



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Department of Transportation and Public Facilities

DESIGN AND ENGINEERING SERVICES
Highway Design

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June 14, 2023

Sandra A. Garcia-Aline
Federal Highway Administration
Alaska Division Administrator
PO Box 21648
Juneau, Alaska 99802-1648

RE: **Special Experimental Project Number 14 (SEP-14)** *(Revised)*
Sterling Safety Corridor Improvements MP 82.5 to 94
Federal Project No. 0A33026 / State Project No. CFHWY00130

Dear Ms. Garcia-Aline:

Alaska Department of Transportation and Public Facilities (DOT&PF) requests approval to use the Progressive Design-Build (PDB) delivery method on the Sterling Safety Corridor Improvements project. This delivery method will award the contract using a qualifications-based selection process. This SEP-14 approval is requested to waive the requirements of 23 CFR 636.302(a)(1).

For your review and approval, please find the SEP-14 Workplan attached. Please advise if you have any comments or questions

Sincerely,

A handwritten signature in cursive script that reads "Julia Hanson".

Julia Hanson, P.E.
Project Manager

Special Experimental Project No. 14 (SEP-14)

Alternative Contracting Workplan for Sterling Safety Corridor Improvements MP 82.5 to 94

Purpose

The purpose of the project is to realize and evaluate the benefits of the Progressive Design-Build (PDB) project delivery method on the Sterling Safety Corridor Improvements MP 82.5 to 94 project (herein called the Project).

DOT&PF expects to realize the following benefits by using PDB on this project:

- The ability to collaborate with the Contractor during design.
- The ability to mitigate and distribute risk in collaboration with the Contractor.
- The ability to continue stakeholder engagement in the project section that has some controversy while advancing construction in uncontroversial areas through early work packages.
- Expedited design and construction schedule through collaboration with the contractor and early work packages.
- Real-time construction cost estimating to support design decisions.

Under 23 CFR 636.302(a)(1), evaluation of price is required in the selection of a design-builder if the contract is awarded after the NEPA process is complete. The Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) were approved¹ on December 16, 2021. DOT&PF proposes to select the design-builder using a qualifications-based selection process.

DOT&PF also wishes to use PDB on this and one other project² to develop the agency's capacity for using alternative project delivery methods. DOT&PF typically uses the design-bid-build method. Previous experience with design-build contracting has had mixed results. More recently, DOT&PF has used the Construction Manager/General Contractor method with positive results.

Scope

Project Scope

The Project will improve safety and congestion on the Sterling Highway between Sterling and Soldotna, on the Kenai Peninsula in Alaska (see Figure 1). This portion of highway was designated as a Traffic Safety Corridor (TSC) in 2009 due to its unacceptably high count of fatal and major injury crashes. The TSC designation is a temporary measure until permanent road construction projects can mitigate underlying problems. DOT&PF intends to improve safety and remove the need for the TSC designation by constructing the Preferred Alternative defined in the EA.

¹ The Project was previously intended for delivery by a traditional design-build contract and a reevaluation has been started for that purpose. After changing the delivery method, the reevaluation is no longer required by policy but is very near completion and will be completed and approved prior to contract award to provide a clear demarcation of environmental work completed by DOT&PF and work to be completed by the PDB contractor.

² The Seward Hwy: Sterling Hwy Intersection Improvements project will also be delivered with PDB. That contract will be awarded prior to completing NEPA and does not require SEP-14 approval.

