SECTION 101—DEFINITIONS OF ABBREVIATIONS, ACRONYMS, AND TERMS

101.01 - Abbreviations and Acronyms

In these Specifications and other Contract Documents, the following abbreviations and acronyms shall be interpreted as follows:

AAR Association of American Railroads

AASHTO American Association of State Highway and Transportation Officials

ABS Acrylonitrilebutadienestyrene (an elastomer)

AC Alternating current

ACI American Concrete Institute
ADT Annual average daily traffic

AED Associated Equipment Distributors

AISC American Institute of Steel Construction

AISI American Iron and Steel Institute

ANSI American National Standards Institute

APA Engineered Wood Association

API American Petroleum Institute; American Pipe Institute

ASCE American Society of Civil Engineers

ASME American Society of Mechanical Engineers

ASTM American Society for Testing and Materials

AWG American wire gage

AWPA American Wood Preservers Association

AWS American Welding Society

AWWA American Water Works Association

BOCA Building Officials and Code Administrators

C Celsius, when preceded by "degree(s)"

CABB Contractor Advertisement Bulletin Board

CBR California bearing ratio

CRSI Concrete Reinforcing Steel Institute

DBE Disadvantaged Business Enterprise

DC Direct current

DHV Design hourly volume

EEI Edison Electric Institute

EEO Equal employment opportunity

EIA Electronic Industries Alliance

EPA Environmental Protection Agency

EPDM Ethylenepropylenedienemonomer (an elastomer)

ESCCC Erosion and Sediment Control Contractor Certification

F Fahrenheit, when preceded by "degree(s)"

F/A Filler/asphalt ratio

FHWA Federal Highway Administration

FS Federal Specifications, General Services Administration

ICEA Insulated Cable Engineers Association

IMSA International Municipal Signal Association

ITE Institute of Transportation Engineers

LCD Liquid crystal display
LPG Liquid petroleum gas

MBE Minority Business EnterpriseMEKP Methyl ethyl ketone peroxide

MIL Military specifications

MSDS Materials Safety Data Sheet

MUTCD Manual on Uniform Traffic Control Devices for Streets and Highways and the Virginia supplement

to same

NEC National Electrical Code

NEMA National Electrical Manufacturers Association

NIST National Institute of Standards and Technology

NOAA National Oceanic and Atmospheric Administration

NRC Nuclear Regulatory Commission

PCI Precast / Prestressed Concrete Institute

PE Polyethylene

PTL Plywood Testing Laboratory

PVC PolyvinylchloridePVF Polyvinylfluoride

SAE Society of Automotive Engineers

SP Special Provision

SSPC

SPCNSpecial Provision Copied NoteSPIBSouthern Pine Inspection Bureau

SWPPP Storm Water Pollution Prevention Plan

TAPPI Technical Association of the Pulp and Paper Industry

TFE Polytetrafluoroethylene

TIE Ticket Information Exchange (Miss Utility)

Society for Protective Coatings

UL Underwriters' Laboratories, Inc.

VAC Volts alternating current

VDC Volts direct current

VDOT Virginia Department of Transportation

VEP Value engineering proposal
VFA Voids filled with asphalt
VMA Voids in mineral aggregate

VOSH Virginia Occupational Safety and Health

VTM Virginia Test Methods; voids in total mix

VWAPM Virginia Work Area Protection Manual

WBE Women Business Enterprise

101.02 - Terms

In these Specifications and other Contract Documents, the following terms and pronouns used in place of them shall be interpreted as follows:

-A-

Advertisement, Notice of. A public announcement, as required by law, inviting bids for work to be performed or materials to be furnished that indicates approximate principal quantities, location of work to be performed, character and quantity of materials to be furnished, and time and place for opening bids.

Affiliate. Any business entity that is closely associated to another business entity so that one has the power to control the other either directly or indirectly; or, where one business entity systematically shares resources, officers and/or other management with another business entity to the extent that a business relationship legally exists or is publicly perceived to exist; or, when a third party has the power to control both; or, where one business entity has been so closely allied with another through an established course of dealings, including but not limited to the lending of financial wherewithal or engaging in joint ventures, so as to cause a public perception that the two firms are one entity.

