

PART II

**TERMS AND
CONDITIONS**

TC SECTION 1

LANGUAGE, REFERENCES, AND DEFINITIONS

TC-1.01 LANGUAGE

These specifications incorporate the selective use of the imperative mood. In general, specifications in the imperative mood will imply a direct responsibility upon the subject “the Contractor” to perform an action. Depending on the context of the specification, the subject may also be the supplier, fabricator, or manufacturer. For example, the imperative sentence “Notify the Bureau of Mines when coal is encountered” implies, “The Contractor shall notify the Bureau of Mines.”

For specifications that are not in the imperative mood, the word “shall” refers to obligatory requirements or actions of the Contractor, supplier, fabricator, or manufacturer as applicable; “will” refers to actions of the Administration.

All work pertaining to these Specifications shall be completed as specified in the Contract Documents or as directed by the Engineer. When used in these Specifications, the term “specified” refers to requirements stated herein or included elsewhere in the Contract Documents. Refer to GP-4.01.

Terms such as directed, accepted, acceptable, approved, approval, authorized, determined, permitted, and satisfactory are implicitly followed by the words “by the Engineer”, “to the Engineer”, or “of the Engineer”.

The word “submit” or “submittal” implies that the Contractor shall provide the applicable submittal in writing to the Engineer for approval. If otherwise, the Contract Documents will specify where to make the submittal. No applicable work may proceed without written approval. These requirements apply to all submittals, whether for details, methods, schedules, or materials. Refer to TC-4.01 and Section 499.

The word “ensure” obligates the Contractor to fulfill a specific requirement or complete an indicated action in conformity with the Contract Documents.

The phrase “remove and dispose” obligates the Contractor to assume possession of the specified material, remove it from the area, and properly dispose of it off site. Even when not specifically addressed, all waste materials shall be disposed of in this manner. All costs for this work shall be included in the applicable Contract work at no additional cost to the Administration.

Unless otherwise specified, when terms such as “repair”, “restore”,

“replace”, and “remove and replace” are used in reference to unacceptable work, whatever the reason or cause for the work being rejected, it shall be implicitly understood that the Contractor shall perform the applicable work in conformance with the Contract Documents, in an acceptable manner, and at no additional cost to the Administration. Refer to GP-5.02, GP-5.09, and GP-7.16.

Unless specifically stated otherwise, all material, labor, equipment, tools, and incidentals necessary to perform and complete the work as specified and detailed in the Contract Documents, including all generally recognized and inherent aspects of the work, shall be included in either the lump sum or unit price for the Contract (Pay) item. When specific aspects of the work are listed in Measurement and Payment, it shall be construed to be an all-inclusive list.

TC-1.02 REFERENCES

Reference to Specifications or procedures beginning with the letters M, R, or T shall be understood to be AASHTO.

Reference to Specifications or procedures beginning with the letters A, B, C, D, E, F, G, ES or P shall be understood to be ASTM.

References to all Specifications and procedures shall be understood to be the most recently published standard at the time of advertisement unless otherwise specified in the Contract Documents.

The words “using”, “per”, and “meet” or “meeting”, when referring to a specification or procedure, imply “in strict accordance with.”

TC-1.03 DEFINITIONS

Additional Work—Work not required or provided for in the original Contract.

Administration—The term shall be construed to be the Maryland Department of Transportation State Highway Administration as established in conformance with the laws of Maryland.

Base Course—The one or more layers of specified material and thickness placed on a subbase or a subgrade to support a surface course.

Bridge—A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet

between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening. For lengths, all dimensions shall be parallel to the center line of the roadway. The dimensions of handrails will not be taken into account in measuring bridge lengths.

Any bridge or highway grade separation structure includes the connecting highways, substructure, superstructure, roadway approaches, entrance plazas, interchanges, overpasses, underpasses, and other structures which the Administration may deem necessary together with all property rights, easements, franchises, and interests acquired by the Administration for the construction and operation of the bridge.

Certification—A document which verifies that the material and work complies with the applicable specifications and includes the actual test results to confirm the statement. The contents of the certification shall be on the Contractor's/vendor's/manufacturer's letterhead or approved document and shall be duly signed by a company officer.

Certifications for metal products, when required, shall include a statement that the material was melted and manufactured in the United States except as provided in Section 165 of the Surface Transportation Assistance Act of 1982, as amended by Section 1041(a) and 1048(a) of the Intermodal Surface Transportation Efficiency Act of 1991 with regard to the furnishing and coating of iron and steel products. A nationwide waiver for this provision has been granted for pig iron and processed, pelletized, and reduced iron ore.

Change Order—A written document amending the Contract by adding, deleting, or modifying the Contract to include price, time, work, and conditions not previously addressed within the Contract. Refer to GP-1.05.

Contract Time—The number of working days, calendar days, or a calendar date specified in the Contract Documents indicating the time period allowed for the completion of the Contract work.

Controlling Operation—An operation which at the particular time under consideration has a controlling effect on the progress of the project as a whole.

Culvert—Any structure not classified as a bridge which provides an opening under any roadway.

Domestic Manufacture—When referring to metallic items such as structural steel, pipe, reinforcement, bridge rails, etc., the term Domestic

Manufacture means those metal products that have been melted and manufactured within the United States.

Drainage Ditch—In general, any open water course other than gutters, constructed as indicated in the Contract Documents.

Equipment—All machinery, tools, and apparatus necessary for the proper construction and acceptable completion of the work, together with the necessary supplies for upkeep and maintenance.

Federal Agencies—Reference to any Federal agency or officer shall be deemed made to any agency or officer succeeding in conformance with law to the powers, duties, jurisdictions, and authority of the agency or officer mentioned.

General Provisions (GP)—Contract provisions published as part of, or as a supplement to the Standard Specifications intended for general application and repetitive use.

Holidays—In the State of Maryland, holidays occur on:

January 1	– New Year's Day
3rd Monday in January	– Martin Luther King's Birthday
3rd Monday in February	– President's Day
4th Monday in May	– Memorial Day
July 4	– Independence Day
1st Monday in September	– Labor Day
2nd Monday in October	– Columbus Day
November 11	– Veteran's Day
4th Thursday in November	– Thanksgiving Day
December 25	– Christmas Day

All days of General and Congressional Elections (not primary elections) throughout the State.

If a legal holiday falls on a Sunday, the following Monday shall be deemed and treated as a holiday.

If a legal holiday falls on a Saturday, the Friday immediately preceding shall be deemed and treated as a holiday.

Laboratory—The testing laboratory of the State Highway Administration (or other Administrations) or any other testing laboratory designated by the procurement officer.

Median—The portion of a divided highway separating the traveled ways for traffic in opposite directions.

MdMUTCD—Maryland Manual on Uniform Traffic Control Devices.

Pavement Structure—The surface, base, or subbase course placed in layers on a subgrade to support and distribute the traffic load to the roadbed.

Plans—The official drawings issued by the Administration as part of the Contract Documents, including those incorporated in the Contract Documents by reference. These include the official approved plans, profiles, typical cross sections, working drawings, and supplemental drawings or exact reproductions that show the location, character, dimensions, and details of the work to be done.

Profile Grade—The trace of a vertical plane intersecting the top surface of the proposed wearing surface usually along the longitudinal center line of the roadway. Profile grade means either elevation or gradient of the vertical plane.

Ramp—A connecting roadway between two intersecting highways at a highway separation.

Right-of-Way—The area acquired and reserved by the Administration for use in constructing the proposed improvement and appurtenances.

Roadbed—The graded portion of a highway within the top and side slopes prepared as a foundation for the pavement structure and shoulders.

Road or Highway—Both the word road and the word highway include rights-of-way, surfaces, subgrades, shoulders, median dividers, drainage facilities and structures, roadway cuts, roadway fills, traffic barriers, bridges, highway grade elimination structures, tunnels, overpasses, underpasses, interchanges, entrance plazas, approaches, and other structures forming an integral part of a street, road, or highway; including bicycle and walking paths and related storm water management facilities and structures. Any other property acquired for the construction, operation, or use of the highway.

Roadside—A general term denoting the area adjoining the outer edge of the roadbed within the right-of-way. Extensive areas between the roadways of a divided highway may also be considered roadside.

Roadside Development—Work for the preservation of natural and landscaped areas and the rehabilitation and protection against erosion of all areas disturbed by construction through turf establishment and the placing of other ground covers, suitable planting, and other improvements to increase the effectiveness and enhance the appearance of the highway.

Seal Coat—An application of asphalt material followed by an application of cover coat aggregate.

Shoulder—The portion of the roadbed contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

Sidewalk—The portion of the roadway constructed for use by pedestrians.

Slopes—The inclined graded areas beyond the shoulder, extending from the shoulders to the natural, undisturbed surface of the ground.

Special Provisions (SP)—Specifications for a specific item or condition requirement peculiar to an individual project and not otherwise thoroughly or satisfactorily detailed in the Contract Documents.

Special Provisions Insert (SPI)—Additions and revisions to the Standard Specifications that have been officially approved.

Standard Specifications—The most current book of Specifications entitled "Standard Specifications for Construction and Materials" published by the Administration and intended for general application and repetitive use.

Standards—The official Standards for Highway and Incidental Structures, maintained on the Administration website. The latest incorporated revisions issued on or before the date of advertisement of the Contract.

State Highway System—That system of roads owned, operated, or maintained by the Administration.

State Road—Any public road included in the State highway system.

Structures—Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, end walls, buildings, sewers, service pipes, underdrains, foundation drains, steps, fences, and other features that may be encountered in the work and not otherwise classified.

Subbase—The layers of specified or selected material of designed thickness placed on a subgrade to support a base course or surface course.

Subgrade—The top surface of a roadbed upon which the pavement structure, shoulders, and curbs are constructed.

Substructure—All of that part of the structure below bottoms of bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, together with the back walls and wing walls.

Superstructure—All of that part of the structure above bottoms of bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, except as noted above for substructure.

Surface Course—One or more layers of a pavement designed to accommodate the traffic load.

Traveled Way—The portion of the roadway for the movement of vehicles, exclusive of shoulders.

Trench—An excavation made for the purpose of installing or removing pipes, drains, catch basins, etc., which is later refilled.

Working Day—A calendar day upon which, in the judgement of the Engineer, weather and soil conditions are such that the Contractor can advantageously work more than half of his current normal force for more than five consecutive hours on a controlling operation. Working days will not be charged on Saturdays, Sundays, and State recognized holidays unless the Contractor actually works more than five hours on a controlling operation.

Working Drawings—Stress sheets, shop drawings, fabrication details, erection plans, plans for false work, forms, centering, cribs, cofferdams and masonry layouts, bending and placing drawings, bar schedules for reinforcement steel, and any other supplementary plans or similar data that the Contractor may be required to furnish.

