A Working Definition

Version 2 Updated 06.13.2007

Integrated Project Delivery

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Preface

This report, *Integrated Project Delivery – A Working Definition*, contains the recommendations of the Definitions Committee of the Integrated Project Delivery Task Force. It represents the combined efforts of architects, engineers, contractors, sub-contractors, owners and attorneys and intends to describe the key elements of an integrated process.

The recommendations are a work-in-progress, and must be applied with consideration to the project delivery method used for a specific project. The Integrated Project Delivery Task Force is an interdisciplinary group sponsored by McGraw-Hill Construction and The American Institute of Architects, California Council.

The *Working Definition* contains three sections. First, integrated practice is defined. At its essence, it is a deeply collaborative process that uses best available technology, but goes beyond merely the application of digital tools, such as Building Information Modeling. Second, the Essential Principles are set forth as necessary assumptions in this collaborative process. Unless all parties are committed to these principles, integrated practice will not succeed. Finally, the *Working Definition* characterizes project workflow beginning with Building an Integrated Team and concluding with Integrated Closeout. The primary activities and participants are outlined, and where appropriate, compared with traditional processes. Review of the process sections reveals fundamental changes in participants, timing and intensity. Moreover, the processes are flexible and iterative. Information transferred between participants guides development and design optimization.

The Task Force will use the *Working Definition* as the basis for developing recommendations for best practices, intergrated project delivery models, and risk allocation. These will form frameworks that can be used to inmplement integrated project delivery on specific projects. The group invites comment regarding the *Working Definition*, which should be sent to IPD@aiacc.org.

> "This revolution is already changing my firm, and it will change yours…
> Our profession will be utterly different, transformed, within the next 5-10 years."
> *Norman Strong, FAIA*

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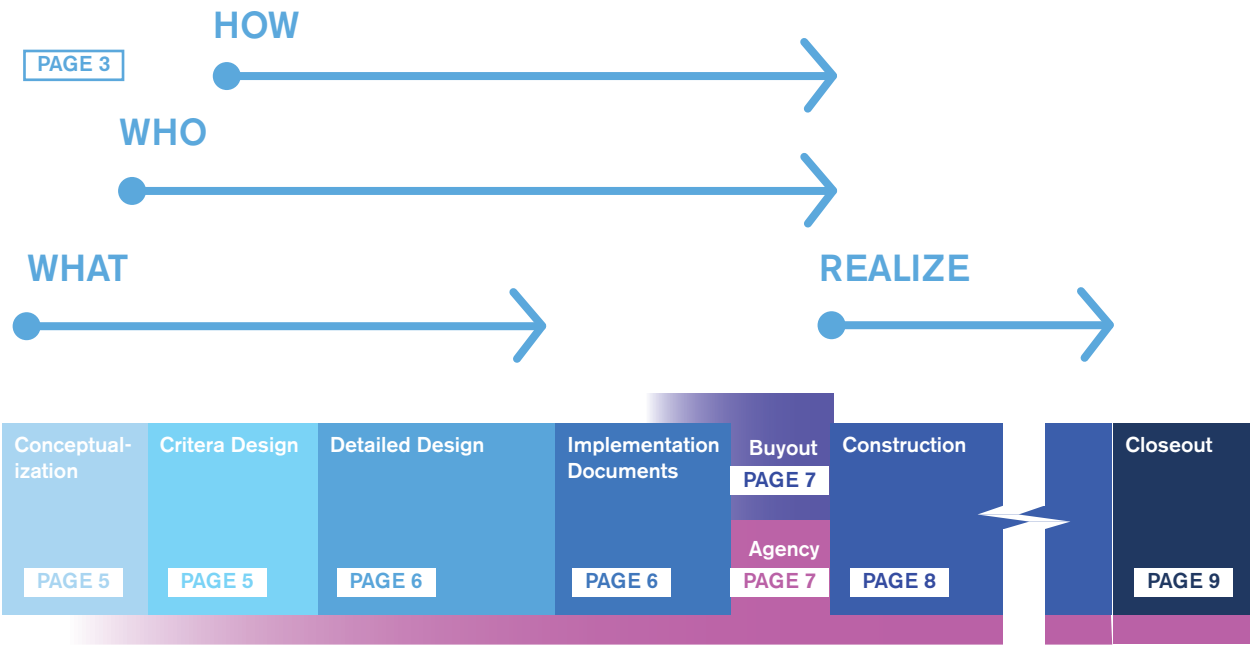


DEFINITION

Integrated Project Delivery (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 reduce waste and optimize efficiency through all phases of design, fabrication and construction.

