

CAPITAL PROJECTS ADVISORY REVIEW BOARD

Review of WSDOT Projects

Pursuant to ESBH 2134

Part 2B:

WSDOT Project M00800R

US 395 North Spokane Corridor – I-90 Connection

Projects: F00015G, F30015R, F00015T, F30015S

Report to the Legislature

December 1, 2024

Presented to:

The Washington State Office of Financial Management,

The Washington State Department of Transportation, and

The Joint Transportation Committee of the Washington State Legislature

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1. Introduction and Executive Summary

1.1. Recommendation:

CPARB has reviewed the information for the projects noted below and for the reasons set forth below recommends that WSDOT continue with the use of the Design-Bid-Build delivery method pursuant to RCW Title 47 and RCW 39.04 for the following projects:

- WSDOT Project M00800R US 395 North Spokane Corridor - I-90 Connection (4 projects):
 - TMC Hub Project F00015G
 - F30015R
 - F00015T
 - F30015S

This report is the final report from CPARB pursuant to ES 2134.

1.2. Background:

CPARB incorporates into this Report Part 2B the background information from Part 1 of its Report pursuant to ESBH 2134 dated [July 1, 2024](#), and Part 2A of this report, dated [October 1, 2024](#).

2. WSDOT Project Delivery Method Review Task Force Process

The WSDOT Project Delivery Method Review Task Force (Task Force) discussed the projects in this report in meetings from August 7, 2024, to November 13, 2024. During these meetings, the Task Force gathered information from WSDOT, asked WSDOT personnel questions, reviewed the delivery method selected by WSDOT, and discussed recommendations regarding delivery methods. In addition to the Task Force members, members of the construction industry participated in the discussions. WSDOT has fully participated and provided information requested by the Task Force. CPARB wishes to thank WSDOT for the extent of its participation in this process.

CPARB recognizes that a number of universities and industry organizations have done research in alternative delivery methods. On September 18, 2024, the Task Force had guest presenters Keith Molenaar, PhD, FDBIA, Dean of the College of Engineering at the University of Colorado, and Douglas Gransberg, PhD, PE, Gransberg and Associates who presented national research that has been conducted on alternative delivery methods. Dr. Molenaar's and Dr. Gransberg's presentation and research can be found on the Task Force's web page.¹

3. WSDOT Project M00800R US 395 North Spokane Corridor, Project numbers: F00015G, F30015R, F00015T, F30015S

3.1. Project Description

The projects above were discussed by the Task Force on September 4, 2024. These projects were not initially included in the list of projects before the Task Force because three of them are valued under \$2,000,000 and, therefore, do not meet the underlying requirements for WSDOT to use any other delivery method than Design-Bid-Build (DBB). The fourth project had already been advertised for bid by March 2024 when the Legislature passed ESBH 2134, and the project has since been completed.

3.1.1. Scopes of Work and Current Status:

- F30015R, F30015T, and F30015S are all valued under \$2,000,000.
- F00015G was already awarded when the Legislature created the proviso and underway by the time the Task Force started its work.

3.2. WSDOT Rationale for Using Design-Bid-Build

WSDOT did not complete a Project Delivery Method Selection ("PDMS") Checklist because WSDOT is not allowed to utilize Design-Build (DB) for projects that are below \$2,000,000 pursuant to RCW 47.20.785. For F00015G, the project had already been bid before the passage of ESBH 2134, and by the time the Task Force started its review, the project had been fully completed.

3.3. CPARB Review of Delivery Method Selection

The Task Force reviewed the information from WSDOT and asked a number of questions during the meetings. The Task Force unanimously determined that (DBB) is the correct delivery method for the projects. Pursuant to RCW 47.20.785, WSDOT is not authorized to use DB on projects under \$2,000,000; therefore, projects F30015R, F30015T, and F30015S have not been reviewed because they are under \$2,000,000. With respect to project F00015G, the project has been bid and completed; therefore, the project was not included in the report. CPARB accepted the recommendations by the Task Force.

