



SECTION 104

SCOPE OF WORK

104.1 Intent of Contract. The contractor shall complete the work described and furnish all resources required to complete the work under the contract.

104.2 Differing Site Conditions. If differing site conditions are encountered during the progress of the work, the discovering party shall promptly notify the other party in accordance with [Sec 104.4](#). No further disturbance of the site or performance of the affected work shall be done after the alleged differing site conditions are noted, unless otherwise directed in writing by the engineer.

104.2.1 Upon written notification, the engineer will investigate the conditions, and if it is determined 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 modified in writing accordingly. The engineer will notify the contractor whether or not an adjustment of the contract is warranted.

104.2.2 No contract adjustment that results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice as specified in [Sec 104.4](#).

104.2.3 No contract adjustment will be allowed under this section for any effects caused on unchanged work.

104.2.4 Payment will be determined in accordance with [Sec 109.4](#) and adjustments in contract time will be determined in accordance with [Sec 108.14](#).

104.3 Changes in the Work. When considered necessary to satisfactorily complete the project, the engineer reserves the right to provide written notice to the contractor, at any time during the contract, to change quantities or make other alterations for which there are no provisions included in the contract. Such changes in quantities and alterations in the work will not invalidate the contract, require consent of the surety, nor release the contract surety, and the contractor agrees to perform the work as altered. Alterations of plans or of the nature of the work will not involve work beyond the termini of the proposed construction, except as may be necessary to satisfactorily complete the project.

104.3.1 If the alterations or changes in quantities do not cause a significant change in the work to be performed under the contract, payment for the altered work will be determined in accordance with [Sec 109.3](#) for all work for which a contract unit price exists, and [Sec 109.4](#) for all other work. The basis for the adjustment for work for which no unit price exists shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable. If the directed changes require additional time to complete the contract, adjustments in the contract time will be determined in accordance with [Sec 108.7](#).

104.3.2 If the alterations or changes in quantities cause significant change in the work under the contract as defined in [Sec 101](#), an adjustment will be made to the contract. This adjustment will occur whether such alterations or changes are in themselves a significant

change in the work or by affecting other work, causing such other work to become significantly different. Payment will be determined in accordance with [Sec 109.3](#) or [Sec 109.4](#). The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable. If the directed changes require additional time to complete the contract, adjustments in the contract time will be determined in accordance with [Secs 108.7 or 108.14](#), as appropriate.

104.4 Notification of Differing Site Conditions and Changes in the Work. The contractor shall promptly notify the engineer of alleged changes to the contract due to differing site conditions, altered work beyond the scope of the contract, or actions taken by MoDOT that changed the contract terms and conditions. Within five business days of the date the alleged change or action was noted, the contractor shall provide the following information to the engineer in writing:

- (a) The date of occurrence and the nature of circumstances of the occurrence.
- (b) The name, title and activity of MoDOT personnel having knowledge of the matter.
- (c) The identity of any documents and the substance of any oral communications involved.
- (d) The basis for a claim of accelerated schedule performance.
- (e) The basis for a claim that the work is not required by the contract.
- (f) The particular elements of contract performance for which additional compensation, compensable or excusable delay may be sought under this section including:
 - (1) Pay items that have been or will be affected.
 - (2) Labor or material, or both, that will be added, deleted or discarded and what equipment will be idled, extended or required on the project.
 - (3) Delay and disruption in the manner and sequence of performance that has been or will be caused.
 - (4) Estimated adjustments to contract prices, delivery schedules, staging and contract time.
 - (5) Estimate of the time within which MoDOT must respond to the notice to minimize cost, delay or disruption of performance.

104.4.1 For good cause the engineer may extend the time for the contractor to provide any part of the above information.

104.4.2 The failure of the contractor to provide notice and other information in accordance with the procedures of [Sec 104.4](#) will constitute a waiver of any and all claims that may arise as a result of the allegations.