Integrated Project Delivery principles can be applied to a variety of contractual arrangements and Integrated Project Delivery teams will usually include members well beyond the basic triad of owner, designer and contractor. At a minimum, though, an integrated project includes tight collaboration between the owner, architect/engineers, and builders ultimately responsible for construction of the project, from early design through project handover.

OVERVIEW

Integrated Project Delivery uses business structures, practices, and processes to collaboratively use the talents and insights of all participants in the design, construction and fabrication process. Beginning when the project is first conceptualized, the integrated process continues throughout the full life cycle of the facilities.

Integrated Project Delivery encourages early contribution of knowledge and experience and requires proactive involvement of key participants. Responsibility is placed on the most able person with decisions being made on a “best for project” basis. Although it is possible to achieve Integrated Project Delivery without Building Information Modeling, it is the opinion and recommendation of this study that Building Information Modeling is essential to efficiently achieve the collaboration required for Integrated Project Delivery.

Integrated Project Delivery is built on collaboration. As a result, it can only be successful if the participants share and apply common values and goals.

ESSENTIAL PRINCIPLES

In its ideal state, the Integrated Project embodies, in varying proportion, many of the following attributes.

1. **Mutual respect:** In an integrated project, owner, architect, consultants, contractor, subcontractors and suppliers understand the value of collaboration and are committed to working as a team in the best interests of the project. To harness the collective capabilities of the integrated team, all key participants should be involved as early as possible with multiple disciplines and interests represented. Roles are not restrictively defined, but assigned on a "best person" basis.
2. **Mutual Benefit:** All members will benefit from integrated project delivery. Because the integrated process assumes early involvement by more parties, the compensation structure must recognize and reward early involvement. Compensation should be based on the valued added by an organization and risk should be equitably allocated. Integrated projects will use innovative business models to support, rather than discourage, collaboration and efficiency.
3. **Early Goal Definition:** Project goals are developed early and agreed upon by all participants. Insight of each participant is valued in a culture that promotes and drives innovation and outstanding performance. True value engineering is obtained by collaborative focus on the project goals, including system performance throughout the facility lifecycle.
4. **Enhanced Communication:** Focus on team performance is based on communication amoung all participants that is open, straight and honest. Responsibilities are clearly defined in a no-blame culture leading to identification and resolution of problems, not determination of liability.
5. **Clearly Defined Open Standards:** Open and interoperable data exchanges based on a disciplined and transparent data structure is essential to support integrated project delivery. Enhanced communications between all participants is made possible with open standards. All technologies used on an integrated project should use open standards to eliminate the costly practice of integrating every application (and version) with every other application (and version). Interoperability exists on the human level through transparent business exchanges, supporting these exchanges with open standards completes the goals of integrated project delivery.
6. **Appropriate Technology:** Integrated projects will often rely on cutting edge technologies. Technologies should be specified at project initiation, to maximize functionality, generality and interoperability.
7. **High Performance:** Integrated projects will lead to optimized design solutions, higher performance buildings, and sustainable design.
8. **Leadership:** Although each participant is committed to achieving project goals, leadership should be taken by the person or organization most capable with regard to specific work and services. Often, the design professionals and contractors

BUSINESS MODELS

Although Integrated projects can proceed using various business models, some approaches are better suited to an integrated project, than others. The benefits of integrated practice are built on early collaboration between designers, contractors and fabricators. Under design-bid-build key participants can not be identified until bids are received – far too late to meaningfully participate in developing the integrated design. For this reason, traditional design-bid-build is inconsistent with an integrated approach and can not achieve the efficiency and performance benefits of an integrated process.

Thus, integrated project delivery projects are best suited to business models that:

1. Promote early involvement of key participants.
2. Equitably balance risk and reward.
3. Have compensation structures that reward "best for project" behavior, such as "open book" or incentives tied to achievement of project goals.
4. Clearly define responsibilities without chilling open communication and risk taking.
5. Implement management and control structures built around team decision making with facilitation, as appropriate.

BUILDING AN INTEGRATED TEAM

The key to successful Integrated Project Delivery is assembling a team that is committed to collaborative processes and is capable of working together effectively.

1 Identify, at the earliest possible time, the participant roles that are most important to the project.
- 1.1 Owner
- 1.2 Operator/user
- 1.3 Designers (architects/engineers)
- 1.4 Contractors
- 1.5 Subcontractors
- 1.6 Suppliers
- 1.7 Equipment manufacturers
- 1.8 Systems integrators
- 1.9 Lenders

2 Pre-qualify members (individuals and firms) of the team based on:
- 2.1 Technical competence
- 2.2 Commitment to integrated practice
- 2.3 Experience and track record
- 2.4 Proven integrity
- 2.5 Commitment to a collaborative process

3 Consider interests and seek involvement of select third parties, such as building official(s), local utility companies, insurers, sureties, and other stakeholders.