4. WSDOT Project M00800R US 395 North Spokane Corridor - I-90 Connection (4 projects)

4.1. Project Description

WSDOT provided the details of the US 395 North Spokane Corridor I-90 Connection Projects (“I-90 Connection Projects”) and answered the Task Force’s questions regarding the projects at the August 7, 2024, meeting.² The I-90 Projects were also discussed at subsequent meetings.

4.1.1. Project Budget and Scopes of Work:

- Funding and Budget
 - Funding Source: Connecting Washington Revenue
 - Cost Estimate Validation Process was recently completed.
 - Anticipated construction total for all projects: \$340 million - \$350 million.
 - Engineering spent to date: \$7.3 million.
 - ROW spent to date: \$360 million (total for the entire North Spokane Corridor Project)
 - Because the program is not currently funded up front, the program was broken into 4 projects to match when the projects would be funded.³
- The I-90 projects include 4 separate projects that are described in the August 7, 2024, presentation by WSDOT:
 1. **US 395/NSC I-90 Improvements – Hamilton to Thor:**
Local Road reconfiguration, I-90 widening, 4 bridges, retaining walls, stormwater, utilities, pedestrian bridges over I-90, and a shared use trail.
 2. **US 395/NEC Interchange – Stage 1:**
Constructs the northern half of 8 bridges connecting the North Spokane Corridor to I-90 and local service street (2nd Ave) as well as utilities, stormwater, and retaining walls.
 3. **US 395/NSC I-90 Improvements – Freya to Appleway:**
Includes a local road reconfiguration, I-90 widening, 2 bridges, retaining walls, stormwater, utilities, and a pedestrian bridge over I-90.
 4. **USC 395/NSC Interchange – Stage 2:**
Constructs the southern half of multiple structures (4 bridges) connecting the North Spokane Corridor to I-90, stormwater structures, and retaining walls.

4.1.2. Project Current Status:⁴

- Design Status:
 - The design is currently at 100% of the Design Development Phase and between 20 to 30% of the Final Engineering Phase. WSDOT has identified the basic configuration locking in the footprint of bridges, elevation, grades, and alignment.⁵
 - Utility crossings have been designed.⁶
- Environmental Documentation:
 - The NEPA process is complete with multiple re-evaluations completed.⁷
- Agreements:
 - The Interchange Justification report was complete in 2017. The draft update is finished and at FHWA for review.
 - The Agreements with the City for utility design work is completed.

- The project still needs to enter into the Agreements for City utility construction.
- The Right of Way has already been purchased.
- Anticipated Schedule:
 - Project 1: Hamilton to Thor. Scheduled to be bid in December 2025
 - Project 2: Stage 1: Scheduled to be bid in April 2026
 - Project 3: Freya to Appleyay: Scheduled to be bid in August 2026
 - Project 4: Stage 2: Scheduled to be bid in February 2027.
 - The schedules of the projects are synergistic and are timed not to stress the resources in the construction community.
 - All projects are anticipated to be completed by the end of 2030.

4.1.3. Project Risks and Opportunities

- Project Risks and Challenges:
 - Commitment to continuous, extensive Community Engagement/Involvement with historically underserved in influencing project outcomes in their respective neighborhood.
 - The community engagement and stakeholder involvement ranked very highly in the considerations of the delivery method for this project.
 - The community and stakeholder process for this project has been going on for 20-30 years and has significantly shaped the project. WSDOT has been working with this community for a long time.
 - When I-90 was first built, this community was separated. It is very important to the community that they have input into the functionality and the design to restore connection between the two halves of the community. The goal of the project team is to maintain the concept design which the community has approved and not reopen the design to additional community input as a risk mitigation strategy to avoid the potential for added costs, recognizing this risk mitigation strategy may reduce the opportunity for innovations that could be proposed by a design builder. WSDOT representatives stated their opinion that any savings resulting from a change in the footprint would be subsumed by the increased community engagement that would be required. The community has been underrepresented and underserved.
 - Design decisions that are incorporated into the project are a result of extensive community engagement. For example, the community engagement process determined how the architectural features look, how the shared path that crosses I-90 would touch down, and whether there are plazas for gathering points. Because these design elements were the subject of community engagement, WSDOT does not want to re-visit them with a DB team.⁸
 - The project also requires coordination and involvement of local and private utilities.
 - Market Conditions
 - Design Resources
 - Geotechnical Design (including boring scheduling)
 - Maintenance of Traffic During Construction
 - The program as currently envisioned will consist of 4 projects that could have overlapping construction and sequencing. The current schedule for procurement takes the potential overlap into account, and the contracts will have schedule requirements to order the work so that the work is coordinated and the overlap in projects is limited to the maintenance of traffic issues.⁹
- Project Opportunities
 - WSDOT has committed to completing the North Spokane Corridor by the end of 2030. The WSDOT project team desires the design to remain as envisioned because many of the features have been selected based on community engagement and not necessarily low cost. Cost saving opportunities that would be incentivized by a DB procurement process are seen as a potential risk to cost and schedule due to reopening the community engagement process that would outweigh the cost savings from innovation.

