



Project Delivery Selection Matrix Guidance

Purpose

Project teams should consider alternative delivery for projects that could benefit from contractor input during pre-construction to improve constructability, enhance innovation, shorten schedule, reduce risks, or increase value. This guide outlines the selection process and defines the available delivery methods; it is designed to be used in conjunction with the Project Delivery Selection Matrix worksheets.

The Project Delivery Selection Matrix (PDSM) is a formal, evidence-based tool used to evaluate and select the most appropriate delivery method for CDOT transportation projects. It provides a structured approach to decision-making, ensuring that the selected method leverages specific delivery strengths to meet project goals while providing formal documentation of the decision.

Delivery method evaluation should occur early in project development, ideally during the Scoping Phase, to maximize potential benefits. PMs considering alternative delivery must contact the Alternative Delivery Program to determine if a formal PDSM Workshop is warranted.

Delivery Method Overview

A project delivery method is the contractual and organizational framework that defines how a project is designed, procured, and constructed. It establishes roles, responsibilities, risk allocation, and relationships among the owner, designer, and contractor.

Design-Bid-Build (DBB) is the traditional method in which CDOT either designs the project in-house or retains a designer to furnish complete construction documents. A separate construction contract is then awarded to the lowest responsible bidder. In this model, CDOT owns the details of the design and remains responsible for the costs of any errors or omissions encountered during construction.

Construction Manager/General Contractor (CM/GC) involves separate contracts with a designer and a Construction Manager (CM). This allows the contractor to inform the design during the pre-construction phase, providing real-time cost estimating and constructability input. CM/GC is particularly valuable for complex or non-standard designs where definitive contractor input can significantly improve the project budget and scope before construction begins.

Design-Build (D-B) provides an alternative approach by procuring both design and construction services under a single contract with a design-builder. This method involves a two-phase selection process starting with a Request for Qualifications to shortlist teams based on qualifications, followed by a Request for Proposals where teams compete to provide best value. The design-builder relies on technical criteria defined in the RFP and is responsible for the cost of design errors or omissions.

The PDSM Workshop

To ensure a comprehensive evaluation, project teams should schedule the PDSM workshop with sufficient time to analyze all primary and secondary factors for each delivery method (typically 4–8 hours). The workshop must be facilitated by a neutral third party who represents the owner and has extensive knowledge of alternative delivery methods and the selection process. A representative from the Alternative Delivery Program is required for all workshops and may serve as the facilitator. The facilitator supports the project team by providing guidance, facilitating discussion, and ensuring the process remains on track toward formal selection.

The selection team typically consists of three to seven members with diverse experience, including the CDOT project management team, CDOT specialty units, and relevant stakeholders (e.g., local agencies or funding partners). The Contracting Officer should be invited to participate as an observer. The selection team is responsible for developing the delivery method recommendation, which must prioritize taxpayer interests. Consultants may provide technical advice at the request of CDOT but are strictly prohibited from participating in deliberations or the ranking process.

Participants shall actively challenge emerging consensus and provide alternative perspectives on proposed inputs to the selection matrix. Assumptions shall be tested through structured discussion to strengthen the rigor of the evaluation and support transparent, defensible decision-making. While individual perspectives are often informed by prior experience, bias shall be actively managed to prevent undue influence on outcomes. All inputs shall be grounded in project-specific considerations and supported, where appropriate, by objective evidence.

To facilitate this objective environment, participants shall complete pre-workshop tasks to document individual assessments in advance of group discussion. This step ensures that all viewpoints, including those that differ from the prevailing direction, are captured and considered as part of the formal decision record. A professional environment that supports open, respectful dialogue without intimidation shall be maintained throughout the workshop. Project teams must recognize that constructive disagreement is essential to surfacing risks, challenging assumptions, and reinforcing the integrity and accountability of the final delivery selection.

Project Delivery Selection Process

The process for evaluating and selecting the most appropriate delivery method is described in the outline below. The steps should be followed in sequential order.

