

WEBINAR



PROGRESSIVE DESIGN-BUILD IN FOCUS:

RETHINKING

PROJECT DELIVERY & DESIGN RISK



PRESENTER

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THURS., AUG 21 | 2:00 - 3:00 PM ET



Disclaimer

This information is not legal advice and cannot be relied upon as such. Any suggested changes in wording of contract clauses, and any other information provided herein is for general educational purposes to assist in identifying potential issues concerning the insurability of certain identified risks that may result from the allocation of risks under the contractual agreement and to identify potential contract language that could minimize overall risk.

Advice from legal counsel familiar with the laws of the state applicable to the contract should be sought for crafting final contract language. This is not intended to provide an exhaustive review of risk and insurance issues, and does not in any way affect, change or alter the coverage provided under any insurance policy.

Today's Agenda

- PUA Overview
- Project Delivery Methods
- Progressive Design-Build
- Uses of Progressive Design-Build
- Draw Backs & Summary of Differences
- Q&A

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PUA Overview

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Learning Objectives

- Review the fundamentals & basic principles of Progressive Design-Build (PDB)
- Compare Progressive Design-Build to other alternative project delivery methods
- Discuss standard PDB agreements
- Examine how project delivery methods influence liability and risk exposure
- Learn about the advantages and disadvantages of PDB



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Project Delivery Methods

Project Delivery Methods

- Progressive Design Build is one of a number of so-called Alternative Project Delivery Methods, where a Project Delivery Method establishes the Parties' Roles, Rights, and Responsibilities.
- In accordance with the agreement between the parties:
 - The Party's Role establishes its Rights and Responsibilities
 - The Party's Rights and Responsibilities impacts its **Risk**
- Specific example of what we are talking about:
 - A party's role on a project can determine whether they are responsible for (assume the risk of) errors in the design drawings

Project Delivery Methods

Traditional Project Delivery: Design-Bid-Build

- Owner engages the Designer and Contractor separately. The design is usually complete before the Owner engages the Contractor.

Alternative Project Delivery Methods:

- Design-Build
- Progressive Design-Build
- Construction Management at Risk (CMAR / CMc/ CMr)
- Construction Management-Agency (CM-A/ CMA)
- Integrated Project Delivery (IPD)



Alternative Project Delivery Methods

Design-Build:

- Owner engages one entity to do both the Design and Construction. The Design Build Agreement covers both Design and Construction.

Progressive Design-Build:

- Owner engages one entity to do both the Design and Construction, but the initial contract does not include Construction

Construction Management at Risk:

- Owner engages the Designer and Constructor separately
- The initial contract with the Constructor does not include Construction but is only for a “Pre-Construction Phase” where the Constructor works with the Designer

Construction Management-Agency:

- Owner engages the Designer and Constructor separately
- The Constructor acts as the Owner’s agent on the Project; it has no obligation with respect to the cost of the Project

Integrated Project Delivery:

- The Owner, Prime Designer and Constructor all sign the same agreement and share the risk

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Progressive Design-Build

Progressive Design-Build

Phase 1

The defining feature of a Progressive Design Build contract is that the initial contract between the Owner and the Design-Builder only covers design, and limited Pre-Construction and Early Works activities, which will depend on the project. This is typically referred to “Phase 1”.

- Often the Owner will issue a Solicitation for Qualifications (SOQ) to create a short list. Firms on the short list are invited to submit a proposal that covers the cost for design to a specified percent (often but not necessarily 60%) as well as specified Pre-Construction activities such as procurement of long lead-time items and Early Works such as demolition or earthwork
- Phase 1 typically also includes a “Validation Period” where the Owner, Design-Builder and Designer work to verify that the Owner’s proposed budget is reasonable and determine if there are any obstacles or inconsistencies that have been overlooked or alternatives that should be considered

PDB Agreements

The Phase 1 design services are intended to allow the Contractor to provide the Owner with a Construction Cost that both Parties are comfortable with. The most common requirement seems to be that Phase 1 services will cover “60% complete design drawings” but depending on the project, the Owner may want the Construction Cost to be based on 100% Construction Drawings.