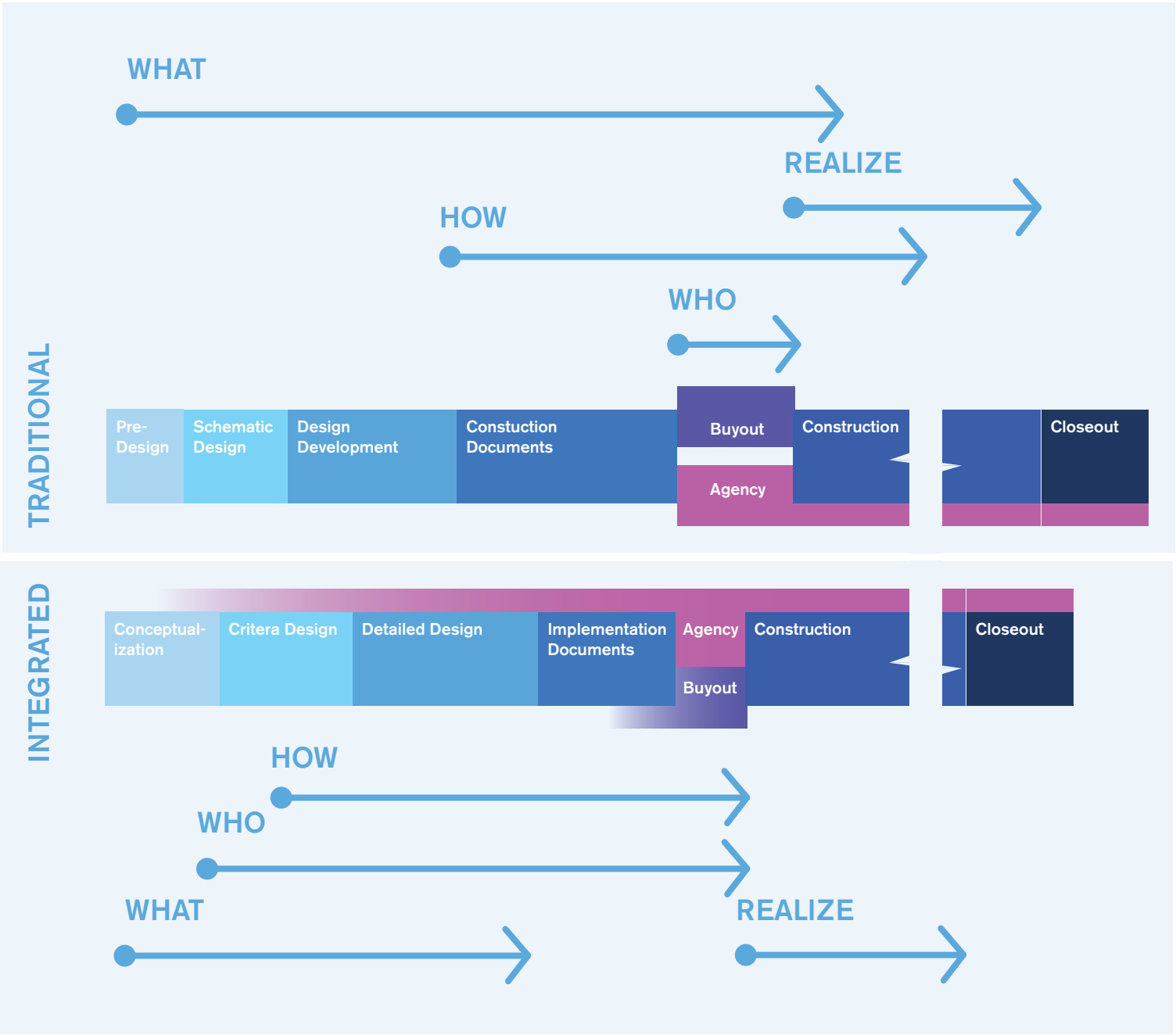
4 Identify the organizational and business structure best suited to Integrated Project Delivery consistent with the participants' needs and constraints. The choice should not be bound to traditional project delivery methods, but should be flexibly adapted to the project.
- 4.1 Design-build
- 4.2 CM at risk
- 4.3 Single purpose entities
- 4.4 Multiple prime
- 4.5 Design assist
- 4.6 Bridging
- 4.7 Alliancing