- Impact of Project Delay
 - The bid dates for these projects, which were previously scheduled, occur after the issuance of the report.
- Consideration of other delivery methods¹⁰
 - GC/CM and PDB may be helpful with the stakeholder engagement process; however, WSDOT's Eastern Region is a small one without quantity of projects that would justify staffing an office to administer GC/CM or PDB.
 - If the project switched to DB, WSDOT would not save significant time. WSDOT believes the RFP would be very complex and they would not be able to get the RFQ out for a year.
 - Breaking the project into 4 separate projects was a result of a cash flow issue and how the funding will be obligated. If the project changed to DB, WSDOT would have to receive the funding up front, which would be an issue with cash flow because the funding is currently not obligated.

4.2. WSDOT Rationale for Using Design-Bid-Build

WSDOT completed a Project Delivery Method Selection ("PDMS") Checklist on 1/3/2024. *Section 5.3, Appendix B.2.* The PDMS Checklist notes the following rationale for selecting DBB; however, the criteria for this project were quite close: 1065 points for DBB and 966 points for DB.

- Schedule:
 - The goal of meeting a specific completion date of 2030 weighed in favor of DB.
 - The goal of timely and effective engagement with the community prior to final design weighed in favor of DBB.
 - The goal of resource availability weighed in favor of DB.
- Cost/Funding
 - The goal of minimizing project cost without impacting expected community outcomes weighed in favor of DBB.
 - The goal of completing the project on budget was tied between DB and DBB.
 - The goal of meeting third party (Avista, City of Spokane) requirements with possible impacts in design and construction weighed in favor of DBB.
 - The goal of obligating the funds sooner weighed in favor of DB.
- Standards:
 - The goal of meeting or exceeding project quality/scope requirements – utilizing opportunities for innovation weighed in favor of DB.
 - The goal of the Owner requiring control of design to meet specific design and construction constraints and/or standards (such as aesthetics) weighed in favor of DBB.
 - The goal of WSDOT maintaining control of specific project elements (such as significant ROW or environmental impacts) weighs in favor of DBB.
 - The goal of WSDOT maintaining control of community engagement through design in a manner that influences outcomes weighs in favor of DBB.
- Function/Innovation:
 - The goal to minimize maintenance and operations costs (assuming that they are not part of a DB contract) weighs in favor of DBB.
 - The goal of maximizing capacity and mobility of improvements weighs in favor of DB.
 - The goal to minimize impacts to the public and/or local businesses during construction weighs in favor of DB.
 - The goal of incorporating opportunities for innovation and efficiencies to meet specific requirements weighs in favor of DB.
 - The goal of minimizing project permanent area impact (footprint) weighs in favor of DB.
 - The goal to provide improved accessibility for multi-modal users weighs in favor of DB.

