Collaborative Delivery Methods

MESERB 2025 Summer Conference

Tracy L. Ekola
tekola@brwncald.com
320.250.6147

Wade Leonard
wade_leonard@ricelake.org
218.546.1903

Introduction and Agenda

Understanding Terms

Alternative Delivery → Design-Build Delivery → Collaborative Delivery

Professional organizations…

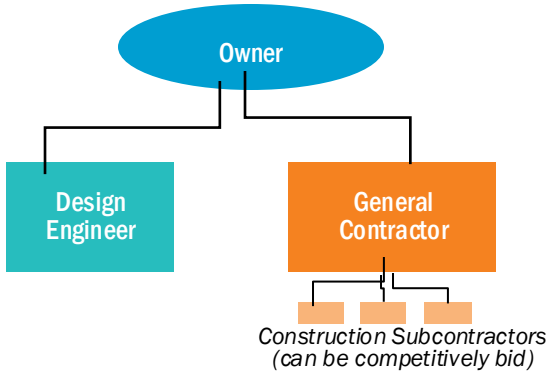
1993

2006

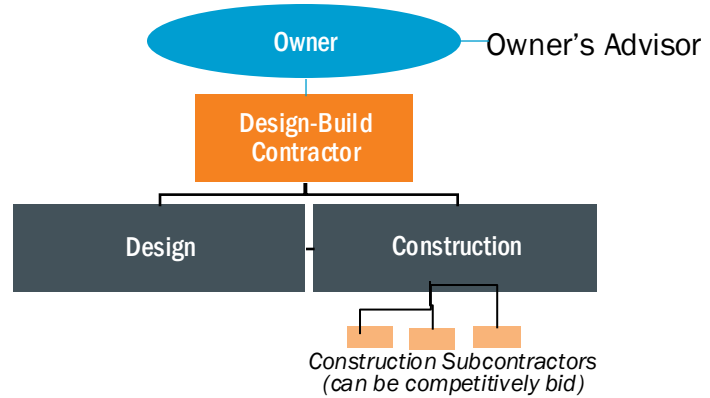
2022

Basic Project Delivery Overview

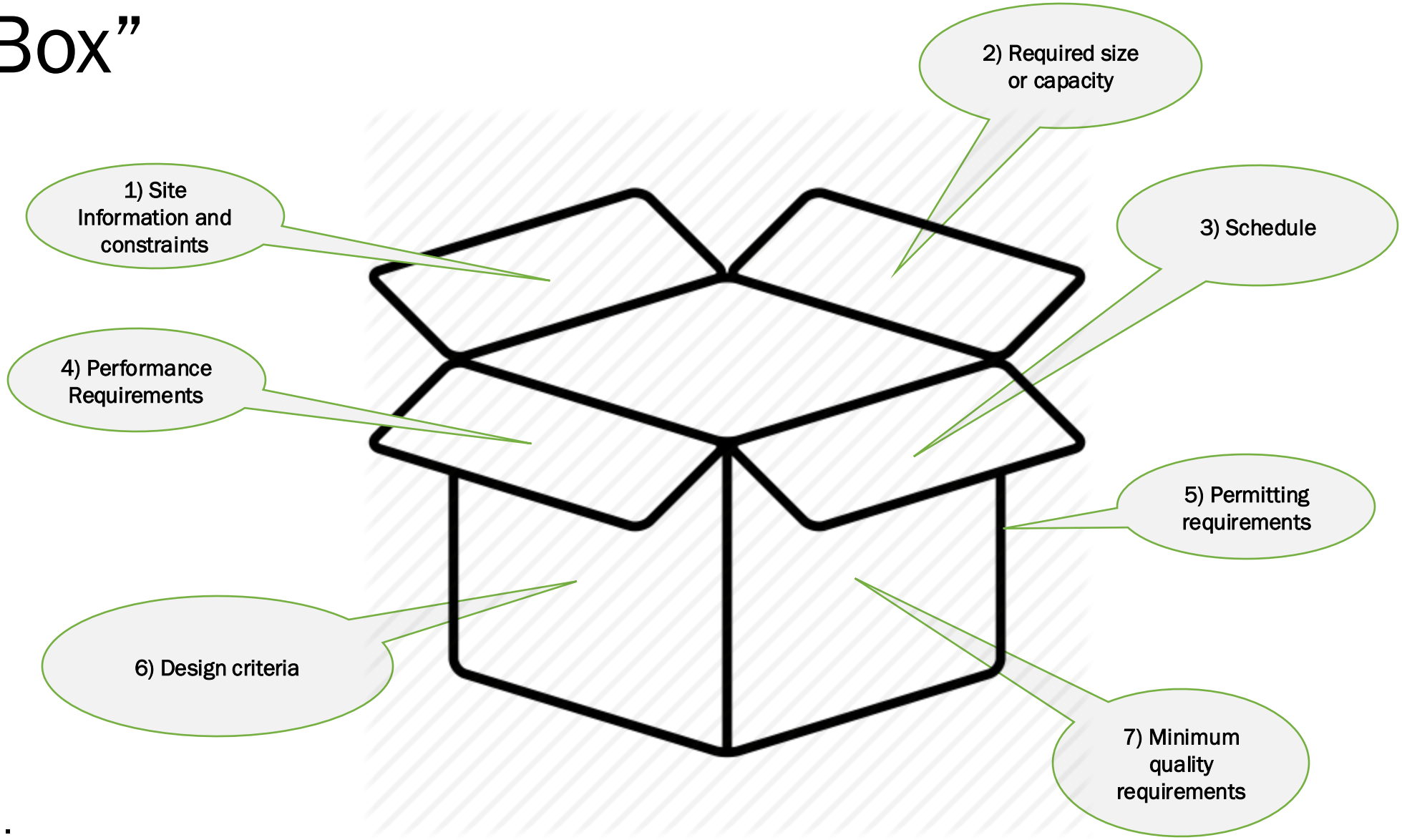
Design-Bid-Build (DBB)



Design-Build (DB)