TC SECTION 2 BIDDING REQUIREMENTS AND CONDITIONS

TC-2.01 PROJECT CLASSIFICATION

The Administration will estimate the cost of the Contract and classify it within one cost group and letter designation as follows:

COST GROUP ESTIMATE	COST GROUP LETTER CLASS
Up to \$ 100 000	A
\$ 100 001 to \$ 500 000	B
\$ 500 001 to \$ 1 000 000	C
\$ 1 000 001 to \$ 2 500 000	D
\$ 2 500 001 to \$ 5 000 000	E
\$ 5 000 001 to \$ 10 000 000	F
\$10 000 001 to \$ 15 000 000	G
\$ 15 000 001 to \$ 30 000 000	H
\$ 30 000 001 to \$ 50 000 000	I
\$ 50 000 001 to \$ 75 000 000	J
\$ 75 000 001 to \$ 100 000 000	K
Over \$ 100 000 000	L

The letter designation will be published as part of the Notice to Contractors.

TC-2.02 PREPARATION OF BID

The requirements of GP-2.06 (Preparation of Bid) is modified for Administration Contracts to include the following after paragraph (a):

The Contractor may elect to submit the bid on forms generated in the development of the bid. When approved, these forms may be submitted in lieu of the schedule of prices bid forms furnished by the Administration in the Invitation for Bids. They shall emulate the forms currently furnished by the Administration and contain the following information.

- (1) State and Federal Contract Nos.
- (2) Administration Item Nos.
- (3) Administration Category Code Nos.
- (4) Administration Proposed Quantities
- (5) Description of Items

- (6) Unit Price
- (7) Total Cost of Each Item
- (8) Total Bid Amount

The document shall be 8-1/2 x 11 inches, and in landscape format. The font size shall be at least 10 points, with horizontal lines dividing each item. Addendums that revise items or quantities shall be noted on all affected Schedule of Prices sheets. Any special bid requirements that are noted in the Schedule of Prices shall also be listed on the form.

A sample of the form shall be submitted to the Administration at least 14 days prior to the scheduled bid opening. Contractor generated forms shall be approved in writing prior to use. If the forms were previously approved on another Administration project and were not changed, they need not be resubmitted for each project.

Sample forms shall be submitted to:

Maryland State Highway Administration
Director, Office of Construction
Contracts Award Team
7450 Traffic Drive
Hanover, Maryland 21076

TC-2.03 VALUE ENGINEERING CHANGE PROPOSALS

The Contractor may submit to the District Engineer, in writing, Value Engineering Change Proposals (VECP) for modifying the Contract Documents for the purpose of reducing the total cost of construction without reducing design capacity or quality of the finished product. The District Engineer will then forward the proposal to the Chief Engineer with recommended action. The final decision to accept or deny the VECP will be made by the Chief Engineer. The Administration will not consider appeals once the final decision is made. If accepted by the Administration, net savings resulting from a VECP will be equally divided between the Administration and the Contractor.

The Contractor may elect to pursue one of the following options:

- Option 1— Submit the detailed plans, specifications, and estimate of savings, or

Option 2— Submit a written concept of the VECP for tentative approval and if accepted, submit the detailed plans, specifications, and estimate for final approval at a later date.

Each VECP shall result in a net savings to the Contract cost without impairing essential functions and characteristics of the items or of any other part of the project, including but not limited to service life, reliability, economy of operation, ease of maintenance, desired aesthetics, and safety.

As a minimum, the Contractor shall submit the following information before final approval of a VECP can be given:

- (a) A statement that the proposal is submitted as a VECP.
- (b) A statement concerning the basis for the VECP and benefits to the Administration, together with an itemization of the Contract items and requirements affected by the VECP.
- (c) A detailed estimate of the cost under the existing Contract and under the VECP.
- (d) Proposed plans, specifications, and recommendations as to how the VECP changes shall be accomplished.
- (e) A statement as to the time by which a change order adopting the VECP must be issued so as to obtain the maximum cost effectiveness. The Administration will require 30 days to review and approve a VECP.
- (f) The Contractor's engineering cost for the VECP.

The Administration will process the VECP in the same manner as prescribed for any other proposal that would necessitate issuance of a change order. The Administration may accept, in whole or in part, any VECP by issuing a change order, which will identify the VECP on which it is based. The Administration will not be liable to the Contractor for failure to accept or act upon any VECP submitted pursuant to these requirements nor for any delays to the work attributable to any VECP proposal. Until a proposal is affected by a change order, the Contractor shall remain obligated to the terms and conditions of the existing Contract. If an executed change order has not been issued by the date upon which the Contractor's proposal specifies that a decision should be made, or any other date as the Contractor may subsequently have specified in writing, the proposal shall be deemed rejected.

The change order affecting the necessary Contract modification will establish the net savings agreed upon, will provide for adjustment in the Contract prices or Contract time, and will indicate the net savings to be equally divided between the Contractor and the Administration. The Contractor's costs for preparation of the VECP and the Administration's costs to review and administer the VECP will be deducted from the gross savings. The Administration reserves the right to include in the agreement any conditions it deems appropriate for consideration, approval, and implementation of the proposal. The Contractor's 50 percent share of the net savings shall constitute full compensation for affecting all changes pursuant to the agreement.

Acceptance of the VECP and performance of the additional work will not change the Contract time limit as a result of the VECP, unless specifically provided for in the change order authorizing the VECP.

The Administration expressly reserves the right to adopt a VECP for general use in Contracts administered by the Administration when it determines that the proposal is suitable for application to other Contracts. VECPs identical or similar to previously submitted proposals will be eligible for consideration and compensation under these provisions if such proposals were not previously adopted for general application to other Contracts administered by the Administration. When a VECP is adopted for general use, compensation pursuant to these requirements will be applied only to those Contracts awarded and for which the subject VECP has been submitted prior to the date of adoption of the specific VECP.

Proposed changes in the basic design of a bridge or pavement type, or requiring modification to the right-of-way limits, will not normally be considered as an acceptable VECP. Quantity decreases or elimination of any Contract pay items as a result of changing field conditions, errors, etc. will not be considered as an acceptable VECP. If a VECP is based upon or similar to a change in the Plans, Specifications, or Special Provisions adopted by the Administration prior to submission of the VECP, the Chief Engineer will reject the proposal.

These requirements apply to all VECPs initiated and developed by the Contractor and which are identified as such by the Contractor at the time of its submission to the Chief Engineer; however, nothing herein shall be construed as requiring the Chief Engineer to consider or approve a VECP submitted by the Contractor.

Subject to these provisions, the Administration or any other public agency will have the right to use all or part of any accepted VECP on other projects without obligation or compensation of any kind to the Contractor.

In the event a VECP is accepted by the Administration, the provisions of the Contract Documents that pertain to adjustment of Contract unit prices due to alterations of Contract quantities will not apply to the items adjusted or deleted as a result of affecting the VECP by change order.

TC-2.04 OWNER/OPERATOR

For the purpose of labor compliance, the term "Owner/Operator" will be defined as being the individual who owns and operates their own vehicle.

The prevailing wage rates shall not apply to these individuals. However, they shall appear on the payroll of the Contractor or subcontractor with the notation "Owner/Operator".

Employees of Owner/Operator shall be subject to prevailing wage rates and shall appear on a certified payroll.

TC-2.05 DEBARMENT/SUSPENSION

Pursuant to the emergency regulations which were approved by the Administrative and Executive Legislative Review (AELR) Committee of the Maryland General Assembly on July 27, 1982, and which went into effect on July 28, 1982, the Maryland Department of Transportation, State Highway Administration has pursuant to applicable laws and regulation established a list of Debarred or Suspended Contractors.

The current list of Debarred or Suspended Contractors or Suppliers is available at the Administration's Cashier's Office, Baltimore, Maryland.

TC-2.06 PARTNERING

The Administration invites the Contractor, subcontractors, and suppliers to participate in a voluntary partnership agreement for the work. The partnership will be structured to draw on the strengths of each organization through open communication, teamwork, and cooperative action to identify and achieve reciprocal goals. The objectives are effective and efficient Contract performance, completion within the Contract bid price, on schedule, and in conformance with the Contract Documents. This partnership will not change the legal relationship of the parties to the Contract nor relieve any party from any of the terms of the Contract.

The Administration will contact the Contractor to determine if there is an interest in partnering. If the Contractor is interested, the Administration's Assistant District Engineer Construction and the

Contractor's management representative will meet, plan, and organize a partnering development team. Persons recommended to be on the team are: The Administration's District Engineer, Assistant District Engineer, Area Engineer, Construction Project Engineer, and Project Design Engineer, the Contractor's designated on-site project manager, and key project supervision personnel of both the Contractor and principal subcontractors and suppliers. FHWA and key local government personnel will also be invited to attend as necessary. The initial workshop team meeting will be held prior to the Preconstruction Conference. Follow-up workshops may be held regularly as agreed by the Contractor and the Administration.

The partnership will be bilateral. Participation is voluntary. All partnering costs will be shared equally by the Contractor and the Administration.

TC SECTION 3 SCOPE OF WORK

TC-3.01 GOVERNING ORDER OF CONTRACT DOCUMENTS

The Contract Documents, including but not limited to the Standard Specifications, the Special Provisions Inserts, the Plans, Special Provisions, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In the event of any discrepancy between the drawing and figures written thereon, the figures, unless obviously incorrect, will govern over scaled dimensions. In the event of any discrepancy between the various Contract Documents, the governing order from highest to lowest shall be Special Provisions, Plans, Special Provisions Inserts, and Standard Specifications.

General Provisions will govern over all Contract Documents unless expressly provided for in the Contract.

TC-3.02 CONSTRUCTION DOCUMENTS TO SUCCESSFUL BIDDER

The successful bidder on each Contract advertised by the Administration will be sent upon award of the Contract five sets of Plans, five Invitation for Bids Books, and two sets of Cross Sections free of charge. Any additional Plan sets required by the Contractor may be

purchased at the price noted in Notice to Contractors. Individual Plan sheets and individual sheets of Cross Sections or complete sets of Plans or Cross Sections may be purchased at the prevailing price set by the Administration.

TC-3.03 RIGHTS IN AND USE OF MATERIALS FOUND ON THE PROJECT

The Contractor, with the approval of the Engineer may use on the project any excavated stone, gravel, sand, or other material conforming to the requirements of the Contract Documents.

When these materials are used for select, capping, modified, or common borrow and conform to the pertinent materials Specifications, payment will only be made at the Contract unit price for the class of excavation from which the materials are obtained.

In the event these materials are processed through a crushing, screening, washing, or sorting plant for use as another pay item, the Contractor will be paid both for the excavation of such materials at the Contract unit price and at the Contract unit price for which the material is used. The Contractor shall replace with other acceptable material all of the portion of the excavated material removed and used that was needed for use in the embankments, backfills, approaches, or otherwise, at no additional cost to the Administration.

If however, these materials are not processed and paid for as described in the preceding paragraph, and their use creates a shortage of embankment, backfill, approaches, or other material, the Contractor shall provide acceptable replacement material for all the material needed for embankments, backfills, approaches, or otherwise. In this case, the replacement material shall be paid for at the unit price for the item the Class 1 Excavation is used for, or the unit price bid for the Class 1 Excavation, whichever is the lower unit price bid.

The Contractor shall not excavate nor remove any material that is not within the limits of excavation, as indicated by the slope and grade lines, without written authorization from the Engineer.

TC-3.04 SAFETY HAZARDS IN CONFINED SPACES

The Contractor shall be responsible for gas detection in and ventilation of confined spaces.

When procedures require workers to enter confined spaces such as steel or concrete box section type superstructures, particularly when the

interior is closed off at both ends, the Contractor shall be cognizant of the potential health hazards.

The Contractor shall adhere to all applicable MOSH regulations. The Contractor shall have approved detecting devices available and shall conduct tests for oxygen content and presence of gases, such as combustible gas, carbon dioxide, methane, carbon monoxide, and hydrogen sulfide whenever any fabrication, erection, or inspection operations are to be performed within the confined spaces. The Contractor shall apply mechanical ventilation continuously to the confined space during occupancy to maintain the proper oxygen content and shall conduct air tests periodically during the occupancy.

TC SECTION 4 CONTROL OF WORK

TC-4.01 WORKING DRAWINGS

- (a) **General.** The Plans shall be supplemented by working drawings as necessary to adequately control the work. All authorized alterations affecting the requirements and information given on the working drawings shall be in writing to the Engineer. When reference is made to the working drawings, the interpretation shall be the working drawings as affected by all authorized alterations then in effect.

Working drawings shall show details of all structures, lines, grades, typical cross section of roadway, general cross sections, location, and designation of all units and elements.

The Contractor shall provide, at no additional cost to the Administration, all required working drawings and shall have them adequately checked, after which they shall be submitted to the Engineer for review. The Engineer may reject working drawings and return them for revisions, in which case the Contractor shall submit revised working drawings as required. No items involving the drawings shall be incorporated into the work until the Engineer has accepted the drawings for use; however, acceptance shall not relieve the Contractor of any responsibility in connection with them. All working drawings shall be furnished in duplicate for preliminary examination for projects prepared by the Administration and in triplicate for projects prepared by consultant engineering firms for the Administration. After the Engineer has accepted working

drawings for use, the Contractor shall furnish additional copies as requested.

All working drawings shall be on sheets measuring 22 by 34 inches and shall have a standard title block at the lower right corner approximately 4 by 8 inches (2 inches for the revision column on the left side and the remaining 6 inches for the title) indicating the following information in the order named:

Name of Contractor (and subcontractor, if applicable)
 Address of Contractor (and subcontractor, if applicable)
 Sheet Title (Reinforcement Details, etc.)
 Name of Structure
 Crossing
 For (Maryland State Highway Administration)
 By (Indicate name of Contractor's official or engineer, or other parties authorized to sign official documents.)

List all Administration Contract numbers, complete Federal Aid number, if any, and the date the drawing was completed. The left portion of the title block shall be headed "Revisions" and the space used as needed.

Working drawings for standard scuppers are not required. A sketch or statement specifying the type and number of standard scuppers required and the length of the downspout is acceptable.

The working drawings shall be submitted for review to the applicable Director's Office. A copy of the transmittal letter shall be forwarded to the appropriate District Engineer. The number of working drawings to be furnished shall be as specified above and addressed to one of the following:

Maryland State Highway Administration
 Director, Office of Bridge Development
 707 North Calvert Street
 Baltimore MD 21202
 (Refer to Category 400 of the Contract Documents for working drawing submissions.)

Maryland State Highway Administration
 Director, Office of Construction
 7450 Traffic Drive
 Hanover MD 21076

Maryland State Highway Administration
Director, Office of Environmental Design
707 North Calvert Street
Baltimore MD 21202

Maryland State Highway Administration
Director, Office of Highway Development
707 North Calvert Street
Baltimore MD 21202

Maryland State Highway Administration
Director, Office of Maintenance
7491 Connelley Drive
Hanover MD 21076

Maryland State Highway Administration
Director, Office of Materials Technology
7450 Traffic Drive
Hanover MD 21076

Maryland State Highway Administration
Director, Office of Traffic and Safety
7491 Connelley Drive
Hanover MD 21076
(Refer to Category 800 of the Contract Documents for
working drawing submissions.)

- (b) Working Drawings for Falsework Systems.** Falsework systems (design, plans, and construction) shall be the responsibility of the Contractor, including submitting and obtaining written acceptance of the design and plans by the Engineer before erection.

The Contractor shall utilize a professional engineer (P.E.) registered in the State of Maryland who has at least five years experience in falsework design for bridge construction and repair. The falsework design calculations and plans shall be signed by the P.E. and bear the seal of the P.E. The submittal of the design and falsework plans shall include the P.E.'s resume showing evidence of the required experience.

The P.E.'s plans and design calculations shall evaluate and qualify all products and components including manufactured products and proprietary items for their intended service. Acceptance by the Engineer of falsework systems shall not in any way relieve the Contractor of the responsibility for the safety and

adequacy of the design and construction for the falsework systems and operations, including all components.

Every structure in the construction Contract will require a separate falsework design analysis, separate plans, and design submittal as set forth above. This applies even though structures may appear to be identical.

Each falsework system shall be designed to support all vertical and horizontal loading with enough redundancy to prevent progressive failure. Vertical loading, differential settlement forces, live load where applicable, and all horizontal, lateral, and longitudinal forces shall be taken into account. Unbalanced temporary loading caused by placement sequence shall also be provided for in the design. Adequate diagonal bracing in all planes shall be employed.

All falsework systems (designs, plans, and construction) shall provide for adequate foundations with bearings below the frost line or on rock or on piling, and for possible settlement. If additional subsurface data is necessary, it shall be obtained and analyzed for proper design of the plans and performance of construction.

Falsework designs and plans shall include protection against impact from uncontrolled highway vehicles, accidental collision of a crane boom or other construction equipment and vehicles, traffic vibration, flood waters, high winds, and any other envisioned contingent situations.

TC-4.02 FAILURE TO MAINTAIN PROJECT

GP-5.12 (Failure to Maintain Entire Project) is not applicable to Administration Contracts. The provisions of this TC shall apply.

If the Contractor, at any time, fails to respond to the provisions of GP-5.11 (Maintenance of Work During Construction), the procurement officer will immediately notify the Contractor to comply with the required maintenance provisions. If corrective actions do not begin within four hours after receipt of the notice, the procurement officer may:

- (a) Notify the contractor to suspend all other work until the unsatisfactory maintenance is corrected, or
- (b) Proceed at anytime with adequate forces and equipment to maintain the project. The entire cost of this maintenance will be

deducted from monies due the Contractor on the next progress payment.

TC-4.03 USE AND POSSESSION PRIOR TO COMPLETION

In addition to the provisions of GP-7.15 (Use and Possession Prior to Completion) the following will apply on Administration Contracts:

Upon written authorization of the procurement officer, the Contractor may be relieved of maintenance during the time the Administration has taken possession. Any portion of the work that may be disturbed or damaged shall be restored at respective Contract prices for items involved, or on the basis of a predetermined arrangement entered into by the Contractor and procurement officer before the performance of the restoration work.

TC-4.04 SUSPENSION OF WORK

In addition to the provisions of GP-8.07 (Suspension of Work), the following shall apply on Administration Contracts.

The Engineer will have the authority to suspend the work wholly or in part due to the failure of the Contractor to correct conditions unsafe for the workers or the general public; for failure to carry out the requirements of the Contract Documents, or as directed in conformance with the Contract Documents for conditions considered unsuitable for the prosecution of the work.

TC-4.05 DISPUTE MEDIATION

When a dispute arises out of or relates to the Contract or breach thereof, and if the dispute can not be settled through negotiation or the partnering issue resolution process, either party may first elect to try in good faith to settle the dispute by nonbinding mediation administered by a mutually agreed upon qualified mediator before proceeding with other dispute resolution procedures including litigation.

TC SECTION 5

LEGAL RELATIONS AND PROGRESS

TC-5.01 INSURANCE

In addition to the provisions of GP-7.14 (Liability Insurance), the following shall apply on Administration Contracts.

The Contractor shall maintain in full force and effect third party legal liability insurance necessary to cover claims arising from the Contractor's operations under this agreement that cause damage to the person or property of third parties. The insurance shall be under a standard commercial general liability (CGL) form endorsed as necessary to comply with the above requirements; or other liability insurance form deemed acceptable by the State. The State of Maryland shall be listed as an additional named insured on the policy. The limit of liability shall be no less than \$1 000 000 per occurrence/\$2 000 000 general aggregate. The insurance shall be kept in full force and effect until all work has been satisfactorily completed and accepted. The policies shall be endorsed to provide 30 days notice of cancellation or nonrenewal to:

Maryland State Highway Administration
Director, Office of Construction
7450 Traffic Drive
Hanover MD 21076

Evidence of insurance shall be provided to the Administration prior to the award of the Contract by means of a Certificate of Insurance with copies of all endorsements attached or, in the event insurance is provided by a policy form other than a CGL form, by certified copy of the complete policy with all endorsements.

Any policy exclusions shall be shown on the face of the Certificate of Insurance.

The Certificate of Insurance shall be accompanied by a document (a copy of State License or letter from insurer) that indicates that the agent signing the certificate is an authorized agent of the insurer.

When specified in the Contract Documents, the Contractor shall carry the type and amounts of insurance in addition to any other forms of insurance or bonds required under the terms of the Contract and these Specifications.

The cost of the insurance will not be measured but will be incidental to the Contract lump sum price for Mobilization. If an item for Mobilization

is not provided, the cost of the insurance will be incidental to the other items specified in the Contract Documents.

Contractor and Railroad Public Liability and Property Damage Insurance shall be provided as specified in TC-6.05.

TC-5.02 NOTICE TO PROCEED AND PROJECT SCHEDULE

Within 45 days after the Contract has been executed, the Administration will issue to the Contractor a Notice to Proceed. This notice will stipulate the date on or before which the Contractor is expected to begin work. No work shall be started before receipt of the Notice to Proceed.

The requirement of GP-8.04 (Progress Schedule) to submit a progress schedule within 30 days after Notice to Proceed is modified as follows:

Unless otherwise specified, on Administration projects the proposed project schedule shall be submitted within 14 days after receiving the Notice of Award. The Contractor shall not begin work on the project until the project schedule is approved by the Administration. However, time charges shall begin no later than the time stipulated in the Notice to Proceed.

TC-5.03 SUBCONTRACTING AND SUBCONTRACTORS

In addition to the provisions of GP-8.01 (Subcontracting), the following shall apply on Administration Contracts:

The subcontractors named in the Contractor's bid and approved by the Administration and those approved when subsequently submitted shall perform the Contract items as approved by the Administration. Requests for permission to sublet, assign, or otherwise dispose of any portion of the Contract shall be in writing and include the item number or numbers and the dollar value. The Contractor shall give assurance that the minimum wage for labor, as specified in the Contract Documents, shall apply to labor performed on all work sublet, assigned, or otherwise disposed of.

When a subcontractor has been approved by the Administration for the performance of specific items of work on the Contract, the Administration will not allow the Contractor to substitute another subcontractor, except in the event the Contractor requests in writing that the approved subcontractor be relieved of the necessity of performance of the work. Any change of subcontractors shall be requested in writing by the Contractor and shall have the written concurrence of the previously

designated subcontractor. Concurrence shall not be unreasonably delayed, in the judgement of the Administration.