Pre-Workshop Tasks and Responsibilities

Prior to conducting the workshop, the project management team shall complete pages 1–5 of the worksheets document and distribute them, along with blank factor evaluation forms, to participants at least one week prior to the workshop. Participants shall become familiar with the project description, goals, constraints, and risks, and shall individually identify opportunities and obstacles for each delivery method across the primary and secondary factors.

Workshop Tasks and Responsibilities

Primary Factor Evaluation

Following individual assessment, the group shall assemble for the workshop. Each participant's input shall be discussed, and resulting opportunities and obstacles for the first four primary factors shall be documented in the matrix.

Risk Assessment

- A. If the first four primary factors indicate a clear preferred delivery method, perform a risk assessment for that method only to confirm that risks can be appropriately allocated and managed. Then proceed to Secondary Factor Evaluation.
- B. If the primary factors do not indicate a clear preferred delivery method, perform a risk assessment for all delivery methods to determine which method most appropriately allocates and manages risk. Then proceed to Secondary Factor Evaluation.

Secondary Factor Evaluation

- A. If a clear preferred method emerges following the Risk Assessment, the secondary factors shall be discussed and resulting opportunities and obstacles documented in the matrix for that method. A pass/fail review of each secondary factor shall be completed to confirm they have been adequately considered in the decision.
- B. If the Risk Assessment or pass/fail review does not result in a clear determination, perform a more rigorous evaluation of the secondary factors across all viable delivery methods.



Post Workshop Tasks and Responsibilities

Transparency Compliance and Approval Requirements

In alignment with Colorado Senate Bill 21-260, CDOT maintains strict transparency and accountability standards for the selection of project delivery methods. If an alternative delivery method is selected, the project team must post the completed PDSM worksheets, conclusions, and justification, to the project's public-facing website. A justification for the chosen delivery method must be explicitly included in any resulting solicitation documents.

For projects where the total program cost is \$75M or greater, the project team is required to hold a public meeting with industry partners to discuss the justification for the selection and elicit feedback. Following this engagement, the team must seek formal approval from the Transportation Commission (TC) to utilize the selected method. The industry feedback and TC Resolution must be posted to the project's public-facing website.

Regardless of project size, any delivery method other than Design-Bid-Build requires the written approval of the Chief Engineer. This approval request must be supported by the objective evidence documented during the PDSM workshop to ensure the selection is both defensible and in the best interest of the taxpayer.

Completed PDSM worksheets and a summary of any industry feedback must accompany the *Chief Engineer Delivery Method Approval Request* for any project seeking a delivery method other than Design-Bid-Build. The approval request memo must also be posted to the project's public-facing website.



Project Delivery Selection Matrix Worksheets

The PDSM Worksheets are linked and defined below.

<https://oitco.hylandcloud.com/cdotrm/pop/docpop/docpop.aspx?docid=19530029>

Project Description Worksheet

Provide project information including size, type, funding, risks, complexities, etc.

Project Delivery Goals Worksheet

A careful determination of the project goals is the first step in selecting the most appropriate method of delivery for the project.

General Project Goals for consideration

Schedule

- Minimize overall project delivery time while maintaining schedule certainty
- Accelerate time to construction start / beneficial use / revenue service

Cost

- Minimize project cost
- Maximize project value
- Optimize cost certainty and risk allocation
- Maximize the project scope and improvements within the project budget

Quality

- Deliver high-quality design and construction
- Ensure qualifications-based team selection
- Meet or exceed performance requirements
- Provide an aesthetically pleasing project
- Encourage innovative design, materials, and construction methods

User Impact

- Maximize life-cycle performance and durability
- Improve capacity, mobility, and system performance
- Minimize disruption to the public during construction
- Maximize safety for workers and users



Project Delivery Constraints Worksheet

Carefully review all possible constraints to the project. Constraints can potentially eliminate a project delivery method before the evaluation process begins.