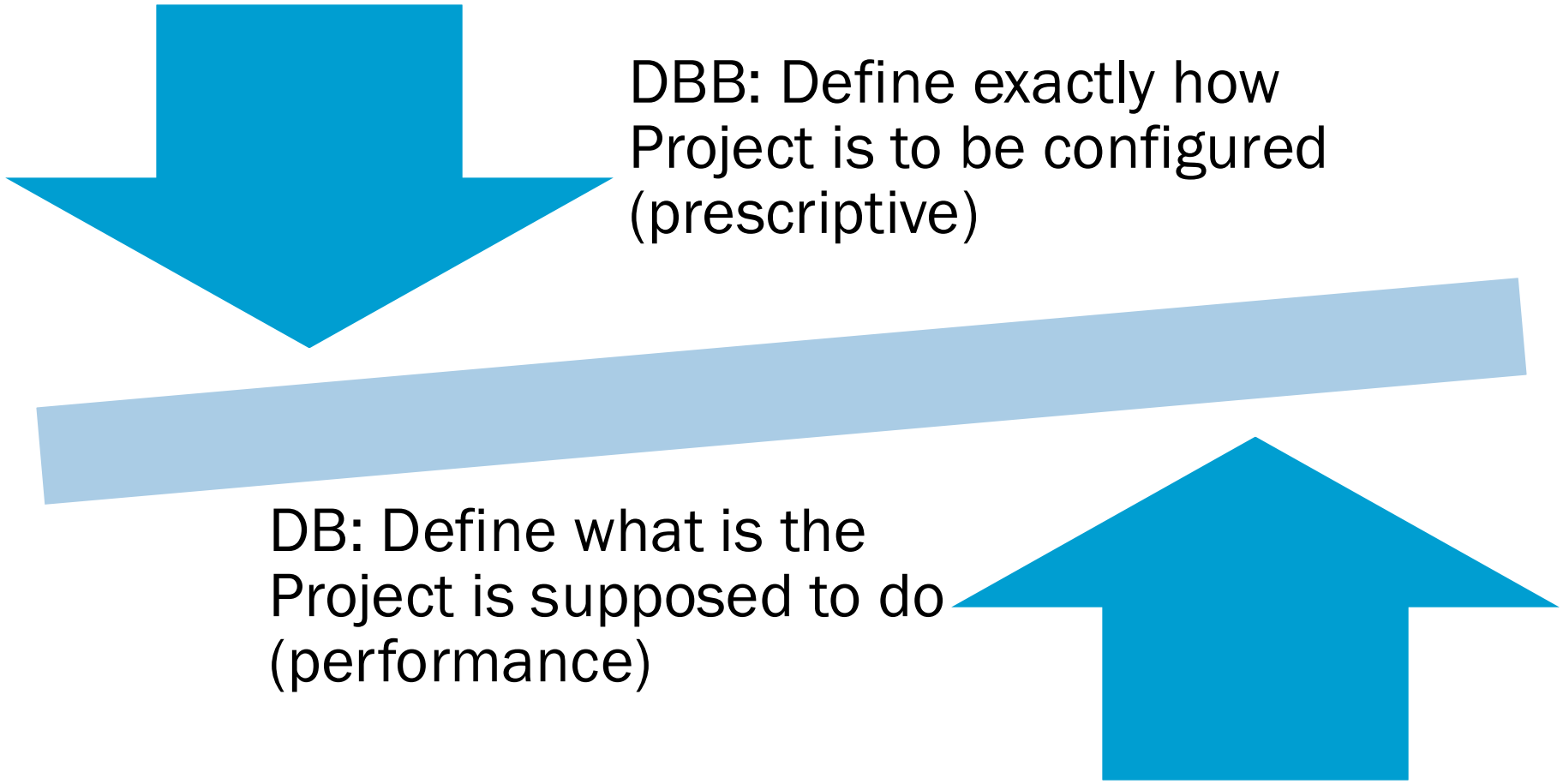


The DB “Box”



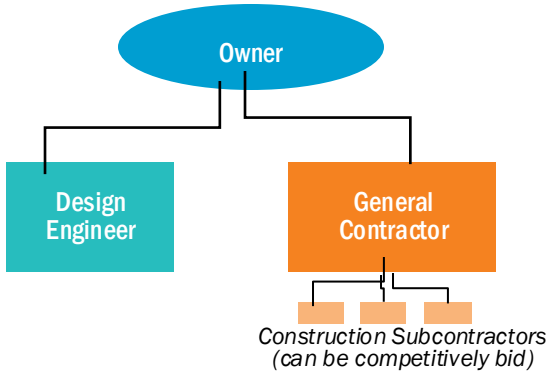
OA’s “job” is to describe the problem and solution “space”. Not a specific solution.

Traditional DBB vs. DB

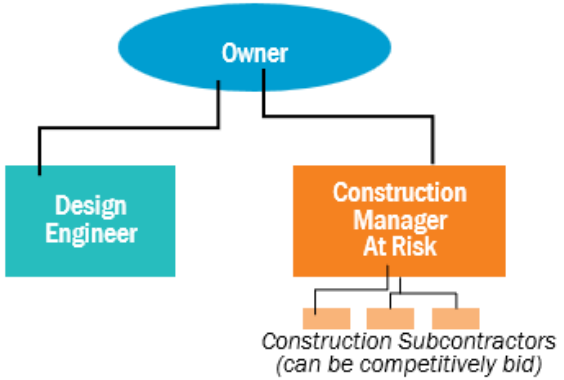


Basic Project Delivery Overview

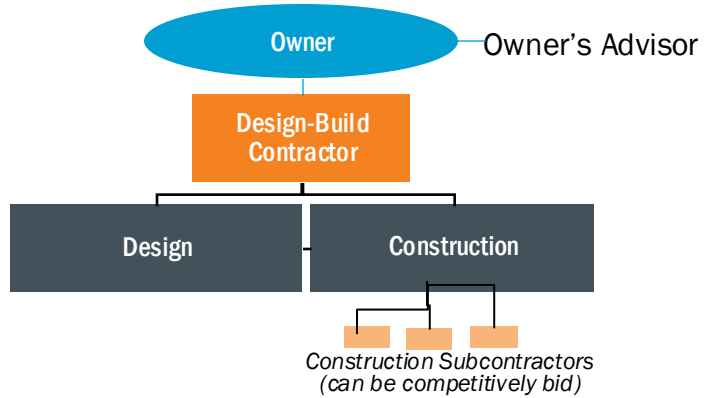
Design-Bid-Build (DBB)



Construction Manager at Risk (CMAR)



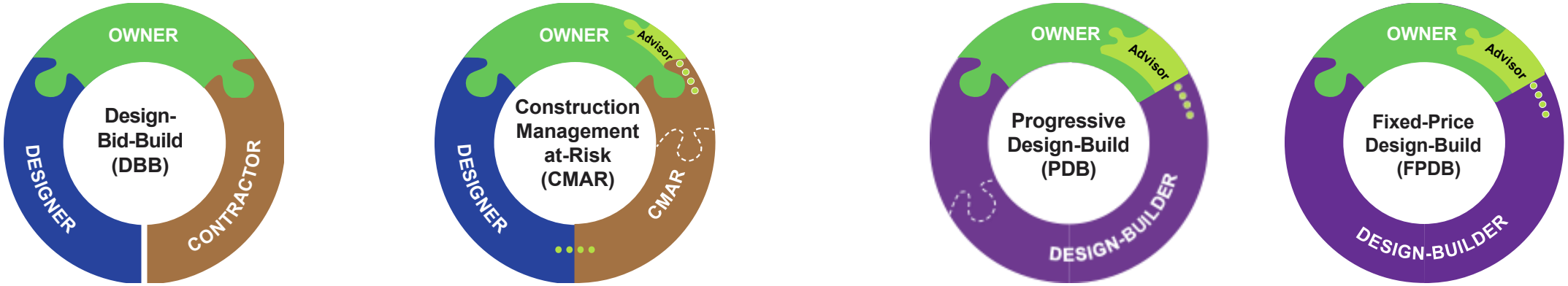
Design-Build (DB)



Spectrum of Collaborative Project Delivery Options

Traditional DBB

Collaborative Delivery CMAR Design-Build



"Cast" of Participants

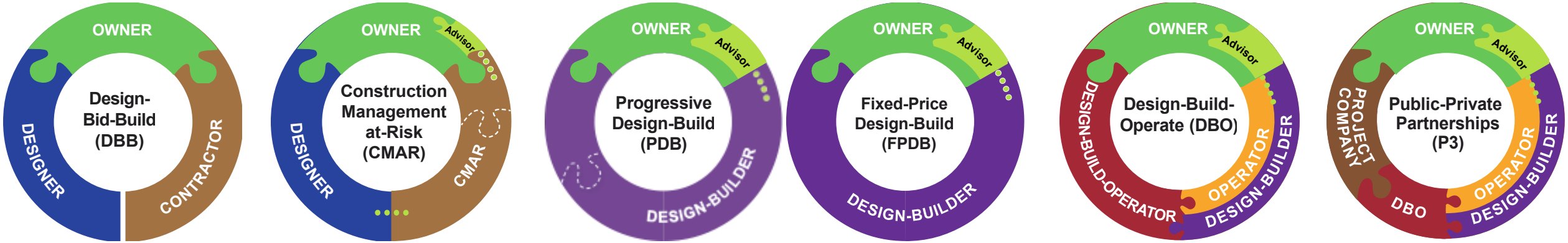
- Owner
- Owner Advisor
- Designer
- Contractor/CMAR
- Design-Builder

Types of Relationships

- No Contractual Relationship
- Contractual Relationship
- Contract Amendment for GMP or Fixed Price
- Embedded Relationship
  (not contractual, but required critical interaction)

Spectrum of Collaborative Project Delivery Options

Traditional DBB | **Collaborative Delivery** CMAR | Design-Build | Design-Build-Operate | P3



