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Integrated Project Delivery Frequently Asked Questions

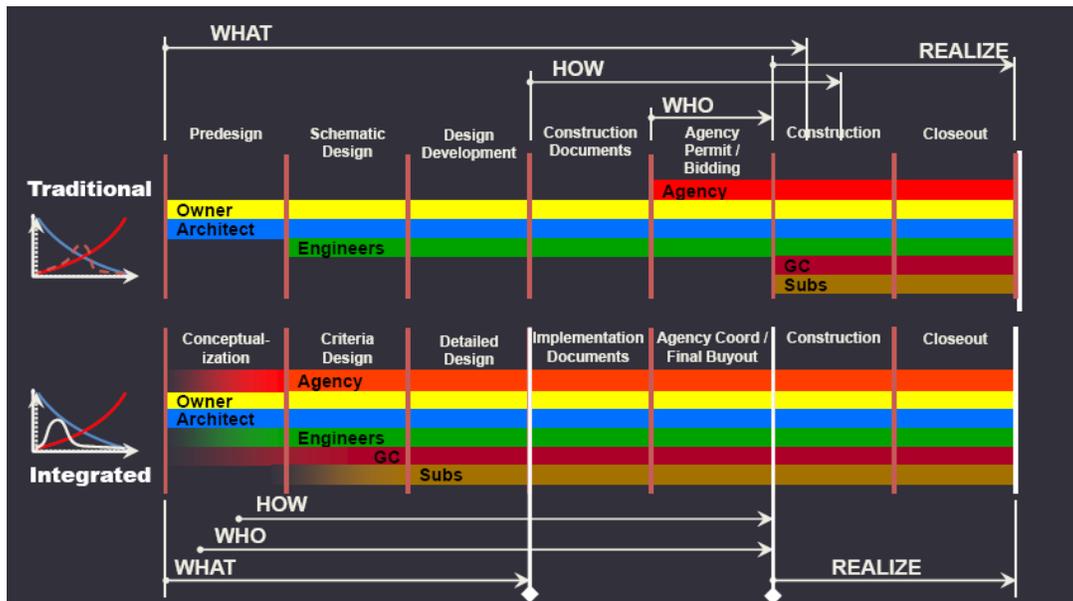


In 2006, The AIA California Council defined Integrated Project Delivery (IPD), as:

IPD is a project delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, reduce waste and maximize efficiency through all phases of design, fabrication and construction.

IPD principles can be applied to a variety of contractual arrangements and IPD teams will usually include members well beyond the basic triad of owner, architect, and contractor. At a minimum, though, an integrated project includes highly effective collaboration between the owner, the architect, and the general contractor ultimately responsible for construction of the project, from early design through project handover.

The following graphic illustrates the principles of the project delivery process



The definition and diagrams are included in the *Integrated Project Delivery Guide* (jointly developed by The AIA’s Contract Documents Committee and The AIA California Council). Since then, many questions have been asked that build on the foundation in *The Guide*. The following “Frequently Asked Questions” responds to these issues and encourages those in the design and construction industry to embrace IPD as a way to improve project delivery.

Is IPD the same as design-build?

Design-build is a project delivery model that fits within the umbrella of IPD as defined above. However, design-build is not the same as the IPD models described in AIA documents A195, B195, C195, A295, released in 2008.

The design-build delivery model, when used according to its best practices, aligns with all of the fundamental principles of IPD. In the ideal IPD and design-build models, the owner, designers and builders work collaboratively from project inception to mutually establish the performance, budget and schedule within the constraints of the owner’s business model. The team works together to collaboratively manage the effort.

Design-build procurement and management methods vary from project to project. Design-build procurement methods include:

- 1) “Qualification Based Selection” (selection based on qualifications only)
- 2) “Best Value Selection” (two-phase selection process with RFQ & RFP, based on “criteria” documents), and “selection using bridging documents” (plans and specifications are developed to a point without the involvement of the contractor who will eventually build the project)

Design-build management may, or may not include the owner to a greater or lesser degree. As design-build moves more toward a “bridging” procurement, or project management that does not include the owner, it also begins to move away from the fundamental principles of IPD.