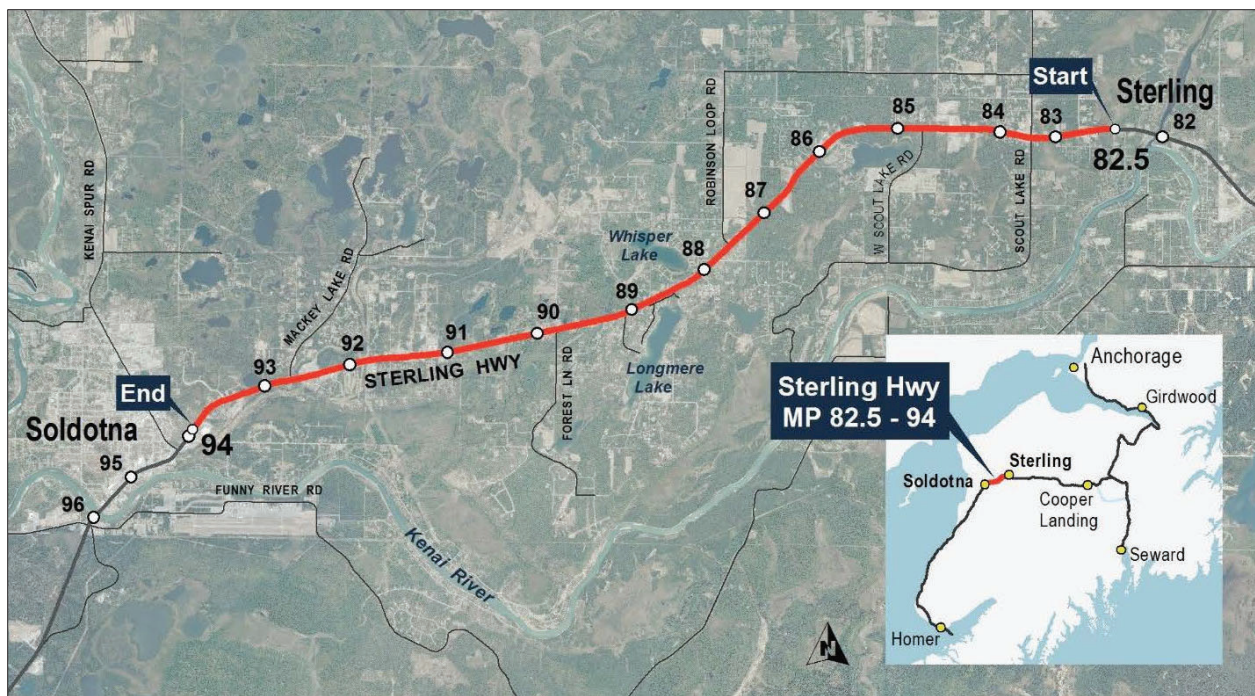


Figure 1: Location & Vicinity Map

The existing rural highway has two 12-foot lanes, eight-foot paved shoulders, 6:1 side slopes and left-turn lanes at major cross-street intersections. The posted speed limit is 55 mph with reductions to 45 mph through Sterling and 35 mph through Soldotna. No dedicated passing lanes or slow-vehicle turnouts exist, but there are several areas striped for passing. Informal trails created by all-terrain vehicles (ATV) parallel the highway corridor, but there are no formal non-motorized facilities. There are approximately 55 side streets and 115 driveways with direct highway access.

The Preferred Alternative will widen the highway to four lanes, divided with a depressed median, as shown in Alternative A in Figure 2. East of Handley Street in Sterling, and west of Kleeb Loop in Soldotna, the highway section will transition to four lanes divided with a center two-way, left turn lane to match the existing lane configurations in Sterling and Soldotna, as shown in Alternative B in Figure 2. Additional improvements include median breaks approximately every half-mile with dedicated left-turn lanes; frontage roads and pedestrian facilities; utility relocations; vegetation clearing; drainage improvements; and roadside hardware upgrades.

Procurement Plan

DOT&PF will solicit and select the successful design-build team through a Competitive Sealed Proposal process, as defined in the department’s Professional Services Agreement (PSA) Manual dated January 2018. DOT&PF will publicly advertise a Request for Proposals (RFP)³. Proposals will be evaluated by a committee of 3-5 professionals with experience in highway design, construction, alternative procurement methods, and/or technical areas significant to the Project.

³ Many states do this as a two-step process – issuing a Request for Qualifications (RFQ), and then distributing the RFP only to the highest respondents – but DOT&PF will skip the RFQ. This is because there are only a few contractors in Alaska that have the capacity and expertise to do alternative delivery projects of this size. We expect to receive fewer than five responses to the RFP.

