

Bureau of Engineering

Special Order

July 7, 2008

Special Order No. 06-0708

To All: Deputy City Engineers
Senior Managers
Group Managers

Subject: **CLASS "A" PROJECT ESTIMATES** (Amends Special Order No. SO02-0201)

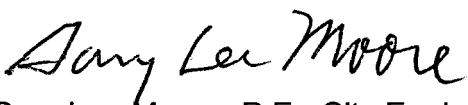
Under the provisions of Special Order SO02-0201 (Attached), responsibility for project cost estimates was assigned to the Project Manager. Class "A" Estimates are used as the City Engineer's Estimate on a specific project. As specified in SO02-0201, the Class "A" Estimate was to match the median bid for all bids received.

Special Order SO02-0201 remains in full effect with the following exception. Effective immediately, the goal in preparing Class "A" Estimates is to match the lower range of bids received on a specific project.

Section 3.7 - Project Estimates of the BOE Project Delivery Manual is being revised to reflect the new goal in preparing Class "A" Estimates.

(WHH RTH)

Attachment: SO02-0201

WCED/RTH/WL/dl/gva Special Order No. 06-0708	Approved by:  Gary Lee Moore, P.E., City Engineer
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Bureau of Engineering

Special Order

February 27, 2000

Special Order No. 002-0201

To All: Senior Managers
Division/District Engineers
Division Heads
Group Managers

Subject: **RESPONSIBILITY FOR PREPARING PROJECT ESTIMATES**

Project cost estimates are a critical element in the planning and delivery of projects by the Bureau of Engineering. They are the basis for establishing the Bureau of Engineering's CIP program and are closely monitored by our clients, who use them as a means to gauge our progress and our ability to deliver projects on schedule and within budget. The Bureau has pledged to be the provider of choice, and accurate project cost estimates are key to satisfying our clients.

Under the provisions of Special Orders S018-0482 and S004-0583, responsibility for preparing project cost estimates was assigned to the Construction Management Group (formally known as the Construction Division). In an effort to give the project engineers better control over their project budgets, streamline the flow of work, and to respond to organizational changes, the responsibility of preparing project cost estimates is now assigned to the project engineers.

Effective immediately, project engineers are responsible for preparing estimates for their assigned projects. The Construction Management Group, Estimating Section, will continue to prepare the calculation for the Mandatory Subcontracting Minimum (MSM), Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Other Business Enterprise (OBE), and Disadvantaged Business Enterprise (DBE). They will be responsible for checking all estimates for accuracy and consistency. The Estimating Section will regularly update and publish the "Unit Prices for Preliminary Estimates," will prepare and publish bid results and bid summaries for all bids received, will conduct bid analysis, and will help the project engineers prepare unusual or unconventional estimates. Other duties handled by the Estimating Section will include conducting estimating training, developing and updating a comprehensive estimating database, and keeping historical records of bids received.

Designing projects to the approved budget is the responsibility of every project engineer in the Bureau of Engineering. This is a critical factor in eliminating "scope creep" which makes it difficult for the Bureau of Engineering to deliver projects to our clients on time and on budget. In the past, the Bureau has not paid close enough attention to the budget during the design phase of our projects. This created problems for our clients because they were forced to find additional funding for projects before they were awarded. This problem will be eliminated if the project engineers pay close attention to the project cost estimates as they proceed from Class "C" through the final City Engineer's Estimate (Class "A").

A new **Bureau of Engineering Estimate Form** for staff to use when preparing estimates is attached as part of this Special Order. This form provides a written record of the initial estimate and will detail the assumptions made about the project. The form must be filled out completely, signed by a senior level engineer, and faxed to the requesting client. The estimate sheet will provide the historical reference for the Bureau as the project develops and is refined during the design process. It is an excellent tool to show Bureau clients the true cost of their projects, and will be used to refine project cost estimates as staff develops better information.

On March 14, 2000, the Construction Management Group distributed a list of Unit Prices for Preliminary Estimates. Project designers should use this information to prepare the most accurate preliminary estimates possible. The Construction Management Group will provide support to the design groups by updating the list of prices and distributing it whenever significant changes in prices are observed. This information will be collected from the latest bids received, from cooperating governmental agencies, and from research conducted by the Construction Management Group staff.

The following are explanations of the various project cost estimates produced by the Bureau of Engineering:

CLASS "C" ESTIMATES

Class "C" estimates are rough estimates that are subject to refinement as additional information about the project is known. The Class "C" estimate is based on a general knowledge of the project with regard to location, limits, width of improvements, width of right-of-way, and other known physical characteristics. It is loosely based on previous experience with similar projects in the same area. This class of estimate is useful for planning purposes and is used as the basis for fund appropriations and budgeting of Capital Improvement Expenditure Programs.

Class "C" estimates may be provided to the Bureau of Engineering by clients requesting the design and construction of their projects. Many times, these estimates are merely the best opinion of the client of the project's cost. The project design engineer must immediately review the Class "C" estimate upon receipt from the client, and revise it if necessary. The project engineer should immediately discuss any revisions made to the Class "C" estimate with the client.

The Class "C" estimate is the least accurate estimate, but the goal is to produce an estimate that comes within +30 percent to -20 percent of the final cost of the project.