Progressive Design-Build Agreements can be written as two agreements, with the first agreement just covering the Phase 1 services and a second agreement being executed if the Parties come to agreement on the construction cost.

- However, they are almost always written as a single agreement with the construction work (Phase 2) being authorized through an amendment to the agreement at the end of Phase 1.

Progressive Design-Build

GMP / Construction Cost Amendment

Once the Construction Documents have reached the percentage specified in the contract for Phase 1, the Design-Builder will submit a proposal to the Owner for the construction cost and the remainder of the design work.

- If the Owner accepts the Design-Builder's proposal (after negotiations, as necessary), the Parties will execute a "GMP Amendment" (sometimes referred to as the "Construction Cost Amendment") to establish the cost and schedule for the construction work,
- As is typical with a GMP project, the proposal amount will be the Cost of the Work plus the Design-Builder's Fee. The contract may also require the Design-Builder to break out the cost of the General Conditions of the Contract and include both Design-Builder and Owner Contingencies.

Execution of the GMP Amendment starts Phase 2 of the project.

PDB Agreements

GMP Amendment



- While the Construction Cost can be fixed-fee, it is almost always Guaranteed Maximum Price (GMP) with the PDB agreement emphasizing that the costs are to be transparent to the Owner (open book) and the parties will negotiate the Construction Cost in good faith.
- Sometimes the agreement will state that the parties can agree to change the GMP amount to a Fixed Price after the amendment is accepted. This might be done for example if the Owner is comfortable with the price negotiated and does not feel it is necessary to closely review costs.
- Depending on the project, the PDB contract may be written to have more than one GMP amendment, to allow the project to be bid in stages.
 - Each GMP would typically have its own buy-out and procurement packages as well as schedule / milestones.

Progressive Design-Build

Contractual Off-Ramp

If the Parties cannot agree on the terms of the GMP Amendment, the Owner can exercise the so-called Contractual Off-Ramp, and terminate the Contract.

- Provided the Design-Builder is compensated for its Phase 1 services, the Owner is generally entitled to use the Instruments of Service for future Project development and construction with another Design-Build firm.
- The Design-Builder will generally remain contractually obligated to complete all Work on any Early Work Package pursuant to the terms of this Agreement, unless Owner agrees to take assignment of subcontractors for these packages.
- Unless Owner has terminated for cause in accordance with the terms of the Contract Documents, Owner's use of the instruments of service is generally at its own risk, although the Design-Builder may be liable for any negligent errors (errors that do not comply with the Standard of Care).

Progressive Design-Build

Contractual Off-Ramp

- Anecdotally, it is very unusual for the parties not to be able to agree on the terms of the GMP amendment, as it is considered a failure on the part of the Owner, who will generally have invested significant time and money in the Project. It will almost certainly cause a significant delay as well as increased cost in the Project. If necessary, the Parties may negotiate modifications to the Project to bring it within the Owner's budget and schedule.
- To the extent a Project does not proceed on to Phase 2, it is more likely to be because there has been a change in the Owner's needs such that the Project as originally envisaged is no longer viable.

Progressive Design-Build

Phase 1 Monitoring

To avoid having a Construction Cost Proposal that the Owner cannot accept, the Parties generally work together to understand and monitor costs during Phase 1.

- The Design-Builder is expected to work closely with the Designer to verify the design / suggest alternatives based on constructability or cost.

The Owner may ask the Design-Builder to provide estimated budgets at various milestones throughout Phase 1 to track projected costs.

- While these milestones will depend on the project, the Contractor is often required to provide a Phase 2 Estimate at the 30% Design Stage. The DB Team may also be given a “Design to Budget” requirement, based on the budget stated in the RFP for the project.

The Owner will often have its own Cost Estimator update its cost estimates throughout the design process.

