1. Additive Alternates

What is it?

Additive alternates are used when it is necessary to keep the contract amount within a budget and lets the industry compete on the largest scope that fits within the budget. The STA provides the base bid package that includes most of the required scope for the project. The STA also provides a list of possible alternates for the project that could be incorporated based on the STA’s decision and budgetary constraints. Bidding firms are typically required to submit prices for all bid items. However, the STA may prioritize the alternates so the bidders know what alternates carry more weight (*1*).

Why use it?

When using additive alternates, competition can increase among bidding firms to not only provide the lowest price for the base bid package, but also provide optimal pricing for alternate items that may be added to optimize the scope of the project. The most optimal price will allow for the most alternates to be added to the scope of work (*1*). Additive alternates also help when projects need to adhere to a strict budget and would like to include as much work as possible, but knows there is a minimal scope that needs to be completed (*2*).

What does it do?

Competition can increase during procurement due to the additive alternates as responsive bidding firms will provide the most optimal price that allows for the most additive alternates to be included in the scope. This then maximizes or enhances the work that is within the defined budget as well as minimizes the costs that could be added through the change order process.

How to use it?

When using additive alternates as part of the procurement process, the following items need to be considered (*1, 2*):

* An STA will need to decide early enough in the project development stage to allow time and resources to develop additional alternate items that are included in the ITB or RFP.
* The ITB or RFP must clearly distinguish between the base work items and the associated quantities from the additional items and the additive associated quantities. Each additive item needs to be unique in its own right. Further, each additive item needs to include any general work requirements such as traffic control, mobilization, erosion control, etc.
* The STA must clearly define the scope in the base bid package so that it fulfils the basic purpose and need of the project. None of the additive alternates can be defined as items critical to fulfilling the purpose and need.
* To avoid subjectivity in the evaluation of bids, the additive alternates need to clearly specify the bidding procedure and the basis for contract award.
* The additive alternates should be listed in order of preference and will be added by priority to the base bid package only if the sum of the base and additive bids does not exceed the project budget or contract award limit. The additive alternates are considered for the project based on the priority determined by the STA.
* The common basis for award is the bidding firm that submits a bid with the most additive alternates along with the base bid package that does not exceeding the project budget or contract award limit. If more than one bidder submits a bid with the same number of additive alternates, the bidding firm that has the lowest price for the base bid package and the additive alternates should be awarded the project.
* The contract will need to clearly identify the contract time for the base work and the additional time allocated for each additive alternate. The actual contract time is determined by adding the base time to each additive alternate time included in the contract.
* If considering the use of cost-plus-time or lane rental provisions with additive alternates, the contractor may be required to bid a separate time or lane rental component for each additive alternate. The determination of contract time would include the base bid plus the selected alternates. This could result in a somewhat complicated bid analysis if there are multiple alternates and the cost of time is factored into the award decision.
* STAs may limit the amount of additive alternates to a certain percentage of the base bid package. For instance, Caltrans (*1*) does not allow additive alternates to exceed 10% of the base bid package.
* STAs may also limit the number of additive alternates. Limiting the number of alternates can increase the likelihood that one or more of the additives can be awarded.

When to use it?

Additive alternates are useful when the project scope is designed to be well within the project budget while providing additional items that can be awarded if the budget allows. Further, Caltrans (*1*) provides the following guidelines to use additive alternates for:

* Ensuring the scope of the project is maximized for limited and tight-budget projects.
* Projects that include uncertainty regarding the cost of the project can price different features that can be incrementally added to the project scope to maximize the use of available funds
* Project scope that can be tailored to include add-ons based on priority of importance
* Obtaining the best options for the funds available when substitutions are specified that improve the quality or performance based on the defined budget

Limitations?

The decision to use additive alternates needs to be made by the STA early in the project design process. Deciding to use this method in conjunction with a common procurement procedure can result in additional design costs and delays in completing the design (*1*).

Who uses it?

California, Louisiana, Michigan, Missouri, Pennsylvania, Federal Lands Highway Division

Example

The Iowa Department of Transportation used additive alternates for a highway project that was not to exceed the contract award limit of $2,000,000. The project Contracting Authority desired to maximize the scope of the project for the $2,000,000 that it had available for this project. The proposal form has defined a base set of items, added option 1, added option 2, added option 3, and designated $2,000,000 as contract award limit.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Bidder | $ Bid on Base Set of Items | $ Bid on Added Option 1 | $ Bid on Added Option 2 | $ Bid on Added Option 3 |
| A | $1,500,000 | $300,000 | $150,000 | $300,000 |
| B | $1,600,000 | $250,000 | $50,000 | $300,000 |
| C | $1,700,000 | $200,000 | $80,000 | $200,000 |
| D | $1,800,000 | $150,000 | $150,000 | $50,000 |

The first basis for award is the bidder submitting a bid with the most Added Options (in order of preference) while not exceeding the contract award limit of $2,000,000. Bidders A, B, and C submitted bids for the base set of items along with options 1 and 2 while not exceeding the $2,000,000 contract award limit. Bidder D was not further considered because they submitted a bid that included the base set of items and only option 1 while not exceeding the contract award limit. (i.e. Bidder D submitted a bid with fewer options while not exceeding the contract award limit).

The next basis for award is the lowest bid submitted that did not exceed the contract award limit with the base set of items and the same added options. Bidder B’s bid of $1,900,000 for the base set of items with options 1 and 2 was the low bid. Bidder A’s bid for the base set of items and options 1 and 2 was $1,950,000. Bidder C’s bid for the base set of items and options 1 and 2 was $1,980,000.

It made no difference that Bidder A was the low bidder on just the base set of items because options could be added to the contract that would not exceed the contract award limit, which then maximizes the project scope. Further, it did not matter that Bidder C was the low bidder on the base set of items and option A (because Option 2 could be added to the contract and not exceed the Contract Award Limit when using Bidder A’s low bid). Bidder D was the low bidder on the Base Set of Items and all added options, but adding all three options was not possible since the (because Bidder D’s bid would exceed the contract award limit).

### References

1. California Department of Transportation (Caltrans). *Alternative Procurement Guide.* Trauner Consulting Services, Inc., San Diego, 2008.
2. American Association of State Highway and Transportation Officials (AASHTO). *Primer on Contracting for the Twenty-First Century*. 5th ed., AASHTO Subcommittee on Construction, Washington, DC, 2006.