Construction Contract Decision Matrix
Final Version
October 2019
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Overview

The following Contract Type Decision Tool (Decision Tool) provides a process to assist the North Carolina Department of Transportation (NCDOT or Department) in selecting the most appropriate project delivery method for all of its projects. The Decision Tool includes forms and questions for use by Department staff, consultants (as applicable), and/or the Project Manager (the Project Team). Each team member should be familiar with the alternative contracting delivery methods discussed herein, the overview of these delivery methods provided below, and the applicable reference links attached. By using this, the Project Team can arrive at a recommended contract type (or delivery method as defined below). This recommendation will be forwarded to the Division Engineer for a final determination on the contract type/delivery method.

The primary objectives of this document are to:

- Present a structured approach to evaluate different delivery method for eventual recommendation;
- Assist in determining if there is a dominant or obvious choice for how to deliver the project; and
- Provide a recommendation based on a consensus opinion by the Project Team.

Definition of Delivery Method/Contract Type

Currently, there are four types of project delivery methods available for publicly-funded transportation projects in North Carolina. The following paragraphs only briefly describe each delivery method. For a more complete description and timeline comparison, see Appendix A.

- **Design Bid Build (DBB)** is the traditional delivery method in which an agency designs a project and awards a construction contract to the lowest bidder based on a completed design and associated construction documents. The agency “owns” the details of design during construction and the risk associated with any change conditions, unknowns, errors, or omissions encountered during construction.

- **Design Build (DB)** is a project delivery method in which the agency contracts with a single entity to complete design and construction for a project. Characteristically, the project will have been designed to approximately 15 to 30 percent and will have a well-defined scope and allocation of project risks at the point invitations to bid are requested via a low-bid or value-based procurement. The design-builder retains the risks associated with design, quantities, constructability, etc., which are normally retained by the agency, resulting in greater cost and schedule certainty.

- **Construction Manager/General Contractor (CM/GC)** is a project delivery method by which the agency leads a coordinated design and contractor team to develop design and construction documents in a manner to minimize overall project risk, improve delivery schedule, and apply potential innovation to meet or exceed project goals. The designer and contractor are independently contracted and directly, but separately accountable to the agency.
Characteristically, a project will have been designed to approximately 5 to 10 percent and will have a partially defined scope and limited definition/allocation of project risk when the designer and contractor are each procured via qualifications-based selection to participate in the pre-construction phase.

With the contractor engaged early in the design phase, the contractor is in a position to offer its expertise with regard to the schedule, budget, constructability, as well as the identification, evaluation, and mitigation of risk. Upon final design of the project, or a portion thereof, the agency will ask the contractor to submit a fixed-price bid. If agreeable to the agency, the contractor and agency will enter into a fixed-price contract based on a reasonable final cost and time of construction to complete the project. This method allows the agency to control the development of scope, understand and allocate project risk, encourage the use of new construction techniques, and phase the project to reduce overall delivery costs and schedule. If the parties cannot agree on a fixed price, the agency and contractor may negotiate reassignment of risk or the agency may separate from the contractor and release the project for bid using the DBB method.

• **Progressive Design Build (PDB)** is a project delivery method in which the agency contracts directly with a single entity (the PDB team) that includes both a designer and contractor. The agency oversees and directs the PDB team when finalizing the project’s scope and developing the design/construction documents to minimize overall project risk, improve delivery schedule, and apply potential innovation (including contractor-led input) to meet or exceed project goals. Under this deliver method, a project will have been designed to approximately 5 to 10 percent and will have only a partially defined scope and have limited definition/allocation of project risk when the PDB team is procured via qualifications-based selection to participate in the pre-construction phase.