5 Develop project agreement(s) to define the roles and accountability of the participants. The project agreements should be synchronized to assure that parties' roles and responsibilities are defined identically in all agreements and are consistent with the agreed organizational and business models. Key provisions regarding compensation, obligation and risk allocation should be clearly defined and should encourage open communication and collaboration. Issues to be considered include:
- 5.1 Compensation and use of incentives
  - 5.1.1 Profit sharing
  - 5.1.2 Open book accounting
  - 5.1.3 Performance bonuses
- 5.2 Communication and information exchange
  - 5.2.1 Technology
  - 5.2.2 Standards/protocols
  - 5.2.3 Gate keeping
  - 5.2.4 Audit and archiving
- 5.3 Obligations and oversight
- 5.4 Project decision processes
- 5.5 Professional responsibility
- 5.6 Risk allocation
- 5.7 Insurance program

DIFFERENCES IN INTEGRATED AND TRADITIONAL PROJECT DELIVERY

In a truly integrated project, the project flow from conceptualization through implementation and closeout differs significantly from a non-integrated project. Conventional terminology, such as schematic design, design development and construction drawings, creates workflow boundaries that do not align with a collaborative process.

In general, integrated project delivery will result in greater intensity with increased team involvement in the early phases of design. In the integrated project, design will flow from determining what are the project goals, to what will be built to how the design will be realized. To provide a basis for comparison, however, the description below uses conventional project terms and phases to highlight the differences between a conventional and an integrated project. Terms in brackets throughout this document are the traditional equivalents, and are provided for context.

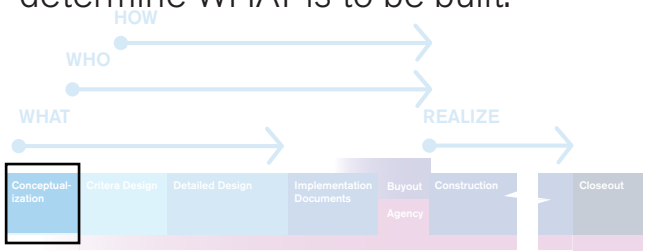


Input from the broader integrated team coupled with BIM tools to model and simulate the project enable the design to be brought to a higher level of completion before the documentation phase is started. Thus the Conceptualization, Criteria Design, and Detailed Design phases involve more effort than their counterparts in the traditional flow.

This higher level of completion allows the Implementation Documents phase to be shorter than the traditional CD phase, and the early participation of regulatory agencies, subcontractors, and fabricators allows shortening of the Agency review and Buyout phases. The combined effect is that the project is defined and coordinated to a much higher level prior to construction start, enabling more efficient construction and a shorter construction period.

CONCEPTUALIZATION *[Programming]*

Conceptualization begins to determine WHAT is to be built.



1 **Involve all key stakeholders in the programming process; obtain input from as many participants as possible.**

2 **Identify key technologies, such as Building Information Modeling, and begin to capture key parameters.**
- 2.1 Size
- 2.2 Time
- 2.3 Sustainable or green criteria or goals defined
- 2.4 Economic performance is based on the complete building life span including operation
- 2.5 Perform interoperability review including data transfer, level of detail and tolerances

3 **Cost structure is developed earlier and in greater detail than a conventional project. Costs may be linked to Building Information Model to allow rapid assessment of design decisions.**
- 3.1 The budget is developed with significant detail
- 3.2 Detailed by system
  - 3.2.1 System component
  - 3.2.2 Provide an understanding of where the variance is and the importance
  - 3.2.3 Initial benchmarking comparison
- 3.3 Cost structure is available to key parties to assess areas where greatest improvements are possible

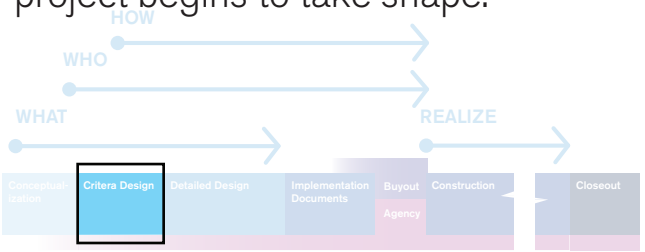
4 **Performance goals are developed, including metrics for determining performance.**

5 **In alliance or incentive projects, successful outcome metrics (e.g. cost, schedule, quality, etc.) are developed and by concensus.**

6 **Preliminary schedule is developed and linked to developing model.**

CRITERIA DESIGN *[Schematic Design]*

During Criteria Design, the project begins to take shape.