If a subcontractor does not perform to the satisfaction of the Contractor, the Contractor may request to be allowed to perform the work with his own forces or request that another subcontractor, mentioned by name, be substituted. When reasons submitted for the substitution of the subcontractor indicate that the change will be in the best interest of the Administration, approval of the request will be granted.

Roadside production of materials, unless performed by the Contractor, shall be considered as subcontracting. This shall be construed to mean the production of crushed stone, gravel, or other materials by means of portable or semi-portable crushing, screening, or washing plants, established or reopened in the vicinity of the work for the purpose of supplying materials to be incorporated into the work on a designated project or projects.

The purchase of sand, gravel, crushed stone, crushed slag, batched concrete aggregates, ready mix concrete, or other materials produced at and furnished from established and recognized commercial plants, together with the delivery of the materials to the site of the work by the producer or by recognized commercial hauling companies, will not be considered as subcontracting.

Subcontractors Prompt Payment. The Contractor shall promptly pay a subcontractor any undisputed amount including retainage to which the subcontractor is entitled for work under the Contract within 10 days of receiving a progress, semi-final, or final payment in conformance with the latest edition of the State Finance and Procurement Article 15-226 of the Annotated Code of Maryland.

The Administration has established the following time frame for subcontractor payment: When a progress, semi-final, or final payment is processed and payment is received by the Contractor, payment shall be made to all subcontractors within 10 days.

Each month, the Construction Project Engineer (CPE) will review the current pay items with the Contractor and all involved subcontractors to ensure that all work satisfactorily completed in conformance with the Contract Documents is included in the monthly progress payment. For payment purposes, the same quantity totals used to compute the payment to the Contractor will be the basis for payment to the subcontractor.

If the Contractor withholds payment from a subcontractor beyond 10 days, the Contractor shall:

- (a) Notify the subcontractor in writing and state the reason why payment is being withheld; and
- (b) Provide a copy of the notice to the CPE and the District Engineer.

If the subcontractor does not receive payment within the required 10 days, the subcontractor shall give written notice of nonpayment to the CPE and the District Engineer.

The notice shall:

- (a) State the name of the Contractor, the Contract Number, and the amount in dispute.
- (b) Provide an itemized summary on which the amount is based; and
- (c) If known, provide an explanation for any dispute concerning payment by the Contractor.

The CPE will then notify the Assistant District Engineer, Construction (ADE) of the dispute. The ADE will verbally contact the Contractor within 48 hours to ascertain whether the amount withheld is an undisputed amount.

If the ADE determines that a part or all of the amount withheld is an undisputed amount, the ADE will instruct the Contractor to pay the subcontractor the undisputed amount within three days. The instructions will be confirmed in writing.

The ADE will verbally communicate to the subcontractor the results of the discussion with the Contractor and confirm the results in writing.

If the Contractor fails to pay the subcontractor the undisputed amount within the specified three days, the subcontractor may report the nonpayment in writing to the ADE.

Upon receipt of notification of nonpayment from the subcontractor, the ADE will schedule a meeting to verify and discuss the nonpayment issue. This meeting will be held at the District Office no later than 10 days after receiving notice from the subcontractor.

Invited to this meeting will be the Contractor, the subcontractor, the ADE, and the CPE. The purpose of this meeting will be to establish why payment was not made to the subcontractor in the required time period. If it is determined that the Contractor is delinquent in payment to the subcontractor, further progress payments to the Contractor may be withheld until the subcontractor is paid.

If payment is not made to the subcontractor within seven days after the ADE determines that the Contractor is delinquent in paying the subcontractor and the next progress payment becomes due, the progress payment will not be processed and a second meeting will be held at the District Office to address the dispute. The second meeting will be held no later than five days after the close of the seven-day period. If the results of this second meeting reveal that payment to the subcontractor continues to be delinquent, the ADE may order a suspension of work based upon the failure of the Contractor to carry out the provisions of the Contract or he may allow work to continue and withhold future progress payments as stated above.

In addition, the Administration may require the Contractor to pay a penalty to the subcontractor, in an amount not exceeding \$100 per day, from the date the payment was required.

A penalty will not be imposed for any period that the ADE determines the subcontractor was not diligent in reporting nonpayment in conformance with the Contract Documents.

The Contractor shall notify the CPE when payment has been made to the subcontractor. The CPE will verify the payment with the subcontractor to ensure payment was received.

A Contractor or subcontractor may appeal the decision of the District Engineer to the Chief Engineer (Procurement Officer) in conformance with GP-5.15 (Disputes). The Chief Engineer will render a final decision on this issue in conformance with GP-5.15 (Disputes).

A decision of the Administration under these Terms and Conditions is not subject to judicial review or the provisions of COMAR 21.10.04.

Any administrative costs incurred by the Administration will be deducted from the Contractor's retainage at the conclusion of the project.

Nothing in this provision will prevent the subcontractor from pursuing a claim with the surety under the Contractor's payment bond at any time.

TC-5.04 CULTURAL RESOURCES

The Contractor shall be aware of the potential of cultural resources on the project. During the construction phase, whenever anything that might appear to be a cultural resource of a historical, archeological, or paleontological nature is encountered, such an object shall not be disturbed. Work shall be stopped and rescheduled in a way that shall avoid not only the objects but also the area of discovery, and the Engineer shall be notified at once. The Engineer will arrange for the evaluation of

the situation by the appropriate authorities and for the ultimate disposition of the matter, taking the evaluation of the situation by the appropriate authorities into consideration.

TC-5.05 DETERMINATION AND EXTENSION OF CONTRACT TIME

The Contractor shall complete the work contracted for in an acceptable manner within the number of working days, calendar days, or calendar date as specified in the Invitation for Bids.

The Engineer will make available to the Contractor each week a record showing the number of days charged to the Contract for the preceding week. The Contractor will be allowed one week in which to protest and 30 days in which to file a written statement, setting forth in what respects time charges are incorrect.

If satisfactory fulfillment of the Contract with extensions and increases authorized under GP-4.04 (Variations in Estimated Quantities) and changes specified in the General Provisions require the performance of work in greater quantities than specified in the Invitation for Bids, the Contract time allowed for performance may be adjusted based on the quantities, cost, and the nature of the work involved.

The Contractor, under certain conditions, may be granted permission or be ordered to suspend operations as defined in GP-8.07 (Suspension of Work) on working day Contracts. If the Contractor elects and is permitted to do any work, the time charged shall bear the same ratio to the total time allowed for the completion of the work, as the value of the work done during such time bears to the total value of the Contract. However, the resultant number of days to be charged for any particular month will never exceed the number of calendar days for that month, excluding Saturdays, Sundays, or official holidays on which no work was performed on a controlling item.

Time used in performing work of an emergency nature ordered by the Engineer for the convenience of the traveling public or for the production or delivery of materials for storage, if performed during the period of suspension, will not be charged against the Contract time.

Following the date on which all work has been completed, except those landscaping items on which work is restricted to specified seasons and when inspection and acceptance for maintenance is being deferred pending completion of those landscaping items on which work is not permissible at the time because such work is currently out of season, and for no other reason, no time will be charged against the Contract until such time as it is again permissible to proceed with such work. However,

time will be charged during any extensions of the specified season that may be granted the Contractor.

Request for extension of Contract time shall be submitted in conformance with Sections 109 or 110 as specified in the Contract Documents.

TC SECTION 6 RESTRICTIONS AND PERMITS

TC-6.01 MOVING OF EQUIPMENT

The Contractor will not be permitted to move over or operate on any road (except on the road under construction) any power shovels, rollers, concrete mixers, cranes, tractors, or any other heavy equipment of weight or dimensions in excess of Maryland Motor Vehicle Law or Administration's regulations without first obtaining the usual permit. In case of permits for oversize and overweight vehicle movements, attention is directed to Maryland Motor Vehicle Laws requiring the Administration to collect a fee on every such vehicle movement using highways of the State. The payment of and securing of such permit is required irrespective of whether the movement is in connection with a subject Contract or for other purposes.

TC-6.02 LOAD AND SPEED LIMITATIONS

The Bidder's attention is directed to the Annotated Code of Maryland, Transportation Article, Section 24-206, authorizing the appropriate County authorities of the counties listed below, to establish such load limits and appropriate speed limits on County roads as may be necessary to preserve the roads and provide adequately for public safety. The Bidder is advised to consult with the County Engineer in order to ascertain the extent of any restrictions applicable to County roads that the County authorities may propose to establish in connection with the construction of a Contract.

COUNTIES WITH LOAD AND SPEED LIMITATIONS
Allegany (AL)
Anne Arundel (AA)
Baltimore (BA)
Carroll (CL)
Frederick (FR)
Harford (HA)
Howard (HO)
Montgomery (MO)
Prince George’s (PG)
St. Mary’s (SM)
Washington (WA)

TC-6.03 COMPLIANCE WITH MARYLAND VEHICLE LAWS

The Maryland Vehicle Law requires each motor vehicle, trailer, semitrailer, and pole trailer driven on a highway to be registered.

There are some exceptions to this general requirement concerning nonresidents. If a nonresident is operating a vehicle in Maryland as described below the nonresident exemption is not applicable, and the vehicle being operated shall be titled and registered in conformance with the applicable Motor Vehicle Laws when the vehicle is:

- (a) Used for transporting persons for hire, compensation, or profit;
- (b) Regularly operated in carrying on business in this State;
- (c) Designed, used, or maintained primarily for the transportation of property; or
- (d) In the custody of any resident for more than 30 days during any registration year.

In addition to the titling and registration requirements for vehicles being operated in Maryland, all equipment being used shall be properly identified. Maryland classifies this equipment as “Special Mobile Equipment”, which is defined as a vehicle that:

- (a) Is not used primarily for highway transportation or property, and
- (b) Is operated or moved on highway only as an incident to its nonhighway use.

Special mobile equipment includes a road construction or maintenance machine, mobile crane, ditch digger, well driller, concrete mixer, job site office vehicle, or portable power generator.

An interchangeable license plate is issued to special mobile equipment; however, titling is not required.

For additional information concerning the requirements for titling and registering vehicles in Maryland, contact the Motor Vehicle Administration, Chief, Division of Vehicle Registration.

The Contractor shall adhere to all State Motor Vehicle Laws and safety regulations.

TC-6.04 RESTORATION OF SURFACES OPENED BY PERMIT

The right to construct or reconstruct any utility in the highway or to grant permits for same at any time is reserved by the Administration.

Upon the presentation of a duly authorized and satisfactory permit, which provides that all necessary repair work shall be paid for by the party to whom the permit is issued, the Contractor shall allow parties bearing such permits to make openings in the highway.

The Contractor shall, when directed by the Engineer, make all necessary repairs due to such openings. This work will be paid for as additional work, as provided in these Specifications, and will be subject to the same conditions as original work performed.

TC-6.05 RAILROAD/HIGHWAY GRADE CROSSINGS AND SEPARATIONS

When the Contractor is required to haul materials across the tracks of any railroad, or elects to do so, the Contractor shall make arrangements with that railroad for any new private crossings or for the use of any existing private crossing.