With the PDB team selected early in the scoping/design phase, the contractor is in a position to offer its expertise with regard to the schedule, budget, constructability, as well as the identification, evaluation, and mitigation of risk. Upon final design of the project (led by the contractor’s designer as part of the PDB team), or a portion thereof, a lump sum (DB type) bid may be used to contract the construction phase (or a portion thereof). Otherwise, project development may continue forward until a fixed-price (CM/GC type) is agreed upon or the agency completes the design phase, separates from the PDB team, and releases the project for bid using the DBB method.

**Step-by-step Project Delivery Selection Approach**

The Project Team should use their professional judgment when recommending the most appropriate delivery method. The following tool provides a systematic approach to understanding the delivery options; evaluating potential delivery methods; compiling the results in descending preference; and recommending the appropriate delivery method for the project.

**Step 1** is for the Project Team to obtain a complete understanding of the project. By reviewing the project scoping report, the Project Team should have an understanding of the overall project goals, risks, funding constraints, and stakeholder needs.
Step 2 is for the Project Team to evaluate the appropriateness of each delivery method for the project via five distinct criteria:

1. Cost Impacts
2. Schedule Impacts
3. Opportunity to Manage Risk
4. Complexity of Design and Construction Phasing
5. Opportunity for Innovation

This Decision Tool provides a list of typical advantages and disadvantages associated with each method to be considered when evaluating a delivery. This list of advantages and disadvantages is not exhaustive, and the Project Team will need to supplement additional characteristics, when appropriate, to further describe the advantages and disadvantages of each delivery method based on their knowledge and professional judgment.

In referencing the advantages and disadvantages as well as the Project’s goals, challenges, opportunities, risks, and complexities, the Project Team will form a consensus opinion of the most appropriate delivery method for each of the five criteria, summarizing the key issues to arrive at this opinion.

For each of the five criteria, the Project Team should consider the preferred delivery method in descending order by circling the Green = Most appropriate Yellow = Neutral Orange = Least Appropriate markers. Note: Each delivery method must be rated by one of the three colors under each criterion, and green may only be used once under each criterion.
**Criterion 1: Cost Impacts**

**Overview:** This criterion considers aspects of project cost as evaluated with respect to previously defined budget goals, e.g., the ability of a given delivery method to handle budget restrictions, identify early and precise cost estimates, and control of all project costs, not just construction. In other words, this criterion assesses the abilities of each delivery method in terms of cost estimating and project budget control.

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
<th>Preference (Circle One)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBB</td>
<td>• NCDOT is assured the lowest price of the bid package because of competitive bidding.</td>
<td>• NCDOT may experience less cost certainty from change orders stemming from errors, omissions, and unknowns.</td>
<td>Green = Most appropriate, Yellow = Neutral, Orange = Least Appropriate</td>
</tr>
</tbody>
</table>
| DB              | • NCDOT may benefit from documentation of a fair price due to competitive bidding.  
• NCDOT may benefit from cost certainty at the award of construction (e.g., no or limited change orders) due to the contractor’s ownership of or increased knowledge of project risks.  
• NCDOT may benefit from cost certainty because the contractor accepts the risks associated with design, quantities, constructability, etc.  
• NCDOT may benefit from Alternative Technical Concepts from losing proposers who received a stipend. | • NCDOT may experience an increase in cost for transfer of risk to the contractor.  
• NCDOT may not receive full cost savings for contractor innovation.  
• NCDOT pays for RFP development by multiple contractors.  
• NCDOT pays for contractor involvement in design work.  
• NCDOT experiences increased internal costs for staff to administer procurement and support the design phase. | |
| CMGC            | • NCDOT may benefit from cost certainty at the award of construction (e.g., no or limited change orders) due to the contractor’s ownership of risk, the team’s increased knowledge of project risks, and the owner’s issues being addressed prior to price development.  
• NCDOT may reduce overall project costs from avoidance, allocation, or mitigation of a project’s risks during design development.  
• NCDOT may reduce overall project costs from contractor input on constructability, cost/schedule saving innovations, and value engineering input.  
• NCDOT may arrive at better quality design solutions with contractor input. | • NCDOT pays for contractor involvement in design work.  
• NCDOT is not assured of receiving the lowest price without competitive bidding.  
• NCDOT experiences increased internal costs for staff to administer procurement and support the design phase. | |
| PDB             | • NCDOT may benefit from cost certainty at the award of construction (e.g., no or limited change orders) due to the contractor’s ownership of risk, the team’s increased knowledge of project risks, and the owner’s issues being addressed prior to price development.  
• NCDOT may reduce overall project costs from avoidance, allocation, or mitigation of a project’s risks during design development.  
• NCDOT may reduce overall project costs from contractor input on constructability, cost/schedule saving innovations, and value engineering input.  
• NCDOT may arrive at better quality design solutions with contractor input. | • NCDOT pays for contractor involvement in design work.  
• NCDOT is not assured of receiving the lowest price without competitive bidding.  
• NCDOT experiences increased internal costs for staff to administer procurement and support the pre-construction phase. | |

