

# The Canadian Engineer

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## The Canadian Engineer

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### ESTIMATING.

The Standard Dictionary defines the word "estimate," "to form an opinion about the value, size, quantity, worth, etc., from the best information at hand."

"Estimation," "the act of estimating, or the conclusion arrived at; a valuation or computation based on opinion or data."

When one considers the great variation in the tender price on work being let in Canada to-day, it is, indeed, perplexing to attempt to fathom from what source the estimators have received their data. In some cases the data must have been very inexact. We have recently seen tenders opened that varied as much as one hundred per cent. The cost estimates system of contractors must work in very different ways.

The basis for estimating should be in addition to a well-tested cost system and thorough knowledge of the materials and quantities required.

It is not the general custom for the engineer to place before the contractor the result of his careful calculation as to the cost of the work. If this were done the contractor would be better informed as to what he had to do, and the engineer would receive more uniform prices on the work to be done.

It is just as necessary for the contractor to have a basis upon which to build his estimate as it is to have material with which to construct. The engineer should furnish this basis, and we consider it unfortunate that the lump sum tender has become so common. We are willing to admit that there are many conditions in which this form of tender is most suited, but we feel that in large works this has been forced to an absurdity, and as a result most of the estimating is mere guesswork. It is asking too much of the firms tendering to spend large amounts of money in securing information upon which to bid, having in mind the fact that their chance of securing the contracts is, perhaps, but one in twenty.

We think the contractor and engineers' client would both be more fairly treated if it were the custom among engineers to prepare in detail an estimate of the quantities of material, so that whether the work is let by unit prices or lump sum, the contractor would not require to spend much time in preparing his bid. In this way he could figure more closely and with much greater assurance.

It will place greater responsibility upon the engineer, requiring him to be more exact in his work, but it will make it possible for him to secure better returns for his work. The matter of estimating has to be paid for by somebody, and the engineer in charge of the work is as much entitled to it as anyone else.

There is nothing that will cause the public to lose confidence so quickly in the engineers' figures and the contractors' bids as an array of figures spread over a wide range.