PDB Vs CMAR

Progressive Design-Build (PDB) sometimes gets confused with Construction Management at Risk (CMAR), because they both give the Owner a “Contractual Off-Ramp” for contract termination if the Parties cannot agree on the Cost of Construction. However, the contract being terminated is different.

- **With PDB**, the Owner can terminate the Design-Build Agreement after Phase 1 if the cost of the construction is not acceptable.
- **With CMAR**, the Owner can terminate the Construction Contract after the pre-construction period if the cost of the construction is not acceptable.
 - On a CMAR project, the Owner has a separate agreement with the Designer.

Contractual Termination

- The Contractual Off-Ramp is often cited as the defining feature of PDB and CMAR agreements.
 - In reality, the Contractual Off-Ramp is just a termination for convenience. Virtually all construction contracts will give the Owner the right to terminate for convenience, for any or no reason.
- PDB and CMAR contracts are just unusual in having the Contractual Off-Ramp being a well-defined point in the contract.
 - Under the DBIA 544 and 545 PDB Agreements, if the Owner does not accept the Design-Builder's Phase 2 Proposal, the Parties can negotiate the terms of the Proposal, or the Owner can terminate for convenience.

Progressive Design-Build

Contractual Off-Ramp

Even though it may be unlikely that the Owner will exercise the Contractual Off-Ramp, the DB Team should review the contractual termination provisions closely. The contract wording may be something like:

If the Parties cannot agree on the terms of the GMP Amendment:

The Owner has the right to require the Design-Builder to complete the design to 100% Construction Documents suitable for bidding, and stamp the Construction Documents, which Owner will use to bid out a construction contract to a separate contractor for construction of the Project.

Design-Builder's liability for errors in the 100% Construction Documents and Construction Drawings, including but not limited to design defects, errors, and omissions, shall be limited to the amount of the Phase 1 Lump Sum.

Progressive Design-Build

Contractual Off-Ramp

Alternatively, if the Owner wants the option to take over the Design Agreement, the wording may be something like:

If the Parties cannot agree on the terms of the GMP Amendment:

The Owner may require the Design-Builder to assign any Subcontract to Owner upon Owner's request, and to contractually require its Designer to negotiate and execute a separate professional services agreement with Owner for the completion of the 100% Construction Documents.

Designer's liability for errors in the 100% Construction Documents and Construction Drawings, including but not limited to design defects, errors, and omissions, shall be limited to the amount of the Phase 1 Lump Sum.

PDB Agreements

Industry Standard Forms

There are several industry standard form for Progressive Design-Build:

- The Design-Build Institute of America has been at the forefront in developing these agreements with the *Progressive Design-Build Agreement, DBIA No. 544* and the *Progressive Design-Build Agreement for Water and Wastewater Projects, DBIA No. 545*, developed in conjunction with the Water Collaborative Delivery Association. Both DBIA issues were re-issued in 2022.
- The Engineers Joint Contract Documents Committee (EJCDC) issued their *Agreement Between Owner and Design-Builder for Progressive Design-Build, EJCDC D-512* in 2016.

PDB Terminology

The EJCDC and DBIA forms use slightly different terminology for the phases of a PDB project. While DBIA uses the terms “Phase 1 and “Phase 2”, EJCDC uses the terms “Preliminary Stage” and “Completion Stage”:

- Within the Preliminary Stage, EJCDC is broken down into a Study and Report Phase, a preparation of Preliminary Technical Documents Phase, and a Construction Planning Phase.
- Typically, the work prior to the Contract Price Proposal (equivalent to the DBIA Phase 1) is contracted for as a lump sum, but the breakdown allows flexibility in the pricing. For example, the Study and Report phase could be a time and expenses not to exceed amount.
- The EJCDC form breaks down the Completion Stage into:
Preparation of Construction Drawings and Construction Specifications, based on the Preliminary Technical Documents; Construction; Start-up, Testing, and Commissioning; and Correction Phase services.