1 **Note:** Each delivery method must be rated by one of the three colors, and green may only be used once. **Green** = Most appropriate, **Yellow** = Neutral, **Orange** = Least Appropriate
Summary of key issues justifying the above opinion:
## Criterion 2: Schedule Impacts

**Overview:** This criterion considers aspects of project schedule including the ability to shorten the schedule and the opportunity to control and prevent time growth. In other words, this criterion addresses the abilities of each delivery method in terms of schedule compression and control.

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
<th>Preference (Circle One)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBB</td>
<td>• NCDOT can expect a higher probability of completing construction on schedule because third-party agreements (e.g., right-of-way acquisition, utilities, railroads) are normally completed prior to construction beginning.</td>
<td>• NCDOT may experience a delay in project completion stemming from time extensions to resolve errors, omissions, and unknowns in construction. • NCDOT may have a delay in schedule due to the awarding of an under-qualified, low-bid contractor. • NCDOT may experience schedule delay because the DBB process is normally sequential with few options to accelerate delivery.</td>
<td>![Preference](Circle One)</td>
</tr>
<tr>
<td>DB</td>
<td>• NCDOT can expect a higher probability of completing construction on schedule because the contractor accepts the schedule risks associated with design, quantities, constructability, etc. • NCDOT may benefit from the potential for a shortened project delivery due to parallel design and construction activity.</td>
<td>• NCDOT may have to allot considerable time and staff effort for the preparation and evaluation of the RFQ and RFP.</td>
<td>![Preference](Circle One)</td>
</tr>
<tr>
<td>CMGC</td>
<td>• NCDOT may be able to compress the schedule through an early start and the shortening of the amount of time between design and construction (e.g., early procurement of long lead items, utility relocation, earthwork, etc.). • NCDOT may be able to take advantage of an innovative approach to maintenance of traffic or construction sequencing, reducing delay to the travelling public.</td>
<td>• NCDOT may experience an increase in schedule due to the time needed to agree on price or, in the extreme case in the absence of an agreement, requiring advertising for competitive bids.</td>
<td>![Preference](Circle One)</td>
</tr>
<tr>
<td>PDB</td>
<td>• NCDOT can expect a higher probability of completing construction on schedule because the contractor accepts the schedule risks associated with design, quantities, constructability, etc. • NCDOT may be able to compress the schedule through an early start and the shortening of the amount of time between design and construction (e.g., early procurement of long lead items, utility relocation, earthwork, etc.). • NCDOT may be able to take advantage of an innovative approach to maintenance of traffic or construction sequencing, reducing delay to the travelling public. • NCDOT may benefit from the potential for a shortened project delivery due to parallel design and construction activity.</td>
<td>• NCDOT may experience an increase in schedule due to not reaching an agreement for the construction phase, requiring advertising for competitive bids.</td>
<td>![Preference](Circle One)</td>
</tr>
</tbody>
</table>

2 **Note:** Each delivery method must be rated by one of the three colors, and green may only be used once. Green = Most appropriate **Yellow** = Neutral **Orange** = Least Appropriate
Summary of key issues justifying the above opinion:

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
### Criterion 3: Opportunity to Manage Risk

**Overview:** Every project has some level of risk during various phases of its project development, and each delivery method handles risks differently in their ability to identify, quantify, and mitigate risks. The most effective approach to manage and allocate risks is to assign project risks to the parties in the best position to manage them.