General Project Constraints for Consideration

Schedule

- Fixed deadlines tied to federal funding obligation and expenditure
- Required project completion date
- Seasonal/weather-related construction limitations
- Environmental permitting windows and restrictions

Cost / Financial

- Maximum project budget (not-to-exceed)
- Restrictions on use of funds (e.g., eligible work such as bridges, safety)
- Limited tolerance for change orders or scope growth
- Cash flow or funding availability constraints
- Delivery method must be compatible with financing mechanism(s)

Quality / Regulatory

- Compliance with owner standards and specifications
- Adherence to all applicable local, state, and federal regulations
- Required design criteria and performance standards

Functional / Operational

- Limits on allowable traffic disruption during construction (e.g., lane closures, detours)
- Site-specific constraints (e.g., hazardous materials, difficult terrain, right-of-way limits)
- Requirements to restore or maintain surrounding areas
- Worker and public safety requirements in constrained or high-risk environments



Project Risks Worksheet

A detailed discussion of project risks is a critical step in evaluating the selection factors.

General Risk Categories for Consideration

- Site Conditions and Investigations
- Utilities
- Railroads
- Drainage/Water Quality
- Environmental
- Third-party Involvement
- Organizational
- Design
- Construction
- Right-of-Way

Project Delivery Method Selection Factor Worksheets

These sheets are used to summarize the project team assessment of the opportunities and obstacles associated with each delivery method relative to each of the eight Selection Factors. After discussion of each factor, a rating can be recorded for each delivery method assessed. The ratings are transferred to the *Project Delivery Selection Summary Table* worksheet.

Project Delivery Selection Summary Table Worksheet

The factors are qualitatively rated using the key below. Review all factor ratings across all delivery methods and use the collective results to identify which Delivery Method best positions the project to achieve its goals.

Rating Key

- +++ Most appropriate delivery method
- ++ Appropriate delivery method
- + Least appropriate delivery method
- X Fatal Flaw (discontinue evaluation of this method)
- N/A Factor not applicable or not relevant to the selection
- P Pass
- F Fail

Project Delivery Selection Summary Conclusions and Comments

This blank sheet should be used by the project management team to document any discussions that lead to the result of an alternative delivery method being selected to support transparency of the process.

Potential Opportunities, and Obstacles for each Selection Factor

Below are general opportunities and obstacles associated with each of the eight Selection Factors. Use the information provided as a supplement to develop project specific opportunities and obstacles.

1) Potential Opportunities, and Obstacles for **Project Complexity and Innovation**

DESIGN-BID-BUILD

- Owner has full control over design development
- Innovation is driven by the owner and designer, independent of contractor input
- Allows thorough design development and value engineering
- Complete design documents improve consistency, clarity, and long-term maintainability
- Reduces uncertainty by resolving complex design elements prior to bidding, enabling competitive pricing
- Sequential process limits opportunities for contractor input on constructability and cost optimization
- Design changes after bidding can result in increased costs and schedule impacts
- Less flexibility for integrating design and construction compared to other delivery methods

CM/GC

- Promotes innovation through early collaboration
- Maintains owner control while incorporating contractor input during design development
- Enables independent selection of highly qualified designers and contractors
- Value engineering and constructability reviews are integral to the process
- Allows phased cost development and optional competitive bidding of work packages
- Strongly dependent on effective collaboration and alignment between designer and CM/GC
- Innovation can either increase or decrease cost and schedule
- Requires disciplined scope management to control changes and maintain project objectives

DESIGN-BUILD

- Integrated designer/contractor team enhances innovation through optimized means and methods
- Innovation encouraged through competition (e.g., ATC process)
- Best-value procurement supports selection of highly capable teams
- Constructability and value engineering are inherent in the process
- Early team integration accelerates problem-solving for complex projects
- Requires clearly defined performance and technical requirements upfront



- Performance-based specifications can make quality assurance for innovative solutions more difficult

2) Potential Opportunities, and Obstacles for **Delivery Schedule**

DESIGN-BID-BUILD

- Predictable, linear schedule with clear milestones
- Short contractor procurement period
- Strong ability to define baseline schedule early
- Time for stakeholder review and design refinement
- Limited contractor input can lead to constructability issues
- Design errors and changes often result in delays and change orders
- Low-bid selection can increase risk of schedule disruption