Progressive Design-Build Agreements – AIA

The American Institute of Architects (AIA) recently released a Progressive Design-Build version of its Owner - Design-Builder agreement, titled *A141PDB–2024, Agreement Between Owner and Design-Builder for a Progressive Design-Build Project*.

- The AIA 141PDB is not significantly different from the standard version of the AIA A141, as the standard A141 does not include a Contract Price for construction in the initial contract. After some level of design work is done, the Contract Price is set via an amendment (Exhibit A) to the A141. However, the expectation is that the price is set after the design reaches 10-15% completion.

Along with the AIA 141PDB, AIA released *B141 PDB-2024 Design-Builder-Architect Agreement Progressive Design-Build Project*.

PDB Agreements

ConsensusDocs

- ConsensusDocs does not have really have a PDB form, but CD 400, *Preliminary Design-Build Agreement Between Owner and Design-Builder* allows the Owner to contract for design-build services through schematic design.
- If the Owner elects to proceed with the Project, the Parties enter into a second contract for the completion of design and construction. The second contract can be either the CD 410, *Owner and Design Builder Agreement (Cost of Work Plus Fee with GMP)*, or the CD 415, *Agreement and General Conditions Between an Owner and Design-Builder, Lump Sum*.
 - Both the CD 410 and 415 would need to be modified for a PDB project, however. For example, in the CD 415, the Lump Sum is set at the completion of the Schematic Design Phase (generally considered to be the 15-20% point of design). Thus, this document, as written, does not truly match the concept of Progressive Design-Build.

Custom Drafted PDB Agreements

Many Owners use custom-drafted PDB contracts, which they have developed by revising their standard Design-Build Agreements to allow for a specifically identified Phase 1 and Phase 2.

- Since the original DBAs may have been modeled on DBIA or EJCDC documents, the PDB agreements may have a format similar to the DBIA or EJCDC agreements and use similar terminology. However, custom drafted contracts often use different terminology, to avoid conflicts with the Owner's standard usage of terms such as Phase and Stage or to match the terminology used in state enabling legislation.
- There also seem to be some variations with respect to the breakdown of the work. Some contracts use a Phase 1, Phase 2, and Phase 3 breakdown, where Phase 2 is primarily the completion of design after the acceptance of the Design-Builder's proposal. This may have to do with issues related to funding, insurance or permitting.

PDB Agreements

Progressive Design-Build Agreements are not always explicitly identified as such. For example, the University of California refers to their PDB agreements as Collaborative Design-Build (CDB) agreements. But the terms of these agreements are the same as the typical Progressive Design-Build Agreements.

- Phase 1 focuses on design and preconstruction services, with the Design-Builder developing a Guaranteed Maximum Price (GMP) and schedule. Phase 2 is the Design-Build construction phase, where the Design-Builder is responsible for both completion of design and construction.

Sometimes an agreement will just be referred to as a Design-Build Agreement. It is only by reading the agreement that you can tell it is Progressive Design-Build (i.e. the initial agreement is for Phase 1 services, including a fairly significant amount of design, and there will be an amendment to authorize the construction work).

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Uses of Progressive Design-Build

Use of Progressive Design-Build

- The PDB project delivery method has been used for various types of projects including both private and public projects, but like Design-Build, it is most used in public projects.
- There are various reasons for this.
 - One significant reason has to do with schedule and timing. PDB and DB are both promoted as allowing projects to be completed more quickly since construction can start before the design is completed. However, this may not be a factor on private projects where there may need to be a considerable amount of time spent on government approvals and entitlements before construction can start.
 - In addition, private owners often want to be more involved in the design process because it gives them more flexibility to make changes during the design process.

Use of Progressive Design-Build

While Progressive Design-Build is often considered a “new” Project Delivery method, it has a long history of successful projects.