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
<th>Preference (Circle One&lt;sup&gt;3&lt;/sup&gt;)</th>
</tr>
</thead>
</table>
| DBB             | • NCDOT has the ability to mitigate risks that they may be positioned best to manage (e.g., third party utilities and right-of-way acquisitions), reducing potential risks, and offering more project certainty. | • NCDOT may experience more change orders because they own risks associated with design, quantities, constructability, etc.  
• NCDOT is in the position of managing risk during construction, which is the most expensive time to resolve issues. | 🟢 🟡 🟠 |
| DB              | • NCDOT may experience fewer change orders because the contractor owns the risks associated with design, quantities, constructability, etc.  
• NCDOT is able to relinquish risks better managed by the contractor because the contractor’s design and approach are tailored to the contractor’s abilities. | • NCDOT may experience fewer bidders because of an increase in proposal costs.  
• NCDOT may inappropriately relinquish risk to the contractor that NCDOT is more capable of managing, causing a negative impact to schedule, cost, or the public.  
• NCDOT may experience less innovation as the contractor may not introduce new construction methods or techniques to avoid taking on risk. | 🟠 🟡 🟢 |
| CM/GC           | • NCDOT may reduce project risks resulting in improvements to schedule, cost, safety, quality, and public impacts because of contractor input during development of design.  
• NCDOT may reduce the risk of design rework and project unknowns (e.g., reduce right-of-way impacts and acquisitions and identify utilities before construction). | • NCDOT is least able to manage the risk of the public’s and industry’s perception of cost reasonableness.  
• NCDOT is least able to manage the risk of the public’s and industry’s perception of a CM/GC selection. | 🟡 🟠 🟢 |
| PDB             | • NCDOT may experience fewer change orders because the contractor owns the risks associated with design, quantities, constructability, etc.  
• NCDOT is able to relinquish risks better managed by the contractor because the contractor’s design and approach are tailored to the contractor’s abilities.  
• NCDOT may reduce project risks resulting in improvements to schedule, cost, safety, quality, and public impacts because of contractor input during development of design.  
• NCDOT may reduce the risk of design rework and project unknowns (e.g., reduce right-of-way impacts and acquisitions and identify utilities before construction). | • NCDOT is least able to manage the risk of the public’s and industry’s perception of cost reasonableness.  
• NCDOT is least able to manage the risk of the public’s and industry’s perception of a PDB selection. | 🟠 🟢 🟡 |

<sup>3</sup> **Note:** Each delivery method must be rated by one of the three colors, and green may only be used once. Green = Most appropriate  Yellow = Neutral  Orange = Least Appropriate

NCDOT Contract Type Decision Tool  
10/1/2019
Summary of key issues justifying the above opinion:
Criterion 4: Complexity of Design and Construction Phasing

**Overview:** This criterion considers aspects of a project that are unique or more complex than normally encountered. The factors may be associated with the unique project scope, goals, and objectives specified by the Department. Complexity may occur in the uniqueness of design, maintenance of traffic, phasing of the project, constructability, location of the project, unknowns, etc.

