Maximum Price for the construction phase, plus preconstruction services tend to be included in the contractor services.

CM@R Advantages	CM@R Disadvantages
Contractor input during design phases can lead to cost and time savings	Owner placed in between architect and contractor
By having contractor on board during preconstruction, construction can begin early	Owner involvement level can vary from project to project but it is critical to success and limited and/or inexperienced owner can result in issues
Checks and balances similar to DBB, but it's extended to design phases	The contractor is vital in providing feedback in the design phase, but this checks and balances tends to lessen when construction begins

CM@R – THE SALES PITCH

CM@R is a delivery method that uses a transparent budget, cost, and accounting protocol. It puts 100% of the construction risk on the contractor. It brings low financing risks and fosters teamwork, collaboration, innovation, and technology use. It allows the design process to continue while construction is started on early phases, and it will shorten the overall delivery timeline.

INTEGRATED PROJECT DELIVERY

Integrated Project Delivery (IPD) is a collaborative approach with one single contract where all parties share in risk and reward. Another key defining element of IPD is that all key parties are involved day one on the project and an open book process is present throughout the project.

IPD Advantages	IPD Disadvantages
Collaboration/Coordination/Shared Expertise	Loss of individual fee control
Schedule and cost monitored by all	Time and effort
Incentivized to succeed	It's UNKNOWN – risk allocation, insurance, bonding, etc.

IPD – THE SALES PITCH

With IPD, this collaborative approach allows informed decision-making early in the project when the most value can be created. This collaborative approach allows for data sharing directly between the designer and the contractor and this information sharing can immensely improve productivity in construction.

BIG GROUP DISCUSSION

After the small group breakout sessions, we returned to the big discussion on project delivery systems, specifically what items play a factor for the Owner in selecting a method. The typical factors were mentioned, like: budget, schedule, Owner's level of involvement and expertise, risk, local market conditions, etc. Following this discussion, we shifted gears to focus on an organized project delivery strategy selection workshop process.

Created by the Charles Pankow Foundation and the Construction Industry Institute, "**Maximizing Success in Integrated Projects**" is an excellent resource intended to assist Owners in developing the right project delivery strategy to maximize integration and **Improve Project Outcomes**. As a group, we walked through the project delivery strategy selection workshop contained within the publication. This workshop, which should take 2 to 4 hours to complete, is a structured approach to assist Owners in selecting an appropriate project delivery system while enhancing team collaboration and providing documentation of the selection decision. To view this resource visit: <http://projectdelivery.weebly.com/>.

FUTURE EVENTS

AIA of PA, COAA of PA, DBIA, and KCA plan to hold the next session on December 6, 2017. Following this last session of the year, the groups will reconvene and set its meeting schedule for 2018.

For additional information regarding these sessions, please contact:

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