CM/GC

- Phased design enables early construction start
- Early contractor involvement improves constructability, phasing, and traffic control
- Efficient long-lead procurement and early work packages
- Continuous schedule optimization through collaboration
- Improved risk identification and mitigation during design
- CAP negotiation or pricing disputes can significantly delay progress
- Requires strong owner oversight to maintain schedule

DESIGN-BUILD

- Parallel design and construction accelerate project delivery
- Early contractor input improves scheduling and resource optimization
- Ability to fast-track critical path work
- Integrated team improves sequencing, resource loading, and schedule innovation
- Efficient long-lead procurement and phased construction
- Shifts schedule risk to the contractor
- Reduced owner/contractor disputes streamline execution
- Owner must provide timely reviews and decisions to maintain momentum
- Unknown site conditions or scope gaps can impact schedule
- Lengthy RFP development and procurement

3) Potential Opportunities, and Obstacles for **Project Cost Considerations**

DESIGN-BID-BUILD

- Competitive bidding enables low-cost construction for fully defined scope
- High cost certainty once design is complete and bid (late)
- Contract price established before construction begins
- Limited opportunity for contractor-driven cost innovation
- Cost accuracy depends on full design completion
- Change orders common due to owner-controlled design risk

CM/GC

- Early contractor involvement improves cost control and provides constructability savings
- Collaboration among owner, designer, and contractor supports risk reduction and cost efficiency
- Cost is established earlier than DBB through phased CAP development
- Independent Cost Estimating supports price validation during negotiations
- Preconstruction services add upfront cost but can reduce overall project cost risk
- CAP negotiation introduces risk of pricing disputes or process failure
- Strong owner leadership required to maintain cost alignment and control scope growth

DESIGN-BUILD

- Early cost commitment through best-value or lump-sum proposal
- Integrated team enables cost-efficient design optimization and innovation
- Competitive procurement and ATCs support cost control and value delivery
- Potential for lower cost growth due to reduced claims and changes
- Flexible scope alignment can match fixed budget constraints
- Early funding obligation
- Reduced design completion at award introduces risk of cost uncertainty and overruns

4) Potential Opportunities, and Obstacles for **Level of Design**

DESIGN-BID-BUILD

- Good for projects with design advanced beyond 30%-60%
- Design and environmental approvals are fully completed before procurement
- High certainty of scope, risks, and constraints at contract award
- Clear baseline for cost, schedule, and constructability
- Limited flexibility to incorporate changes after design finalization
- Minimal contractor input during design reduces constructability optimization
- Late discovery of issues can result in change orders and delays
- Strong control, but lowest adaptability once design is finalized

CM/GC

- Procurement begins with less than 30%-60% design complete.
- Design is partially developed at procurement and advanced collaboratively
- Early contractor involvement improves constructability and risk-informed design
- Scope, cost, and risk are refined iteratively as design progresses
- Flexibility to adjust design before finalizing construction packages
- Potential for misalignment if design advancement outpaces agreement on cost or scope
- Requires strong coordination across owner, designer, and contractor
- Balances early flexibility with increasing certainty as design matures

DESIGN-BUILD

- Design advanced by the owner to level necessary to precisely define the contract requirements and properly allocate risk.
- Procurement begins with conceptual design between ~ 10% - 30% complete
- Design-builder completes design after award within defined scope and constraints
- High opportunity for innovation and optimization during design development
- Early commitment to cost and schedule based on limited design maturity
- Reduced owner control over detailed design decisions
- Changes after award can significantly impact cost and schedule

Project Risk Assessment

Initial Risk Assessment Guidance

The following resources are provided to assist in an initial risk assessment relative to the selection of the delivery method: Typical Transportation Project Risks, General Project Risks, Potential Opportunities/Obstacles related to risk

The initial risk assessment in the PDSM is to ensure the selected delivery method can properly address the project risks. Project risks should be evaluated in greater detail and continuously refined during procurement and throughout project administration to support effective allocation and management.