CLASS "B" ESTIMATES

A Class "B" estimate is used to update the Class "C" estimate for the project. The Class "B" estimate is also used for urgent projects recommended for immediate financing. This estimate is based on detailed knowledge of the project obtained from field investigations and preliminary planning.

Upon the assignment of a project to a section for design, the project manager will require that a Class "B" estimate be performed within the first 20 percent of the design to revise and update the Class "C" estimate.

The Project Manager will use the Class "B" estimate as a tool to inform Bureau of Engineering clients about the latest costs of the project, and to ensure that the project is designed to the client's specifications. The Project Manager will inform the client immediately if the cost of the project exceeds the approved budget. The client may choose to either increase the budget for the project, or have the Bureau of Engineering make adjustments in the design to meet the project's approved budget.

The Class "B" estimate is a much more refined estimate. This estimate should come within +20 percent to -15 percent of the final cost of the project.

CLASS "A" ESTIMATES

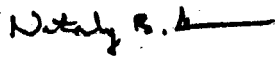
This estimate is more detailed and precise, and is based on complete quantity take-offs and final plans signed by the City Engineer. This estimate is used as the City Engineer's Estimate which is placed in the Advertisement for Bidders. It is a guide for contractors to use when preparing their bids and is used as a basis for comparing the bids received for a project.

The goal in preparing Class "A" estimates is to match the median bid for all bids received on a specific project. The Class "A" estimate should accurately reflect the prevailing market conditions in the contracting community. It provides the justification to award a contract to the lowest responsive and responsible bidder.

The Construction Management Group will review all Class "A" estimates received from the design groups. This will maintain the consistency of estimates produced by the Bureau of Engineering, and will ensure that mistakes are caught before the project is advertised. The Construction Management Group is available to assist the design engineers in the development of their project estimates or to answer any questions that they have while preparing the Class "A" estimate for their project.

Attachments: Bureau of Engineering Request for Estimate
Estimating Form Instructions

(RMR)

QSG/JZ/gva S.O. No. 002-0201	Approved By:  Vitaly B. Troyan, P.E., City Engineer
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**BUREAU OF ENGINEERING
PROJECT COST ESTIMATE**

Project Title:

Scope:

Work Order:

B.O.E. Contact:

Client Dept.

Type of Estimate: Class "A" Class "B" Class "C"
 +5% to -10% +20% to -15% +30% to -20%

ESTIMATE

Land Acquisition

Land		
Relocation		\$0

Site Improvement

Demolition		
Site Preparation		\$0

Construction

Construction Cost		
Communications		
1% Art		
Permits		
Construction Contingency		\$0

Planning, Design and Construction Services

Project Management		
Planning and Design Services		
Construction Management		
Related Costs (overhead)		\$0

Other

Escalation		% per year for		years	
Project Contingency		%			\$0

Total Estimated Project Cost **\$0**

ASSUMPTIONS

Prepared by:

Date:

Checked by:

Date:

Approved by:

Date:

Deputy Director

Estimating Form Instructions

Please contact Jim Zabala of the Quality and Standards Group to obtain a copy of the estimating form. His Groupwise e-mail address is jzabala@eng.lacity.org.

The Estimate Form was developed using Microsoft Excel. Simply open up Excel and open the form, and use your mouse to navigate around the page. Items requiring explanations or special instructions have comments attached to them. The comments show up as small red triangles in the top right corner of the cell. There are several of these in the spreadsheet. Simply point your mouse at the red triangle and the comment will automatically pop up.

The directions follow:

Project Title: Use your mouse to point the cursor at the box. This is a text box. Click your left mouse button once, and the box will be highlighted. Simply type in the project title. Click on the Scope box when done.

Scope: Left click your mouse once on the Scope box. Type in a detailed explanation of the scope of your project. Click on the Work Order box when you are done.

Work Order: Left click your mouse once on the Work Order box. Type in the Work Order for the project. Point your mouse at the B.O.E. Contact box when done.

B.O.E. Contact: Left click your mouse on this box. Type in the name of the B.O.E. employee responsible for this project. Point your mouse at the Client Dept. box when done.

Client Dept.: This is a pull down list of Client Departments that the Bureau of Engineering provides services to. Simply left click your mouse on the arrow, point your mouse at the department funding the project, and left click the mouse to highlight.

Type of Estimate: Point your mouse at the type of estimate that you are producing and click the left mouse button. A checkmark will show up in the highlighted box.

Project Cost Estimate: Type in the estimated amount in columns highlighted in blue. Be sure to type in an amount for all items that relate to your project. The subtotals and Total Estimated Project Cost will be automatically calculated. Be sure to point your mouse on the red triangles for any explanations.

Assumptions: Point your mouse at the Assumptions text box and click the left button. Simply type in a detailed explanation about the assumptions that you made about the project while completing your estimate. The assumptions are particularly important, particularly as the estimates become more refined. Point your mouse at the Prepared By box when done.

Prepared By: Type in the name of the person who prepared the estimate. Fill in the date that the estimate was prepared.

The **Checked By** and **Approved By** boxes should be completed by hand. Have these employees sign and date the estimate form.