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
<th>Preference (Circle One <em>4</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBB</td>
<td>• NCDOT has more time to develop design solutions.</td>
<td>• NCDOT would not gain constructability value from a contractor until after award, thereby potentially losing the benefit of cost savings.</td>
<td><img src="Green" alt="Green" /> <img src="Neutral" alt="Yellow" /> ![Orange](Least Appropriate)</td>
</tr>
</tbody>
</table>
| DB              | • NCDOT can transfer complexity-related risks that could be better managed by the contractor, potentially improving constructability and reducing errors and change orders.  
• NCDOT gains the benefit of innovative ideas being integrated early in the design process. | • NCDOT has less control of the design and implementation.  
• NCDOT may incur unexpected project results due to the difficulty in scoping the unique issues and complexities of a project. | ![Green](Neutral) ![Yellow](Most Appropriate) ![Orange](Least Appropriate) |
| CM/GC           | • NCDOT gains the benefit of innovative ideas focused on reducing project complexity being integrated early in the design process.  
• NCDOT may potentially reduce and mitigate project complexity through design, thereby gaining more certainty to cost, quality, and schedule delivery and construction. | • NCDOT may be in an undesirable negotiating position having to retain the contractor for subsequent construction project phases. | ![Green](Most Appropriate) ![Yellow](Neutral) ![Orange](Least Appropriate) |
| PDB             | • NCDOT can identify complexity early in the scoping/design process that could be better managed by the contractor, potentially improving constructability and reducing errors and change orders.  
• NCDOT gains the benefit of innovative ideas focused on reducing project complexity being integrated early in the design process.  
• NCDOT may potentially reduce and mitigate project complexity through design, thereby gaining more certainty to cost, quality, and schedule delivery and construction. | • NCDOT may be in an undesirable negotiating position having to retain the contractor for subsequent construction project phases. | ![Green](Neutral) ![Yellow](Neutral) ![Orange](Least Appropriate) |

*4 Note: Each delivery method must be rated by one of the three colors, and green may only be used once. Green = Most appropriate  Yellow = Neutral  Orange = Least Appropriate*
Summary of key issues justifying the above opinion:

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________
## Criterion 5: Opportunity for Innovation

**Overview:** This criterion considers the opportunity for encouraging and integrating innovation for new designs, products, technologies, project approaches, and construction techniques to achieve the project’s goals.

<table>
<thead>
<tr>
<th>Delivery Method</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
<th>Preference (Circle One⁵)</th>
</tr>
</thead>
</table>
| **DBB**         | • NCDOT can select innovation independent of the contractor’s experience or abilities.  
• NCDOT may gain greater buy-in of the agency for the implementation of innovation ideas given the agency’s control of the value engineering process.  
• NCDOT has more time to explore and integrate opportunities for innovation. | • NCDOT may be limited to integrate innovations by using a low-bid contractor instead of a contractor selected on qualifications.  
• NCDOT may incur cost and/or schedule impacts from introduction of NCDOT-derived innovations that may not be constructible.  
• NCDOT may have to dedicate additional resources to approve and confirm the success of innovative concepts. | Green Yellow Orange |
| **DB**          | • NCDOT gains the benefit of contractor-derived innovative ideas being introduced early in the design process. | • NCDOT may not experience the full opportunity to innovate because innovation may be limited by contractor abilities, comfort, and time constraints to prepare an RFP.  
• NCDOT may not realize savings from innovations because the saving usually accrues to the contractor. | Green Yellow Orange |
| **CMGC**        | • NCDOT can encourage innovation because risk and project details are better identified and communicated.  
• NCDOT can reduce the constraints related to the contractor’s abilities, level of comfort with innovative concepts, or time constraints, providing for increased opportunities for innovation.  
• NCDOT can benefit from contractor participation in helping to mitigate potential risk through the introduction of new technologies or innovative delivery. | • NCDOT may experience difficulty in negotiating the guaranteed maximum price due to inherent unknowns associated with the introduction of new innovative concepts. | Green Yellow Orange |
| **PDB**         | • NCDOT gains the benefit of contractor-derived innovative ideas being introduced early in the design process.  
• NCDOT can encourage innovation because risk and project details are better identified and communicated.  
• NCDOT can reduce the constraints related to the contractor’s abilities, level of comfort with innovative concepts, or time constraints, providing for increased opportunities for innovation.  
• NCDOT can benefit from contractor participation in helping to mitigate potential risk through the introduction of new technologies or innovative delivery. | • NCDOT may experience difficulty in negotiating the fixed-price or lump sum price due to inherent unknowns associated with the introduction of innovative concepts. | Green Yellow Orange |

