



State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

Solicitation

NUMBER
6614C027

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
CRYSTAL RINK 304-558-2306

VENDOR
*208133725 614-276-5501
STRAWSER CONSTRUCTION INC
1595 FRANK RD
COLUMBUS OH 43223

SHIP TO
DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

DATE PRINTED
01/27/2014

BID OPENING DATE: 02/26/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		220-68		
TO FURNISH MATERIAL, EQUIPMENT AND LABOR						
REQUEST FOR QUOTATION (OPEN-END CONTRACT)						
THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS FOR AN OPEN-END CONTRACT FOR SURFACE TREATMENT WORK FOR USE ON MAINTENANCE AND REPAIR PROJECTS THROUGHOUT THE STATE OF WEST VIRGINIA PER THE ATTACHED SPECIFICATIONS.						
***** THIS IS THE END OF RFQ 6614C027 ***** TOTAL:						
02/26/14 12:43:51PM West Virginia Purchasing Division						

SIGNATURE <i>Douglas C. Perry</i>	TELEPHONE 513-874-6192	DATE 2/24/14
TITLE Senior Estimator	FEIN 26-2688853	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

INSTRUCTIONS TO VENDORS SUBMITTING BIDS

1. **REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.
2. **MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.
3. **PREBID MEETING:** The item identified below shall apply to this Solicitation.
 - ☒ A pre-bid meeting will not be held prior to bid opening.
 - ☐ A NON-MANDATORY PRE-BID meeting will be held at the following place and time:

 - ☐ A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one person attending the pre-bid meeting may represent more than one Vendor.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. The State will not accept any other form of proof or documentation to verify attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing. Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

4. **VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below in order to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are non-binding.

Question Submission Deadline: February 12, 2014 at 5:00 PM EST

Submit Questions to: Crystal Rink
2019 Washington Street, East
Charleston, WV 25305
Fax: 304-558-4115
Email: crystal.q.rink@wv.gov

5. **VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including that made at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.
6. **BID SUBMISSION:** All bids must be signed and delivered by the Vendor to the Purchasing Division at the address listed below on or before the date and time of the bid opening. Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via e-mail. Acceptable delivery methods include hand delivery, delivery by courier, or facsimile. The bid delivery address is:

Department of Administration, Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

The bid should contain the information listed below on the face of the envelope or the bid may not be considered:

SEALED BID

BUYER: _____

SOLICITATION NO.: _____

BID OPENING DATE: _____

BID OPENING TIME: _____

FAX NUMBER: _____

In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal plus N/A convenience copies of each to the Purchasing Division at the address shown above. Additionally, the Vendor should identify the bid type as either a technical or cost proposal on the face of each bid envelope submitted in response to a request for proposal as follows:

BID TYPE: ☐ Technical
☐ Cost

7. **BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when time stamped by the official Purchasing Division time clock.

Bid Opening Date and Time: February 26, 2014 at 1:30 PM EST

Bid Opening Location: Department of Administration, Purchasing Division
 2019 Washington Street East
 Charleston, WV 25305-0130

8. **ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.
9. **BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

- ☐ **BID BOND:** All Vendors shall furnish a bid bond in the amount of five percent (5%) of the total amount of the bid protecting the State of West Virginia. The bid bond must be submitted with the bid.
- ☐ **PERFORMANCE BOND:** The apparent successful Vendor shall provide a performance bond in the amount of . The performance bond must be issued and received by the Purchasing Division prior to Contract award. On construction contracts, the performance bond must be 100% of the Contract value.
- ☐ **LABOR/MATERIAL PAYMENT BOND:** The apparent successful Vendor shall provide a labor/material payment bond in the amount of 100% of the Contract value. The labor/material payment bond must be issued and delivered to the Purchasing Division prior to Contract award.

In lieu of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide certified checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check, or irrevocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the same schedule as the bond it replaces. A letter of credit submitted in lieu of a performance and labor/material payment bond will only be allowed for projects under \$100,000. Personal or business checks are not acceptable.

- ☐ **MAINTENANCE BOND:** The apparent successful Vendor shall provide a two (2) year maintenance bond covering the roofing system. The maintenance bond must be issued and delivered to the Purchasing Division prior to Contract award.
- ☒ **WORKERS' COMPENSATION INSURANCE:** The apparent successful Vendor shall have appropriate workers' compensation insurance and shall provide proof thereof upon request.
- ☒ **INSURANCE:** The apparent successful Vendor shall furnish proof of the following insurance prior to Contract award and shall list the state as a certificate holder:

WV DIVISION OF HIGHWAYS
1900 KANAWHA BLVD. EAST
CHARLESTON WV 25305

☒ **Commercial General Liability Insurance:**
\$250,000.00 or more.

☐ **Builders Risk Insurance:** builders risk – all risk insurance in an amount equal to 100% of the amount of the Contract.

☐
☐
☐
☐
☐

The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed above.

- ☐ **LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section entitled Licensing, of the General Terms and Conditions, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits prior to Contract award, in a form acceptable to the Purchasing Division.

☒ West Virginia Contractor's License

☐
☐
☐

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications prior to Contract award regardless of whether or not that requirement is listed above.

9. **LITIGATION BOND:** The Director reserves the right to require any Vendor that files a protest of an award to submit a litigation bond in the amount equal to one percent of the lowest bid submitted or \$5,000, whichever is greater. The entire amount of the bond shall be forfeited if the hearing officer determines that the protest was filed for frivolous or improper purpose, including but not limited to, the purpose of harassing, causing unnecessary delay, or needless expense for the Agency. All litigation bonds shall be made payable to the Purchasing Division. In lieu of a bond, the protester may submit a cashier's check or certified check payable to the Purchasing Division. Cashier's or certified checks will be deposited with and held by the State Treasurer's office. If it is determined that the protest has not been filed for frivolous or improper purpose, the bond or deposit shall be returned in its entirety.
10. **ALTERNATES:** Any model, brand, or specification listed herein establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.
11. **EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or

other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

- 12. LIQUIDATED DAMAGES:** Vendor shall pay liquidated damages in the amount
Refer to section 8 for late deliveries

This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy.

- 13. ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part. