

WHITE PAPER

How to Recover the \$25 Billion Cost Overrun Problem in Defense Infrastructure

September 2025

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Summary

On-time, on-budget infrastructure is a critical enabler of US military readiness. Each year almost \$20 billion is invested in military construction (MILCON). At that scale, MILCON should be cheaper or at least on par with private sector construction. The opposite is true: on average, **MILCON projects take 30% longer and cost 25% more than like-for-like commercial builds**—even for straightforward facilities like warehouses, housing, and logistics centers. The result has been \$25 billion lost over the last five years and significant delays reducing warfighter efficacy.

To understand the root causes, we surveyed more than 30 senior leaders from engineering, procurement, and construction (EPC) companies that work on both private- and public-sector projects as well as leaders from the US Army Corps of Engineers (USACE), Naval Facilities Engineering Systems Command (NAVFAC), and project owners within the federal government. We combined that qualitative view with an analysis of hundreds of recent military construction projects and discovered four consistent drivers of MILCON underperformance:

1. Insufficient investment in planning and design.
2. Complexity due to larger projects.
3. Bureaucratic procurement processes.
4. Fragmented project ownership.

Fortunately, commercial best practices offer clear and specific approaches to address each issue. Some argue that military construction is unique, but in cases where these commercial-best practices have been implemented, both cost and schedule have been significantly improved. Getting this right is critical. Improving cost performance by 25% and delivering MILCON 30% faster is a transformational improvement worth over \$5 billion per year and delivers a significant improvement in the readiness of the warfighter.

Significant—and Growing—Gaps in Performance

It is likely not surprising that MILCON projects can be late and over-budget, but the actual numbers can be stark—and the issue is getting worse. That underperformance is not due to complex requirements. Since 2019, routine facility types—such as warehouses, logistics hubs, utilities, and operational support buildings—have made up over 75% of MILCON's annual project portfolio.

EXHIBIT 1

Average time from breaking ground to completion is 30% higher for MILCON than Commercial like for like project types

Project type	MILCON (avg yrs)	Commercial (avg yrs)	Difference (%)
Housing	3.4	2.4	42%
Infrastructure and Utilities	2.6	1.8	43%
Ops and Support	2.8	2.5	13%
Warehouses and Logistics	2.9	1.7	64%
Weighted Avg	2.9	2.2	+30%

The Root Causes of Underperformance

The respondents and data point to four issues creating the most persistent delivery challenges:

Insufficient investment in planning and design. MILCON projects invest on average 8% of their budgets on planning and design, compared to 16% in commercial settings. Although investing half as much, MILCON planning and design takes on average twice as long. In addition, the federal appropriations process means that many programs are funded years before ground-breaking, which means that site conditions and other requirements often change dramatically by the time construction starts.

Complexity due to larger projects. Since 2019, average MILCON project sizes have more than doubled (up 101%). A common misconception in MILCON projects is that bigger is better. But scale creates benefits only if projects are built using standard, modular designs that increase efficiency and allow projects to move down the experience curve. Instead, many MILCON projects are one-offs, and larger projects lead to increased complexity, more interdependencies, and budgets that grow in proportion to their size.

Bureaucratic procurement processes. Procurement in MILCON is often complex, bureaucratic, and slow. Approval cycles take nearly twice as long as the commercial sector—3.8 years versus two years. Additionally, contracting delivery models most used in MILCON decrease desirability and hence competition. Design-Bid Builds (DBBs) remain the dominant MILCON approach, primarily because they make budgets more transparent. However, DBB increases risks for EPCs because they build with assumptions that are locked in before the EPC firm can provide input.

In the past, EPC players were willing to compete despite these barriers, but demand for infrastructure has far outstripped capacity in the past three years, making it a seller’s market. Among contractors in our survey, 35% avoid MILCON projects entirely, citing inflexible rules and low incentives. Anecdotally, the number of vendors bidding on a typical MILCON project dropped from six in 2019 to just two in 2024.

Fragmented project ownership and inconsistent use of project management tools. Project execution across MILCON is split across multiple functions—planning, contracting, engineering, and oversight—with no single team accountable for outcomes across the lifecycle. Advanced tools such as Building Information Modeling (BIM) are used 25% as often as in private sector construction. These challenges are compounded by high personnel turnover: military leaders often rotate every two to three years, leading to a loss of institutional knowledge mid-project. The result is a stop-start execution model, increasing risks, costs, and schedules, while also reducing trust among contractors. Over 95% of MILCON projects we analyzed require significant change orders compared to 40% for like-for-like commercial projects.

Four Measures to Improve Project Delivery

To address each of these barriers, owners can apply proven, high-impact levers based on commercial benchmarks and BCG case experience across large capital programs:

1. Increase investment and velocity in planning and design: Increasing the planning and design budget for MILCON projects to commercial benchmarks—approximately 16% of total project cost—can significantly reduce delivery risk and make budgets more accurate. That preconstruction investment should include several key steps, including stress-testing schedule and budget estimates, integrated modeling using tools such as BIM and 5D solutions, and early-stage value engineering. Establishing and creating accountability to meet aggressive stage gates during planning can help leverage that increased investment to cut planning and design by as much as 50%.

In addition, MILCON projects should be broken down to manageable chunks, to avoid oversized, bundled awards that are difficult to execute or manage. And project owners can link funding to progress, designating key milestones in the process before releasing the next slice of capital. These actions have already led to significant gains in comparable federal infrastructure programs reducing estimate variance by 10% and avoiding more than \$180 million in overprogramming.

2. Standardize designs and use modular elements: Rather than starting each new project from a blank sheet of paper, use templated design packages and modular elements to create consistent, scalable baselines for project types, which can then be modified as needed for specific projects. To the max possible, leverage off-site manufacturing and prefabricated components. In one recent project, this approach improved construction productivity by approximately 15% and accelerated timeline by 18%.

3. Streamline contracting to attract more bidders: The third major improvement lever is to streamline contracting and create contracting types and mechanisms that are align with EPC motivations. Making procurement processes faster and more transparent will attract more bidders and increase price competition. The DoD can also scale back its use of Design-Bid-Build contracting and adapt more flexible models e.g. Progressive Design-Build, which allow EPC firms to engage earlier, understand risks more clearly, and avoid cost and time overruns. Programs that have implemented these practices have reduced costs by up to 25%, even as they improve vendor engagement.

4. Set a single accountable party to deliver and create program transparency through Impact Centers: Through the entire project, all stakeholders need to have a clear understanding of status, based on objective, accessible data. When everyone is aligned in this way, potential issues get surfaced early on, enabling project leads to resolve them before they cascade. A centralized program management office (PMO) can manage this information and coordinate among stakeholders. The PMO should ensure that vendors with the right level of technical expertise—including estimators, schedulers, contract specialists, and field engineers—are involved at the right junctures and report to a single accountable team. An Impact Center is a management tool that creates a common, shared site picture across all government parties and contractors. It is supported by standardized contractor reporting, analytical risk identification, and a fix-or-elevate mindset to rapidly address identified risks. Effective project management has reduced project costs by 10% to 15% and accelerated timelines by three to six months.

The \$5B per year opportunity

The US DOD has a mandate to use financial resources effectively and efficiently. This is especially true in MILCON where cost overruns and schedule delays hurt readiness. Aggressively implementing the best practices that we identified offers a clear opportunity to recover billions of dollars and significant time, while delivering the infrastructure necessary to support our nation's forces.

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