How is IPD different than “partnering” and other methodologies we have heard before?

Partnering is purely aspirational. In a partnered project, the parties sign a non-binding charter that reflects an intent to interact openly and collaboratively. Partnering does not however, change the basic contract and liability relationships, nor does it create incentives and consequences that flow from achieving or ignoring the collaborative goals. In contrast, IPD is a value driven process. The goals of IPD—open communication, collaboration, and decision making in the best interest of the project as a whole—are reinforced through shared risk and reward based on project, rather than individual performance. There is joint decision making and appropriate liability allocation. IPD aligns the goals we seek to achieve, with the incentives and project structures needed to accomplish those goals, thus creating a value based, virtual organization aligned to the agreed project goals.

How is the move to IPD different from the move to CAD-drafting in the 80's?

CAD drafting was simply a change in tools, but processes and project roles did not change. IPD is not a tool, but a process based on new relationships, where project participants take on roles beyond their traditional silos.

Do you think IPD is challenging? If so, why?

IPD can be challenging because it is new and completely different than the "traditional" way the industry has been doing business. IPD requires greater collaboration resulting in new technologies, new software, equipment, and training all combined with IPD's expectations.

How can design goals that are more subjective be measured since IPD process metrics focus primarily budget and schedule issues? And by whom are they measured by?

The goal of IPD is extraordinary results. Design is only one of the "dials" or performance metrics that must be balanced with the others to meet the owner's business case. Although design is a subjective goal, the project team needs to define the performance criteria for all metrics and break the criteria into specifics that can be assigned target costs, which in turn will influence design. The project team is responsible for managing how successfully the project is meeting the metrics at specific milestones throughout the design and construction process.

Do you feel as though some misuse IPD, or carelessly and ignorantly apply it?

Some owners, architects, contractors, and others in the industry do not fully understand that IPD is a completely different model with its own new and unique attributes. Attempting to use an IPD model without making the mental shift and adopting its new principles can lead to a poor or sometimes disastrous result.

Fundamental principles of IPD include:

- 1) mutual respect and trust
- 2) mutual risk and reward
- 3) collaborative innovation and decision making
- 4) early involvement of all key participants
- 5) open and enhanced communication

Do you feel perhaps there should be a hard-to-get credential to use this system? Maybe some form of certification for IPD use?

No credential or certification should be required. IPD is not a prescribed sequence of activities and roles for all project types. The success of an IPD project is based on individual team member's ability to make decisions collaboratively, apply the tools and systems and align the business culture and business models of the individual firms involved in the project. Thus the combined experience of the individuals within a firm is more important than certification at this time in the development of IPD. Finally, the owner is the third party in the collaborative effort.

However, our academic education and intern programs should include extensive exposure to working in collaborative teams inclusive of designers, engineers, builders and fabricators.

Some professionals insist IPD is expensive to implement (especially in training costs associated with BIM and collaboration). What is the value proposition for IPD? Based on this assumption, do you feel it will be difficult to bring consultants on board?

Design professionals typically collaborate with other design professionals to deliver their services. IPD extends this collaboration to the entire owner/building team. IPD does include BIM as an essential, for optimal benefit; but BIM is not required to participate in an IPD process. The value proposition for the collaboration and/or BIM is to invest in the effort early, or react to the questions/problems later. Consultants typically embrace IPD goals, as do the design professionals.

What education needs to be completed by all members of a team regarding roles and responsibilities?

Out of the many things teams need to do to work together in the IPD model, the most important is to learn to trust and support each other collaboratively, and to respect and understand the value of each viewpoints. Teams make better decisions than individuals.

Is there concern about the impact on the architectural profession using IPD?

If there is concern, it is about NOT adapting to IPD. Owners express increasing concern over cost overruns, delays, late changes, etc. If architects fail to address these concerns effectively and some other industry sector succeeds, the architectural profession runs the risk of being sidelined.

Do you feel contracts, as well as insurance stand in the way of using IPD? How can you as the architect mitigate this?

Several new model contracts have evolved that focus on the IPD delivery method. The legal and insurance communities have learned about this opportunity, and have made it clear that as long as the risk is clearly assigned, they can provide the support necessary. The architect needs to make it clear who is responsible for what information, ie, the contractor is still responsible for quantifying the scope of work, even if it imputed from the BIM model.