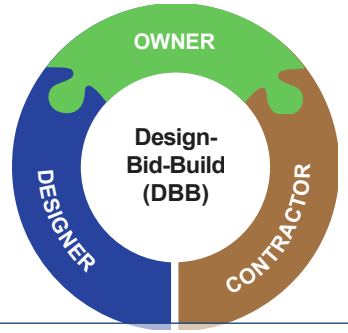
"Cast" of Participants

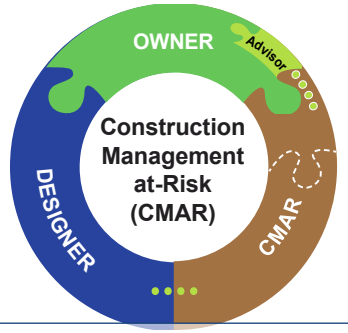
- Owner
- Owner Advisor
- Designer
- Contractor/CMAR
- Design-Builder
- Design-Build-Operator
- Operations and Maintenance Firm
- Special Purpose Project Entity/Finance

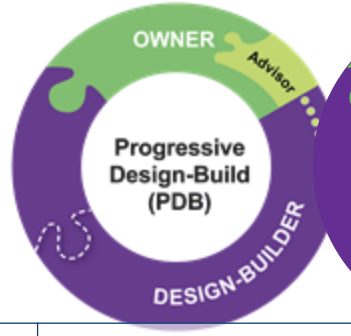
Types of Relationships

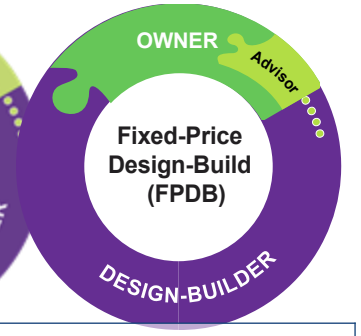
- No Contractual Relationship
- Contractual Relationship
- Contract Amendment for GMP or Fixed Price
- Embedded Relationship
  (not contractual, but required critical interaction)

Delivery Methods: Summary of Key Attributes









Owner responsible for scope and unforeseen conditions	Owner responsible for scope and unforeseen conditions	Owner responsible for scope and unforeseen conditions
Owner "owns" delivery issues	Owner "owns" delivery issues, but mitigates challenges early	Design-builder takes responsibility for delivery
Well-understood risk allocation (history of Change Orders)	Existing risk allocation managed with early contractor involvement	Appropriate risk transfer (performance, schedule, permits)
Specification-based	Specification-based with input	Performance-based
Predictable schedule (linear and usually longer)	Accelerated schedule; concurrent procurements	Potentially fastest delivery; Concurrent design/construct
Proven and familiar, but known challenges to success	Design-Build "lite" – familiar yet introduces collaboration	Proven, but not as familiar Ensures collaboration
Multiple contracts and separate deliverables	Multiple contracts; coordinated deliverables	Single contract; single-point responsibility
Multiple procurements	Multiple procurements	Single procurement
Existing procurement process	Adapt existing process	New procurement process
Traditional roles	Traditional roles/untraditional times	New roles

State Legislation on Design Build Project Delivery

Minnesota

- MnDOT (2001)
- MCES
- SPRWS
- State of MN Departments (2022)
- **CMAR approved for all municipalities (2023 MN Statute §471.463)**

471.463 CONSTRUCTION MANAGER AT RISK.

Subdivision 1. **Definitions.** (a) For purposes of this section, the terms in this subdivision have the meanings given.

(b) "Construction manager at risk" means a person who is selected by a municipality to act as a construction manager to manage the construction process, including but not limited to responsibility for the price, schedule, and workmanship of the construction performed according to the procedures in this section.

(c) "Construction manager at risk contract" means a contract for construction of a project between a construction manager at risk and a municipality, which shall include a guaranteed maximum price, construction schedule, and workmanship of the construction performed.

(d) "Guaranteed maximum price" means the maximum amount that a construction manager at risk is paid pursuant to a contract to perform a defined scope of work.

(e) "Guaranteed maximum price contract" means a contract under which a construction manager or subcontractor is paid on the basis of the actual cost to perform the work specified in the contract plus an amount for overhead and profit, the sum of which must not exceed the guaranteed maximum price in the contract.

(f) "Municipality" has the meaning given under section 471.345, subdivision 1.

(g) "Past performance" or "experience" does not include the exercise or assertion of a person's legal rights.

(h) "Person" means an individual, corporation, partnership, association, or other legal entity.

(i) "Project" means an undertaking to construct, alter, or enlarge a building, structure, or other improvement, except a street, road, highway, or bridge, by or for a municipality.

(j) "Request for proposals" means the document or publication soliciting proposals for a construction manager at risk contract as provided in this section.

(k) "Request for qualifications" means the document or publication soliciting qualifications for a construction manager at risk contract as provided in this section.

(l) "Trade contract work" means labor, materials, or equipment furnished by contractors or vendors that are incorporated into the completed project or are major components of the means of construction. Work performed by trade contractors involves specific portions of the project, but not the entire project.

Subd. 2. **Authority.** Notwithstanding any other law to the contrary, a municipality may use a construction manager at risk method of project delivery and award a construction manager at risk contract based on the selection criteria described in this section.

471.463 CMAR Subd. 3 – Solicitation of Qualifications

Subd. 3. **Solicitation of qualifications.** (a) A request for qualifications must be prepared for each construction manager at risk contract as provided in this section. The request for qualifications must contain, at a minimum, the following elements:

(1) procedures for submitting qualifications, the criteria and subcriteria for evaluating the qualifications and the relative weight for each criteria and subcriteria, and the procedures for making awards in an open, competitive, and objective manner, applying a scoring or trade-off evaluation method, including a reference to the requirements of this section;

(2) the proposed terms and conditions for the contract;

(3) the desired qualifications of the construction manager at risk;

(4) the schedule for commencement and completion of the project;

(5) any applicable budget limits for the project;

(6) the requirements for insurance and statutorily required performance and payment bonds; and

(7) the identification and location of any other information in the possession or control of a municipality that the municipality determines is material, including surveys, soil reports, drawings or models of existing structures, environmental studies, photographs, or references to public records.

(b) The request for qualifications criteria must not impose unnecessary conditions beyond reasonable requirements to ensure maximum participation of construction managers at risk. The criteria must not consider the collective bargaining status of the construction manager at risk.

(c) The request for qualifications criteria may include a requirement that the proposer include the cost for the proposer's services.

(d) Notice of requests for qualifications must be advertised in a manner designated by the municipality.

471.463 CMAR Subd. 4 – CMAR process

Subd. 4. **Construction manager at risk selection process.** (a) In a construction manager at risk selection process, the following apply:

(1) upon determining to utilize a construction manager at risk for a project, a municipality shall create a selection committee composed of a minimum of three persons, at least one of whom has construction industry expertise; and

(2) a municipality shall establish procedures for determining the appropriate content of a request for qualifications, as provided in subdivision 3.

(b) In accordance with the criteria and procedures set forth in the request for qualifications, the selection committee shall evaluate the experience of a proposer as a construction manager at risk, including but not limited to capacity of key personnel, technical competence, capability to perform, past performance of the firm and its employees, safety record and compliance with state and federal law, availability to and familiarity with the project locale, and other appropriate facts submitted by the proposer in response to the request for qualifications.

(c) A municipality must receive at least two proposals from construction managers or the municipality may:

(1) solicit new proposals;

(2) revise the request for qualifications and then solicit new proposals using the revised request for qualifications;

(3) select another allowed procurement method; or

(4) reject all proposals.

(d) The selection committee shall review the qualification of each proposer and create a short list of two to five proposers.

(e) A municipality shall issue a request for proposals requiring cost and other information as desired from the short-listed proposers.

(f) The selection committee may conduct formal interviews with the short-listed proposers but shall not disclose any proprietary or confidential information contained in one proposal to another proposer, and shall rank the proposers by applying a scoring or trade-off evaluation method. The scoring or trade-off evaluation method must be described in the request for proposals.