⁵ **Note:** Each delivery method must be rated by one of the three colors, and green may only be used once. Green = Most appropriate  Yellow = Neutral  Orange = Least Appropriate
Summary of key issues justifying the above opinion:
Step 3a involves the color coding of each criterion cell based on the colors assigned in Step 2. An example of a completed table is provided.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>DBB</th>
<th>DB</th>
<th>CM/GC</th>
<th>PDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion 1: Cost Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion 2: Schedule Impacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion 3: Opportunity to Manage Risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion 4: Complexity of Design and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Phasing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion 5: Opportunity for Innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step 3b is where the Project Manager and the Project Team summarize the delivery method preference. The Project Team will indicate (with a green, yellow, and orange color coding) the recommended delivery method for the project under evaluation. The recommended delivery method will be identified as green in a table similar to the example below, which shows that the CM/GC delivery method is the recommended delivery method for the evaluated project.

Recommended Delivery Method

<table>
<thead>
<tr>
<th>DBB</th>
<th>DB</th>
<th>CM/GC</th>
<th>PDB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Project Manager is to use the attached Project Delivery Method Recommendation Form (Appendix B) to provide a delivery method recommendation to the Division Engineer for the project. Procurement and execution, FHWA input, current market conditions, and other factors.
Appendix A

Project Delivery Methods
### Essential Elements

- **Traditional delivery system**
- **Owner contracts separately for design and construction services**
- **Bid based on complete (100%) plans and specifications**
- **Owner retains high level of control and risk**

### Applicability

- **Projects where the owner needs to completely define the scope.**
- **Project scope can be best defined using prescriptive specifications.**
- **Significant risks or third-party issues (ROW, utility, environmental) that can be best resolved or managed by the agency.**

### Advantages

- **Applicable to a wide range of projects**
- **Well established and easily understood**
- **Owner retains design control**
- **Provides the lowest initial price that responsible, competitive bidders can offer**
- **No legal barriers in procurement and licensing**
- **Well established legal precedents**

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### Design-Build

- **Owner**
  - **Design**
  - **Contractor**

### Construction Manager/ GM GC

- **Owner**
  - **Design**
  - **CM/GC**

### Design-Build (DB)

- **Owner**
  - **Program Manager**
  - **Design-Builder**

### Progressive Design-Build (PDB)

- **Owner**
  - **Construction Manager**

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### Design-Build

- **Combines design and construction under a single contract**
- **Two phase selection process utilizing qualification in the first phase and price plus technical components in the second phase**
- **Traditionally a lump sum contract**

### Construction Manager/ GM GC

- **Owner retains design control**
- **Significant risks or third-party issues (ROW, utility, environmental) that can be best resolved or managed by the agency.**
- **Owner retains high level of control and risk**
- **Traditional delivery system**
- **No legal barriers in procurement and licensing**
- **Provides the lowest initial price that responsible, competitive bidders can offer**
- **Well established and easily understood**
- **Applicable to a wide range of projects**
- **Project scope can be best defined using prescriptive specifications.**
- **Owner contracts separately for design and construction services**
- **Owner engages a construction manager (CM) to act as a construction advisor during pre-construction and general contractor (GC) during construction.**

### Design-Build (DB)

- **Projects that benefit from innovation in design or construction**
- **Projects having a high sense of urgency that would benefit from an expedited project delivery**
- **Time or funding constraints**
- **Projects having manageable public controversy, third party issues or environmental issues**
- **Performance specifications**