104.5 Response to Notification of Differing Site Conditions and Changes in the Work. Following submission of the [Sec 104.4](#) notification to the engineer, the contractor shall continue diligent prosecution of the work not affected by the notification, unless directed

otherwise in writing by the engineer. Within ten business days after receipt of notification, the engineer will respond in writing to the contractor to:

(a) Confirm or deny that a change occurred and specify future action to be performed by the contractor and the engineer, or

(b) Advise the contractor that specific additional information is needed and the date the information is to be received by the engineer for further review. For good cause, the engineer may extend the time for the contractor to provide any of the additional information. The engineer will respond within ten days of receipt of additional information from the contractor. Any adjustments made to the contract will not include increased cost or time extensions for delay if the contractor fails to provide the information required in the notice or the requested additional information by the date specified.

104.6. Value Engineering Proposals. A Value Engineering Change Proposal (VECP) shall provide a product of equal or improved quality that will reduce the project cost, improve safety or decrease the time required to complete the project. A Practical Design Value Engineering Change Proposal (PDVECP) may provide a product of lesser value, use an existing item in place or underrun contract items. The PDVECP shall not adversely affect safety or function of the final product. The contractor is encouraged to submit to the engineer, in writing, VECP's and PDVECP's for modifying the plans, specifications or other requirements of the contract. Proposed modifications shall not impair, in any manner, essential functions or characteristics of the project, including but not limited to, service life, economy of operation, ease of maintenance, desired appearance, design or safety standards, and shall not significantly delay the completion of the project. Proposals shall be submitted to the engineer in advance of the work to be performed with sufficient time allowed for review. The Commission will not be liable to the contractor for failure to accept or act upon the proposal nor for any delays to the work attributable to any such proposal.

104.6.1 Submitting Proposals. Value engineering proposals shall be submitted on the proper form, available on MoDOT's web site, and shall contain the following information:

(a) A description of both the existing contract requirements for performing the work and the proposed changes.

(b) A detailed estimate of the cost of performing the work under the existing contract and under the proposed change.

(c) A statement of the time within which the engineer must make a decision thereon, including the probable effect the proposal will have on the contract completion time.

(d) An itemized list of the contract items of work affected by the proposed changes, including any quantity variation attributable thereto.

(e) A description of any previous use or submission of the same proposal by the contractor, including dates, job numbers, results, and/or outcome of proposal if previously submitted.

104.6.2 Conditions. The engineer will only consider VECP's that meet the following conditions.

104.6.2.1 Contractors may submit value engineering proposals that propose changes in the basic design of a bridge or a pavement, except for pavement and shoulder type. Value engineering proposals will be considered only when the proposal will not significantly delay the completion of the project.

104.6.2.2 The contractor shall continue to perform the work in accordance with the requirements of the contract until a change order incorporating the value engineering proposal has been approved, unless otherwise directed by the engineer. If a change order has not been approved by the date upon which the contractor's value engineering proposal specifies that a decision thereon should be made, the proposal shall be deemed rejected, unless the time allowed for a decision has been extended by mutual agreement of both parties.

104.6.2.3 The Commission expressly reserves the right to adopt a value engineering proposal as standard practice for use on other contracts administered by the Commission. If an accepted value engineering proposal is adopted as design policy, only contractors submitting such a proposal will be eligible for compensation pursuant to this section until the proposal is incorporated into design policy, and in that case, only as to those contracts awarded to the contractor prior to submission of the accepted value engineering proposal. Value engineering proposals identical or similar to previously submitted proposals will be eligible for consideration and compensation under the provisions of [Sec 104.6](#) if the identical or similar previously submitted proposals were not adopted as design policy by the Commission, or included in the present contract. Subject to the provisions contained herein, the state or any other public agency will have the right to use all or any part of any submitted value engineering proposal without obligation or compensation of any kind to the contractor, except as noted in [Sec 104.6.2.4](#).

104.6.2.4 The contractor may request the return of information submitted with a value engineering proposal if the proposal is rejected, provided this request is in writing and submitted with the proposal. If the proposal is accepted, this request will be void, and the Commission may use or disclose in whole or in part any information necessary to utilize the proposal.