During this period, different options are evaluated and tested. In a project using Building Information Modeling, the model can be used to test "what if" scenarios and determine what the team will accomplish. During this phase, the following tasks will be accomplished:

1 **Design decisions are made on a "best for project" basis.**

2 **Visualization of building model is tied to cost model.**

3 **Scope is fixed, price is fixed, owner signs off on what will be built allowing the team to evolve and optimize the design.**

4 **Further develop preliminary schedule – schedule is better informed due to collaborative approach and commitments to schedule are more firm.**

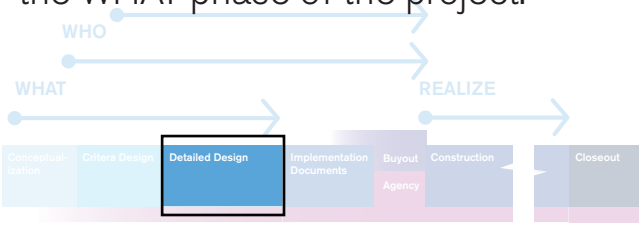
5 **Earlier recognition of inadequate building performance, but assessing responsibility is more difficult because of the number of participants and overlap of roles.**

6 **Agreement is reached on tolerances between trades to enable prefabrication.**

Detailed Design & Implementation Documents

DETAILED DESIGN *[Design Development]*

The Detailed Design phase concludes the WHAT phase of the project.



During this phase, all of the key design decisions are finalized.

1. **At the end of design development, the design intent is fully, unambiguously defined, coordinated and validated.**
2. **The integrated detailed design phase period is longer and more intense than traditional design development because more is accomplished.**
3. **All major building systems are defined, including furnishings, fixtures and equipment.**
4. **By the end of integrated design development all building elements are coordinated and fully engineered, representing a significant change to current practices. The team will collaborate to resolve any inconsistencies or conflicts.**

   If Building Information Modeling is used, the following will likely occur.

   Each group that is contributiong to the model will be responsible for their piece of the model.

   4.1 Models and tools must be interoperable to support checking for inconsistencies/conflicts.

   4.2 Protocols must be developed to control data interchange. The prime design professional should determine the acceptability of changes to the model and lead coordination and performance checking of the Building Information Model with assistance from integrated team stakeholders.

   4.3 Third parties may administer the central models or other collaborative information store(s).

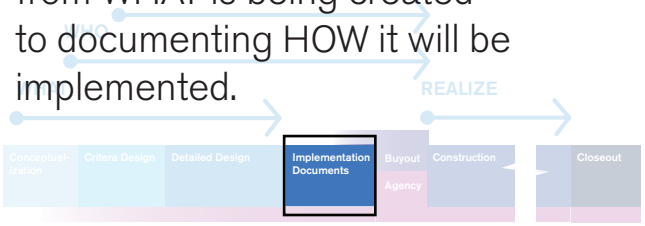
   4.4 In some instances, control of the model will transfer from prime design professional to the contractor at the conclusion of design development. Subcontractors might complete full 3D model of building systems. Everything related to their system will be detailed, excluding fabrication data.

   4.5 Estimating is done by extracting accurate information from the model at quantity survey level (no longer conceptual). The confidence in the cost estimate is greater and the model is repeatedly checked to determine cost impact of changes and support "cost tuning."

   4.6 Specifications for the building become prescriptive since the objects in the model are representations of the real object.
5. **Subcontractor and vendor insight is integrated into design and used for coordination and conflict resolution.**
6. **Quality levels should be established.**
7. **Specifications are developed based on prescribed and agreed systems.**

IMPLEMENTATION DOCUMENTS *[Construction Documents]*

During this phase, focus shifts from WHAT is being created to documenting HOW it will be implemented.

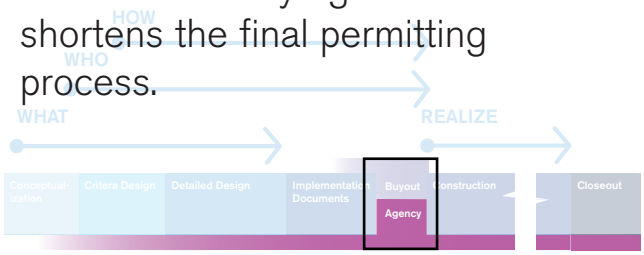


The traditional shop drawing process is merged into the design as contractors, subcontractors and suppliers document how systems and structure will be created. In addition, this phase generates the documents that third parties will use for permitting, financing and regulatory purposes.