4.3. CPARB Review of Delivery Method Selection for North Spokane Corridor I-90 Connection Projects

The Task Force reviewed the information from WSDOT and asked a number of questions during the meetings. The majority of the Task Force determined that DBB is the correct delivery method for this project. CPARB has accepted this determination. The determination from the Task Force was not unanimous. Seven members of the Task Force voted in favor of the determination, and two voted against. The rationale for the votes was stated in the meeting as follows:

Votes in favor of Design-Bid-Build:

- The funding for the project is a limiting factor on being able to use DB. Because the projects are interrelated, DB works best if the project were a single project instead of four; however, DB projects require that the funding be obligated up front, and the funding for this project will not be obligated in full for a while.
- The community engagement process has been going on for a long time and has taken significant effort to establish trust. Altering the delivery method to DB might have significant impacts on the decisions made during the community engagement process. In addition, the opportunities for innovation are stifled by the decisions made through the community engagement process such that there is very little additional innovation remaining at this time.
- Although PDB and GC/CM would allow for better incorporation of community input, the stakeholder input has already been received, and the community is ready to see the project built. In addition, WSDOT's Eastern Region does not have the quantity of projects that would justify staffing an office to administer GC/CM or PDB. WSDOT as a whole does not have sufficient experience with GC/CM and using it on these projects would require development of the processes and contracts to be able to use the delivery method.
- Design-Build might have been a potential delivery method choice for this project, but the design is at a level of completion that would minimize the benefits of that method when considering the timeframe to "convert" from DBB to DB

Votes In Favor of Design-Build

- The status of the design is similar to what is common in other DB projects, and even though there are aspects of the project that WSDOT does not want to change, there appear to be opportunities with respect to means and methods, scheduling, and other possible innovations that could still provide value.
- The Legislature's primary concern appears to be achieving cost certainty, and the decisions made by WSDOT to prioritize community input and outreach over potential cost savings is understandable but seems contrary to maximizing cost certainty.

5. CPARB Recommendations for Use of Alternative Delivery Methods

CPARB makes the following recommendations to improve WSDOT's selection and use of project delivery methods:

5.1. Design-Build Delivery under RCW 47.20

- In DB projects, WSDOT should consider allowing finalists to provide input to WSDOT during one-on-one meetings regarding pricing and possible escalation in costs since the development of the Cost Estimate Validation Process (CEVP). Suggestions on how such communications could occur include:
 - A request from WSDOT for proposers to identify any portion of the project requirements that unnecessarily increase the cost of the project and suggestions to mitigate the problem.
 - A question from WSDOT to proposers to identify any specific issues with escalation that may impact the project cost.
 - A question from WSDOT early in the RFP process to proposers regarding whether the published cost range for the project is reasonable.
 - Early communication to the industry and possible modification of the RFP documents to reflect escalation or other changes in the project that may impact cost after the development of the CEVP.

- WSDOT should examine its current CEVP practices and determine whether there are other areas that could be improved in the estimating process.
 - Review justification to award memos to adjust future estimates.
 - Conduct the CEVP in a timely manner and as close to the advertisement for the project as possible.
 - Include consideration of the delivery method as part of the CEVP.
- WSDOT should foster robust communication with the construction industry early in the project development regarding potential issues with supply chain, escalation, or other price-based issues so that these risks can be included in the CEVP process.
- WSDOT should consider the use of a budgeting technique that establishes a fixed upper limit for the project budget and treats the scope of the work as a variable, much like an “accordion”. Suggestions to utilize this technique include:
 - WSDOT could identify a base scope and then identify alternates with optional scope. Proposers would put together a package to maximize the scope under the budget.
 - For this technique to be successful, WSDOT would base the selection, in part, on the best overall scope within the fixed budget.
- WSDOT should examine national trends on risk transfer in large DB projects and review risk with the industry including the following:
 - Splitting projects into manageable projects
 - Eliminating inequitable risk transfer
 - Options for insurance packages
 - Difficulties with the inability of contractors to bond large projects.
 - Discuss issues with the inability of contractors to bond large projects.
- Discussions within WSDOT should be specific to each project and should be broader to include the industry.
- Consider adding a question in the checklist that asks whether the agency has sufficient budget to use the delivery method.
- If project costs start to outweigh the benefits or allocated budget, WSDOT should be more willing to stop and re-think the viability of the project. WSDOT should include adherence to the budget as part of the process of evaluating the delivery method.
- WSDOT should consider splitting mega projects into smaller projects to increase competition and reduce risk to the parties proposing on the projects. Construction companies will have difficulty obtaining the required statutory bond for more than \$500 million.
- The contracting model does not have a big impact on the overall project costs.
- The success of an alternative delivery project is dependent on the relationship between the owner and the contractor. When an owner treats a contractor fairly, the pricing of the project will reflect the trust the owner has established in the community.
- WSDOT is significantly challenged in staying within the engineer’s estimate because the legislature obligates the funds so early in the process based on engineer’s estimates that are very early in design. It is too early to expect a reliable estimate that can provide cost certainty.
- WSDOT should consider incorporating a higher contingency in addition to engineer’s estimate to account for the initial design maturity and project uncertainties. This contingency should be systematically adjusted and calibrated as the project progresses and design details mature, ensuring risk management remains adaptive and aligned with project development.

