

*FEDERAL AGENCY USE OF
DESIGN-BUILD WITH
GUARANTEED MAXIMUM PRICE
A Design-Build Done Right™ Deeper Dive*



FEDERAL AGENCY USE OF DESIGN-BUILD WITH GUARANTEED MAXIMUM PRICE (GMP)

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INTRODUCTION

This Guidance on Federal Agency Use of Design-Build with Guaranteed Maximum Price flowed from discussions during the Federal Owners' Forum Series that The Design-Build Institute of America and Society of Military Engineers jointly host annually.

The primary goal of the Federal Owners' Forum Series is to facilitate improvement in federal project delivery by bringing together federal officials with similar responsibilities from different agencies – and thus different cultures and specific charges — to compare experiences, concerns, best practices, lessons learned, effective tools and methods for success. For more information on the Series, please contact DBIA.

DBIA thanks the federal agency officials who participated in the series. We also want to thank Joel T. Hoffman, PE, R-DBIA for his work on this document and the DBIA's Federal Markets Committee.

1. BASELINE COMPARISON: WHAT IS A GUARANTEED MAXIMUM PRICE CONTRACT?

Industry frequently makes use of a type of design-build contract called a Guaranteed Maximum Price ("GMP") contract. An industry cost-plus/GMP contract is essentially a hybrid contract combining the cost reimbursement features of a cost-plus

contract with the cost certainty of a lump sum (firm fixed-price) contract. The owner benefits by paying only the actual reimbursable costs and knowing that the project won't exceed an ultimate price ceiling. The contract includes a fixed fee. The contract also includes an incentive provision for sharing some or all cost savings to control costs within the price ceiling. Contractors that perform the contract for less than the estimated cost will share the cost savings with the buyer, meaning that contractors receive a higher fee, while, at the same time, reducing overall costs.

For example, assume that a contractor and buyer agreed that the appropriate estimated cost of a project was \$8.00, with a \$2.00 additional fee, making a total price ceiling of \$10.00. The parties have also agreed on a 50/50 share ratio for any cost savings under the estimated cost. Should contractor's actual cost total \$7.00, contractor and buyer would split the \$1.00 delta between the estimate and the cost. The contractor would realize a \$2.50 profit instead of a \$2.00 profit and the buyer would pay only \$9.50 total instead of \$10. Thus, a GMP contract incentivizes the contractor to keep costs low.

One of the key documented advantages of the design-build acquisition method is that, when properly used, the overall acquisition cycle for a project can be significantly shorter than if the traditional design-bid-build method is used. Urgency of the program or project schedule for use and occupancy might often factor into the selection of the design-build with GMP approach for industry or the federal, state and local government.

In commercial industry design-build practice, the use of a GMP contract structure is often used where the owner's program is not defined well enough in scope and/or functional or technical requirements to be able to develop a budget or for the owner and industry to agree to a firm fixed-price (FFP) for the project. Industry refers to FFP as "lump sum" pricing. The design-build

contractor might be selected through some type of competitive best value process or through a qualifications-based selection (“QBS”) process. The owner and design-builder might work together to define the program more completely. The initial effort might be priced on a lump sum or cost-plus basis. The parties should establish a GMP for the project when the program is sufficiently established to make the GMP number realistic and meaningful. Setting it too early may result in an unrealistic price and setting it too late might not allow the owner to have an early price guarantee for planning and financing purposes.

The commercial GMP contract might be competitively negotiated or negotiated with a sole source.

2. INCENTIVE CONTRACTS UNDER THE FEDERAL ACQUISITION REGULATION

For federal design-build acquisition, design-build acquisition processes generally do not allow the use of QBS of the design-build contractor. The design-build contractor is normally selected using a competitively negotiated, best-value selection procedure, considering qualifications, often design excellence and price. Generally, federal government design-build contracts are awarded as FFP contracts.