All work to be performed by the Contractor in the construction of railroad/highway separation structures on the railroad right-of-way shall be done in a manner satisfactory to the engineer of the railroad company

and shall be performed at times and in a manner that does not interfere with the movement of trains or traffic upon the tracks. The Contractor shall take precaution to avoid accidents, damage, or unnecessary delay or interference with trains or other property. In addition to the insurance specified in TC-5.01 and when work covered under the Contract is to be performed within 50 feet of the rails of the railroad's tracks, the Contractor shall carry Contractor and Railroad Public Liability and Property Damage Insurance as specified in the Contract Documents.

Prospective Bidders on Contracts crossing railroad right-of-way are advised that the railroad company will require the Contractor to obtain, pay for, and have approved by the railroad, certain broad forms of public liability and property damage insurance policies before entering upon the railroad property. As a general rule, details of these policies are set forth in the Contract Provisions; but in case of omission from the Contract Provisions, the Contractor is required to communicate with the railroad to ascertain the type of insurance required, if any, and make provisions for the insurance in the Bid.

Unless otherwise specified, cost for the insurance policies whether described in the Contract Provisions or ascertained by the Contractor will not be paid for, but will be incidental to the other items specified in the Contract Documents.

All work on portions of structures over railroad right-of-way shall conform to all rules and regulations of the owners of the right-of-way. The Contractor shall acquire full knowledge of these rules and regulations and comply therewith to the satisfaction of the owners of the railroad right-of-way.

TC-6.06 BRIDGES AND OTHER WORK IN OR OVER WATERS OF THE STATE

All work in, on, or over waters under control of the Department of the Army or the Environmental Protection Agency of the United States shall conform to all applicable Federal permits, rules, and regulations. All of these rules and regulations are hereby part of the Contract. The Contractor is cautioned and charged with the responsibility of obtaining complete knowledge thereof and compliance therewith. The Contractor shall also comply with the provisions of other applicable Federal, State, and local laws and is cautioned to become knowledgeable with any pertinent regulations of the Maryland Department of Natural Resources and Maryland Department of Environment.

TC-6.07 USE OF EXPLOSIVES

All blasting operations, including the storage and handling of explosives and blasting agents, shall be performed in conformance with the applicable provisions of the Contract Documents and all other pertinent Federal, State, and local regulations. All explosives shall be stored in a secure manner, and all of these storage places shall be marked clearly "DANGEROUS EXPLOSIVES" and shall be in the care of competent watchpersons at all times. Whenever explosives are used, they shall be of such character and in such amount as is permitted by the State and local laws and ordinances and all respective agencies having jurisdiction over them. The use or storage of explosives will not be permitted under, adjacent to, or on any existing structures unless authorized in writing by the Engineer.

At least 14 days prior to commencing drilling and blasting operations, or any time the Contractor proposes to change the drilling and blasting methods, the Contractor shall submit a Blasting Plan to the Engineer for review. The Blasting Plan shall contain the full details of the drilling and blasting patterns and controls the Contractor proposes to use. The Blasting Plan submittal is for quality control and record keeping purposes. Review of the Blasting Plan by the Engineer shall not relieve the Contractor of the responsibility for the accuracy and adequacy of the plan when implemented in the field. If at any time during the progress of the work the method of drilling and blasting does not produce the desired result, the Contractor shall submit a revised Blasting Plan until a technique is arrived at that shall produce the desired results.

Before firing any blast in areas where flying rock may result in personal injury or damage to property or the work, the rock to be blasted shall be covered with approved blasting mats, soil, or other equally serviceable material, to prevent flying rock. The Contractor shall notify each public utility company having structures in proximity to the site of the work of the intention to use explosives. This notice shall be given sufficiently in advance to enable the companies to take any steps they may deem necessary to protect their property from damage. This notice shall not relieve the Contractor of responsibility for any damage resulting from the Contractor's blasting operations.

The Engineer will have the authority to prohibit or halt the Contractor's blasting operations when: the methods being employed are not obtaining the required results; an unstable condition exists; or the safety and convenience of the traveling public is jeopardized.

TC-6.08 AERIAL ELECTRIC LINES (750 volts or more)

The Contractor shall be aware that State law requires that a 10 foot radial clearance shall be maintained for all construction equipment and materials in relation to electric lines carrying 750 volts or more. Because the State law is more stringent than the Federal laws, the State law shall be considered the minimal distance.

The Contractor shall also be aware of, and comply with, all other Federal, State, and local laws; and utility company requirements and regulations as specified in GP-7.01 (Compliance With Laws).

TC-6.09 HAZARDOUS MATERIAL

- (a) If the Contractor encounters or exposes during construction any abnormal conditions that indicate the presence of a hazardous material or toxic waste, work in the area shall immediately be suspended and the Engineer notified. The Contractor's operations in this area shall not resume until permitted by the Engineer; however, the Contractor may continue working in other areas of the project, unless directed otherwise.

Abnormal conditions shall include, but not be limited to, the presence of barrels, obnoxious or unusual odors, excessively hot earth, smoke, or any other condition that could be a possible indicator of hazardous material or toxic waste. Where the Contractor performs necessary work required to dispose of these materials and no items have been identified in the Contract Documents, the work shall be performed under a change order.

- (b) For any material furnished on the project by the Contractor suspected to be hazardous or toxic, the Engineer may require the Contractor to have it tested and certified to be in conformance with all applicable requirements and regulations. Material found to be hazardous or toxic shall not be incorporated into the work. The required testing will be determined by the Engineer and may include, but not be limited to, the EPA Toxicity Characteristic Leaching Procedure (TCLP) or its successor. The evaluation and interpretation of the test data will be made by the Engineer. Testing and certification shall be at no additional cost to the Administration.
- (c) Disposition of the hazardous material or toxic waste shall be made in conformance with all applicable requirements and regulations.

TC-6.10 RECYCLED OR REHANDLED MATERIAL

For recycled or rehandled material furnished by the Contractor for use on the project, the Engineer may require the Contractor to have the material tested and certified to be in conformance with all applicable environmental requirements. The required testing will be determined by the Engineer and may include, but not be limited to, the EPA Toxicity Characteristic Leaching Procedure (TCLP) or its successor. The evaluation and interpretation of the test data will be made by the Engineer and be based upon the project environment. Testing and certification shall be at no additional cost to the Administration.

This does not preclude the normal materials process, and the recycled material shall conform to all applicable specifications.

Typical recycled materials are:

- (a) **Crumb Rubber.** Any rubber derived from processing whole scrap tires or shredded tire materials from automobiles, vehicles, or other equipment owned and operated in the United States, provided the processing does not produce waste casings or other round tire material that can hold water when stored or disposed of above ground. Rubber tire buffings produced by the retreading process qualify as a source of crumb rubber.
- (b) **Recycled Asphalt Pavement.** Existing asphalt pavement milled or otherwise removed. Recycled in-place material is excluded.
- (c) **Glass.** Waste glass crushed to be used as aggregate.
- (d) **Blast Furnace Slag.** The nonmetallic byproduct of iron production.
- (e) **Recycled Concrete Pavement.** Existing concrete pavement crushed to be used as aggregate.
- (f) **Mining Waste Rock.** The coarse material removed during the ore mining process.
- (g) **Coal Fly Ash.** Fine material collected from the stack gases after coal combustion.
- (h) **Other.** Any materials not listed above that are recycled as the original product or incorporated into other products.

TC-6.11 CONSTRUCTION AND WASTE MATERIAL

All wood, trash, debris, and other foreign matter shall be removed from within the right-of-way limits and disposed of by the Contractor. The Contractor shall make all necessary arrangements to obtain suitable disposal locations and shall furnish the Engineer with a copy of resulting agreements. Disposal shall be in conformance with all Federal, State, and local ordinances.

TC-6.12 STRUCTURE UNDERCLEARANCES AND OVERHEAD CLEARANCES

General. The requirements for underclearances at structures shall apply to the entire usable roadway areas including shoulders. Unless otherwise specified in the Contract Documents or directed by the Engineer, the Contractor shall ensure that the following underclearances are maintained.

- (a) All bridges (except pedestrian bridges) over Interstate, United States, or State highways shall have a 16.0 foot minimum vertical underclearance.
- (b) All bridges (except pedestrian bridges) over secondary/county roads and local roads shall have a 14.5 foot minimum underclearance.
- (c) All Pedestrian bridges shall have a minimum vertical underclearance 1 foot higher than those specified above. However, if there are bridges in the general vicinity of the proposed pedestrian bridge that have an underclearance greater than the minimum required underclearance of the pedestrian bridge, then the pedestrian bridge will have its underclearance increased to equal the highest overpass bridge. Removal of existing pavement under an existing pedestrian bridge to conform to the 1 foot higher requirement will not be required unless specified in the Contract Documents. Refer to the requirements included under the Resurfacing portion of this Specification.
- (d) All bridges with overhead structural elements (e.g. through truss bridges, movable bridges with overhead bracing for counterweights, etc.) shall have a 17.5 foot minimum overhead vertical clearance.

When the above requirements are not met, the Engineer will contact the District Engineer and the Office of Bridge Development to determine the need for remedial actions. When remedial actions are required, and there are no pay items for the work in the Contract Documents, the provisions of GP-4.06 (Changes) and GP-4.07 (Negotiated Payment

Provisions) shall apply. The cost of measurements to determine clearance heights will be incidental to other pertinent items in the Contract Documents.

Throughout construction, a minimum of 14.5 foot underclearance shall be maintained at all bridges, over each lane or shoulder open to traffic. No portion of formwork, temporary protective shields, etc. including connection devices shall encroach on this underclearance. If, during the construction, less than 16.0 foot of vertical underclearance is provided on bridges specified in (a), (c) or (d) above, the Engineer will inform the District Engineer, the Office of Bridge Development, and the Chief of the Administration's Motor Carrier Division of the exact reduced minimum clearance and the effective dates of the reduction. The Contractor shall furnish and erect signs indicating the exact minimum underclearance. The signs and their locations shall be approved by the Engineer. Signs shall be removed and become the property of the Contractor when the intended underclearance is restored.

Resurfacing. These minimum underclearances shall be maintained whenever resurfacing a roadway. This may require grinding the existing pavement prior to placing the resurfacing material. Whenever highway overpass bridges are in the general vicinity of a pedestrian bridge and grinding is not required to maintain the specified clearances, the roadway under the pedestrian bridge shall be ground to provide a higher underclearance than the adjacent bridges. This requirement will be waived whenever the Engineer contacts the District Engineer and the Office of Bridge Development and determines that the grinding would have an adverse effect on drainage, utilities, etc.

TC-6.13 HAULING OVER PROPOSED STRUCTURES

If the Contractor desires to haul across the proposed structures, they shall first apply for and obtain written permission from the Administration's District Engineer for each type of hauling equipment to be used. The approval will include the following provisions, which shall be complied with:

- (a) Maximum total gross load (vehicle plus load), 45 tons.
- (b) Maximum actual load of any axle, 15 tons.
- (c) Minimum axle spacing 14 feet (does not apply to tandem axles).
- (d) Only rubber tired vehicles will be permitted.
- (e) Maximum speed of loaded vehicle, 5 miles per hour.