5.2. Delivery Under Other Alternative Delivery Methods

- WSDOT should further develop its PDB processes and expertise and consider the delivery method for additional projects as it becomes appropriate.
- WSDOT should explore the use of GC/CM for future projects (and Heavy Civil GC/CM) including conducting industry research, and discussions with other practitioners of GC/CM (and Heavy Civil GC/CM). This methodology can provide multiple benefits including:
 - Early Contractor input during design providing opportunity to find innovations and efficiencies much like DB and PDB.
 - Early contractor estimates, assisting in identification of budget/scope misalignments; with the Owner, Designer and GC/CM working collaboratively on targeting the highest cost/highest cost items for value engineering.
 - Opportunities for early risk identification and risk allocation during the design phase, while retaining Owner choice of which to implement through all phases of design.
 - Owners' can mitigate risks to scope and schedule that may arise from 3rd parties (such as sensitive public engagement projects) by retaining ownership of the design.
- WSDOT should consider requesting that the legislature add PDB and GC/CM to the authorizing legislation under RCW 47.20.

Appendices

A. Meeting Minutes of CPARB WSDOT Project Delivery Method Task Force.

1. August 7, 2024: [2024-08-07-WSDOT-PDMR-TF-meeting-notes.pdf](#)
2. August 21, 2024: [2024-08-21-WSDOT-PDMR-TF-Minutes.pdf](#)
3. September 4, 2024: [2024-09-04-WSDOT-TF-Notes.pdf](#)
4. September 18, 2024: [2024-09-18-WSDOT-PDMR-TF-minutes.pdf](#)
5. October 7, 2024: [2024-10-02-WSDOT-PDMR-TF-minutes.pdf](#)
6. October 16, 2024: [2024-10-16-WSDOT-PDMR-TF-minutes.pdf](#)
7. October 30, 2024: [2024-10-30-WSDOT-PDMR-TF-minutes.pdf](#)

B. SR 395 North Spokane Corridor I-90 Connection Projects

1. WSDOT Project Information: [WSDOT-TF-2024-01-01-US395-newsletter.pdf](#)
2. PDMS Checklist: [PDMSG-Matrix Sprague Ave tl.xlsx](#)
3. [WSDOT Presentation August 7, 2024:](#)
 - Stage 1 - Hamilton Street to Thor Street local connections and ramp structures, with construction starting in the spring of 2026.
 - Stage 2 - NSC/I-90 interchange structures with construction starting in late summer 2026.
 - Stage 3 - Freya Street to Sprague Avenue interchange, local street connections and ramp structures with construction starting in either late 2026 or spring 2027.
 - Stage 4 - NSC/I-90 interchange structures with construction starting in spring 2027.

¹ 9/18/2024 Presentation by Dr. Keith Molenaar and Dr. Douglas Gransberg. [PowerPoint Presentation](#)

² 8/7/2024 Presentation by WSDOT on M00800R, SR 395 North Spokane Corridor Remaining Projects I-90 Connection

³ 10/16/2024 Task Force meeting notes.

⁴ WSDOT presented these projects to the Task Force on 8/7/2024. The projects were further discussed at the 10/2/2024 and 10/16/2024 Task Force meetings.

⁵ 10/16/2024 Task Force meeting notes.

⁶ 10/16/2024 Task Force meeting notes.

⁷ 10/16/2024 Task Force meeting notes.

⁸ 10/2/2024 Task Force meeting notes.

⁹ 10/2/2024 Task Force meeting notes.

¹⁰ 10/2/2024 Task Force meeting notes.