In some instances, a federal design-build with GMP contract approach may be more appropriate than the FFP pricing method when there is already a defined programmatic scope and programmed amount of funding, but with only nominal design development and it is too early to be able to establish a firm fixed-price (FFP) without having to include considerable contingencies or risk in the price. It may be well suited for projects that are complex and difficult to adequately define a FFP at the outset and/or for projects that involve unusually high contingencies due to risks or unknown conditions, prior to considerable design

development. Compressed time schedules available for RFP development, awarding and executing design-build contracts for large, complex projects may also be a consideration for using design-build with GMP in lieu of a FFP.

To be able to negotiate and establish a realistic GMP at the outset, the government must define its performance requirements for scope and quality up front, using a parametric/conceptual cost estimate. The design-build teams would also have to be able to conceptually estimate costs within that performance based requirements RFP format to develop their proposals.

Federal agencies seeking to contract with a design-build contractor or team of contractors under an incentives contract like a GMP contract, must follow one of the incentive contract types enumerated in Federal Acquisition Regulation (FAR) Part 16.4. The FAR provides for incentive contracts where a “firm fixed-price contract is not appropriate and the required supplies or services can be acquired at lower costs and, in certain instances, with improved delivery or technical performance, by relating the amount of profit or fee payable under the contract to the contractor’s performance.” FAR 16.402-1. Like industry design-build contracts with GMP, federal design-build incentive contracts allow both the government and the design-build contractor to realize savings on the project if actual costs are less than the GMP.

Federal design-build contracts with GMP would generally use a variation of the fixed-price incentive contract type found in Federal Acquisition Regulation (FAR) 16.403, tailored for construction. The price ceiling is set at selection and award of the contract and may only be modified if there are scope changes or adjustments under applicable contract clauses, such as for changes in requirements, differing site conditions, etc. The profit adjusting requirement in FAR 16.403 is accomplished through the shared savings aspect of this contract. Fixed-price incentive contracts are governed by FAR subparts 16.201, 16.204 and 16.403.

3. FIXED-PRICE INCENTIVE CONTRACTS UNDER THE FAR

There are two forms of fixed-price incentive contracts described in the FAR that operate like a cost-plus/GMP contract:

- “Fixed-Price Incentive with Firm Target” (FPIF), or
- “Fixed-Price Incentive with Successive Targets” (FPIS).

The FPIF model is generally used where there is already a defined programmatic scope and programmed amount of funding, and nominal design development, but where it is too early to be able to establish a firm fixed-price. As with the industry cost-plus GMP contract, it may be well suited for projects that are complex and difficult to adequately define and/or contain unusually high contingencies due to risks or unknown conditions, prior to considerable design development.

For an FPIF design-build with GMP, just like the industry cost-plus/GMP, the final contract price is subject to a price ceiling, which is the maximum amount that can be paid to the contractor, except for adjustments possible under other FAR clauses.

The government agency should identify in the solicitation a contract cost limitation (CCL) on the award amount of the design-build contract in the solicitation. This is not necessarily the amount of the price ceiling. However, the price ceiling must be within the CCL identified in the solicitation. The amount of the CCL considers any statutory or other limitations and must be within the funds available for award. Like an architect-engineer contract, the competing design-build teams must be able to determine the level of design and construction quality and scope that is possible to prepare their design-build proposals. In addition, the solicitation should state that the offerors are under no obligation to approach the CCL in their proposals. Competition should act to keep proposed prices reasonable, especially if a full scope, quality project can be designed and constructed for less than the CCL. Note that the CCL doesn't

necessarily reflect the government's estimate, which is normally based upon a design that meets the solicitation requirements for quality, scope and time.

The contract price at award includes the GMP for the design and construction services and would include other firm fixed-priced line items, if any, such as a demolition package.

The GMP (price ceiling) at award is the sum of the target cost of the work, the target profit, and may include a defined design-build contingency allowance (CA).

The target cost of the work (ECW) is defined as the estimated direct and indirect costs of the design and construction work that is proposed and incorporated at award.

The target profit is the dollar amount of profit proposed at contract award.

