

Estimation and Bidding of Construction Costs

Process Considerations

Controls over the estimating and bidding functions are necessary to provide reasonable assurance that contracts are bid or negotiated on the basis of data carefully compiled to take into account all factors that will affect the cost, revenue, and profitability of each contract. Unreliable estimates and bids can obscure losses on contracts in their early stages or can overstate or understate the estimated profitability of contracts. Controls over this process should provide for adequate documentation, clerical verification and overall review of estimated costs and should require that deliberate “low bids” are approved by appropriate levels of management.

Estimation and Bidding Controls

- Estimates should be based on contract specifications, plans and drawings to provide assurance that the estimates of contract costs reflect all relevant cost elements.
- Prices and quantities used should be from reliable sources.
- Escalation clauses, if they are possible, are desirable in contracts to protect against unforeseen increases in costs (material, labor, etc.), especially with long duration contracts.
- Verification of mathematical/clerical accuracy of the final contract bid should be performed and documented.
- There should be procedures for the review of the completeness and reasonableness of the final estimate. Such procedures should prevent arbitrary, undocumented management level adjustments to estimated costs.
- Proper management approval, giving consideration to the size of the contract, should be documented as required by policy.
- The estimate of contract costs and the accounting records should be prepared and maintained in a consistent manner that will permit subsequent detailed comparison of actual costs with estimated costs.
- A record should be maintained of the bids submitted by competing firms, if those bids are available.
- A review of the quantities of material and hours of labor in bid estimates and comparison to the customers' specifications should be performed.
- A comparison of estimated material costs to published vendor price lists, price quotations, subcontractor bids or other supporting documentation should be performed.
- A comparison of estimated labor rates to union contracts, payroll records and other documentation supporting labor rates, payroll taxes and fringe benefits should be performed.
- A comparison of estimated equipment costs to the rates charged by suppliers for rental or used by the contractor to allocate the cost of owned equipment to jobs should be performed.
- Consider the possible future increases in labor and material costs during the period of the contract.

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Work Program Step	WP Reference	Initials
<p>4. Review the bid file and verify that the Company’s Risk Evaluation/Approval Guidelines have been documented and adhered to and that the appropriate proposal and contract authorizations/signatures have been obtained.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
<p>5. Obtain the “bid” file and verify inclusion of any required forms or documents, in accordance with company, office or business unit policy. Also, note that consideration has been given to the following:</p> <ul style="list-style-type: none"> ▪ Bid form – quantity, format and location to be submitted, envelope requirements and notation ▪ Alternates and unit prices ▪ Specified completion time ▪ Liquidated damages or penalty requirements ▪ Policy regarding acceptance of “equal” products or manufacturers ▪ Temporary facilities required (job trailers, fences, security, etc.) ▪ Special samples required ▪ Testing requirements and who pays for testing ▪ Limitations on storage/staging areas and use of site ▪ Pay schedule and retainage ▪ Soil reports ▪ Special warranty requirements ▪ Supplemental forms to be submitted with bid ▪ Minority business requirements ▪ Prevailing wage requirements ▪ Sales tax requirements ▪ Pre-bid conference ▪ General conditions ▪ Contract format ▪ Owner furnished items ▪ Building and other required permits <hr/> <hr/> <hr/> <hr/> <hr/>		

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<p>6. Obtain a listing of subcontractors and vendors contacted to submit bids. Verify that on significant cost components competitive bids were obtained.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>7. Verify that the lowest qualified bidders were placed on the project subcontractor/supplier list. If successful bid, verify receipt of written confirmation of all low subcontractors/suppliers. Examine evidence that this list was reviewed with the project manager, superintendent or other appropriate management.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>8. Examine evidence that low sub bids were reviewed for accuracy and completeness.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>9. Inquire of project manager and superintendent if there have been any prior issues with any of the subcontractors or vendors (on other jobs).</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>10. Document company/business unit policy with respect to subcontractor and vendor:</p> <p>Bonding: _____</p> <p>_____</p> <p>_____</p> <p>_____</p>		

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Insurance: _____ _____ _____ _____		
11. If bid was successful, ensure the bonding and insurance requirements were fulfilled by all subcontractors/suppliers before the subcontractors/suppliers were allowed on site and before any payments were made to the subcontractors/suppliers. _____ _____ _____ _____		
12. Verify completion of quantity surveys and estimate pricing of all labor and materials in accordance with company policy. Ensure proper review and approval was documented. _____ _____		
13. Test the mathematical accuracy of TWO detailed bid estimates for the job and trace to summaries of the bid estimate. _____ _____		
14. Select a sample of major materials costs categories on detailed bid estimates and trace to supporting calculations and documentation or evaluate the reasonableness of these costs in some other manner. _____ _____ _____		
15. Select a sample of labor costs categories on detailed bid estimates and compare to calculations or other supporting documentation or evaluate the reasonableness of the costs in some other manner. _____ _____ _____		

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<p>16. Select a sample of equipment costs categories on detailed bid schedules and compare calculations to rental rates or rates charged for owned equipment or evaluate the reasonableness of these costs in some other manner.</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>17. Determine the estimate was coded and reviewed by the Project Manager and forwarded to accounting (for successful bids only.)</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>18. Compare the coding of the estimate to the “original estimate” to amounts reflected on the job cost summary report (Report: _____) (for successful bids only.)</p> <p>_____</p> <p>_____</p>		
<p>19. Evaluate coding used for reasonableness (i.e. code/item type reasonable in comparison to type of work, labor, etc. to be used.)</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>20. Verify preparation of approved “Project Schedule” if required by specs (for successful bids only.)</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>21. Throughout performance of audit, evaluate the adequacy and accuracy of the bid “scope” review.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		