1. **At the beginning of Implementation Documents (ID) the entire building and systems are fully defined and coordinated and therefore, the construction document phase is significantly shortened.**
2. **The goal of ID phase is to document how the design intent will be implemented, not to change or develop it.**
3. **Where a Building Information Model is used, the "shop drawing" phase that typically occurs later in the process will be substantially reduced or eliminated. Technically sophisticated subcontractors and vendors will augment the design model in lieu of preparing separate shop drawings, or will create a synchronized model for fabrication or installation purposes.**
4. **Prefabrication of some systems can commence because the model is sufficiently fixed (object sizes and positions are frozen) to allow prefabrication to begin.**
5. **Rehearsal of construction is enabled through 4D.**
   5.1 Allowing the building team to validate the baseline schedule
   5.2 Allowing the building team to explore and validate sequencing and logistics
   5.3 Allowing the building team to offer refinements that will improve efficiency
6. **Cost is finalized through 5D.**
   6.1 Component costs of the building are demonstrated in the model
   6.2 All trades on the team (based on project type) finalize their costs in this phase based on the certainty of the building information model
7. **The specification provides narrative documentation of the design intent wherever necessary.**
8. **Implementation Documents visualize the project for participants who aren't involved in the development of the model.**
   8.1 A "financiable" project (a completed model "the bank" can see to finance the project)
   8.2 Created as a bid document for parties involved outside the integrated process
9. **Implementation Documents include information for**
   9.1 Procurement
   9.2 Assembly
   9.3 Layout
   9.4 Detailed schedule
   9.5 Procedural information (testing, commissioning)
   9.6 Legal requirements (whatever needs to be included to be legally binding)

AGENCY REVIEW

Use of BIM, early involvement and validation by agencies shortens the final permitting process.

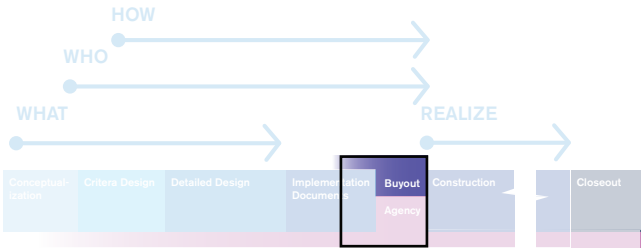


Under current practice, reviewing and permitting agencies require traditional deliverables. However, Building Information Models have the ability to provide information either directly or through linked databases that enhance and streamline a reviewing agency's ability to check the design for building code or regulatory criteria. In addition, analysis software can use the model information to generate performance or criteria analyses that validate the design. With these developments in mind, the integrated agency review will differ from current practice as follows:

1. **Performance-based code analysis within the Building Information Model, if regulatory agency supports, can allow for communication and processing of plan checking electronically.**
2. **The integrated process will require builders and trades to be involved in preliminary and submittal reviews of documents and responses to comments because they will have developed portions of the model.**
3. **Agency review commences in criteria design with increased intensity in the final review period.**

BUYOUT

Complete buyout of remaining contracts.

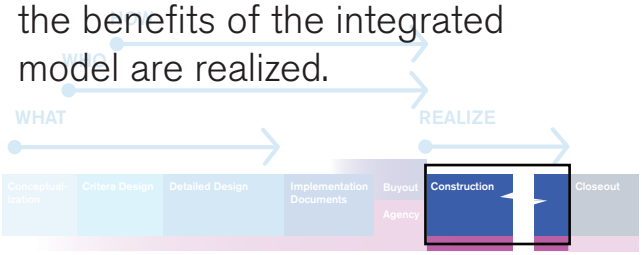


The fully integrated project assumes early involvement of key subcontractors and vendors. In most instances, this cannot occur unless the subcontractors and vendors have some assurance they will be selected for the project. With this understanding:

1. **Project definition during criteria and detailed design allows early commitment for procurement of long lead, custom, or prefabricated items.**
2. **Key participants prices will already be defined. Bidding and negotiation will primarily occur with parties that were not included in the integrated team.**
3. **The integrated model provides an opportunity to bid to a quantity within the model.**
4. **The integrated model employs a variety of negotiating strategies based on the level of participation in the integrated model.**
5. **Early contractor involvement requires some guarantee that the contractor participants will actually construct the project.**

CONSTRUCTION *[Construction Administration]*

The Construction phase is where the benefits of the integrated model are realized.



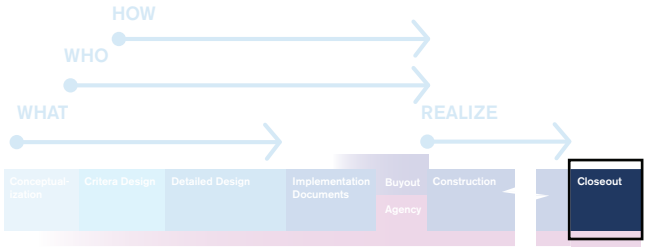
For architects, construction has traditionally been considered the final stage of design where issues are addressed and solutions achieved to actual real-life problems. But in Integrated Project Delivery, this "final design stage" is completed during Detailed Design and Implementation Documents phases. Thus, construction administration will be primarily a quality control and cost monitoring function. Because of the higher intensity of preceding phases, integrated construction will have:

1. **Less on-site construction administration effort because conflicts have been resolved virtually.**
2. **Fewer RFIs because contractor, subcontractor and vendors have been involved in developing the design intent and construction documentation for their respective portions of the design. The model maybe used to augment, manage or enhance the RFI process.**
3. **Less office construction administration effort is required because submittals have already been integrated into the model.**
4. **Better understanding of design intent because consistent information and documentation will be available to all participants.**
5. **More pre-fabrication because the design was developed earlier and in collaboration with the fabricator.**
6. **Less waste because more material is factory generated.**
7. **Less injuries because work is being performed in a controlled environment.**
8. **An adjusted model based on "as built" conditions.**
9. **A schedule tied to the model to allow visualization of deviations from planned sequences and durations.**
10. **Warranty operation and maintenance information may be added into the model.**
11. **Some elements of current construction administration will remain similar to current practice.**

    For example:
    - Quality control, inspection and testing will be relatively unchanged
    - Change orders, particularly for owner directed changes, must be formally negotiated and documented
    - Scheduling and progress will be subject to periodic review

CLOSEOUT

An intelligent 3D model can be delivered to the owner.



Closeout of an integrated project will greatly depend upon the business terms agreed by the parties. For example, if the business structure contained compensation incentives (or penalties) the closeout will include calculation of appropriate credits and bonuses. Some issues, however, such as warranty obligations, occupancy and completion notification, will, in the short term, remain unchanged due to statutory and legal requirements. Other issues, such as punch list correction, will not be significantly affected by integrated project delivery. Some issues that will be different are:

1. **A more complete building information model will be provided to the owner for their long term use for building maintenance and up-keep.**
2. **Traditional warranties will remain for installation quality and defective products.**
3. **The BIM model will be integrated into the building operating system.**
4. **The BIM model can be used to compare actual to planned performance.**

Building Information Modeling
A Building Information Model (BIM) is a digital representation of physical and functional characteristics of a facility. As such it serves as a shared knowledge resource for information about a facility forming a reliable basis for decisions during its lifecycle from inception onward. A basic premise of BIM is collaboration by different stakeholders at different phases of the life cycle of a facility to insert, extract, update or modify information in the BIM to support and reflect the roles of that stakeholder. The BIM is a shared digital representation founded on open standards for interoperability.

Source: National Building Information Model Standard (NBIMS) committee. For a more complete definition, see www.facilityinformationcouncil.org/bim/faq.php#faq1.

Buyout
Buyout is the process of obtaining price commitments for all work packages in a project. There are several methods by which this can be accomplished, ranging from sealed bids to direct negotiations with pre-selected or shortlisted subcontractors or suppliers. In the IPD approach most of the price commitments are developed through a continuous effort, with many of the subcontractors and suppliers participating in the design and refining their prices along the way. Here the explicit Buyout phase is limited to obtaining price commitments from the remaining subs and suppliers – those who weren't involved during the design phases.

Collaboration
The process or mind-set by which all integrated parties involved in a project are willingly doing whatever it takes to work together in concert to, design, construct, and make decisions solely for the good of the project.

Construction Management at Risk
In this delivery method, the CM is hired at the beginning of the design phase to act as the project coordinator (not at risk) and general contractor (at risk). At the time the construction manager serves as constructor the construction manager assumes all of the liability and responsibility of a general contractor. Construction managers are hired in various capacities by owners seeking continuous management of the project delivery process.

Coordination (Construction Process)
Oversight and management of individual firms or persons working together to resolve the spatial relationship between components, with the aim of improving the efficiency of the installation and maintenance of the systems.

Cost Structure
A breakdown of the construction and project budget into detailed "cost targets". The construction budget is developed in both a detailed component(s) based format and a CSI based format based on the project's goals, detailed program and performance requirements. The cost targets are developed collaboratively by the integrated team prior to commencing the conceptualization phase of the project process. The structure provides the benchmark for the team to support continuous cost management as the project progresses to ensure that it will be completed within the targeted budget.

Design-build
A delivery method that offers the owner the ability to contract with a single entity to provide both design and construction services. It is characterized b by a single contract with the owner and the overlapping of design and construction services.

4D
A model that incorporates the dimension of time used to visualize a construction schedule.

5D
A model that incorporates cost data, used to automate quantity takeoffs for cost estimating. Coupled with 4D, it can be used to predict cash flow.

Integration
The coming together of all key participants, at the beginning of a project, for the purpose of designing and constructing the project together, as a team.

Key Participants
A person or organization whose contribution is critically necessary to achieve project goals.

Multi-Prime
A method of contracting for construction wherein an owner contracts directly with several (usually major) building trades under separate contracts to perform their work either simultaneously or sequentially. The owner may provide the management of the project, or hire a construction manager or general contractor (not at risk) to provide construction administration, coordination, and scheduling of the work of the different trades.

Open Interoperability Standards
Non-proprietary protocols and data structures that support the exchange or joint use of BIM information by differing software tools.