If provided for in the solicitation, the CA is a separate allowance for the exclusive use of the design-builder to cover otherwise reimbursable costs during construction that aren't addressed in a specific line item and do not qualify as the basis to increase the contract price, as defined in the contract terms, conditions and contract clauses. Examples of these costs could include estimating and planning errors or uncertainties in the target cost, trade buyouts not being as favorable as projected, costs incurred in repairing or correcting defective, damaged or non-conforming work (provided that such defective, damaged or nonconforming work did not result from the negligence of the design-builder, with the term “negligence” not being intended to include ordinary mistakes or inadvertence), trade subcontractor default, unanticipated labor or material increases, scope of work falling between the cracks between trades, labor disputes, overtime or acceleration costs (including impact costs) that the design-builder may choose to implement that would not otherwise be reimbursable through a modification increasing the contract price, and non-negligent design errors or omissions.

If the costs associated with defective, damaged or non-conforming work are recoverable from insurance, subcontractors or suppliers, the contract language should require the design-builder

to exercise reasonable measures to obtain recovery from the appropriate source and credit the cost of the work if it obtains recovery. This allowance would be the beginning pool for the shared savings incentive. This contingency allowance is not necessarily the amount of a budget contingency that may be appropriated for the project.

The CA is not intended to be used by the owner for risks that the owner is contractually assuming, such as changes in the scope of work, differing site conditions, etc.

If the solicitation doesn't provide for a separate CA line item, the design-builder would have to consider how much, if any, contingency to include in the target cost. The solicitation may include a CA as a separate, pre-defined, set percentage of the target cost or as a pre-priced line item. Alternatively, the CA line item could be a proposed price, subject to competitive negotiations.

It is recommended that the competitive design-build solicitation be structured for the competing firms to identify and explain what risks or other contingencies they are considering in the CA. The government should evaluate the nature and reasonableness and the reasons for the identified risks/contingencies. The government should consider whether some risks/contingencies can be mitigated and if this should be included as a topic for discussions with the firms before contractor selection and award. The parties can mutually explore ways to resolve, reduce, avoid or mitigate risk/contingencies and possibly provide for better pricing. Effective discussions can often reduce or eliminate industry concerns or misunderstandings and may reveal unclear requirements, cost impactful requirements, wasteful requirements or mistakes in the solicitation.

The parties establish the GMP (price ceiling) at the outset, including a target ECW, a target profit and may include a defined CA. They establish a profit adjustment formula that is based upon the final negotiated, allowable, incurred costs.

For example, assume the target cost of the contract is \$8.00 and the target profit is \$2.00. The GMP or price ceiling would be \$10.00. The price sharing formula is 70/30 government/contractor. In this scenario, if the final negotiated cost is below

\$8.00, then the government and the contractor will apply a 70/30 formula to the cost savings.

Fixed-Price Incentive with Successive Targets (FPIS) contracts operate similar to Fixed-Price Incentive Firm Target (FPIF) contracts, except an initial target cost is set, with an initial target profit and initial profit adjustment formula. When the performance point specified in the contract is reached, the parties negotiate the firm target cost, giving consideration to cost experience under the contract and other pertinent factors. The firm target profit is established by the formula. At this point, the parties either:

- Negotiate a firm fixed price (FFP), using the firm target cost-plus the firm target profit as a guide, or
- If negotiation of a firm fixed price is inappropriate, they may negotiate a formula for establishing the final price using the GMP. The final cost is then negotiated at completion, and the final profit is established by formula, as under the FPIF contract type above).

The FPIF is the preferred approach where practical, due to the additional complexity of the FPIS, which should be reserved for use when the government agency's program is not sufficiently developed to establish a realistic GMP at the outset.

An FPIS contract is appropriate when:

- The agency's program scope and cost and/or available cost or pricing information is not sufficient to permit the negotiation of a realistic firm target cost and profit before award; nominal design criteria development is limited or not yet fully developed; and where it is too early to be able to establish a price ceiling or firm fixed price at the outset;
- To negotiate and establish the target cost, the government would have to be able to define its performance requirements for scope and quality up front, using a parametric/conceptual cost estimate. The design-build team would also have to be able to conceptually estimate costs within that performance based requirements RFP format to develop and negotiate its proposal.