### Progressive Design-Build (PDB)

- **Projects where owner requires greater control of design**
- **Projects with multiple phases or contracts**
- **Go slow to go fast**
- **Concept level only scope**
- **Complete or obtainable environmental documents and permits for the entire project**
- **Established project footprint**
- **Projects having manageable public controversy, third party issues or environmental issues**
- **Performance specifications**

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### NCDOT Contract Type Decision Tool

10/1/2019
### Project Delivery Sequence

#### Design-Bid-Build
- Finalized Design
- Advertise/Bid
- Construction

#### CM/GC
- Preliminary Design
- Detailed/Final Design
- CM/GC Procure
- Construction

#### Design-Build
- Preliminary Design
- Design-Build Procurement
- Detailed/Final Design
- Construction

#### Progressive Design-Build
- Concept/Design
- Detailed/Final Design
- PDB Procure
- Construction

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### Risks/Limitations

<table>
<thead>
<tr>
<th>Procurement Methods</th>
<th>Risks/Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM/GC</td>
<td>Tends to yield base level quality</td>
</tr>
<tr>
<td></td>
<td>Higher level of inspection/testing by the agency</td>
</tr>
<tr>
<td></td>
<td>Initial low bid might not result in ultimate lowest cost or final best value</td>
</tr>
<tr>
<td></td>
<td>Agency bears risk of design adequacy</td>
</tr>
<tr>
<td></td>
<td>Potential appearance of unfairness in sole source selection process.</td>
</tr>
<tr>
<td></td>
<td>Potential for failure to agree on price and may require extra time to send project out for bid</td>
</tr>
<tr>
<td></td>
<td>Added CM fees during pre-construction</td>
</tr>
<tr>
<td></td>
<td>Fair market price - not “lowest price”</td>
</tr>
<tr>
<td></td>
<td>Potential to reduce opportunities for smaller construction firms</td>
</tr>
<tr>
<td></td>
<td>Less owner control over final design</td>
</tr>
<tr>
<td></td>
<td>Higher procurement costs and stipends for proposers</td>
</tr>
<tr>
<td></td>
<td>Traditional funding may not support fast-tracking construction or may require accelerated cash flow</td>
</tr>
<tr>
<td></td>
<td>Considerable time needed for RFP creation</td>
</tr>
<tr>
<td></td>
<td>Potential appearance of unfairness in sole source construction selection process</td>
</tr>
<tr>
<td></td>
<td>Potential for failure to agree on price and may require extra time to send project out for bid</td>
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<tr>
<td></td>
<td>Fair market price - not “lowest price”</td>
</tr>
<tr>
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<td>Considerable time needed for RFP creation</td>
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<td>Potential to reduce opportunities for smaller construction firms</td>
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<td>Concerns about severing relationship with Progressive Design-Build team cleanly and selecting a new contractor using traditional Design-Bid-Build procurement</td>
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</tbody>
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### Legend:
- **Red** – Similarities between CM/GC and PDB
- **Blue** – Similarities between DB and PDB
- **Green** – Similarities between CM/GC, DB and PDB
- **Black** – Unique to each Project Delivery Method
Delivery Method/Contract Type Recommendation Form

Project Name: __

<table>
<thead>
<tr>
<th>Criterion</th>
<th>DBB</th>
<th>DB</th>
<th>CM/GC</th>
<th>PDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criterion 1: Cost Impacts</td>
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<tr>
<td>Criterion 2: Schedule Impacts</td>
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<td>Criterion 3: Opportunity to Manage Risk</td>
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<td>Criterion 4: Complexity of Design and Construction Phasing</td>
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<td>Criterion 5: Opportunity for Innovation</td>
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Green = Most appropriate  Yellow = Neutral  Orange = Least Appropriate

Recommended Delivery Method

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<thead>
<tr>
<th>Recommended Delivery Method</th>
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<tbody>
<tr>
<td>DBB</td>
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</table>

Summary of key issues justifying the above opinion:

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