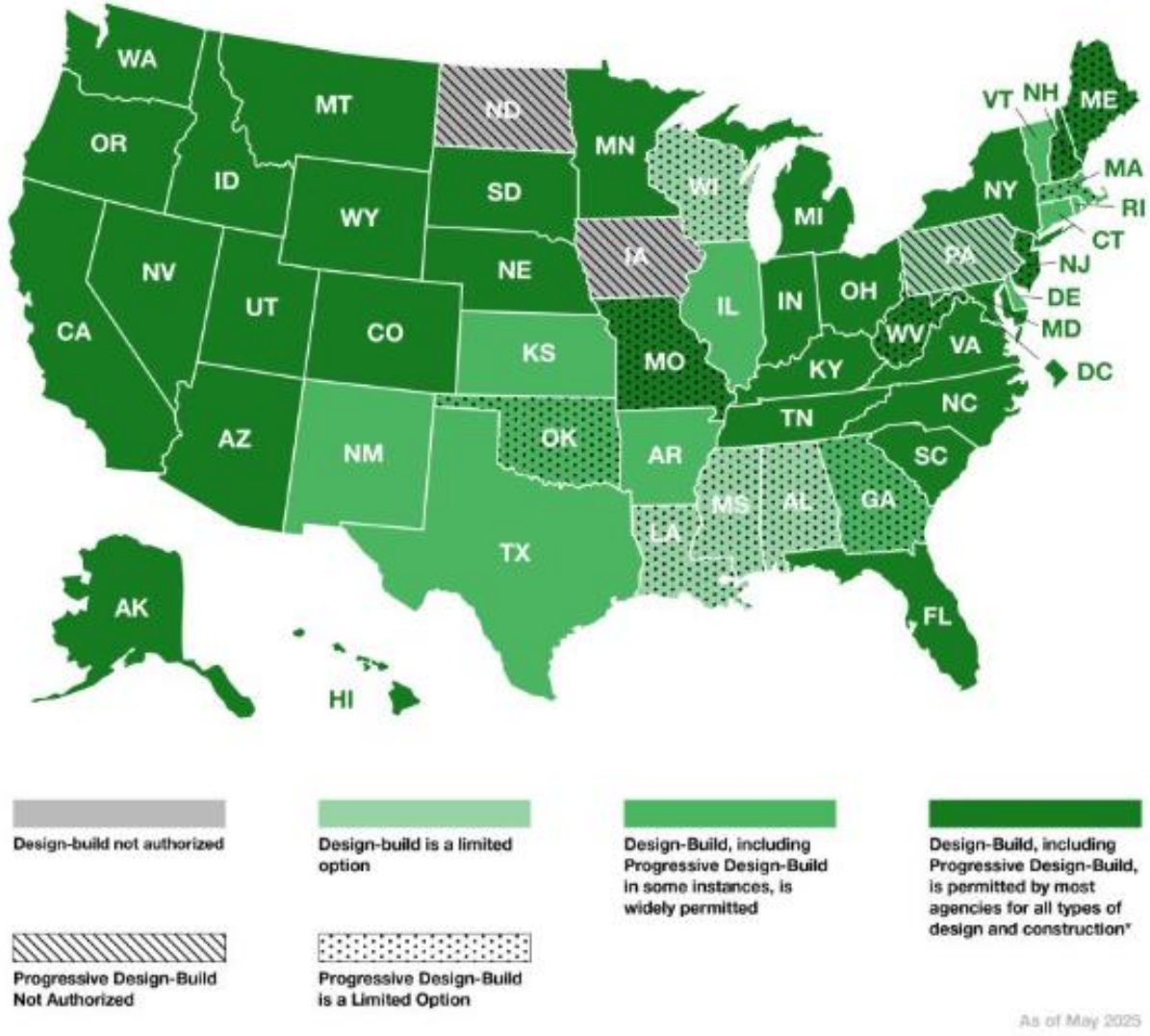
471.463 CMAR Subd. 5 – CMAR Contract

Subd. 5. **Construction manager at risk contract.** (a) A municipality shall conduct contract negotiations with the highest ranked proposer to reach an agreement on the cost and terms of the contract. If an agreement cannot be reached with the highest ranked proposer, the municipality may begin negotiations with the next highest ranked proposer. The negotiation process continues until an agreement is reached with a proposer or the municipality rejects all proposals.

(b) The construction manager at risk shall competitively bid all trade contract work for the project from a list of qualified firms. The list of qualified firms may be limited to qualified Small Business Enterprise firms, Disadvantaged Business Enterprise firms, or both, subject to availability of such qualified firms for the specific work. The list of qualified firms must be based on an open, competitive, and objective prequalification process in which the selection criteria, approved by the municipality, may include but is not limited to the firm's experience as a constructor, including capacity of key personnel, technical competence, capability to perform, past performance of the firm and its employees, safety record and compliance with state and federal law, availability to and familiarity with the project locale, Small Business Enterprise or Disadvantaged Business Enterprise certification, and other considerations as defined by the construction manager at risk and the municipality. The construction manager at risk and the municipality shall jointly determine the composition of the list of qualified firms. With the municipality's approval, upon request, the construction manager at risk may also submit bids for trade contract work if the construction manager at risk does not participate in the municipality's review of the bids or selection decision.

(c) The construction manager at risk and the municipality shall enter into a guaranteed maximum price contract for the project.

Design-Build Authorization by State (2025)

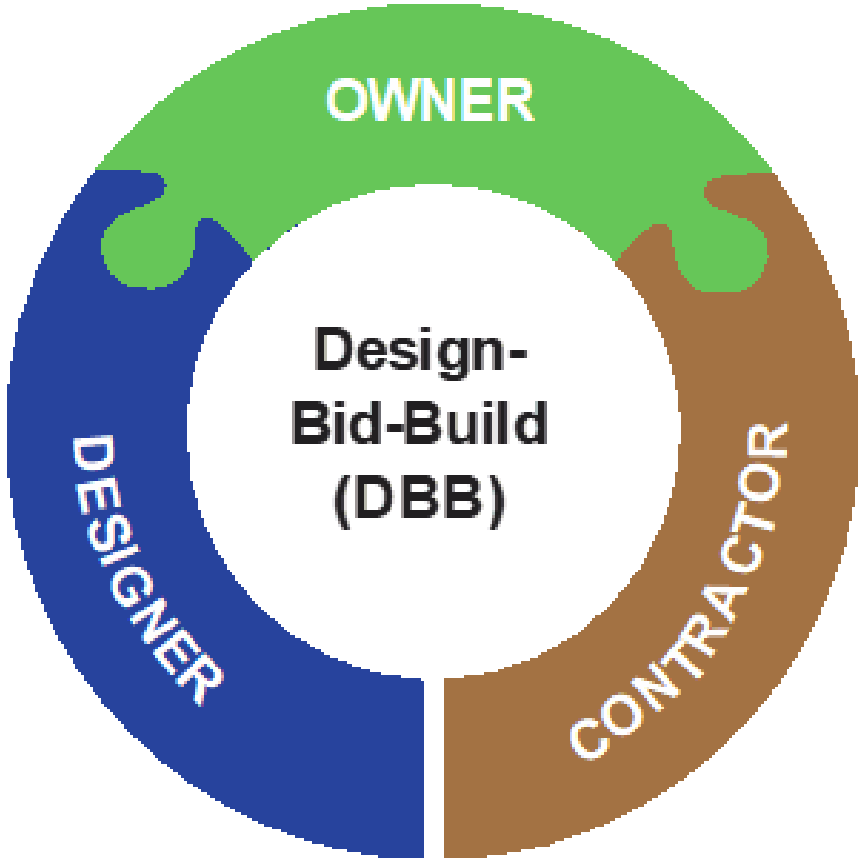


DB allowed widely or as limited option

Source: DBIA *Design-Build State Statute Report*

Baseline: Design-Bid-Build (DBB)