Typical Transportation Project Risks

The following is a list of project risks that are frequently encountered on transportation projects and a discussion on how the risks are resolved through the different delivery methods.

a) Site Conditions and Investigations

Site condition risk is driven by the level of site and subsurface uncertainty and the extent to which conditions can be characterized prior to procurement. The ability to define baseline conditions directly affects pricing, contingency levels, and the potential for claims. For additional information on site conditions, refer to [23 CFR 635.109\(a\)](#).

DESIGN-BID-BUILD

Site conditions are typically investigated and defined during the design phase. Risk is largely retained by the Owner, with the objective of minimizing change orders and claims during construction through more complete pre-procurement information.

CM/GC

Site condition risks can be progressively evaluated through collaboration among the Owner, designer, and contractor. This allows investigation strategies and risk allocation to evolve alongside design development prior to establishment of the contract price.

DESIGN-BUILD

Site condition risk can be transferred to the design-builder to the extent that conditions and contractual baselines are clearly defined and associated third party approval processes are prescribed. In practice, incomplete definition often results in increased contingencies. Owner-performed investigations such as topography survey, hazardous material investigation, and baseline geotechnical investigation, can be used to establish a baseline and reduce duplication of effort.



b) Utilities

Utility risk is influenced by ownership (public vs. private), the need for third-party coordination, and the level of design completion at procurement.

DESIGN-BID-BUILD

Utility coordination and relocation are addressed prior to procurement with risk largely retained by the Owner.

CM/GC

Utility risks can be evaluated and managed collaboratively, allowing coordination strategies and sequencing to be refined during design.

DESIGN-BUILD

Utility responsibilities are allocated through contract requirements. Risks that are clearly defined, particularly for public utilities, can be assigned to the design-builder, while coordination with private utilities often remains sensitive due to factors outside the design-builder's control.

c) Railroads (if applicable)

Railroad-related risk is largely driven by third-party control, coordination requirements, and the time needed to secure agreements and approvals. These factors can significantly influence both project schedule and the ability to define and allocate responsibilities.

DESIGN-BID-BUILD

Railroad risk is largely retained by the Owner. Railroad coordination, agreements, and relocation designs are resolved prior to procurement with the objective of minimizing construction-phase impacts.

CM/GC

Railroad risk can be evaluated collaboratively by the Owner, designer, and contractor. This approach allows for iterative development of solutions; however, extended coordination timelines may influence the timing of cost negotiations

DESIGN-BUILD

Railroad coordination and schedule risks should be well understood to be properly allocated and are often best assumed by the Owner. Railroad design risks can be allocated to the design-builder if well defined. Best to obtain an agreement with railroad defining responsibilities prior to procurement



d) Drainage/Water Quality Best Management Practices (construction and permanent)

Both drainage and water quality often involve third party coordination that needs to be carefully assessed regarding risk allocation. Water quality requirements are evolving which can complicate the development of technical requirements for projects.

Key considerations include compatibility with offsite systems, adequacy of existing infrastructure, clarity of design criteria, and availability of right-of-way.

DESIGN-BID-BUILD

Drainage and water quality elements are developed and defined during the design phase. Risk is retained by the Owner to minimize uncertainty during construction.

CM/GC

Drainage and water quality risks, including coordination and approval requirements, can be evaluated collaboratively. This allows design development, constructability considerations, and risk allocation to evolve prior to establishment of the contract price.

DESIGN-BUILD

Risks related to drainage design and water quality can be allocated to the design-builder where performance requirements and constraints are clearly defined. Risks associated with third-party approvals and offsite system compatibility often remain sensitive to external factors and may be managed by the Owner or addressed through pre-procurement agreements.



e) Environmental

Environmental risk is driven by regulatory compliance requirements, approval processes, and commitments established through environmental documentation. These risks often involve multiple agencies and may affect both design development and construction activities.

DESIGN-BID-BUILD

Environmental commitments and requirements are incorporated in the design phase. Risk is retained by the Owner to minimize changes during construction through defined requirements.

CM/GC

Environmental risks and responsibilities can be identified and evaluated collaboratively allowing coordination with regulatory agencies and refinement of mitigation measures prior to establishment of the contract price.