Project Alliance Agreement
In a Project Alliance, the key participants collectively assume responsibility for agreed project performance. The profit (or loss) to each participant is determined by the team's success in meeting project goals, not individual performance. The shared opportunities and responsiblities align the parties' interests and provide an incentive for collaboration and blame-free performance. To further enhance the collaborative process, all decisions must be unanimous, disputes must be resolved without litigation and within the Alliance, and compensation is determined on an open-book basis.

For information on existing project delivery methods, see the AIACC's *Handbook on Project Delivery*

National Institute of Building Sciences, National BIM Standards (NBIMS) Committee – many related articles on Integrated Project Delivery, Building Information Modeling
http://www.facilityinformationcouncil.org/bim/publications.php

U.S. General Services Administration – the Nation's largest facility owner and manager's program to use innovative 3D, 4D, and BIM technologies to complement, leverage, and improve existing technologies to achieve major quality and productivity improvements.
http://www.gsa.gov/bim

The American Institute of Architects, California Council – resources related to IPD including Frequently Asked Questions
www.aiacc.org

The American Institute of Architects – Integrated Practice information
www.aia.org/ip_default

Associated General Contractors of America – *BIM Guide for Contractors*
http://agc.org/

McGraw-Hill Construction – source for design and construction industry information regarding IPD
http://www.construction.com/NewsCenter/TechnologyCenter/Headlines/archive/2006/ENR_1009.asp

Construction Users Roundtable (CURT) – owners' views on the need for Integrated Project Delivery
http://www.curt.org/

Open Standards Consortium for Real Estate – standards related to information sharing/BIM
http://oscre.org/

Open Geospatial Consortium – an international, voluntary consensus standards organization that is leading the development of standards for geospatial and location based services
http://www.opengeospatial.org/

FIATECH – a consortium of leading capital project industry owners, engineering construction contractors and technology suppliers that provides global leadership in development and deployment of fully integrated and automated technologies
http://fiatech.org/

LEAN Construction Institute – a non-profit corporation dedicated to conducting research to develop knowledge regarding project based production management in the design, engineering, and construction of capital facilities.
http://www.leanconstruction.org/

National Institute of Standards and Technology (NIST) – *Cost Analysis of Inadequate Interoperability in the U.S. Capital Facilities Industry*
http://www.bfrl.nist.gov/oae/publications/gcrs/04867.pdf

National Institute of Standards and Technology (NIST) – UNIFORMAT II Elemental Classification for Building Specifications, Cost Estimating, and Cost Analysis
http://www.bfrl.nist.gov/oae/publications/nistirs/6389.pdf

OmniClass – a classification structure for electronic databases
http://www.omniclass.org/

Construction Specifications Institute – MasterFormat
http://www.csinet.org/s_csi/docs/9400/9361.pdf

Design Build Institute of America (DBIA) – library of information and case studies related to design build
http://www.dbia.org

Center for Integrated Facility Engineering (CIFE) – research center for Virtual Design and Construction AEC industry projects
http://www.cife.stanford.edu

National Institute of Building Sciences, National BIM Standards (NBIMS) Committee – many related articles on Integrated Project Delivery, Building Information Modeling http://www.facilityinformationcouncil.org/bim/publications.php

International Alliance for Interoperability (IAI) buildingSMART Alliance – an international organization working to facilitate software interoperability and information exchange in the AEC/FM industry *http://www.iai-na.org/*

Project Alliancing Practitioners' Guide, Government of Victoria, Australia
http://www.dtf.vic.gov.au/CA25713E0002EF43/WebObj/CompleteProjectAllianceGuideforweb/$File /Complete%20Project%20Alliance%20Guide%20for%20web.PDF

Additional Resources

IPD DEFINITION TASK GROUP

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As this is a complex issue, the Integrated Project Delivery program is focused on several issues, simultaneously. In addition to the Definition Task Group effort, the following areas are also under development/review.

We welcome your involvement in any of these areas – to participate in this effort, contact IPD@aiacc.org

IPD Public Policy Group – Chair: Phil Bona, AIA
Define legislative barriers to IPD and identify advocacy efforts to support the implementation of IPD in publicly funded building projects.

IPD Legal/Risk Group – Chair: Howard Ashcraft
In coordination with the Business Models Group, assess the business structures, risk allocation, key contractural terms, and related legal issues.

IPD Business Models & Practice Group – Chair: Zigmund Rubel, AIA
In coordination with the Legal/Risk group, define alternative business and organizational models, skill sets and training required to support Integrated Project Delivery for various project/ownership configurations.

IPD Technology Group – Chair: Jim Bedrick, AIA
Define the electronic colllaborative tools, systems and software available, the specifications, standards and protocols required to support IPD.

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