Alkali soil. Soil in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Award. The decision of the Board or Commissioner to accept the bid of the lowest responsive and responsible bidder for the work. The award is subject to the execution and approval of a satisfactory Contract therefor, and such conditions as may be specified or required by law.

Award date. The date on which the decision is made by the Board or Commissioner to accept the bid of the lowest responsive and responsible bidder.

-R-

Backfill. Material used to replace or the act of replacing material removed during construction; may also denote material placed or the act of placing material adjacent to structures.

Balance point. The approximate point, based on estimated shrinkage or swell, where the quantity of earthwork excavation and borrow, if required, is equal to the quantity of embankment material plus any surplus excavation material.

Base course. A layer of material of specified thickness on which the intermediate or surface course is placed.

Base flood. The flood or tide having a one percent chance of being exceeded in any given year.

Bid. The offer of a bidder, submitted by electronic proposal (or on paper if so specified in the proposal) to perform the work and furnish the materials and labor at the prices set forth therein; valid only when properly signed and guaranteed.

Bidder. Any individual, partnership, corporation, or joint venture that formally submits a bid for the work contemplated, or for any portion thereof, acting directly or through a duly authorized representative.

Bids, Invitation for. See Advertisement, Notice of.

Board. Commonwealth Transportation Board.

Borrow. Suitable material not available from designated Regular Excavation or other sources of useable materials on-site that is used primarily for embankment.

Brackish water. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Bridge. A structure, including supports, that is erected over a depression or an obstruction, such as water, a highway, or a railway, that has a track or passageway for carrying traffic.

Bridge lift. A layer of fill material placed in excess of standard depth over an area that does not support the weight of hauling equipment and for which compaction effort is not required.

-C-

Calendar day. Any day shown on the calendar.

Camber. A vertical curvature induced or fabricated into beams or girders and a deck slab or slab span formwork; a vertical curvature set in the grade line of a pipe culvert to accommodate differential settlement.

Channel. A watercourse or drainage way.

Commissioner. Commonwealth Transportation Commissioner.

Commonwealth. Commonwealth of Virginia.

Composite hydrograph. A graph showing the mean daily discharge versus the calendar day, indicating trends in high and low flow for a one-year period.

Construction area. The area where authorized construction occurs.

Construction limits (On-Site). The disturbed area required for the construction of a Project including the intersection of side slopes, with the original ground, plus slope rounding and slopes for drainage ditches, bridges, culverts, channels, temporary or incidental construction, and identified by the surface planes as shown and/or described within the Contract Documents.

Contract. The written agreement executed between the Department and the Contractor that sets forth the obligations of the parties thereunder, including, but not limited to, the performance of the work, furnishing of materials and labor, and the method of measurement and basis of payment of the work, as identified in the Contract Documents.

Contract Documents. The edition of the *Road and Bridge Specifications* cited in the Bid Proposal and Contract, which include addenda or Revisions issued prior to the Bid Date, the Supplemental Specifications, Special Provisions, Special Provision Copied Notes, the Plans, the Edition of the *Road and Bridge Standard Drawings* cited on the title sheet of the plans which include Addendum's or Revisions issued prior to the Bid Date, Change Orders and/or Work Orders issued subsequent to the Contract Execution date and Written Directives, Agreements or Clarification. Oral representations or promises will not be considered a part of the Contract.

Contract item. A specifically described unit of work for which a price is provided in the Contract.

Contract time limit. The number of calendar days or fixed calendar date or that specifies the time allowed for completion of the work described in the Contract, including authorized extensions.

Contractor. Any individual, partnership, corporation, or joint venture that contracts with the Department to perform the prescribed work as an independent contractor and not as an agent for the Department, Commissioner or Commonwealth Transportation Board.

Corporation. A body of persons granted a charter legally to conduct business recognizing them as a separate entity having its own rights, privileges, and liabilities distinct from those of its members.

Cul-de-sac. An area at the terminus of a dead-end street or road that is constructed for the purpose of allowing vehicles to turn around.