- Sufficient information is available to permit negotiation of initial targets; and
- There is reasonable assurance that additional reliable information will be available at an early point in the contract performance to permit negotiation of either a firm fixed price or a firm target and a formula for establishing final profit and price that will provide a fair and reasonable incentive.

Under either model, billing prices are established as an interim basis for payment. These prices may be adjusted, within the ceiling limits, upon request of either party, when it becomes evident that final negotiated cost will be substantially different from the ceiling cost.

4. DIFFERENCES BETWEEN FEDERAL DESIGN-BUILD WITH GMP AND INDUSTRY “COST-PLUS/GUARANTEED MAXIMUM PRICE” CONTRACTING APPROACHES

As a matter of semantics, the various “cost-plus” contract types under the Federal Acquisition Regulations (referred to as “cost reimbursement” contracts), including cost reimbursement incentive contracts, have a different meaning than an industry cost-plus/GMP contract. The federal “fixed-price incentive” contract type most closely resembles the industry cost-plus/GMP approach.

Both the industry cost-plus/GMP and the federal design-build with GMP using the FPI approach require the design-builder to perform and complete the contracted scope within the contractually agreed maximum price, within the agreed time. Both provide for reimbursement of certain, allowable costs.

Federal “cost reimbursement” (cost-plus) FAR contract types also provide for reimbursement of contractually allowable costs. However, the cost ceiling limitation is initially established as an estimate to complete the contract scope of work effort. The contractor is expected to make its best effort to complete the work within the cost ceiling. The government will not reimburse allowable costs that exceed the cost ceiling limitation. If the contractor cannot or does not complete the work within the cost ceiling limitation, the government would have to decide whether to provide additional funding to proceed beyond the cost limitation.

There are also legal and regulatory restrictions or prohibitions against the use of a federal cost-plus contract type for DoD Military construction and for some other federal construction contracts.

Calculating costs may be a distinguishing factor between industry cost-plus/GMP contracts and federal design-build with GMP contracts, using fixed-price incentive contract types. Under the FAR, fixed-price incentive contracts provide for reimbursement of certain defined allowable and allocable direct and indirect costs within the ceiling cost. By comparison, a cost-plus/GMP contract provides for reimbursement of direct costs, but includes defined indirect costs in the “fee.” Contractors under a FAR-based contract must follow the federal requirements for tracking costs under FAR Part 31, and appropriately determine what is allowable and unallowable by federal law.

Federal contracts are subject to federal contract terms and conditions that generally differ from those found in commercial contracts. A federal design-build contract will use contract formats that are prescribed under the FAR rather than the DBIA or other industry contract formats.

5. FAST-TRACKING

Fast-tracked design and construction is an inherently essential element of this process to gain the maximum advantages of this type of design-build model for delivering the project much faster than using a design-bid-build model.

6. CONVERSION TO FFP

The administration of a fixed-price incentive contract is complex and resource-consuming for both the design-builder and the federal agency. The parties may well benefit if the contract allows for conversion of all or portions of the project to a firm fixed-price contract. For instance, individual fast-track design packages could be negotiated to firm fixed-price sub-line items as soon as possible, with the design-builder managing all such packages within the overall budget. However, the design-builder would need an accounting system that is capable of segregating costs and would need to strictly segregate allocation between firm-fixed price and reimbursable costs to avoid duplication and mixing cost pools and bases. The final negotiated overall project cost would still be used to determine the final cost savings, if any.

“DESIGN-BUILD DONE RIGHT” AND CERTIFICATION

Certification provides the only measureable standard by which to judge an individual’s understanding of “design-build done right.”

DBIA certification in design-build project delivery educates owners as well as designers and builders on team-centered approaches to design and construction. Owners want successfully executed design-build projects and are looking for a demonstration of both relevant continuing education and experience – both of which can be gained through DBIA certification.

DBIA offers two types of Certification:



For details, visit www.dbia.org/certification



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