104.6.2.5 Prior to approval, it may be necessary for the engineer to modify a proposal, with the concurrence of the contractor, to make the proposal acceptable. If any modification increases or decreases the net savings resulting from the proposal, the contractor's share will be determined on the basis of the proposal as modified.

104.6.2.6 Four copies of the complete proposal shall be submitted to the engineer for review. The contractor may submit a conceptual proposal for approval stating the basic proposal and approximate cost savings in order to provide the contractor with the opportunity to submit an idea without large initial development costs if the proposal is rejected. Approval or disapproval of proposals will be granted within ten days of receipt of the proposal.

104.6.2.7 A proposal will be disqualified if additional information is not provided at the request of the engineer. This will include design computations, field investigations, results, surveys, etc.

104.6.2.8 Reimbursement for modifications to the proposal to adjust field or other conditions will be limited to the total amount of the contract bid prices. Rejection, limitation or reimbursement shall not be a basis for any claim against the Commission.

104.6.2.9 The contractor will have no claim to additional costs or delays, including development costs, loss of anticipated profits, or increased material or labor costs, if the proposal is rejected.

104.6.2.10 The engineer will decide whether or not to consider a proposal. The basis for proposal rejections will include excessive review requirements, evaluation or investigation, or if the proposal is inconsistent with project design policies or criteria.

104.6.3 Payment. Payment will meet the following conditions:

104.6.3.1 The engineer will be the sole judge of the acceptability of a value engineering proposal and of the estimated net difference in construction costs from the adoption of all or any part of such a proposal. The engineer may adjust contract prices if, in the judgment of the engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

104.6.3.2 If the contractor's cost reduction is accepted in whole or in part, such acceptance will be by a change order, which will specifically state that the change order is executed in accordance with [Sec 104.6](#). Such change orders will incorporate the changes in the plans and specifications necessary to permit the value engineering proposal or any part of the proposal that has been accepted, to be put into effect, and will include any conditions upon which the Commission's approval thereof is based, if the approval of the Commission is conditional. The change order will also set forth the price for performing those items of work affected by the change order and the estimated net savings in the cost of performing the work attributable to the value engineering proposal in the change order, and will further provide that the contractor will be paid 50 percent for VECP's or 25 percent for PDVECP's of the actual net savings of the construction costs at the completion of the work affected by the change order. All reasonable documented engineering costs incurred by the contractor to design and develop a value engineering proposal will be reimbursed and subtracted from the savings of the construction costs. All costs incurred by MoDOT to review and implement the VECP will be at the Commission's expense.

104.6.3.3 The amount and time specified in the change order will be considered full compensation to the contractor for the value engineering proposal and for the performance of that work.

104.6.3.4 Only the contractor may submit proposals and be reimbursed for savings, however the contractor may submit proposals for any approved subcontractor.

104.7 Maintenance of Traffic Operations During Construction.

104.7.1 The contractor shall maintain the flow of all traffic over the project, at the contractor's expense, unless otherwise specified in the contract. Provisions for local traffic, including bicycle and pedestrian traffic, shall be made by the contractor, at the contractor's expense, at all times during construction, unless otherwise specified in the contract.

104.7.2 If detours for through traffic are to be provided by the Commission at the Commission's expense or designated on the plans to be constructed and maintained by the contractor around the entire project or any major portion of the work during construction, the engineer may open for use by traffic any uncompleted portions of the project, and will have the option either to maintain such portions with Commission forces or to require the contractor to maintain the detours. If the contractor is required to maintain such opened portions, the contractor will be reimbursed for the cost of such maintenance in accordance with [Sec 109.4](#). However, when the time set for completion, including any authorized extension of time, has elapsed, the contractor will be responsible for all further costs of maintaining such opened portions, whether the open portions are maintained by the contractor's forces and equipment or by Commission forces.