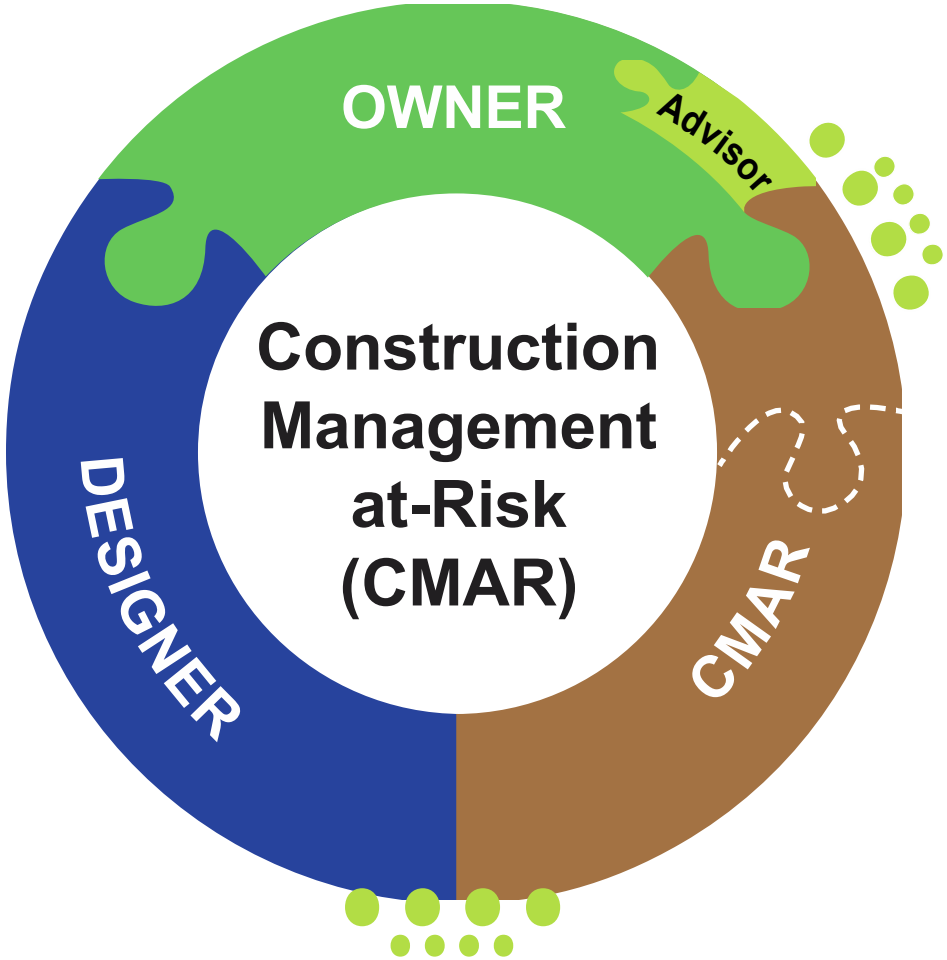
- Traditional “cast” of participants
- Widely accepted, well established linear development process
- Distinct milestones that create expected results
- Design is completed prior to bidding
- Bidding is completed prior to construction



The traditional project delivery method for public entities under which the **owner** holds **separate contracts** with a **designer** followed by **a contractor**

Construction Management at Risk (CMAR)

- Still two separate contracts with owner
- Traditional selection of designer, but alternative method to select the contractor
- Sometimes called “design-build light”
- Construction costs estimated in parallel with design effort
- "Off – ramp" option

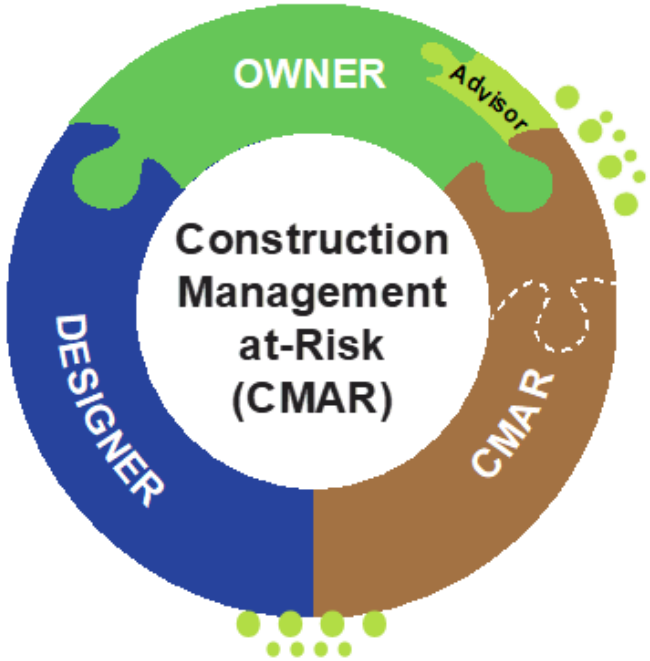


Separate contracts with a designer and a contractor, but working together

Design is performed **in parallel** with the construction planning and estimating

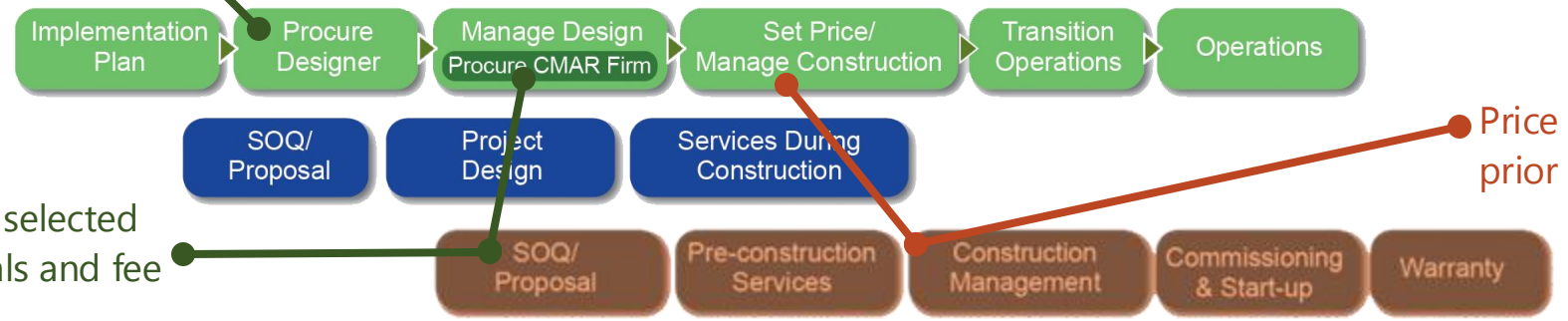
Construction can start upon mutual **Contract Price** agreement

Construction Management at Risk (CMAR)



- Early cost certainty w/ detailed cost model
- Preconstruction services & early work packages can accelerate schedule
- Risks identified early & stakeholders can assist with mitigation strategies.
- Early contractor engagement for increased innovation
- Provides flexibility to accommodate phasing
- Improved transparency with open-book estimating and scope negotiations

Designer selection based on qualifications, and technical approach

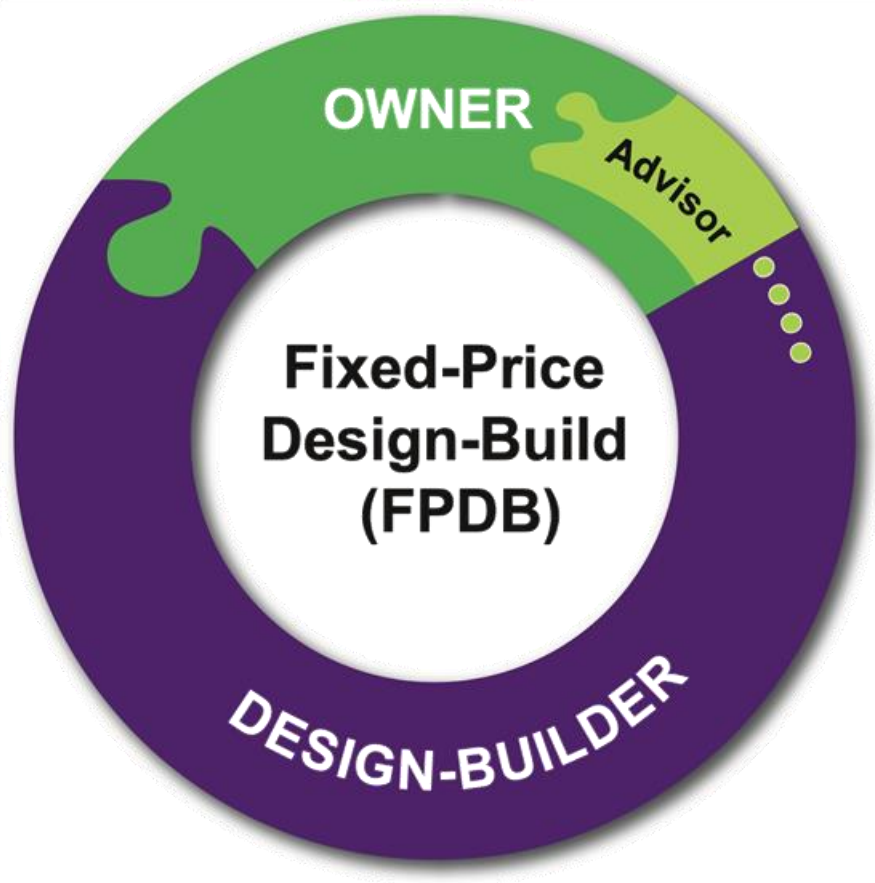


CMAR selected on quals and fee

Price agreement prior to construction

Fixed Price Design-Build (FPDB)

