



ACQUISITION
AND SUSTAINMENT

DEPUTY UNDER SECRETARY OF DEFENSE
3015 DEFENSE PENTAGON
WASHINGTON, DC 20301-3015

JUL 26 2024

The Honorable Tom Cole
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The explanatory statement accompanying H.R. 2617, the Consolidated Appropriations Act, 2023 (division J, Public Law 117-328), page 5, expresses the Committee's concern that the DoD is not being proactive in determining future cost increases when developing and submitting military construction project cost estimates to Congress, and requests the Secretary of Defense, in consultation with the Services, the U.S. Army Corps of Engineers, and the Naval Facilities Engineering Systems Command, to report on specific and repeatable steps taken to improve cost estimating for military construction projects submitted to Congress for authorization. This letter provides the Department's report. The Department is late in delivering the report due to staffing levels and task priorities.

The Department acknowledges the immense challenge of the last several years to manage and adequately fund the military construction program and is grateful for the Committee's willingness to address the problem through additional funding. The abnormal construction price escalation resulting from widespread pandemic-induced supply chain disruptions and labor shortages, coupled with general inflation, was unforeseen when the impacted projects were submitted to Congress for authorization. From January 2019 to mid-2023, construction price escalation measured by the DoD Selling Price Index averaged 6.6 percent annualized, compared to a 2001-2019 historical average of 3.7 percent. The challenge to anticipate and mitigate future price increases was (and is) further exacerbated by the time required for the Department to finalize its budget in advance of submitting it to Congress, which extends the period between the final budget estimate and the planned midpoint of construction (the notional target date for calculating price escalation) to three years or more. Nevertheless, options to improve the reliability of estimates sent to Congress and mitigate the risk of future price increases do exist and have been implemented as a key component of the Military Construction reform initiative.

To lay the groundwork, we established department-wide policy in March 2020 to transform the basis of project budget estimates to improve their reliability to achieve full project scope. The policy consists of two main elements:

- Application of relevant cost industry recommended practices to provide a picture of anticipated project financial risk to the sponsor. Project sponsors must employ the project's designated DoD construction agent (DCA) or a suitable proxy to generate a "range estimate" and determine the risk-neutral value using cost and schedule risk analysis. This estimate represents a range of possible costs and the associated probability

The estimated cost of this report or study for the Department of Defense is approximately \$11,000 for the 2024 Fiscal Year. This includes \$500 in expenses and \$10,500 in DoD labor.

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(or “level of confidence”) of each to achieve full project scope. This analysis includes consideration for future price escalation and its possible deviation from forecast due to any cause (such as unexpected increases in material prices, reduced labor availability, or increased construction market demand). The analysis also includes consideration of estimate variability due to the level of project definition represented by the degree of completeness of planning and design deliverables.

- An assessment of the budget estimate by the project’s designated DCA. The DoD Component project sponsor must obtain an overall assessment of the proposed project budget estimate by the designated DCA before submitting the project into the budget review process in advance of the President’s budget submission to Congress. This ensures that a DCA cost engineer reviews the project estimate even if it has been produced by another organization. The DCA assessment includes evaluation of the range estimate’s cost-confidence curve in consideration of other risk variables including the maturity of project definition documentation (often called the “percent design”) used as the basis for the estimate, and other contributing factors such as project complexity and currency of cost data sources.

These requirements have been phased in over the last four years. With the budget request for FY 2024 and thereafter, DCA assessments are required for all projects, and determining the risk-neutral estimate using cost and schedule risk analysis is required for every project with an initial budget estimate greater than \$20 million.

Since the Department issued its guidance, the construction cost estimating technical community has actively implemented both the new policy direction as well as related Government Accountability Office recommendations for cost estimating best practices. This effort primarily focused on expanding DoD Unified Facilities Criteria (UFC) 3-740-05 *Construction Cost Estimating* in December 2022 with a new chapter on cost and schedule risk analysis employing Monte Carlo simulation to develop range estimates, along with publication of associated templates for conducting these analyses. This chapter includes detailed guidance on responsibilities of participants, use of documentation and the template, the analysis process, risk register development, and output deliverables. Key principles include the following:

- Involve knowledgeable cost engineering expertise early in the process during both planning and design charrettes.
- Begin the cost and schedule risk analysis process with development of a project-specific list of possible risks and their likely effects early in the project timeline—during planning.
- Employ actual market data to the extent possible for materials and labor through manufacturer quotes, market surveys, published rates, and delivery times for high dollar items in the estimate.
- Develop risk-based project dollar contingency amounts to achieve the estimate level of confidence desired by the project sponsor.

- Train project managers on basic cost engineering principles and requirements.

In addition to the Department-wide technical guidance represented in UFC 3-740-05, both the U.S. Army Corps of Engineers (USACE) and the Naval Facilities Engineering Systems Command (NAVFAC) have developed specific guidance and practice to improve construction cost estimates within their own organizations. Most notably, this includes guidance to inform assumptions of future cost change to escalate estimates from current values to a future target date (typically three years into the future). NAVFAC has employed an economist since late 2020 to regularly update its construction price escalation forecast and its associated methodology.

Proper consideration of cost risk for an estimate two or three years into the future requires the project team to understand the types of risk and the measures available to prevent or mitigate it. These risks are generally classified as systemic (not based upon events—such as the level of scope definition, uniqueness of facility design, or inherent variability of work estimates and prices) and project-specific (based upon events such as supply chain disruption and material shortages, unforeseen site conditions, requirement changes, labor shortages, and extraordinary fuel and energy price fluctuations). Although the current process for budget estimate development focuses on identifying and mitigating systemic risks, USACE and NAVFAC are also working to develop better methods to identify project-specific risks and mitigate them wherever feasible.

In practice, the adoption of a process and tools to gain insight into the relationship of project cost and risk has begun a transformation in how the Department establishes budget estimates for military construction projects. Project resource sponsors are now making risk-informed decisions and selecting a “level of confidence” about the cost estimate. At the same time, all project stakeholders are gaining a deeper understanding of the relationship of project scope and cost to the types of risks. As the Department gains experience in this arena, it will continue to refine both guidance to normalize and codify the level of acceptable cost risk, and the practice of conducting cost and schedule risk analysis to represent risk more accurately. Throughout this transformation process, the goal remains unchanged: Improving the delivery of needed facilities to the warfighter and defense installations.

Thank you for your continued support of defense installations. I am sending an identical letter to the Senate Committee on Appropriations.

Sincerely,



Deborah G. Rosenblum
Acting

cc:

The Honorable Rosa L. DeLauro
Ranking Member



ACQUISITION
AND SUSTAINMENT

DEPUTY UNDER SECRETARY OF DEFENSE
3015 DEFENSE PENTAGON
WASHINGTON, DC 20301-3015

JUL 26 2024

The Honorable Patty Murray
Chair
Committee on Appropriations
United States Senate
Washington, DC 20510

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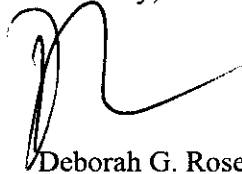
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Thank you for your continued support of defense installations. I am sending an identical letter to the House Committee on Appropriations.

Sincerely,

A handwritten signature in black ink, appearing to be 'D. Rosenblum', with a long horizontal flourish extending to the right.

Deborah G. Rosenblum
Acting

cc:

The Honorable Susan Collins
Vice Chairman