- Its most common application has been in the water/wastewater sector. This is partly because water/wastewater projects are generally highly technical which means they are well suited to a collaborative approach; there is generally no legislation preventing use of PDB; and the major stakeholders (the owners of the facility) tend to be receptive to alternative contracting approaches.
- It is also due to work by the Water Collaborative Delivery Association (the “WCDA”), previously known as the Water Design-Build Council. The WCDA has been developing model procurement documents and other guidance for progressive design-build for almost fifteen years.

Use of Progressive Design-Build

In sectors other than water/wastewater, Progressive Design-Build seems to have been used most often in California.

- There have been a number of Santa Clara Valley Transportation Agency / BART projects as well as projects at the San Francisco and San Diego airports.
- California legislation addressing progressive design-build includes California Public Contract Code Article 6.5, Progressive Design-Build Contracting, §§ 10198 - 10198.8

New York City has used Progressive Design-Build on several projects, including the new borough-based jails. In a number of states, there have been pilot projects using PDB.

Use of Progressive Design-Build

One of the issues with respect to use of PDB in the Federal-aid highway program is the status of the National Environmental Protection Act (“NEPA”) process.

- If the NEPA process is complete before procurement, Federal procurement law (23 CFR 636.302(a)(1)) requires evaluation of price; a Federal-aid project that uses Qualification Based Selection (QBS) would require a Special Experimental Project (“SEP”)–14 approval.
- If the NEPA process is not complete before procurement, Federal procurement law allows an award without including price as a criteria, so a SEP–14 approval is not required.

Public Procurement for PDB Projects

There is sometimes confusion due to how traditional contracting methods have been adjusted to work with PDB on public projects.

- Strictly speaking, progressive design-build anticipates a Qualifications Based Selection (QBS) that does not consider price in the initial contract award.
- However, PDB can be used with Best Value selection (which requires consideration of both the technical proposal and price) by making the price component a cap on the Contract amount. Since the price component will be the same for all proposers, it will have no impact on the selection process.

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**Draw Backs & Summary of
Differences**

Draw Backs to PDB for the Designer

From the perspective of the Designer, the potential draw backs to a Progressive Design Build project are essentially the same as the draw backs to a DB project.

These include the fact that the Design-Builder may require that provisions in the DBA flow down to the Designer, even though they are not typically found in Design Agreements. The Designer may be required to agree to:

- A standard of care that is not appropriate for professional services
- A warranty that its work will be defect free
- Liquidated Damages
- Retainage

The Designer's Risk

- At least in theory, a PDB project should be less likely to result in claims against the Designer due to cost overruns, since the Design-Builder has based its costs on a more complete design.
- However, it may weaken what is already a weak option to make a betterment or “changed conditions” claim on a design-build project.
 - If the original design is not workable and a more expensive construction option or adjustments are required, this may be passed down to the Design Professional as a design error.
 - Given that the Design-Builder has based the Construction Cost on a more complete design, the Owner will probably be even less likely to agree that part of the cost of any changed work represents betterment.



Summary of Differences

DB and PDB Projects

DB and PDB projects differ primarily in the:

- Structure of the Design-Build Agreement between the Owner and the Design-Builder, particularly with respect to pricing
- Timing of price negotiations between the Owner and the Design-Builder
- Expected level of collaboration between the Owner and the Design-Builder

Summary of Differences: DB and PDB Projects

- DB projects typically involve a lump-sum or GMP contract that includes both design and construction services, often after a design is partially done by the Owner's engineer (the partial design is typically referred to as the Basis of Design)
- PDB projects, on the other hand, generally start with a qualifications-based selection of the Design-Builder that does not consider price (The initial DBA does not include the cost of construction)
 - After the design has progressed to a specified level, contract price negotiations between the Design-Builder and the Owner results in a guaranteed maximum price for the project
 - Although the timing of the price negotiations may be the most obvious difference between the Project Delivery methods, the expected level of collaboration between the Owner and the Design-Builder may actually be the most significant

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Questions and Concluding Remarks

Questions?



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