- Multiple variations - two-phase selection is common
- Short list based on capability, capacity, experience, references
- Lengthy procurement process, reduced delivery time
- The Proposal is essentially a "Design Competition"
- May use performance-based criteria or prescriptive criteria – or usually, a balance of both
- Selection based on "best value" (technical + price)
- Construction price fixed at selection

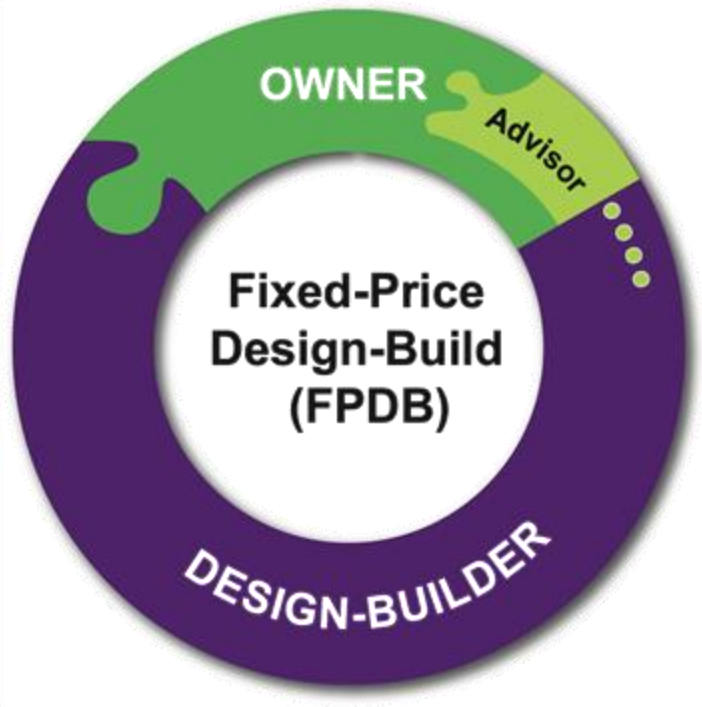


A single entity or team to deliver both design and construction via a **single contract**

Design detail and construction estimate provided as part of a **fixed-price proposal**

Construction can start quickly **after selection**

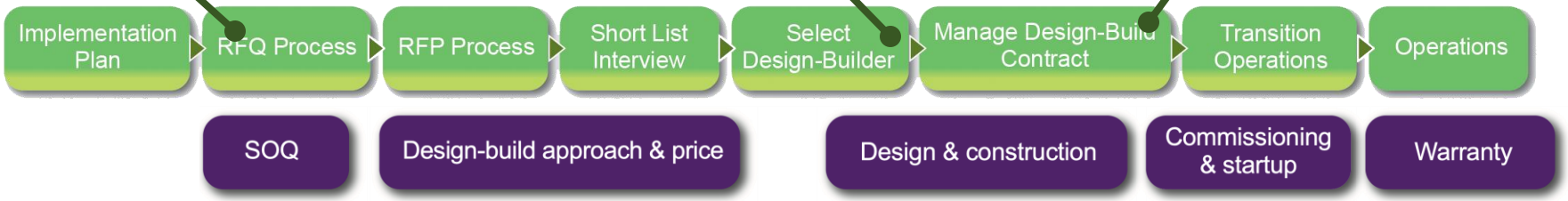
Fixed Price Design-Build (FPDB)



Short list based on capability, capacity, experience, references

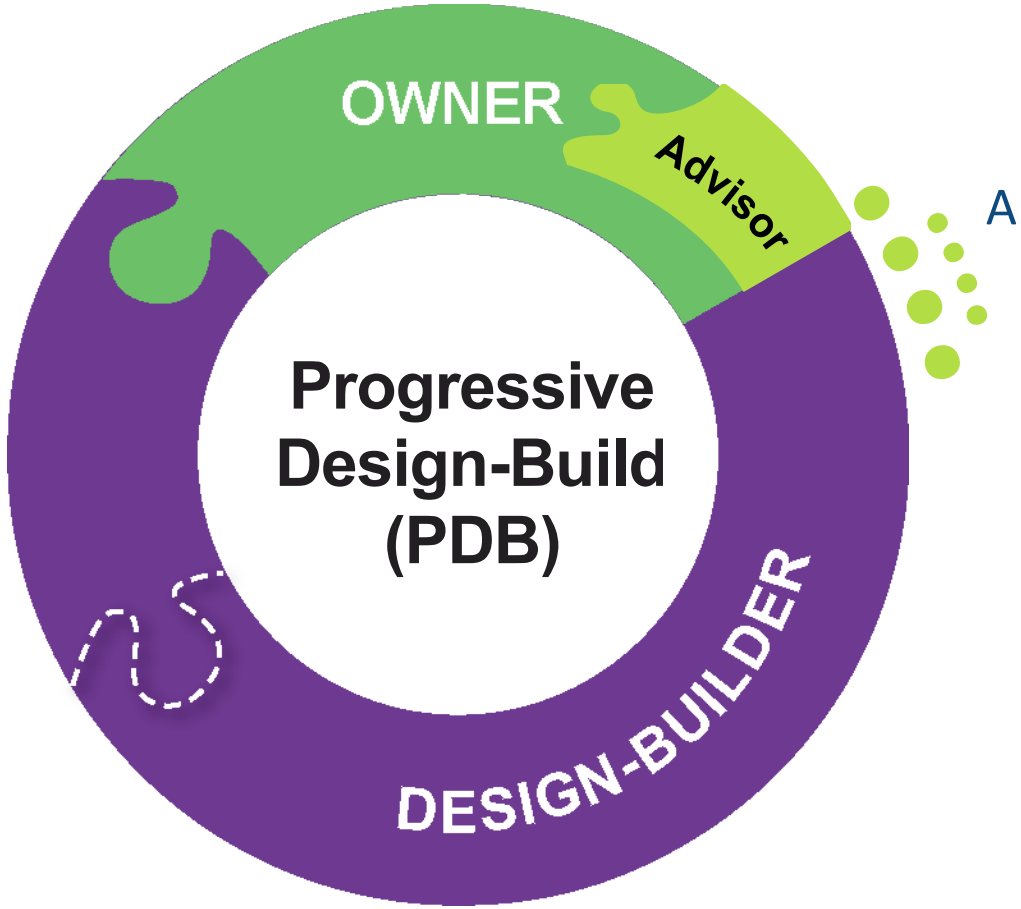
Selection based on "best value" (technical + price)

Performance-based and Prescriptive Criteria



Progressive Design-Build (PDB)

- Concurrent activities can shorten schedule – construction start before design is complete
- Selection based on quals and (optional) price/fee, but not a bid or fixed price
- "Design to budget" via design/estimate iteration
- GMP, Lump Sum, and shared savings options
- "Off-ramp" option