DESIGN-BUILD

Environmental responsibilities that are clearly defined in the contract documents may be allocated to the design-builder. Agreements or MOUs with approval agencies are best reached by the Owner prior to procurement.

f) Third Party Involvement

Third-party involvement and agreements introduce risks related to performance, coordination, and accountability. The timing and extent of impacts from third parties, including funding partners, local agencies, neighboring property owners, project stakeholders, FHWA, etc., may affect project delivery, potentially resulting in delays, increased costs, or scope changes.

DESIGN-BID-BUILD

Third-party requirements and approvals are addressed during the design phase. Risk is largely retained by the Owner.

CM/GC

Third-party coordination and approvals can be managed collaboratively allowing stakeholder input and requirements to be incorporated as the design develops and prior to establishment of the contract price.

DESIGN-BUILD

Third-party approvals that can be clearly defined may be allocated to the design-builder. Risks related to external decision-making and coordination are influenced by the extent to which requirements and agreements are established by the Owner prior to procurement.



General Project Risks

Environmental Risks	External Risks
<ul style="list-style-type: none"> • Delay in review of environmental documentation • Challenge in appropriate environmental documentation • Defined and non-defined hazardous waste • Environmental regulation changes • Environmental impact statement (EIS) required. • NEPA/ 404 Merger Process required. 	<ul style="list-style-type: none"> • Stakeholders request late changes. • Influential stakeholders request additional needs to serve their own commercial purposes. • Community relations • Conformance with regulations/guidelines/ design criteria • Intergovernmental agreements and jurisdiction
Third-Party Risks	Geotechnical and Hazmat Risks
<ul style="list-style-type: none"> • Unforeseen delays • Encounter unexpected utilities during construction. • Cost sharing with utilities not as planned. • Utility integration with project not as planned. • Coordination with other projects • Coordination with other government agencies 	<ul style="list-style-type: none"> • Unexpected geotechnical issues • Surveys late and/or contains errors • Hazardous waste site analysis incomplete or in error • Inadequate geotechnical investigations • Adverse groundwater conditions • Other general geotechnical risks
Right-of-Way/ Real Estate Risks	Design Risks
<ul style="list-style-type: none"> • Railroad involvement • Objections to ROW appraisal take more time and/or money. • Excessive relocation or demolition • Acquisition ROW problems • Difficult or additional condemnation • Additional ROW purchase due to alignment change 	<ul style="list-style-type: none"> • Design is incomplete/ Design exceptions. • Scope definition is poor or incomplete. • Project purpose and need are poorly defined. • Communication breakdown with project team • Constructability of design issues • Project complexity - scope, schedule, objectives, cost, and deliverables - are not clearly understood
Organizational Risks	Construction Risks
<ul style="list-style-type: none"> • Inexperienced staff assigned. • Losing critical staff at crucial point of the project • Functional units not available or overloaded • No control over staff priorities • Lack of coordination/ communication • Local agency issues • Internal red tape causes delay getting approvals, decisions. • Too many projects/ new priority projects inserted into program 	<ul style="list-style-type: none"> • Pressure to deliver project on an accelerated schedule. • Inaccurate contract time estimates • Construction QC/QA issues • Unclear contract documents • Problem with construction sequencing/ staging/ phasing • Maintenance of Traffic/ Work Zone Traffic Control

5) Potential Opportunities, and Obstacles for Risk

DESIGN-BID-BUILD

- Clear, well-established risk allocation.
- Risks can be addressed upfront through complete design (environmental, ROW, utilities, third parties).
- Flexibility to delay procurement until risks are resolved.
- Owner retains most risk, including design unknowns.
- Limited contractor input and innovation.
- Exposure to low-bid procurement and change order risk.