Culvert. A structure that is not classified as a bridge which provides an opening under any roadway.

Cut. When used as a noun with reference to earthwork, that portion of a roadway formed by excavating below the existing surface of the earth and limited by design or the direction of the Engineer.

Cut Slope. See also Fill Slope. A surface plane generally designated by design or the direction of the Engineer which is formed during excavation below existing ground elevations that intersects with existing ground at its termini.

Day. Unless otherwise stated, a calendar day.

Deflection. The vertical movement occurring between the supports of a bridge superstructure or its components (beams, girders, and slabs) that results from their own weight and from dead and live loads. Although all parts of a structure are subject to deflections, usually only those deflections that occur in the superstructure are of significance during construction.

Department. Virginia Department of Transportation.

Design flood. The magnitude of flood that a given structure can convey without exceeding a designated flood level.

Digital Identification (I.D.). An encrypted signature that is the legal equivalent of a written signature thus allowing for the digital signing of the bid.

Disincentive. A verifiable monetary deterrent used to discourage the Contractor from failing to meet a contract milestone and/or the contract time limit that is identified and defined by specific Contract language.

Disposable material. Material generally found to be unsuitable for roadway construction or material that is surplus.

Disposal areas. Areas generally located outside of the Construction Limits identified in the Contract Documents where unsuitable or surplus material is deposited.

Drainage ditch. An artificial depression constructed to carry off surface water.

-E-

Earthwork. The work consisting of constructing roadway earthwork in conformity with the specified tolerances for the lines, grades, typical sections, and cross sections shown on the plans or as established by the Engineer. Earthwork shall include regular, borrow, undercut and minor structure excavation; constructing embankments; disposing of surplus and unsuitable material; shaping; grading, compaction; sloping; dressing; and temporary erosion control work.

Easement (Right of way). A grant of the right to use property for a specific use.

Embankment. A structure of soil, soil aggregate, soil-like materials, or broken rock between the existing ground and subgrade.

Employee. Any person working on the project specified in the Contract who is under the direction or control of or receives compensation from the Contractor or subcontractor.

Engineer. The Chief Engineer, as designated by the Commonwealth Transportation Commissioner, who acts directly or through his duly authorized representative(s) and who is responsible for highway design, construction, and maintenance. The Engineer, or his representative(s), acts within the scope of the particular duties assigned to him or the authority given to him by the Code of Virginia, the Commonwealth Transportation Commissioner, these Specifications, supplemental specifications, and the Contract Documents.

Engineer, Contract. The Chief Engineer's authorized representative for administering the advertisement of work, receiving bids for such, and awarding such work as contracts for the Department.

Equipment. Machinery, tools, and other apparatus, together with the necessary supplies for upkeep and maintenance, that are necessary for acceptable completion of the work.

Excavation (**Excavate**). The act of creating a man-made cavity in the existing soil for the removal of material necessary to obtain a specific elevation or to install a structure, material, component or item necessary to complete a specific task or form a final surface or subsurface.

Execution date. The date on which the contract is signed by the Chief Engineer.

Extra work. An item of work that was not provided for in the Contract as awarded but that is found to be essential to the satisfactory fulfillment of the Contract within its intended scope and is identified in a written authorized Work Order or Force Account directive for its execution subject to the limitations, exceptions and provisions in Sections 104.02 and 104.03 and 109.05.

-F-

Falsework. A temporary framework used to support work in the process of constructing permanent structural units.

Federal agencies or officers. An agency or officer of the federal government and any agency or officer succeeding in accordance with the law to the powers, duties, jurisdictions, and authority of the agency or officer mentioned.

Fill Slope. See also Cut Slope. A surface plane formed during embankment above existing ground elevations that intersects with existing ground at its termini.

Firm. A commercial partnership of two or more persons formed for the purpose of transacting business.

Flood frequency. A statistical average recurrence interval of floods of a given magnitude.