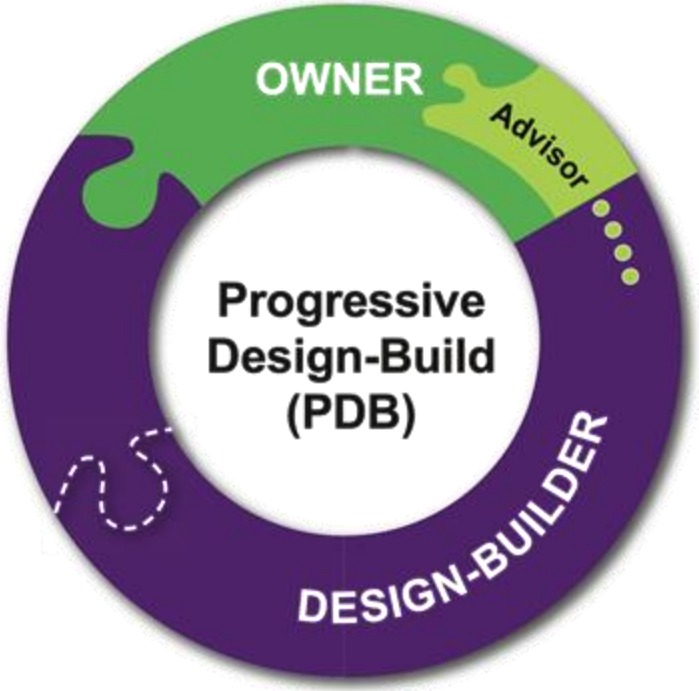


A single entity or purpose-built team to deliver both design and construction via a **single contract**

Design detail and construction estimate is developed **progressively**

Construction starts upon mutual **Contract Price** agreement

Progressive Design-Build (PDB)



Selection based on qualifications and fee

Based on collaboratively developed scope and design

Go Out to Bid (Off-Ramp)

Implementation Plan → RFQ Process Short List → RFP Process → Interview/ Selection → Negotiate Price with Design-Builder → Manage Design-Build Contract → Transition Operations → Operations

SOQ

Design-build approach & fee

60%-90% design & price

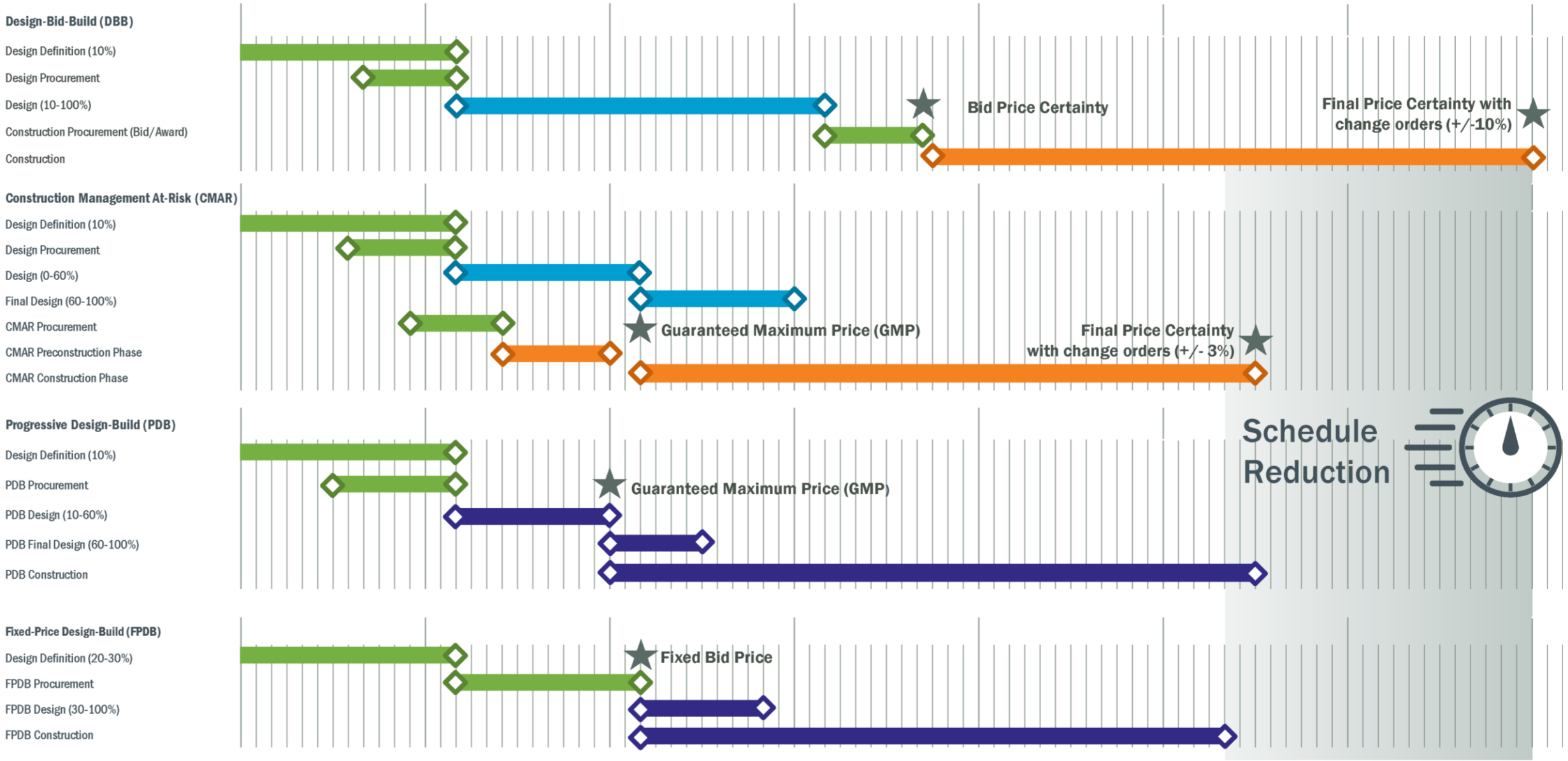
Final design & construction

Commissioning & startup

Warranty

Defines qualifications criteria; short-lists qualified firms

Project Delivery Methods // Schedule Comparison



Why are Owners using Collaborative Delivery?

1) Faster project delivery
2) Potential cost savings
3) Reduced risk
4) Early engagement of project team
5) Improved constructability
6) Advance innovation
7) Earlier price certainty
8) Improved quality
9) Early mitigation of supply chain risks
10) Flexibility

Escondido MFRO Facility, Escondido, Calif.

Selecting delivery method based on project drivers

KEY PROJECT PRIORITIES

SCHEDULE
How can the procurement process be varied if schedule is critical

SELECTION CRITERIA
What criteria are important to success?
What's the best indicator of future performance?

DESIGN EFFORT
How much pre-design is required to ensure you get what you want (versus performance specs)?

PRICE
How do you evaluate proposals beyond price?
Does low price always win?

SCOPE
What elements of the project should be DB versus traditional delivery?

DESIGN APPROVALS
How much oversight of design should you have?

RISK SHARING
How are risks being shared?

QUALITY
How do you ensure innovation and quality?

KEY PROJECT DRIVERS

- CONTROL/RISK SHARING
- COST
- SCHEDULE
- INNOVATION

Owners need to consider **more than the project delivery** method itself:

Qualification-based selection
+
Earlier involvement of contractor
+
Cost transparency during execution

Midwest *Water* Collaborative Delivery Projects

- Great Lakes Water Authority (MI)
- MCES – multiple projects
- St. Paul
- MWRD
- Cincinnati, Cleveland
- KC Water
- St Louis MSD
- SD/ND (CMAR projects)
- NE and IA (evaluating/pending projects)

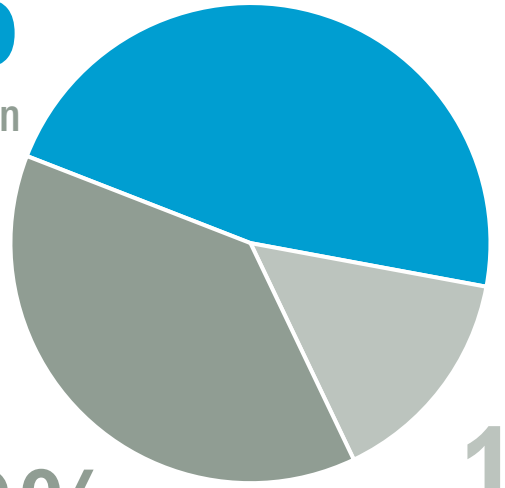
Minnesota Water CMAR Projects

Growth in Industry

Design-build grows to

47%

of all construction



38%

Other alternative methods
(e.g., CM/GC, CMAR, EPC)

15%

DBB

34%

growth 2018-2025

W/WW sector showing highest annual growth!