- (f) Maximum speed of unloaded vehicle, 15 miles per hour
- (g) Minimum distance between traveling vehicles, 300 feet.
- (h) Travel path across structures shall be midway between curbs/parapets.
- (i) Bridge deck shall be kept clean at all times.
- (j) At the conclusion of hauling, the Contractor shall thoroughly clean the entire roadway surface of the bridges and other parts of the bridges requiring cleaning as a result of the hauling operations.

The Contractor shall submit bonafide evidence to the Administration's District Engineer as to total weight of the loaded vehicle as well as he maximum weight of any axle thereon.

The Engineer's representative will be in frequent observation to enforce speeds, position of vehicles on the bridge and limitations as to vehicle spacing.

Any violation will result in the immediate cancellation of the approval for hauling operations predicted thereby.

The Contractor is responsible for damages to the bridges caused by their operations.

TC-6.14 STORING MATERIALS AND EQUIPMENT ON/ AGAINST STRUCTURES RESTRICTIONS

Materials and equipment shall not be stored on or against any structure unless written permission is obtained from the Administration's District Office and the Office of Bridge Development for each type of material or equipment to be stored. Submittals to the District Office shall include the type of material or equipment; the proposed storage location; the area at the base of the material or pallet and its total weight; height of stockpiles; number of axles, load per axle, and axle spacing; vehicle gross weight; and any other information necessary to calculate the stresses applied to the structure. Stockpiles shall not be placed against piers, parapets, or any other structure that could be possibly overstressed.

For structures under construction or rehabilitation, the Contractor shall also submit information pertaining to the phase of construction, which members have been modified or separated from the remainder of the structure, or have been newly constructed.

Any materials or equipment that would have a detrimental affect to the structure such as aluminum products placed against concrete surfaces shall be adequately protected to prohibit them from coming in contact with each other. Any discoloration or damage to the structure as a result of material or equipment being stored on/against the structure shall be removed or repaired.

TC SECTION 7 PAYMENT

GP-Section 9 (Payment) is not applicable to Administration Contracts. The provisions of TC Section 7 shall apply.

TC-7.01 MEASUREMENT OF QUANTITIES

For all items of work, other than those to be paid by lump sum, after the work is completed and before final payment is made, the Engineer will make final measurements to determine the quantities of various items of work performed as the basis for final settlement. The Contractor in case of unit price items will be paid for the actual amount of work performed and for the actual amount of materials in place in conformance with the Specifications and final measurements. All work completed under the Contract will be measured by the Engineer in conformance with the United States Standard Measure.

All longitudinal measurements for area will be made along the actual surface and not horizontally, and no deductions will be made for individual fixtures having an area of 9 square feet or less. For all transverse measurements for area of base course and pavements, the dimensions to be used in calculating the pay area will be the neat dimensions shown on the Plans or directed in writing by the Engineer.

Structure measurements shall conform to the neat lines shown on the Plans or as directed in writing, unless otherwise provided for elsewhere in the Contract Documents.

Volumes of excavation, tamped fill, and borrow pits will be calculated per cubic yard from the cross section and the use of average end area formulas. Volumes of other work such as masonry, removal of masonry, etc. will be calculated using arithmetical formulas. Where the volume is bounded by varying dimensions and there are no simple volumetric formulas applicable, frequent cross sections will be taken and the cubic yard volume computed from average end area formulas.

Cement will be measured by weight.

All items that are measured by the linear foot such as pipe culverts, traffic barrier, underdrains, etc., will be measured parallel to the base or foundation upon which such structures are placed unless otherwise specified in the Contract Documents.

The term gauge when used in connection with the measurement of uncoated steel sheet and light plates shall mean the U.S. Standard Gauge, except that when reference is made to the measurement of galvanized or aluminum sheets used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing, the term gauge shall mean that specified in M 36, M 167, M 196, or M 197.

When the term gauge refers to the measurement of wire, it shall mean the Washburn & Moen wire gauge as referenced in the New Departure Handbook. A tolerance of plus or minus 0.003 inch shall apply.

The term ton shall mean the short ton consisting of 2000 pounds avoirdupois. All materials that are specified by the ton shall be weighed on accurate, approved scales conforming to the requirements of the National Bureau of Standards Handbook 44. A digital recorder and printout shall be required on all truck scales. The digital recorder shall produce a printed record of the gross, tare, net weights, the time, date, truck identification, and Contract Number. Provisions shall be made so that the scales may not be manually manipulated during the process. The system shall be interlocked to allow printing only when the scale has come to rest.

Except for computer operated scales, all weights shall be certified by a bonded weigh person supplied by the Contractor, producer, or supplier. The security bond shall be \$100 000.

If the material is shipped by rail, the car weight shall be accepted but the payment will be limited to the actual weight of material. Car weight will not be acceptable for material to be passed through mixing plants.

All materials for which measurements are obtained by the cubic yard shall be hauled in approved vehicles and measured at the point of delivery. No allowance will be made for the settlement of material in transit. Approved vehicles for this purpose shall be of any size or type acceptable to the Engineer, provided that the body is of such shape that the actual contents may be readily and accurately determined. Unless all approved vehicles are of uniform capacity, each approved vehicle shall bear a plainly legible identification mark indicating the specific approved capacity. All vehicles shall be loaded to at least their water level

capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.

When requested by the Contractor and approved by the Engineer in writing, material specified to be measured by the cubic yard may be weighed, and the weight will be converted to cubic yard for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Laboratory and shall be agreed to by the Contractor before the method of measurement of pay quantities will be approved by the Engineer.

Liquid asphalt material delivered for the project will be measured by volume in each railroad tank car, tank truck, distributor tank, or drums in which it is delivered. The measurements will be taken when the asphalt material is of a uniform temperature and free from air bubbles. The temperature of the material will be recorded.

The volumetric measurement of the asphalt material will be based upon a temperature of 60 F.

Reference is made to D 1250, Petroleum Measurement Tables.

Only the quantity of asphalt material actually placed in the work and accepted will be considered in determining the amount due the Contractor.

Timber will be measured by the thousand board foot measurement (MBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term lump sum when used as an item of payment will mean complete payment for the unit of work described.

When complete structure or structural unit (in effect, lump sum work) is specified as the unit measurement, the unit will be construed to include all necessary fittings and accessories.

Rental of equipment will be measured in hours of actual working time, moving in and moving out costs, if any, and necessary traveling time of the equipment within the limits of the project, except when special conditions make some other method of measurement desirable.

TC-7.02 PAYMENT ALLOWANCES FOR STORED MATERIAL

When the Contractor requests payment allowance for materials, the following terms and conditions shall apply:

- (a) For superstructure members delivered on the project site, an allowance of 100 percent of the material cost plus freight charges as invoiced may be made provided the cost does not exceed 90 percent of the Contract price of the applicable Contract item. The allowance will be based upon validated invoices or bills for material including freight charges, and a copy thereof shall be made a part of the documented records for the project.
- (b) For reinforcement steel, piling, pipe, traffic barrier, signs and sign assemblies, and other nonperishable material in storage on the project, but excluding aggregates, cement, seed, plants, fertilizer, or other perishable items, an allowance of 100 percent of the invoiced cost of the material plus freight charges to the Contractor may be made provided the cost does not exceed 90 percent of the Contract price of the applicable Contract item. Such material shall be delivered and stock-piled at the project site after being tested by the Administration and found to have conformed to the Specifications or to have been accepted under an approved certification program prior to the allowance.
- (c) No allowance will be made for fuels, form lumber, falsework, temporary structures, or other materials of any kind that will not become an integral part of the finished construction.

No payment for stored material will be made if it is anticipated that the material will be incorporated into the work within 30 days of the written request.

Only end product manufactured material or fully fabricated products that are awaiting installation or incorporation into the finished work are eligible for prepayment. Components, elements, or ingredients of a finished product are not eligible for prepayment.

- (d) Material for which an allowance is requested shall be stored in an approved manner in areas within the State of Maryland where damage is not likely to occur. If any of the stored materials are lost or become damaged in any manner, the Contractor shall be responsible for repairing or replacing the damaged materials. The value of the lost or damaged material will be deducted from the Contractor's subsequent estimates until replacement has been

accomplished. The request for allowances for any materials stored on private property within the State of Maryland shall be accompanied by a release from the owner and/or tenant of such property agreeing to permit the removal of the materials from the property at no cost to the Administration.

The material shall be clearly marked with the Administration's Contract Number on individual units. If the material is normally shipped to the project in bundles or other forms of packaging, the Administration's Contract Number shall be clearly marked or affixed to the package. When the material is not stored at the actual project site, the material shall be physically separated by fencing or equivalent barrier from other materials stored at the same site. The material shall be accessible to the Administration at all times.

When it is considered impractical to store materials on the actual project, the Engineer may approve storage areas in the vicinity of the actual project, which will be considered at the project site.

When storage of the materials within the State of Maryland is not practical, approval shall be obtained from the District Engineer for storage elsewhere. Storage of materials outside the State of Maryland will be subject to the conditions set forth in this provision and limited to materials exceeding \$25 000, which are designed and fabricated exclusively for use on a specific project.

- (e) Material for which payment has been made, either wholly or partially, shall not be removed from the approved location until such time that it is to be incorporated into the work unless authorized by the Engineer.
- (f) The Contractor shall submit a written request for payment to the District Engineer at least two weeks prior to the estimate cutoff date established by the District Engineer. The following items shall accompany the written request for payment:
 - (1) Consent of surety specifying the material type and the items in which the material is to be used.
 - (2) Validated invoices with the signature of an officer of the company supplying the material showing actual cost.
 - (3) A notarized statement attesting that the invoices as submitted do not include charges or fees for placing, handling, erecting, or any other charges or markups other

than the actual material cost, sales tax if applicable, and freight charges.

- (4) Bills of lading showing delivery of the material. The request for allowances for any materials stored on property outside the State of Maryland shall be accompanied by a release from the owner or tenant of such property agreeing to permit verification by the Inspector that the material is stored at the approved location, and to permit the removal of the materials from the property at no cost to the Administration.
- (5) Inspection test reports, certifications and/or a written statement from the Inspector attesting to the inspection and approval of the material.
- (6) A statement explaining why the material can not be stored on the project, if the Contractor is requesting to store material at a location other than the project site. The statement shall include the methods of storage, separation, and identification to be used by the Contractor. The Contractor shall provide a method of inventory control and withdrawal satisfactory to the Administration, which shall be used by the Contractor to monitor materials not stored on the project.
- (7) A breakdown of the Contract line item bid unit price showing the relationship of the cost of the stored material to the costs of all other materials, labor, and components of the work included in the Contract line item unit price bid by the Contractor.

Upon receipt of the above by the District Engineer and verification by the Inspector that the material is stored at the approved location, the District Engineer will authorize payment.

The Contractor shall pay the material provider the amount shown on the invoice within 10 days of receipt of payment from the Administration. Evidence of payment shall be provided to the Administration. Failure to make invoice payments as specified will be cause to deduct the monies from future estimates and/or deny future stored materials payment requests.