104.7.3 If the contractor is required to maintain the flow of traffic over the project, including constructed detours or bypasses, such maintenance shall be construed to mean the satisfactory handling of all traffic to maintain safe and substantially uninterrupted flow. The contractor shall maintain the roadbed substantially free of ruts, holes and detrimental surface deformations. The contractor shall control the height of vegetation for traffic safety, and shall provide and maintain in a safe condition approaches, crossings and intersections with abutting

property to the highway, railroads, trails, roads and streets. Such maintenance shall be performed as necessary from the day the contractor starts construction operations under the contract. Snow removal will not be required of the contractor.

104.7.4 When it is to the advantage of the Commission, projects involving pavement may be opened to traffic as soon as the surface has been sufficiently cured, even though the shoulders and other items of work may not be completed. Such projects or portions of projects will be inspected and a partial acceptance made as to the work completed, and the contractor will be required to complete any remaining construction items under traffic.

104.7.5 When the engineer opens for use by traffic any unfinished portions of the project as provided under [Secs 104.7.2](#) or [104.7.4](#), the contractor will be compensated in accordance with [Sec 109.4](#) for any documented actual additional costs approved by the engineer. Any documented inefficiencies, delays or other time related effects approved by the engineer will be an excusable delay only as provided by [Sec 108.14](#).

104.8 Surfacing for Temporary Use. Surfacing for the temporary use of traffic shall, when directed by the engineer, be applied to areas necessary to provide satisfactory ingress and egress to private property, across the project or along the roadway. Such surfacing will be authorized if traffic cannot be handled satisfactorily by the contractor maintaining a reasonably smooth and drainable earth surface in accordance with [Sec 104.7](#). The quantity, quality and type of surfacing will be designated by the engineer. Acceptance of the material will be based on visual examination.

104.8.1 Measurement of material furnished for temporary surfacing will be made in accordance with [Sec 310.5](#), excluding any deductions for moisture.

104.8.2 The quantity of surfacing for temporary use authorized and accepted will be paid for at the contract unit price. Regardless of overruns or underruns, no adjustment will be made in the price for this material.

104.8.3 Preparing a subgrade, spreading or laying surfacing for temporary use, maintaining the surfacing, future removal or scarifying, if necessary, shall be at the contractor's expense.

104.9 Rights In and Use of Material Found on the Work. The contractor, with written approval from the engineer, may use in the construction of the project any stone, gravel or sand found in the excavation that conforms to the requirements of the specifications for material. The Commission will not pay for damages or for anticipated profits on account of the expected use of any material shown on the plans as existing and later found to be nonexistent or unfit for use. Payment will be made to cover the removal of such material at the contract unit price for excavation of the classification under which the excavation properly belongs. If such material is used instead of material that was to have been furnished at the expense of the contractor under the terms of the contract, the contractor shall furnish sufficient suitable material, at no additional expense to the Commission, to complete the roadway. Unless authorized in writing by the engineer, the contractor shall not excavate or remove from within the right of way any material that is not within the excavation limits as indicated by the slope and grade lines.

104.10 Mailboxes, Signs and Markers.

104.10.1 Mailboxes. Mailboxes within the limits of the project that will interfere with operations shall be removed by the contractor before work is begun. Mailboxes shall be set temporarily where the mailbox will be accessible to both the carrier and the patron, and shall be properly reset by the contractor at designated locations before final acceptance of the work by the Commission. Mailboxes damaged by the contractor shall be replaced by the contractor

at the contractor's expense. All mailbox supports set by the contractor shall be in accordance with AASHTO guidelines. Mailboxes may be reset by the contractor using only approved supports furnished either by the postal patron or by the engineer. No direct payment will be made for the removal, relocation or replacement of mailboxes or supports.

104.10.2 Signs and Markers. Signs and markers within the limits of the project that will interfere with operations shall be removed by the contractor before work is begun. All such signs and markers required for safe control and guidance of traffic shall be temporarily reset, readily visible to traffic, and shall be maintained in a satisfactory condition. If the nature of the work makes temporary relocation impractical, the signs shall be placed on movable supports and maintained in accordance with [Sec 616](#). Stop and yield signs at intersecting roadways shall be maintained where signs are readily visible to traffic at all times. Other individual signs may be moved aside only when signs interfere with actual operations. All required signs and markers shall be properly located to control traffic at all times. Final removal of signs and markers will be permitted only when permanent signs and markers have been installed. All signs and markers will remain the property of the Commission and shall, after final removal, be delivered without damage to locations within the project limits as directed by the engineer. No direct payment will be made for removal, relocation, temporary supports, maintenance or final removal and delivery of signs and markers.