Force account work. Prescribed work of a contractual status performed by the Contractor and compensated for as specified in Section 109.05. A Force Account agreement is made with the Contractor when neither the Engineer nor the Contractor can firmly establish an applicable estimate for the cost of the work, because the scope of the work is not defined or quantifiable at the time of discovery or start of execution. Force account is used when what is to be done is known, but the level of effort or quantity of materials that will be necessary to accomplish that task is unknown but will be determined as the work progresses. In these cases the rates for the labor, equipment, and materials to be used are agreed upon in advance, and daily records are kept by the Engineer in order to track the eligible expenditures.

Formwork. A temporary structure or mold used to retain the plastic or fluid concrete in its designated shape until it hardens. Formwork shall be designed to resist the fluid pressure exerted by plastic concrete and additional fluid pressure generated by vibration and temporary construction loads.

Frontage street or road. A local street or road auxiliary to and located on the side of a highway for service to abutting property and adjacent areas and control of access.

-G-

Gage. U.S. Standard Gage.

Grade separation. Any structure that provides a traveled way over or under another traveled way or over a body of water.

-H-

Highway. The entire right of way reserved for use in constructing or maintaining the roadway and its appurtenances.

Historical flood level. The highest flood level that is known to have occurred at a given location.

Holidays. The days specifically set forth in Section 108.02 or in the Contract Documents.

Hydrologic data sheet. A tabulation of hydrologic data for facilities conveying a 100-year discharge equal to or greater than 500 cubic feet per second.

-I-

Incentive. A verifiable monetary amount used to encourage the Contractor to complete work prior to the milestone dates and/or the time limit specified in the Contract.

Inspector. The Engineer's authorized representative who is assigned to make detailed inspections of the quality and quantity of the work and its conformance to the requirements and provisions of the Contract.

Invert. The lowest point in the internal cross-section of a pipe or other drainage structure.

-J-K-

Joint venture. Two or more individuals, partnerships, corporations, or combinations thereof that join together for the purpose of bidding on and constructing a project.

-L

Laboratory. The testing laboratory of the Department or any other testing laboratory that may be designated by provisions in the Contract or by the Engineer.

Liquidated damages. Compensatory damages as set forth in the Contract, paid by the Contractor to the Department when the Contractor fails to complete the project within the time frame specified in the Contract. These damages include, but are not limited to, additional costs associated with administration, engineering, supervision and inspection of the project.

-М-

Major Item. Any pay item specifically indicated as such in the Contract Documents.

Material. Any substance that is used in the work specified in the Contract

Median. The portion of a divided highway that separates the traveled ways.

-N-

Non-Contract item. Item(s) of work that is required to permit completion of the specified work in an acceptable manner, located within the Limits of Construction, but is not included in the Contract

Documents and will be completed by others prior to or during the construction of the Project.

No Plan and Minimum Plan Concept Project. Generally a project of a very limited scope and duration requires few details to describe proposed work.

Notice to Proceed. The date of contract execution or a specified date identified as such and set forth in the Contract Documents on which the Contractor may begin the work.

-0-

Ordinary high water. A water elevation based on analysis of all daily high waters that will be exceeded approximately 25 percent of the time during any 12 month period.

Overtopping flood. The magnitude of flood that just overflows the traveled way at a given structure and/or on the approach traveled way of such structure.

-P-Q-

Pavement structure. The combination of select or stabilized materials, subbase, base, and surface courses, described in the Typical Pavement Section in the Plans that is placed on a subgrade to support the traffic load and distribute it to the roadbed.

Pay item. A specifically described unit of work for which a price is provided in the Contract.

Phase inspection. The inspection of work at predetermined stages in lieu of continuous inspection.

Plans. The approved project plans and profiles, which may include Standard Drawings, survey data, typical sections, summaries, general notes, details, plan and profile views,-cross-sections, special design drawings, computer output listings, supplemental drawings or exact reproductions thereof, and all subsequently approved revisions thereto which show the location, character, dimensions, and details of the work specified in the Contract

Prequalification. The procedure used by the Department to assure itself of the Contractor's ability to perform the work with attention to quality and safety including his experience in similar work, and sufficiency of equipment to accomplish the work and that the Contractor's financial resources will permit financing the cost in accordance with the Rules Governing Prequalification Privileges.