Copies of all pertinent data shall be made by the Contractor and distributed to the Inspector for retention as part of the documented records for the project.

TC-7.03 FORCE ACCOUNT WORK

When the Contractor is required to perform work due to additions or changes to the Contract for which there are no applicable unit prices, the Administration and Contractor will make every effort to come to an agreed price for the performance of the work. If an agreement is not reached prior to the time that work must begin, the Administration will give written notification to the Contractor to proceed with the work on a force account basis while continuing to pursue a negotiated settlement. Failure to reach agreement prior to the completion of the work will necessitate that the work be completed and compensated in conformance with the following:

(a) Labor. Before any force account work begins, the Engineer and the Contractor must agree on the hourly labor rates for all laborers and foremen to be engaged in the work. The number of laborers and foremen engaged in the work will be subject to regulation by the Engineer and shall not exceed the number the Engineer deems most practical and economical for the work. For all labor and foremen in direct charge of the force account work, excluding general superintendence, compensation will be as follows:

(1) Certified Pay Rate. The Contractor shall receive the hourly pay rate shown on the Certified Payrolls for each hour that labor and foremen are actually engaged in the work. Hourly pay rates that exceed those previously agreed upon must be authorized by the Engineer. Submit certified payrolls in conformance with the Contract Documents.

(2) Fringe Benefits. The Contractor shall receive the direct cost for fringe benefits that are required by collective bargaining agreements or other employment Contracts and that are not included in the certified hourly pay rate.

(3) Payroll Burden. The Contractor shall receive the following indirect costs at the applicable percentage of the certified hourly pay rate.

- Social Security Tax
- Medicare Tax
- Unemployment Taxes
- Worker's Compensation Insurance
- Contractor's Public Liability Insurance
- Contractor's Property Damage Liability Insurance

(4) Overhead and Profit on Labor. The Contractor shall receive an allowance of 18 percent of the sum total of (1), (2), and (3).

To substantiate the cost for (2) and (3), the Contractor shall furnish the Engineer a certified itemized breakdown. Instead of submitting an itemization for (3), the Contractor may elect to receive for Payroll Burden an amount equal to 20 percent of the certified hourly pay rate.

- (b) Materials.** For materials required to perform the work and accepted by the procurement officer, the Contractor shall receive the actual cost of the materials delivered on the work including tax and transportation charges paid by the Contractor (exclusive of machinery rentals as specified in (c) below).

In addition, the Contractor will be allowed 18 percent of the actual cost of materials, tax, and applicable transportation charges.

To substantiate materials and transportation cost, original receipted invoices shall be submitted.

If the materials used in the force account work are not specifically purchased for the work but are taken from the Contractor's stock, then in lieu of the original invoices the statements shall contain or be accompanied by an affidavit from the Contractor that shall certify that the materials were taken from the Contractor's stock, that the quantity claimed was actually used, and that the price and transportation cost of the material as claimed represents the actual cost.

The Administration reserves the right to furnish materials as it deems appropriate, and the Contractor shall have no claim for any costs, overhead, or profit on these materials.

- (c) Equipment.** For all equipment other than small tools, the Contractor shall receive rental rates as established herein and agreed to in writing before the work is begun for the actual time the equipment is in operation on force account work. Transportation costs directly attributable to force account work will be allowed. For the purpose of definition, equipment with a new cost of one thousand dollars (\$1000) or less will be considered small tools.

(1) Contractor Owned Equipment. For all equipment utilized on force account work, the hourly rate for each piece of equipment and attachments will be the Blue Book monthly rate for the make and model multiplied by the appropriate rate adjustment factor, divided by 176, plus the hourly operating costs. The Contractor shall furnish to the Engineer a complete description, including the serial numbers and year of

manufacture, for all pieces of equipment used on force account work.

The hourly rate for each piece of equipment will be the sum of the base machine rate, attachment rate, and operating rates established in the Rental Rate Blue Book for Construction Equipment current at the time the equipment is used.

- (2) Equipment Rented Exclusively for Force Account Work.** In cases where a piece of equipment is rented or leased by the Contractor from a third party exclusively for force account work, the actual invoiced amount will be paid when the rates are reasonably in line with established rental rates for the equipment in question and are approved by the Engineer.

In addition, the Contractor will be allowed 5 percent of the actual invoiced amount.

- (3) Moving Equipment.** When it is necessary to obtain equipment exclusively for force account work from sources beyond the project limits, the cost of transferring the equipment to the site of the work and return will be allowed as an additional expense. Where the move requires the use of a hauling unit, the move in allowance will be limited to the rental rate for the hauling unit, as computed in (c) (1) above, plus operator wages.

When equipment is transferred under its own power, the moving allowance will be limited to half the hourly rental rate, as computed in (c) (1) above, plus operator's wages. If the move out is to a different location, payment will in no instance exceed the amount of the move in. Move in allowance will not be made for equipment brought to the project for force account work if it is subsequently retained on the project and utilized for Contract items or related work.

- (4) Standby Time.** Standby rates shall apply when a piece of equipment is required to remain on the project on standby status when authorized by the Engineer. When a unit works for a portion of a day and is on standby for a portion, the total time allowed shall not exceed 8 hours for that day. Standby rates shall be half of the normal hourly base rates without the operating expenses. Standby rates shall not exceed 8 hours per day and will be allowed for working days only.

Equipment that is required to be on the project for transporting personnel or materials will be paid at the hourly rental rate for

the actual hours per day it is utilized, with the remainder being standby time as computed above.

No compensation will be allowed for equipment that is inoperable due to breakdown.

- (d) **Subcontracting.** The Contractor shall receive the cost of work performed by a subcontractor as determined in (a), (b), and (c). In addition, the Contractor will be allowed an allowance of five hundred dollars (\$500) or 8 percent of the total combination of (a), (b), and (c), whichever sum is greater.
- (e) **Compensation.** The compensation as specified in (a) through (e) above shall be received by the Contractor as payment for work done on a force account basis, which shall be full compensation for all costs associated with the force account including overhead and profit for the work performed.
- (f) **Force Account Daily Report.** At the end of each days work on any Force Account, the Engineer and Contractor's representative must complete a Daily Force Account Report. This report must be signed by both the Engineer and the Contractor's representative on a daily basis. Daily Force Account Reports for work performed and signed by a subcontractor, must also be signed by the Contractor. Each party shall retain a copy as substantiation of all labor, equipment, and materials used in the performance of the Force Account work.
- (g) **Partial Payment.** The Contractor may request partial payment for force account work prior to submitting final documentation. Partial payment will be limited to 50 percent of the estimated amount for the work accomplished until all documentation has been received and approved.
- (h) **Final Payment.** The final force account payment request from the Contractor will be subject to audit as specified in GP-7.36 Retention of Records.

TC-7.04 SCOPE OF PAYMENT

Payment to the Contractor will be made from the actual quantities of Contract items performed in conformance with the Plans and Specifications. If, upon completion of the construction, these actual quantities show either an increase or decrease from the quantities given in the bid schedule, the Contract unit prices will still prevail, except as provided in GP-4.04 (Variations in Estimated Quantities).

The payment of any partial estimate or of any retained percentage except by and under the approved final estimate and voucher, shall in no way affect the obligation of the Contractor to repair or renew any defective parts of the construction or to be responsible for all damages due to such defects.

When requested in writing by the Contractor and approved by the procurement officer, payment allowance will be made for nonperishable material to be incorporated in the work delivered and stockpiled at the work site or other approved site in conformance with TC-7.02.

Payment to the Contractor under this section for materials on hand shall not be construed in any way as acceptance by the Administration of title to the material. Title shall remain with the Contractor until the project has been completed and accepted in conformance with GP-5.13 (Acceptance for Maintenance).

The Contractor Federal Tax Identification or Social Security Number shall be included on the face of each invoice billed to the State.

On Contracts in excess of \$25 000, the Contractor and any subcontractor with a lower tier subcontract, prior to receiving a progress or final payment under this Contract, shall first certify in writing that he has made payment from proceeds of prior payments, and that he will make timely payments from the proceeds of the progress or final payment then due him, to his subcontractors and suppliers in conformance with his contractual arrangement with them.

The Contractor shall also obtain from each subcontractor a certification that payment from proceeds of prior payments have been made to any lower tier subcontractors and that timely payments will be made to the lower tier subcontractors and suppliers in conformance with contractual arrangements with them. This certification is not required from subcontractors who have no lower tier subcontracts. These certifications may be required by the procurement officer for Contracts of \$25 000 or less.

In addition to any other remedies provided by law or this Contract, any Contractor or subcontractor of any tier who fails to make payment as required by the certifications set forth in the above paragraph within 30 days from the date such payment is due shall be obligated to include with such payments interest at the rate of 10 percent per annum from the date the payment was due to the date the payment was actually made to the subcontractor or lower tier subcontractor.

TC-7.05 PROGRESS PAYMENTS**(a) Current Estimate.**

- (1) Lump Sum Contracts.** The Contractor shall furnish an acceptable breakdown of the lump sum Contract price showing the amount included therein for each principal category of the work. Said breakdown shall be in such detail so as to provide a basis for estimating monthly progress payments.
- (2) Monthly Estimates.** Each month the Administration will pay the Contractor for the Contract value of the work satisfactorily performed during the preceding calendar month, including authorized additions less variable retainage specified in (3) Variable Retainage. Retainage will not be released until final payment (unless partially released in a semi-final payment). Current estimates will be based upon the procurement officer's estimate of quantity (including materials and/or equipment complete in place) satisfactorily performed. In the instance of lump sum items and each items, the procurement officer's estimate will be the proper percentage of the item satisfactorily performed during the preceding month. All quantities, estimates, and fractions will be reasonably accurate approximations and are subject to corrections: (a) in subsequent current estimates; (b) in any semi-final estimate; and (c) in final payment. Any or all partial payments may be withheld in the event the Contractor has not complied with current requirements of the Specifications. Should either the procurement officer or the Contractor be of the opinion that any estimates, quantities, or fractions (either as to an individual current estimate or accumulations thereof) do not represent a reasonably accurate approximation of actual work, then the details questioned will be reviewed. Any necessary corrections and adjustments will be made in the next current estimate.
- (2) Variable Retainage.** The Contract will be subject to a variable retainage based upon the Administration's performance evaluations of the low bidder. Those qualifying may have retainage reduced upon request of the Contractor with consent of surety. This request shall be processed through the District Engineer. If at any time during the performance of the work, the evaluation of the Contractor changes, retainage reduction may be reconsidered.

After 15 percent project completion and upon request, Contractors with 'A' evaluations for the last two years may be reduced from 5 percent to zero percent. Project completion percentage will be based upon actual work completed (excluding monies paid for stored materials). An interim evaluation of the current project would need to be completed and would need to be an 'A'.

At 50 percent project completion and upon request, Contractors with 'B' evaluations or any combination of 'A' and 'B' evaluations for the last two years may be reduced from 5 percent to 2.5 percent, and remain at that level until released upon final payment. Project completion percentage will be based upon actual work completed (excluding monies paid for stored materials). An interim evaluation of the current project would need to be completed and would need to be an 'A' or 'B'.