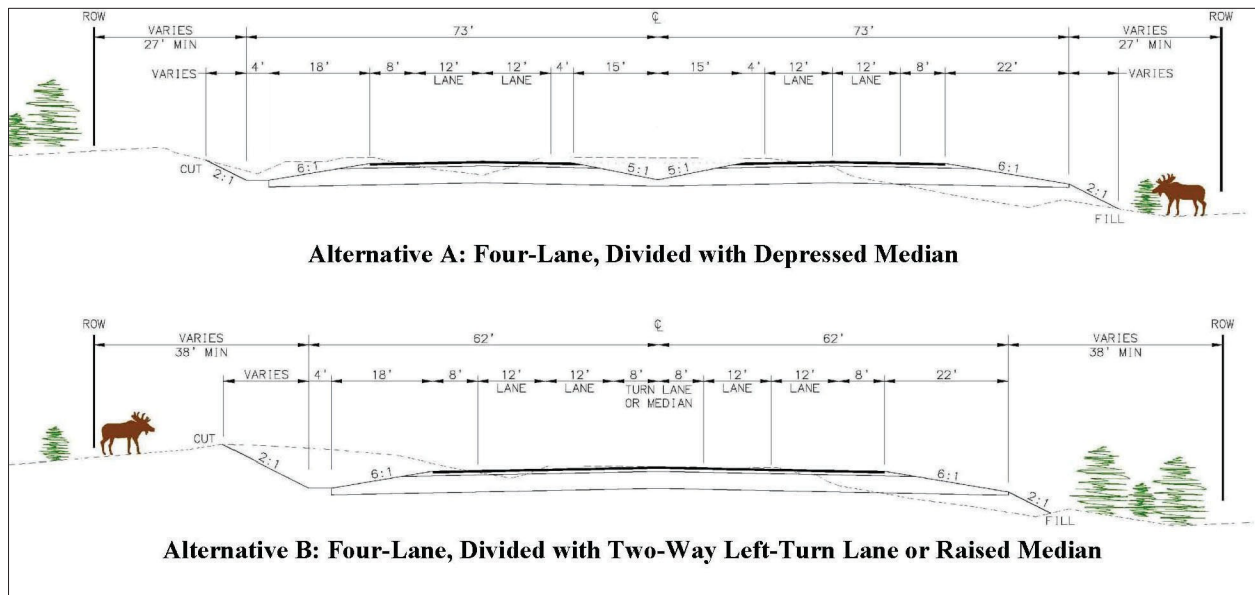


Figure 2: Preferred Alternative Typical Sections

DOT&PF will negotiate pre-construction phase costs with the proposer selected by the committee.

The proposal process will follow existing processes and procedures for professional services agreements. The RFP will identify the evaluation criteria and evaluation process. The evaluation criteria will include:

- **Organization and Experience.** Proposers will be asked to describe the administrative structure and organizational experience in comparable projects, alternative contracting methods, federally funded projects, etc.
- **Project Team Experience and Capabilities.** Proposers will be asked to identify the key members of the design-build team and describe their relevant experience and capabilities.
- **Project Approach.** This criterion will provide an opportunity for proposers to earn points for their preliminary ideas related to project execution. Such ideas might include design alternatives, possible construction phasing/early work packages, or approaches to specific design or public involvement issues.
- **Financial Condition and Capacity.** Proposers will be asked to demonstrate their financial standing with factors that include bonding capacity, insurance, and recent arbitration or litigation.
- **Safety and Quality.** Proposers will be asked to describe their past safety and quality control experiences and proposed safety and quality control programs for the project. Factors to be considered will include the proposer's incidence rate, worker's compensation modifier, and experience in successfully implementing quality control programs on comparable projects.

The final evaluation criterion will aid price negotiations by asking the respondents to propose their Overhead & Profit rate (as a percent of construction cost) and hourly Time and Expense rates for key design-phase staff. Requesting this information with the proposal will allow future negotiations to focus on scope and cost, avoiding disagreements about profit. This criterion will have some points to encourage respondents to be reasonably competitive but will be minor compared to the qualifications-based criteria described above.

The total points for all criteria will add up to 100. The distribution of points is yet to be determined. The selection committee will recommend negotiating with the highest scoring proposer.