104.10.3 Right of Way Markers and Plaques. All right of way marker posts or markers damaged by the contractor's operations shall be replaced at the contractor's expense, and installed in accordance with [Sec 602](#) and the standard drawings. Replacements for damaged right of way marker plaques will be furnished by the Commission.

104.11 Final Clean Up.

104.11.1 Before final acceptance, the contractor shall restore to a condition equal to or better than that existing prior to construction all property, both public and private, within, adjacent to and beyond the limits of construction that have been disturbed or damaged by prosecution of the work. Restoration work shall be at the contractor's expense.

104.11.2 When specified in the contract, the contractor shall open and clean all existing channels and culverts from all excess mud or silt, drift, brush or debris of any kind. Any material excavated in cleaning existing channels will be paid for as roadway excavation of like classification. Any material excavated in cleaning out culverts that are used in place will be paid for at the contract price per each structure. However, only the initial excavation will be paid for, and any subsequent cleaning required prior to final acceptance shall be at the contractor's expense.

104.12 Requirements for Projects Involving Work On Railroad Right of Way.

104.12.1 All work on, over or under railroad right of way shall be performed by the contractor without damage to the facilities and property of the railroad or the railroad's lessees, and in strict observance of requirements of the engineer and railroad for the safety of railroad property and operations. The contractor shall maintain the existing or proposed depth and section of the ditches along the tracks of railroads through the limits of construction. Any sediment resulting from new construction shall be promptly removed.

104.12.2 The contractor shall indemnify the railroad for any loss or damage to the railroad property, right of way, tracks and other facilities, hereafter referred to as property, caused by acts or omissions of the contractor, or any of the contractor's subcontractors, in performing work on a project, whether on, over, under or in the vicinity of railroad property. In the event the contractor fails to restore railroad property immediately to a condition acceptable to the railroad when any such loss or damage to railroad property is called to the contractor's

attention by the railroad, then the railroad may perform such corrective work at the contractor's cost.

104.12.3 Prior to beginning any work on, over or under railroad right of way, the contractor shall furnish to the railroad's engineer evidence of "Commercial Auto Liability Insurance," "Commercial General Liability Insurance" and "Railroad Protective Liability Insurance" in accordance with the contract documents and special provisions, which will establish the limits of each type of insurance.

104.12.4 The term "loss or damage" as used in [Sec 104.12](#) will include, but not be limited to, the erosion and silting of, water damage to, and the accidental or intentional placing or dropping of objects on railroad property.

104.12.5 Work performed on, over or under railroad right of way will be subject to the inspection of railroad representatives.

104.12.6 The Commission will make provisions for any temporary removal of railroad or railroad lessees' facilities that are to be moved.

104.12.7 The contractor shall in no way hold the Commission liable for delay caused by securing the railroad company's approval of construction features involved in placing any grade separation structure, the removal of any structures over the railroad's right of way, shoring plans that could affect the railroad's facilities or operation or any changes from the design plans that appear desirable during construction.

104.12.8 Construction requirements for projects involving work upon railroad right of way will be as follows.

104.12.8.1 Fiber optic, communications, control systems and other types of cable may be buried on railroad property. Before beginning work, the contractor shall contact the railroad to determine if cable systems are buried on the railroad property to be used by the contractor.

104.12.8.2 The contractor shall provide a minimum construction vertical clearance of 21 feet 6 inches above the top of rails and a minimum construction lateral clearance of 10 feet from the center line of track to the nearest temporary construction falsework. The contractor shall provide the minimum final lateral and vertical clearances as shown on the plans.

104.12.8.3 The contractor shall arrange with the railroad for installation of any temporary crossings.

104.12.8.4 The contractor shall notify the railroad and shall arrange for adequate protection of railroad property and operations under the following situations and conditions:

(a) When performing any work or operations closer to railroad tracks than the minimum construction clearances specified in [Sec 104.12.8.2](#) and set forth in schedule of rates in [Sec 104.12.9](#).

