

## Memorandum

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Date: January 12, 2006

From:   
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Chief, Central Region  
Project Development

Subject: Draft Proposal: QC/QA Estimate Certification Process

Based on the direction given in Rick Land's memorandum, "Certification of Project Estimates", dated December 14, 2005, Central Region Project Development proposes utilization of the following quality control/quality assurance (QC/QA) process prior to submittal to the District Directors for their certification. This QC/QA verification process utilizes some procedures already in place and also adds to existing processes. This process by no means lists all QC/QA procedures used within Project Development during the life of a project. It simply summarizes the procedures proposed to insure the District Directors that appropriate QC/QA has occurred to develop the best estimate possible for Estimate Certification.

### **Proposal of Central Region Project Development Procedures for Estimate Certification by District Directors:**

Noted below is a summary of Central Region Project Development's proposal to the District Directors. Reviews by the individuals noted below will occur for all projects over \$5 million per Mr. Land's memorandum. Documentation of said reviews, via signatures, will be part of the submittal to the District Director and part of the certification to be signed by the District Director. The documentation to the District Director will include the date of the BEES and an actual copy of the BEES will be an attachment. Attached is a sample of the proposed documentation to be submitted to the District Directors:

1. Project Engineer
2. Division of Engineering Services (if applicable)
3. Design Senior
4. Estimate Specialist in Central Region Office Engineer
5. Design Office Chief

**Submittal of Estimate to District Program/Project Management:**

Once the above QC/QA efforts have occurred, and corresponding signatures obtained, said documentation will be forwarded to the Project Manager for their review and signature. It should be noted that this process will need to occur very quickly and Project Managers will need to be advised of potential cost changes as soon as possible. If the Project Manager, Single Focal Point or District Director need additional clarification or have questions regarding an Engineer's Estimate and potentially how it coincides with programming amounts prior to certification, they should contact the appropriate Office Chief in Project Development to resolve.

**Rational for Proposal:**

**Project Engineer:** The Project Engineer would be the Licensed P.E. who signs and seals the project title sheet. Various QC/QA procedures are undertaken by Project Development prior to the initial submittal of the PS&E to Headquarters OE. Set procedures include verification of quantities and item costs. At the time of Estimate Certification, changes in quantities are normally minimal, however with the volatility occurring in the Construction Industry, changes in unit costs are likely. The Project Engineer is the most knowledgeable individual of all aspects of the project and needs to again review the unit costs in comparison with recent bid openings and market trends throughout the state.

**Division of Engineering Services:** For projects including work prepared by units within the Division of Engineering Services, DES is responsible for preparing quantities and unit cost estimates. While some minimal verification can be done by Central Region Project Development in relation to DES work, it would seem appropriate that they also document that they have again verified quantities and updated unit costs per the latest available data. Documentation of this subsequent review may have to occur via fax or email due to the limitations in time for the Estimate Certification process.

*(Note that the involvement of DES in this QC/QA Estimate Certification process has not been agreed to by DES although KEA has briefly started discussions with them concerning this matter.) Since District Directors will want to have an assurance that design units in the districts are taking proper steps prior to Estimate Certification, it would seem logical that the same assurance should come from DES.*

**Design Senior:** Review by the Design Senior will largely concentrate on an overview of the estimate to cover all needs of the project. Although this will have occurred at the initial submittal of the PS&E, the Design Senior will insure that all work to be done on the project has been identified and included in the Engineer's Estimate. This would include any changes that may have occurred during the Headquarters OE process. More importantly, the Design Senior will review unit costs in light of their added experience/perspective of other projects and industry trends.

Should the Licensed P.E. for the project and the Design Senior be the same individual. Another Design Senior within Central Region Project Development will serve to perform this review and sign as per this QC/QA process.

**Estimate Specialist in Central Region Office Engineer:** Identification of one specific individual in Central Region Office Engineer to specialize in estimates is a new improvement to be added to our current processes. Steps have been taken to implement this immediately. This individual, in coordination with Central Region Construction, will do some of the following:

1. Provide information on a regular basis to Design staff on current trends in the construction industry (suppliers, AGC, equipment). Provide info from Headquarters OE on statewide trends.
2. Provide data to Design staff on the results of recent bids within the Central Region.
3. Review project estimates at critical points in the project development process.

**Design Office Chief:** Review by the Design Office Chief is similar to the review done by the Design Senior, but at a higher level. Because of the breadth of experience/perspective of the Office Chiefs, they are a final check for the estimate and their signature verifies completion of Project Development's QC/QA efforts for Estimate Certification.

**Project Manager:** The Project Manager is the team leader and the primary individual responsible to communicate with the project sponsor(s). The Project Manager will be responsible to address funding or programming issues that may exist due to updated project estimates.

Should you have any questions or feedback regarding the process described within, please do not hesitate to contact myself or Malcolm Dougherty.

c: Tim Gubbins  
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