Profile grade. The line of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed.

Project. The total scope of work specified to be performed in the Contract Documents.

Project showing. The scheduled event at which the Department's representative meets with prospective bidders to describe and answer questions regarding the proposed work.

Proposal: The document provided by the Department to prospective bidders or personally obtained by prospective bidders that describes the work for which bids will be accepted which includes the electronic forms on which the Department requires bids to be submitted for the work described.

-R

Ramp. A connecting roadway between two highways or traveled ways or between two intersecting highways at a grade separation.

Right of way. A general term denoting land, property, or interest therein, usually in the form of a strip, that is acquired for or devoted to transportation facilities but is not meant to denote the legal nature of ownership.

Road. A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way; the entire area reserved for use in constructing or maintaining the roadway and its appurtenances.

Road and Bridge Specifications. The specifications contained herein and generally recognized as the standard specifications for all contracts awarded by the Commonwealth Transportation Board or the Transportation Commissioner.

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

Roadbed material. The material below the subgrade in cuts, embankments, and embankment foundations that extends to a depth and width that affects the support of the pavement structure.

Roadside. A general term that denotes the area within the right of way that adjoins the outer edges of the roadway; extensive areas between the roadways of a divided highway.

Roadside development. Items that are necessary to complete a highway that provide for the preservation

of landscape materials and features; rehabilitation and protection against erosion of areas disturbed by construction through placing seed, sod, mulch, and other ground covers; and such suitable plantings and other improvements as may increase the effectiveness, service life and enhance the appearance of the highway.

Roadway. The portion of a highway within the limits of construction and all structures, ditches, channels, and waterways which are necessary for the correct drainage thereof.

-S-

Seawater. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent of total solids.

Select borrow. Borrow material that has specified physical characteristics.

Select material. Material obtained from roadway cuts, borrow areas, or commercial sources that is designated or reserved for use as a foundation for the subbase, subbase material, shoulder surfacing, or other specified purposes designated in the Contract Documents.

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

Sidewalk. The portion of the roadway constructed primarily for the use of pedestrians.

Skew. The acute angle formed by the intersection of a line normal to the centerline of the roadway with a line parallel to the face of the abutments or, in the case of culverts, with the centerline of the culverts.

Special Provision (SP). A document that sets forth specifications or requirements for a particular project that is not covered by the standard Specifications.

Special Provision Copied Note (SPCN). A document that sets forth specific specifications or requirements, usually limited in scope, for a particular project.

Specialty item. An item of work designated as "Specialty Item" in the proposal that is limited to work that requires highly specialized knowledge, craftsmanship, or equipment that is not ordinarily available in contracting organizations prequalified to bid and is usually limited to minor components of the overall Contract.

Specifications. A general term that includes all directions, provisions, and requirements contained herein and those that may be added or adopted as supplemental specifications, special provisions, or special provision copied notes. All are necessary for the proper fulfillment of the Contract.

Standard drawings. Unless otherwise specified, applicable drawings in the Department's *Road and Bridge Standards* and such other standard drawings as are referred to on the plans.

State. Commonwealth of Virginia.

Station. When used as a definition or term of measurement, 100 linear feet.

Street. A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way; the entire right of way reserved for use in constructing or maintaining the roadway and its appurtenances.

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

Subbase. A layer(s) of specified or selected material of designed thickness that is placed on a subgrade to support a base course.

Subcontractor. Any individual, partnership, corporation, or joint venture to which the prime Contractor, with the written consent of the Department, subcontracts part of the Contract.

Subgrade. The top earthwork surface of a roadbed, prior to application of Select or Stabilized material courses, shaped to conform to the typical section on which the pavement structure and shoulders are constructed, or surface that must receive an additional material layer, such as Topsoil, Stone or other Select Material.

Subgrade stabilization. The modification of roadbed soils by admixing with stabilizing or chemical agents that will increase the load bearing capacity, firmness, and resistance to weathering or displacement.

Subletting. Subcontracting

Substructure. The part of a structure that is below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the back walls, wingwalls, and wing protection

railings.