(b) When performing work on those portions of the structure located over or under railroad tracks.

(c) When using any temporary crossing of railroad tracks and right of way.

104.12.8.5 Arrangements for flagging shall be made in accordance with the contract documents and special provisions.

104.12.8.6 When performing work near the railroad tracks, the contractor shall, at the end of each work day, inspect the track area and clean up any debris. When the project is completed, the contractor shall remove any debris or material dropped on the railroad from the railroad right of way.

104.12.9 Requirements for projects involving rates of pay and other related costs for protective services required by the railroad will be as follows.

104.12.9.1 The services of one track foreman or other railroad employees qualified to protect railroad operations in accordance with railroad's rules, will be required during any construction operations involving direct interference with railroad tracks or traffic, the fouling of railroad operating clearances or reasonable probability of accidental hazard to railroad traffic. Services of additional railroad personnel for flagging protection will be required whenever such protection is needed when required by the railroad's authorized railroad representative.

104.12.9.2 The rate of pay per hour for each flagger shall be the prevailing hourly rate for the class of employee used in accordance with labor agreements and schedules in effect at the time the work is performed.

104.12.9.3 One and one-half times current hourly rate shall be paid for overtime, Saturdays and Sundays. Two and one-half times current hourly rate shall be paid for holidays.

104.12.9.4 Wage rates are subject to change at any time by law or by agreement between the railroad and railroad employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges, such as labor surcharges, are also subject to change. If the wage rates or additional charges are changed, the contractor shall pay on the basis of the new rates and new charges.

104.12.10 Requirements for projects involving reimbursement for work upon railroad right of way will be as follows.

104.12.10.1 The contractor shall reimburse the railroad for all costs of installation, maintenance and removal of any temporary crossings.

104.12.10.2 The contractor shall reimburse the railroad for all costs of protective services, such as flaggers, required by the railroad for the protection of railroad property and operations in accordance with [Sec 104.12.9](#). All such costs shall be determined on the basis of rates of pay and other related costs actually in existence at the time protective services are furnished. Payments will be made by deduction of funds from the contractor's periodic progress payments.

104.12.10.2.1 Reimbursement shall cover the full eight hour day during which any flagger is furnished, unless the flagger can be assigned to other railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagger is engaged in other work.

104.12.10.2.2 Reimbursement will be required for any day not actually worked by said flagger following assignment to work on the project for which the railroad is required to pay the flagger and that could not reasonably be avoided by the railroad by assignment of such flagger to other work, even though the contractor may not be working during such time.

104.12.10.3 The contractor shall reimburse travel expenses to the railroad in addition to the rate of pay indicated in [Sec 104.12.9](#).

104.12.10.4 The railroad shall have the right to bring an action directly against the contractor to recover any loss or damage sustained by the railroad by reason of the contractor's breach of agreements contained in [Sec 104.12](#).

104.12.10.5 In addition to such remedies of the railroad, the Commission will withhold from final payment due to the contractor the amount reasonably necessary to reimburse the railroad for such loss or damage, or for performing such work.

104.12.11 All costs incurred by the contractor in complying with [Sec 104.12](#) will be considered covered by the contract unit price for various items of work included in the contract.

104.13 Warranty of Electrical and Mechanical Equipment.

104.13.1 On all contracts requiring the contractor to furnish and install electronic, electrical or mechanical equipment, the contractor shall obtain, assign and furnish to the Commission written manufacturer's warranties for all such equipment consistent with those provided as customary trade practice. Additionally, a contractor's warranty providing for satisfactory in-service operation shall be provided for a minimum period of six months from the date of project acceptance.

104.13.2 If the equipment fails to perform satisfactorily for the specified length of time, the manufacturer or the contractor shall replace or repair the equipment as necessary to restore required performance. MoDOT labor costs resulting from equipment replacement will not be charged to the manufacturer or the contractor.