Do you feel like BIM has a liability implication for early specification, cost estimating, and overall management of the project that may unduly expose the designer?

Not if the IPD project and contract are properly organized. Liability is a function of the likelihood of an error and the size of the consequence should it occur. IPD tends to reduce risk, because it focuses the entire project team on finding and reducing errors. (In an IPD project, the contractor's profit will be at risk if the project is over budget or delayed.) But even if an error does occur, IPD projects generally limit project team members ability to sue other project team members for economic losses. Thus, this type of risk will generally be limited or entirely waived between owner, contractor and architect with similar waivers flowing through to sub-tier members.

How are architects interests protected on projects, given that the contractor receives the bulk of the funds?

In an IPD process, the project's purpose has the over riding interest. It is in the interest of the design professionals to inform team members of the value of the design when agreeing to the metrics of success for the project. An IPD process requires consensus on decisions when it comes to difficult decisions and a "What's best for the project" perspective. Entering into an IPD arrangement with a perspective of protecting one's interest does not support ideals for collaboration, which is the foundation of IPD.

Do you hesitate at the thought of sub-contractors (like the plasterers & lathers) having equal an footing with the architect during a project?

No. The goal is to deliver on the project metrics. Therefore, the firm, discipline, or sub contractor that can most affect optimum results of that metric, needs to be at the table.

How does IPD differ for small, medium, and large sized firms?

IPD is appropriate for all firm sizes, but the implementation details must reflect the size and structure of the involved firms and the size and duration of the project. For example, IPD often involves deferring all or a portion of profit until project success is determined. In addition, IPD often involves more intense design effort at earlier stages. These changes affect cash flow. The firm size, especially in relation to the project size, may alter when profit should be determined (perhaps in phases) and how much profit should be at risk. When developing an IPD project, the parties must recognize their differences as they also seek to create a unified team.

Do you believe one of the biggest issues standing in the way of IPD is contractors and consultants' being reluctant to embrace IPD until everyone gets "on board"?

IPD is new, and every team member has a different comfort level in participating in the IPD process. The complexity and size of a project may also inform the process of how willing the team members are to participate in an IPD process, as well as previous working relationships. The AIACC is committed to help educate those interested in IPD through case studies and lessons learned from building industry participants who have shared the benefits and challenges of IPD.

What challenges do you believe are standing in the way of implementing IPD? For Contractors? Owners? Subs? Architects?

The biggest challenge for all groups is the fear of change. As the use of IPD as a process grows, a natural education of all stakeholders will occur which will promote acceptance. As with any new process or technology, an investment in education and training in the proper techniques will deliver better results. As business models evolve and risk allocation is clearly defined, the ability to adopt IPD as a delivery method will become easier.

Why do you think some clients haven't expressed desire to try this delivery method?

Since The AIACC published *IPD: A Working Definition* we have seen increased interest, as well as many new request for qualifications (RFQ's) being developed, requiring qualifications and experience with IPD. Many Owners' (particularly private entities with large capital programs) have adopted or even lead the way in implementing IPD. Similarly, a number of public owner's are moving to adopt many of the practices and aspects of IPD.

Do you believe it to be true that clients are standing in the way of IPD?

No, at the moment you can probably find an equal number of all disciplines standing in the way of IPD. For owners, there are not a large number of experienced designers, engineers, and builders who have demonstrated results either individually, as a firm, or as a multi-disciplinary team with IPD. Similarly, there are very few owners' that have experience with IPD.

Is there a problem in your firm due to clients dragging their feet thinking bidding is better, as many public clients haven't figured out how to work around the traditional bidding process?

This is a problem to many; although there are more and more examples of public agencies moving away from the requirements for a hard-bid processes, and are adopting more integrated approaches; especially with opportunities that arise as a result of newly passed legislation.

For more information about Integrated Project Delivery visit www.ipd-ca.net

Do you have additional questions about IPD? Email them to ipd@aiacc.org and they will be answered in a future edition of "Frequently Asked Questions".

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