CM/GC

- Early contractor involvement improves understanding and management of unknowns
- Flexible and innovative risk allocation (e.g., schedule, phasing, means and methods)
- Enhanced cost control through collaboration
- Reduces low-bid procurement risks
- Requires strong owner oversight and negotiation
- Cost risks (e.g., CAP increases) as unknowns are discovered, especially in phased work
- Potential disagreements among owner, designer, and contractor
- Limited competition if CAP negotiations fail
- Less incentive to control smaller cost items
- Risk management limited to CM and Owner team's capabilities

DESIGN-BUILD

- Performance-based specifications enable flexible risk transfer
- Well-defined risk-reward structure
- Encourages innovation and collaboration between designer and contractor
- Industry input on risk allocation (e.g., draft RFP, ATCs)
- Reduces low-bid procurement risks
- Integrates risk identification across specialty units and third parties.
- Limited time to resolve risks before contract award
- Greater risk transfer to design-builder (e.g., design errors/omissions)
- Poorly defined risks can significantly increase cost
- Potential quality impacts if teams minimize cost to manage risk
- Risks tied to third-party agreements when design is incomplete.



6) Potential Opportunities, and Obstacles for **Staff Experience and Availability**

DESIGN-BID-BUILD

- High level of familiarity among owners, contractors, and consultants
- Designers are more interchangeable across projects
- Staff responsibilities are distributed over a longer design timeline
- Requires a relatively high level of owner technical staffing
- Staff may need a broad range of technical expertise across disciplines

CM/GC

- Greater efficiency relying on project managers rather than highly specialized technical staff
- Reduced need for owner technical staff when using a consultant designer
- Requires strong owner project management for success
- Opportunity for staff development through adoption of a new delivery method
- Limited availability of staff with the skills and experience to manage CM/GC projects
- Existing staff may require training to adapt to evolving roles
- Owner must develop capability in negotiating Guaranteed Maximum Price / CAP contracts
- Owner must develop capability in sophisticated risk management

DESIGN-BUILD

- Reduced owner staffing needs (after procurement) due to single-point responsibility
- Opportunity for staff development through adoption of a new delivery method
- Limited availability of experienced staff to manage DB projects
- Existing staff may require training to adapt to new roles
- Requires concentrated owner involvement including specialty units at key milestones (e.g., RFP development, design reviews)

7) Potential Opportunities, and Obstacles for **Level of Oversight and Control**

DESIGN-BID-BUILD

- Full owner control within a linear design–bid–build process
- Oversight roles and responsibilities are well established
- Contract documents are complete prior to construction
- Multiple control/check points across defined project phases
- Maximum control over design outcomes
- Requires a high level of owner oversight and involvement
- Increased potential for claims due to owner-held design responsibility
- Limited integration between design and construction phases
- Full owner control over a linear design and construction process

CM/GC

- Preconstruction services provide early contractor input.
- Enhances constructability, innovation, and coordination.
- Maintains owner influence within an integrated design–construction process.
- Requires experienced owner staff to effectively oversee the CM/GC.
- Increased need for cost monitoring and oversight during design and construction.

DESIGN-BUILD

- Single entity responsible for both design and construction
- Streamlined project planning and scheduling
- Encourages innovation and constructability through integrated delivery
- Reduced owner control over design details
- Requires strong design and construction quality assurance oversight
- Control depends heavily on well-defined technical requirements
- Limited availability of staff experienced in DB oversight

8) Competition and Contractor Experience

DESIGN-BID-BUILD

- Lower pursuit costs support broader participation across contractor pool
- High level of market competition
- Open to all reasonably qualified bidders
- Transparent and well-understood procurement process
- Contractors are highly familiar with the delivery method
- Selection based primarily on low bid may not yield the best-qualified contractor
- No contractor input during design
- Limited ability to consider qualifications in contractor selection

CM/GC

- Project size, complexity, and risk profile must justify contractor participation in a negotiated procurement process.
- Enables qualifications-based contractor selection
- Owner selects designer and contractor independently
- Early contractor involvement fosters collaboration and team integration
- Encourages innovation through a diverse project team
- Pricing developed with a single contractor reduces competitive tension
- Success depends on effective teamwork and communication

DESIGN-BUILD

- High cost of proposal development may discourage participation if contract value is not sufficient
- Market viability depends on attracting enough qualified design-build teams to ensure meaningful competition
- Balances qualifications and cost through best-value selection
- Two-phase procurement encourages strong team formation
- Promotes innovation through integrated design-builder teams
- Differences in owner and contractor experience with DB can create challenges