Superintendent. The Project representative of the Contractor who is authorized to receive and fulfill instructions from the Engineer and who supervises and directs the construction.

Superstructure. The portion of a structure that is not defined as substructure.

Supplemental specifications. Additions and revisions to the *Road and Bridge Specifications* identified in the Contract Documents

Surety. A corporate entity bound with and for the Contractor for full and complete fulfillment of the Contract and for payment of debts pertaining to the work. When applied to the proposal guaranty, it refers to the corporate body that engages to be responsible in the execution by the bidder, within the specified time, of a satisfactory Contract and the furnishing of an acceptable payment and contract bond.

Surface course. One or more top layers of a pavement structure designed to accommodate the traffic load, which is designed to resist skidding, traffic abrasion, and disintegrating effects of weather. Also see wearing course.

Surplus material. Material that is present on a project as a result of unbalanced earthwork quantities, excessive swell, slides, undercutting, or other conditions beyond the control of the Contractor

Suspension. A written notice issued by the Engineer to the Contractor that orders the work on a project to be stopped wholly or in part as specified. The notice will include the reason for the suspension.

-T-

Temporary structure. Any structure that is required to maintain traffic while permanent structures or parts of structures specified in the Contract are constructed or reconstructed. The temporary structure shall include earth approaches.

Theoretical maximum density. The maximum compaction of materials that can be obtained in accordance with the values established VTM-1.

Tidewater, Virginia. Areas within the Commonwealth as defined in the Department of Conservation and Recreation Erosion and Sediment Control Manual.

Topsoil: The uppermost original layer of material that will support plant life and contains more than 5 percent organic material reasonably free from roots exceeding 1 inch in diameter, brush, stones larger than 3 inches in the largest dimension and toxic contaminants.

Ton. A short ton; 2,000 pounds avoirdupois.

Top of earthwork. The uppermost surface of the regular or embankment excavation, not including select material, that is shaped to conform to the typical section shown in the plans or directed by the Engineer.

Traveled way. The portion of the roadway for the movement of vehicles, not including shoulders.

-U-

Unsuitable Material. Any material which contains more than 5 percent by weight organic matter, or which has unstable bearing capacity, excessive moisture content, plasticity indexes or liquid indexes, or other characteristics defined by the Engineer or the Contract Documents as unsuitable for the use intended.

Utilities. Private, county, city, municipal or public facility, designed, owned and maintained for public use, such as electricity, water, sanitary sewer, storm sewer, drainage culverts, telecommunications, conduits, gas, oil, fiber optics, cable television, that is not identified as a Pavement Structure, Roadway, Highway, Street or Traveled Way.

-V-

Vouchered. The action of approval by the Department; constitutes the date of release to the State Comptroller for payment.

-W-X-Y-Z-

Wearing course. (See Surface course) The top and final layer of any pavement

Work. The furnishing of all materials, labor, tools, equipment, and incidentals necessary or convenient for the successful completion of the project and the carrying out of the duties and obligations specified in the Contract.

Working drawings. Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data the Contractor is required to submit to the Engineer for review.

Work Order. A written agreement made between the Contractor and the Engineer in order to establish

changes to the contract. A work order may be used to add, modify, or delete: pay items, contract time, or other terms of the contract. Work orders may be issued on a bilateral or unilateral basis.

Work Order, Bilateral. A written change order to the Contract where the Engineer and Contractor agree upon scope cost and time estimation for the proposed work. The process uses Form C-10 to perform, communicate and integrate the required and approved change. This type of work order is what is typically meant when the term *work order* is used elsewhere in Department publications.

Work Order, Unilateral. A written directive to the Contractor signed only by the Engineer used to effect a contract change when the Contractor and the Department cannot agree upon the cost and time estimation of the change or where due to issues of emergency, safety, environmental damage, other similar critical factors the Department must act quickly and unilaterally to effect the change. In these cases, the Department must act unilaterally to establish a cost or time adjustment for additional work to the Contract. The process uses Form C-10 to perform, communicate and integrate the required and approved change.