The project will occur in two phases:

- The preconstruction services phase will include a contract for design and engineering the project to approximately 60-75% completion. During this phase, the contractor and DOT&PF will work together to develop the major design elements and specifications, schedule, and risk profile. This phase will involve an ongoing cost negotiation to ultimately agree on a Target Maximum Price (TMP). Once we have agreement on these terms, DOT&PF will award a design-build contract.
- The construction services phase will include final design and construction of the project. The contract may be awarded in multiple work packages, allowing construction to begin on early work packages while design and negotiation continues for the remaining work.

DOT&PF will pattern the preconstruction services contract after the normal design services PSA's. This template will be modified to include the builder's role in estimating and value input during design and to incorporate lessons learned and favorable practices used by other state DOTs and recommended by industry experts. Two such modifications include:

- Early Work Packages. The preconstruction services contract will include a specification allowing DOT&PF to procure an early work package if construction risks have been addressed and the scope of work is defined sufficiently for DOT&PF and the PDB contractor to reasonably determine a price.
- Off Ramp. The preconstruction services contract will include a specification allowing DOT&PF to initiate a new procurement process for completing the work if the Department and contractor can't agree on a reasonable price.

Independent Cost Estimator

DOT&PF will solicit a separate PSA for an Independent Cost Estimator (ICE). The ICE will provide independent estimating to aid DOT&PF in price negotiations with the contractor and ensure the agreed price is reasonable and fair for the scope of work.

State of Alaska Statutory Authority

AS 36.30.308 authorizes the use of Innovative Procurements with approval from the DOT Commissioner and concurrence from the Department of Law. In-state approvals are being submitted concurrently with this workplan.

Schedule

| | |
|--|----------------------------|
| RFP: advertisement through selection | July – September 2023 |
| Preconstruction phase negotiations | September – November 2023 |
| Award contract | December 2023 |
| Design and construction phase negotiations | December 2023 – April 2026 |
| Construction phase | April 2025 – October 2028 |
| Project complete | October 2028 |

Measures

Schedule

Table 1 shows the anticipated timelines for design-bid-build (DBB), traditional design-build (DB), and PDB project delivery methods. Generally, we expect DB and PDB to be significantly

faster than DBB. DOT&PF will measure the project duration against the expected DBB schedule.

Table 1: Project delivery schedule by method

| | DBB | DB | PDB |
|--|------------------|------------------|------------------|
| Preconstruction / Design Activities | 7/2023 – 7/2026 | 1/2023 – 3/2025 | 7/2023 – 4/2026 |
| Construction | 8/2026 – 10/2030 | 4/2025 – 10/2028 | 4/2025 – 10/2028 |

Scope

PDB was chosen over DB because of the ability to collaborate on scope and make decisions regarding desired features with real-time cost data provided by the contractor. This creates a potential to include features that might otherwise be considered too expensive. The RFP will include a list of required and desired project outcomes. The project will keep track of which outcomes are achieved, and which are omitted to measure the scope-management benefits of PDB.

Budget

As described above, PDB allows the project team to make design decisions with real-time cost information. This information can be used to tailor the project scope to fit the budget. The project will track actual costs against the budgeted costs in order to measure the budget-control benefits of PDB.

Reporting

DOT&PF will prepare and submit to FHWA initial, interim, and final reports on this Project.

Initial Report

The initial report will be prepared following award of the preconstruction services contract. The initial report will include industry reaction to the PDB procurement process, a discussion of the contract negotiation process, and a breakdown of the design-builder's costs for preconstruction services, including compliance with FAR cost principles.

Interim Reports

DOT&PF will prepare an interim report following award of each work package. This report will describe DOT&PF's experience with the open book negotiation procedures, DOT&PF's approach to determining price reasonableness, and reactions in the subcontractor community, as well as any identifiable effects of the PDB approach on the final pricing.

Subsequent interim reports will update observations from previous reports and discuss lessons learned as the preconstruction process evolves including how negotiations vary between each work package.

Final Report

A final report will be submitted upon completion and acceptance of all contracted work. The final report will contain an overall evaluation of the project and an assessment of whether the desired benefits were achieved through this delivery method.

Off Ramp Report

If DOT&PF exercises the off-ramp option, the final report will be prepared after the new procurement method is under way. This report will discuss lessons learned and reasons for using the off-ramp.