

## SECTION 104—SCOPE OF WORK

### 104.01 - Intent of Contract

The intent of the Contract is to provide for completion of the work specified therein within the budget and time limit stated in the Contract. Further it is understood that the Contractor execute the work under the contract as an independent contractor and not as an agent of the Department, the Commissioner or the Commonwealth Transportation Board.

### 104.02 - Alteration of Quantities or Character of Work

#### (a) General

The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to complete the project satisfactorily. Such changes in quantities and alterations shall not invalidate the Contract or release the surety, and the Contractor shall agree to perform the work as altered. No change, alteration or modification in or deviations from the Contract or the Contract Documents, or the giving by the Department of any extension of time for the performance of the Contract, or the forbearance on the part of the Department shall release or exonerate in whole or in part either the Contractor or any surety on the obligations of any bond given in connection with the Contract. Neither the Department nor the Contractor shall be under any obligation to notify the surety or sureties of any such alteration, change, extension or forbearance, notice thereof being expressly waived. Any increase in the Contract amount shall automatically result in a corresponding increase in the penal amount of the bonds without notice to or consent from the surety, such notice and consent being hereby waived. Decreases in the Contract amount shall not, however, reduce the penal amount of the bonds unless specifically provided in any change order as authorized in accordance with the provisions of Section 109.05 decreasing the scope of the work.

If the alterations in the nature of the work or changes in quantities, significantly change the character of the work under the Contract, an adjustment, excluding anticipated profits for reduced or eliminated work, may be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

At the option of the Engineer, the Contractor may be directed to accomplish the work on a force account basis when the scope of work meets the requirements for such a determination in accordance with the requirements of Section 109.05.

If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the Contract.

The term *significant change* shall be construed to apply only to the following circumstances:

- (1) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or
- (2) When a major item of work, as defined elsewhere in the contract is increased or decreased more than 25 percent of the original contract quantity. Any allowance for an increase or decrease in cost due to an increase in quantity of more than 25 percent shall be calculated only on that quantity in excess of 125 percent of the original contract bid item quantity. Also any allowance for an increase or decrease in cost due to a decrease in quantity of more than 25 percent shall be calculated only on that quantity below 75 percent of the original contract bid item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed, or
- (3) When overruns and underruns of piling amount to more than 25 percent of the original bid quantity, whether or not such item has been designated as a major item, or
- (4) When overruns or underruns of more than 100% on minor items can be demonstrated as not representative of the true cost of the work when considering the unit bid price.

**(b) Value Engineering Proposals**

The Contractor may submit to the Engineer written Value Engineering Proposals (VEP) for modifying the plans, Specifications, or other requirements of the Contract for the purpose of reducing the total cost and/or contract time of construction without reducing the design capacity or quality of the finished product. If the VEP is accepted by the Department, the net savings and/or contract time will be equally divided by the Department and the Contractor. When an accepted VEP includes contract time savings, the contract completion date shall be advanced by half of the time savings accepted in the VEP and the Contractor shall have exclusive use of the remaining half of the time as contractor float.

Each VEP shall result in a net savings over the contract cost and/or contract time without impairing essential functions and characteristics of the item(s) or of any other part of the project, including, but not limited to, service life, reliability, economy of operation, ease of maintenance, aesthetics, and safety. At least the following information shall be submitted with each VEP:

- Statement that the proposal is submitted as a VEP
- Statement concerning the basis for the VEP benefits to the Department and an itemization of the contract items and requirements affected by the VEP
- Detailed estimate of the cost and/or contract time under the existing Contract and under the VEP
- Proposed specifications and recommendations as to the manner in which the VEP changes are to be accomplished
- Statement as to the time by which a contract work order adopting the VEP must be issued so as to obtain the maximum cost-effectiveness

The Department will process the VEP in the same manner as prescribed for any other proposal that would necessitate issuance of a work order. The Department may accept a VEP in whole or part by issuing a work order that will identify the VEP on which it is based. The Department will not be liable to the Contractor for failure to accept or act on any VEP submitted pursuant to these requirements or for delays in the work attributable to any VEP. Until a VEP is put into effect by a work order, the Contractor shall remain obligated to the terms and conditions of the existing Contract. If an executed work order has not been issued by the date on which the Contractor's proposal specifies that a decision should be made or such other date as the Contractor may subsequently have specified in writing, the VEP shall be deemed rejected.

The work order effecting the necessary modification of the Contract will establish the net savings agreed on, provide for adjustment of the contract prices, and/or contract time, and indicate the net savings. The Contractor shall absorb all costs incurred in preparing a VEP. Costs for reviewing and administering a VEP will be borne by the Department. The Department may include in the agreement any conditions it deems appropriate for consideration, approval, and implementation of the VEP. The Contractor's 50 percent share of the net savings and/or contract time shall constitute full compensation to him for effecting all changes pursuant to the agreement.

Unless specifically provided for in the work order authorizing the VEP, acceptance of the VEP and performance of the work thereunder will not change the contract time limit.

The Department may adopt a VEP for general use in contracts administered by the Department if it determines that the VEP is suitable for application to other contracts. VEPs identical with or similar to previously submitted VEPs will be eligible for consideration and compensation under these provisions if they have not been previously adopted for general application to other contracts administered by the Department. When a VEP is adopted for general use, compensation pursuant to these requirements will be applied only to those awarded contracts for which the VEP was submitted prior to the date of adoption of the VEP.

Proposed changes in the basic design of a bridge or pavement type or those changes that require different right-of-way limits will not normally be considered an acceptable VEP. If a VEP is based on or is similar to a change in the plans, Specifications, or special provisions adopted by the Department prior to submission of the VEP, the Engineer will not accept the VEP.

The Engineer will be the sole judge of the acceptability of a VEP. The requirements herein apply to each VEP initiated, developed, and identified as such by the Contractor at the time of its

submission to the Engineer. However, nothing herein shall be construed as requiring the Engineer to approve a VEP.

Subject to the provisions herein, the Department or any other public agency shall have the right to use all or part of an accepted VEP without obligation or compensation of any kind to the Contractor.

If a VEP is accepted by the Department, the provisions of (a) herein that pertain to the adjustment of contract unit prices attributable to alterations of contract quantities will not apply to the items adjusted or deleted as a result of putting the VEP into effect by a work order.

**104.03 - Differing Site Conditions**

During the progress of the work, if subsurface or latent physical conditions differing materially from those indicated in the contract are encountered at the site, the Contractor shall promptly notify the Engineer in writing of the specific differing conditions.

If unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site the Contractor shall promptly notify the Engineer in writing of the specific differing conditions.

Upon receipt of such written notification, the Engineer will acknowledge receipt and investigate the conditions. If it is determined by the Engineer that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding anticipated profits, will be made and the Contract may be modified in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Contract is warranted.