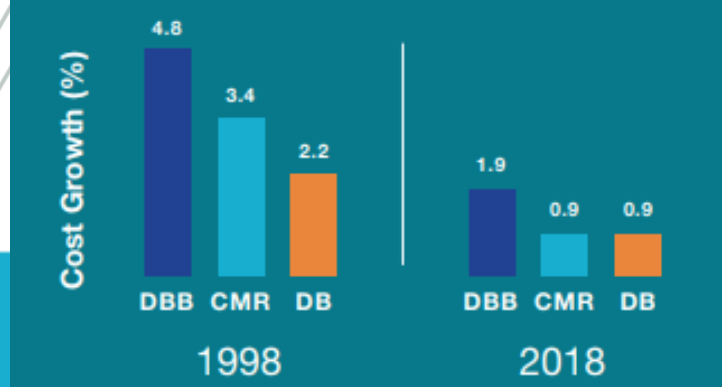
Design-build is growing and is most popular delivery system in the nation

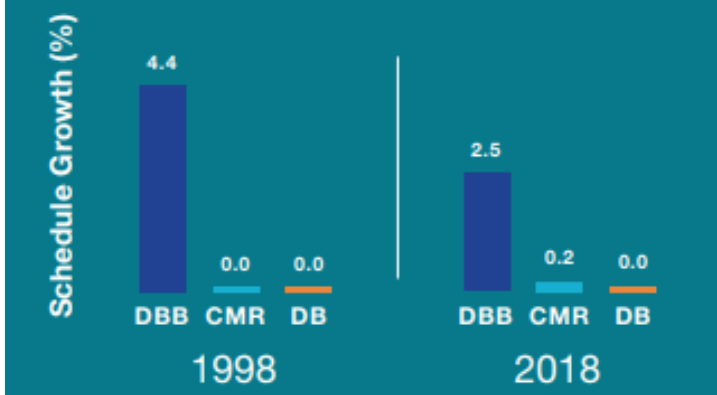
Schedule Performance Comparison

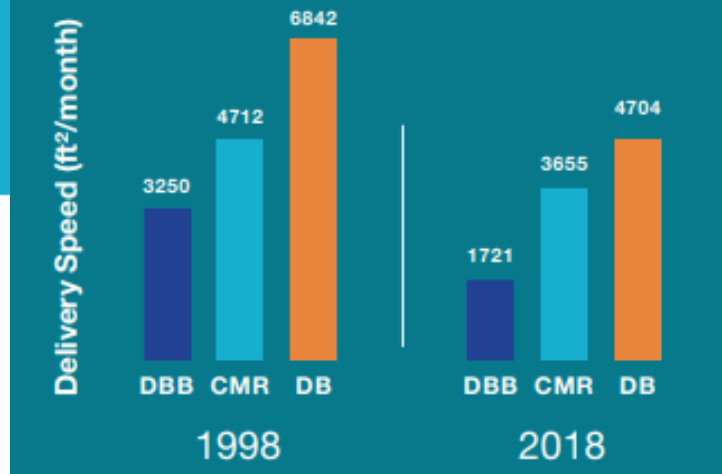
Performance Measure	DB vs. CMR	CMR vs. DBB	DB vs. DBB
Schedule Growth	3.9% less	2.2% more	1.7% less
Construction Speed	13% faster	20% faster	36% faster
Delivery Speed	61% faster	25% faster	102% faster

Cost Performance Comparison

Performance Measure	DB vs. CMR	CMR vs. DBB	DB vs. DBB
Unit Cost	1.9% less	1.6% more	0.3% less
Cost Growth	2.4% less	1.4% less	3.8% less







Construction Industry Institute (CII) “Revisiting Project Delivery Performance”

Opportunities for Learning…. Collaborative Project Delivery

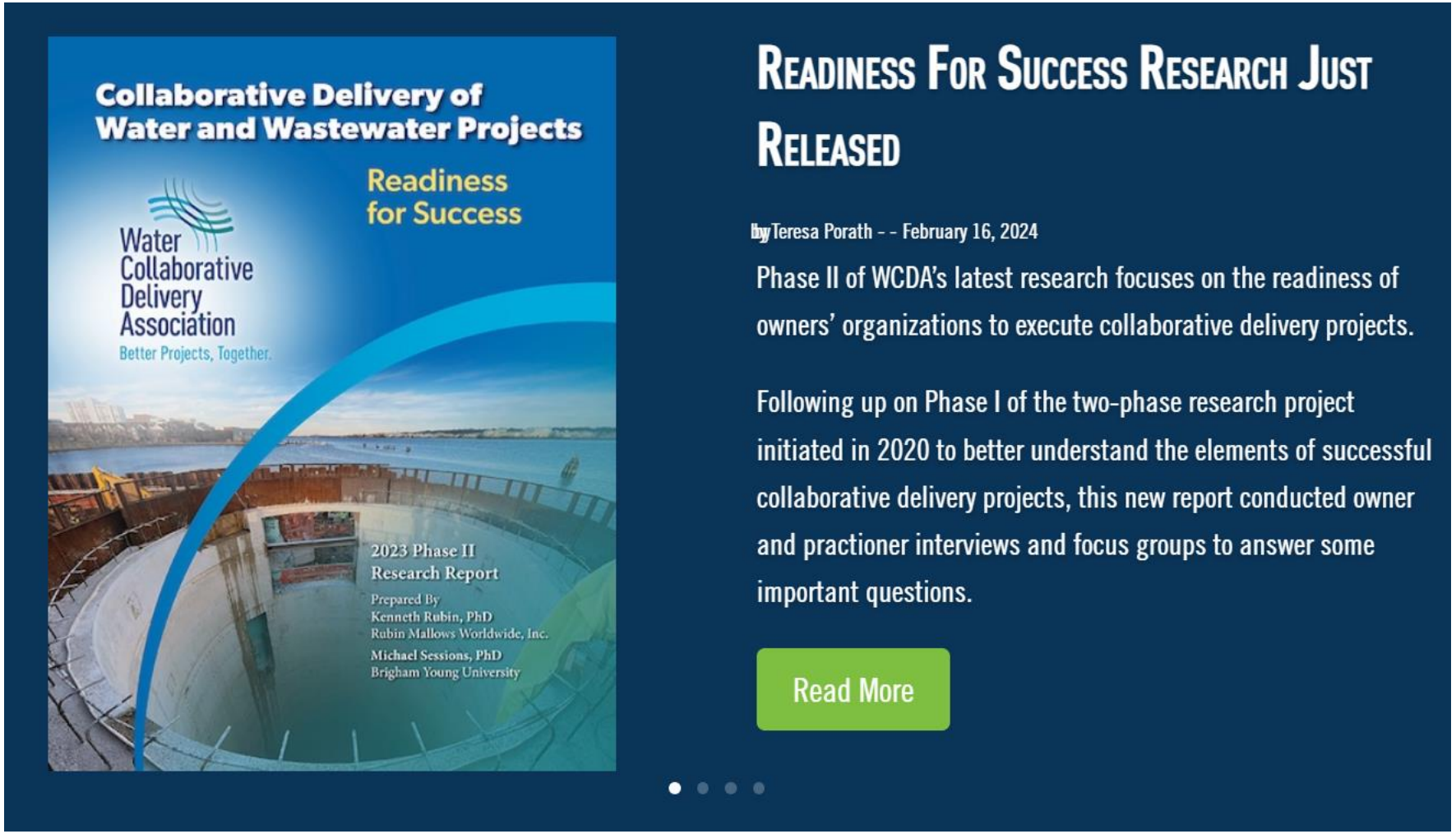
- Mentor Program
- Training Webinars
- Guides
- Certification

Water Collaborative Delivery Association

Better Projects, Together.

- Handbook
- Guides
- Training Webinars

https://watercollaborativedelivery.org/



Questions?

Tracy L. Ekola, PE, Assoc.DBIA
tekola@brwncald.com
320.250.6147