Contractors with 'C' evaluations or any combination of 'C' and 'D' evaluation for the past two years will begin and remain at 5 percent for the life of the project.

Contractors with a 'D' evaluation for the last two years will begin at 5 percent. Project performance will be evaluated monthly with the retainage being raised to 10 percent for continued 'D' performance.

New Bidders. Contractors who have not been previously rated by the Administration may be eligible for a reduction in retainage. To be eligible, their past performance on highway and bridge work shall be documented by the government agency with whom they had a contract and their performance shall be documented on Administration forms. Contractors who do not fit into the above criteria would require a 5 percent retainage throughout the life of the Contract.

- (4) **Escrow Accounts For Retained Funds.** The Contractor may elect to have retained funds paid to an escrow agent who may invest the funds in an approved interest-bearing account, which, upon completion of the Contract, will be paid to the Contractor to the extent to which the Contractor is entitled. The Contractor's election to use the escrow account procedure shall be indicated on the Contract Documents, and the escrow agreement shall be in a form and under terms approved by the Administration. The Contractor shall forfeit the right to the use of the escrow

account for refusal or failure to indicate an election prior to execution of the Contract. Note: This shall not apply if it conflicts with any Federal grant or regulation affecting the Contract.

(b) Semi-Final Estimate Payments.

- (1) Upon completion of the project and the acceptance by the Administration for maintenance, the Administration, at the Contractor's request and with the consent of surety, will initiate a Memorandum of Action by the Director, Office of Construction, State Highway Administration, authorizing semi-final payment. Such a semi-final estimate payment will be based upon: (a) quantities the Administration has computed and set up as proposed final quantities, and (b) a reasonably accurate estimate for those quantities for which the Administration has not yet completed computations. The quantities that the Administration sets forth as proposed final quantities shall be so designated. To arrive at the amount of the semi-final estimate, the following will be deducted from the apparent estimated value of the Contract: (a) total of all amounts previously paid to the Contractor as current estimates, and (b) sums deemed chargeable against the Contractor including liquidated damages, and as a retainage, a sum not less than 1 percent of the total value of the Contract.
- (2) In cases where there has been substantial completion of the project and there are remaining only inconsequential or minor work items such as painting, seeding, mulching, or planting to be completed and such items cannot be completed for an extended period of time because of seasonal or weather conditions, a semi-final inspection will be made. If the work completed is found to be satisfactory, then there is deemed to be a partial acceptance on the entire project except for the uncompleted work items. Upon the above referred to partial acceptance, the Administration, within 30 days from such partial acceptance, upon request of the Contractor and with consent of surety, shall pay to the Contractor, what is hereby known as a partial semi-final estimate payment. Such a semi-final estimate will be based upon: (a) quantities the Administration has computed and set up as proposed final quantities, and (b) a reasonably accurate estimate for those quantities for which the Administration has not yet completed computations. The quantities that the Administration sets forth as proposed final quantities shall be so designated. To arrive at the amount of the semi-final

payment, the following will be deducted from the apparent estimated value of the Contract: (a) total of all amounts previously paid to the Contractor as current estimates; and (b) sums deemed chargeable against the Contractor including liquidated damages, and as a retainage, a sum equal to 1 percent of the total value of the Contract or \$2000 which ever is greater.

- (3) If all retained funds have not been paid to an escrow agent, as provided for in (a)(4), the Administration shall, upon payment of the semi-final estimate, place the remaining retainage in a interest-bearing escrow account, as designated and on such terms and conditions as specified by the procurement officer. At the time of the final payment, any retainage due, and any interest accrued on the retainage due from the time of payment of the semi-final estimate, shall be paid to the Contractor.

TC-7.06 FINAL ACCEPTANCE AND FINAL PAYMENT

- (a) When the Contractor has completed a Contract, and it has been accepted for maintenance in conformance with the provisions of GP-5.13 (Acceptance for Maintenance), the Administration will promptly proceed:
 - (1) To make any necessary final surveys;
 - (2) To complete any necessary computations of quantities; and
 - (3) To submit to the Contractor for consideration, within 60 days after final completion and acceptance for maintenance by the procurement officer, a tabulation of the proposed final quantities, and a list of deficiencies required to be corrected prior to issuing a materials clearance. This tabulation shall be accompanied by a statement setting forth:
 - (a) the additional work performed under change orders and/or supplemental agreements;
 - (b) the authorized extension of time;
 - (c) the number of days that have been charged to complete the Contract; and
 - (d) any deductions, charges, or liquidated damages that have been made or imposed.
- (b) The Contractor shall then have a period of 30 days from the date of receiving the aforementioned tabulation from the Administration, in which:

- (1) To decide whether or not to accept final payment upon such a basis, and
 - (2) To notify the Administration, in writing, of the decision. The Contractor may request an additional period up to 30 days in which to notify the Administration of the decision. In the event the Contractor notifies the Administration that he protests final payment on such a basis, that notification shall outline the reasons for said protest.
- (c) Upon receipt of a notification of acceptance as provided for in paragraph (b) above, final acceptance of the completed Contract will be contingent upon the Administration's authorized materials clearance. Within 20 days after the above conditions are met, the Administration will prepare the final estimate and final payment forms and submit them to the Contractor. These forms will show all data noted in paragraph (a) above, together with deductions for all prior payments. Within 30 days from the date these forms are received, the Contractor shall execute them and return them to the Administration for execution and payment. If such signed forms are not received by the Administration within the specified time, the Administration will prepare duplicate forms for execution and payment. Such action by the Administration shall be deemed to constitute acceptance and final payment.
- (d) If under the provisions of paragraph (b) above, the Contractor notifies the Administration of his protest and nonacceptance of the data submitted to him, the Administration shall pay the Contractor a semi-final estimate, or an additional semi-final estimate in the event a semi-final estimate has already been paid based upon the data noted in paragraph (a) above, with deductions for all prior payments. A retainage equal to 1 percent of the total value of the Contract will be withheld by the Administration. The acceptance of such semi-final estimate, or additional semi-final estimate, shall not be considered a waiver on the part of the Contractor of his right to pursue his protest and press for acceptance and final payment.
- (e) In the event the Contractor does not accept the data submitted to him as described in paragraph (a) above and/or has outstanding a claim filed in conformance with GP-5.14 (Filing of Claim by Contractor), the procurement officer and the Contractor shall confer at mutually convenient times and endeavor to reconcile all points of disagreement expeditiously. If such reconciliation is accomplished, the Administration will promptly proceed with

acceptance and final payment on the reconciled basis and in conformance with the provisions of paragraph (c) above. If reconciliation is not accomplished within 30 days, the decision of the procurement officer shall be reviewed by the Administrator and appropriate legal counsel. After review by the Administrator, the decision of the procurement officer is deemed to be the final action. The procurement officer shall furnish a copy of the final decision to the Contractor by certified mail, return receipt requested. This decision may be appealed by the Contractor to the Maryland State Board of Contract Appeals. This shall be done by filing a written notice of appeal to the Appeals Board within 30 days from the date of the final decision. Failure to provide timely notification to the procurement officer shall constitute a waiver by the Contractor of his right under GP-5.15 (Disputes), and final payment may be made by the Administration based on the procurement officer's recommendation.

- (f) All prior partial estimates and payments shall be subject to correction at the time of acceptance and final payment. If the Contractor has been previously overpaid, the amount of such overpayment shall be set forth in the Final Payment forms and the Contractor hereby agrees that he will reimburse the Administration for such overpayment within 180 days of receipt of such advice, and his surety will not be granted release from obligation under the terms of the Contract until reimbursement has been made in full.
- (g) Within 10 days after the provisions of (a) through (f) have been fulfilled, the procurement officer shall notify the Contractor that final acceptance of the project has been made. This notice will initiate the processing of the Memorandum of Action by the Administration's Chief Engineer, authorizing final payment. Final Payment will be due and payable within 30 days of the Chief Engineer's Memorandum of Action. As a condition precedent to Final Payment, the Contractor shall be required to execute a general release of all claims against the Administration arising out of, or in any way connected with the Contract.
- (h) In conformance with subsection 7-222 of the State Finance and Procurement Article of the Annotated Code of Maryland, certification must be obtained from the Comptroller of the Treasury, and the Employment Security Administration, that all State taxes have been paid prior to the release of final payment on a construction Contract. The check will be processed and mailed only after notification is received from both departments that no State tax is owed.

TC-7.07 LATE PAYMENTS

- (a) Payments for semi-final estimates shall be made within 30 days of the date when the amount becomes due and payable as evidenced by the Director's Memorandum of Action. Payments for final estimates shall be made within 30 days of the date when the Contract amount becomes due and payable as evidenced by the Chief Engineer's Memorandum of Action. Charges for late payments of invoices, other than as described by Title 15, Subtitle 1, of the State Finance and Procurement Article, Annotated Code of Maryland, or by the Public Service Commission of Maryland with respect to regulated public utilities, as applicable, are prohibited.
- (b) A proper invoice shall include: a description of the items or services provided; the date the goods were received or the inclusive dates the services were rendered; the Contract prices; retention, if any; the basis for the billing; the Contract or purchase order number; the Contractor's Federal Tax Identification Number or Social Security Number; and the name and address of the proper invoice recipient.
- (c) In order to receive payment of interest, the Contractor must submit a proper invoice for accrued interest within 30 days after the payment date of the amount on which the interest is claimed to have accrued. Interest may not be claimed for more than one year following the 31st day after the date that a proper invoice was received, or on amounts representing unpaid interest, or on an amount due under a Contract remaining unpaid for any period prior to July 1, 1983, or if a claim has been filed under State Finance and Procurement Article, Title 15 of subtitle 2 of the Code.
- (d) For the purposes of this Contract an amount will not be deemed due and payable if:
- (1) The amount invoiced is inconsistent with the Contract.
 - (2) The proper invoice has not been received by the person or office specified in the Contract.
 - (3) The invoice or performance under the Contract is in dispute or the Contractor has failed to otherwise comply with the provisions of the Contract.
 - (4) The items or services have not been accepted.

- (5) The quantity of items delivered is less than the quantity invoiced.
- (6) The items or services do not meet the quality requirements of the Contract.
- (7) The Contract provides for progress payments, but the proper invoice for the progress payment has not been submitted pursuant to the schedule contained in the agreement.
- (8) The invoice is for the retainage, but not all stipulated conditions for release of the retainage have been met.
- (9) The Contractor has not submitted satisfactory documentation or other evidence reasonably required by the procurement officer or by the Contract concerning performance under the Contract and compliance with its provisions.

TC-7.08 ELIMINATED ITEMS

In addition to the provisions of GP-4.04 Variations in Estimated Quantities, the following shall apply to Administration Contracts.

Should any Contract items contained in the Invitation for Bids be found unnecessary for the proper completion of the work contracted, the Engineer may, upon written order to the Contractor, eliminate such Contract items from the Contract and no allowance will be made for items so eliminated in making final payment to the Contractor except for material costs incurred prior to notification of the elimination of the items.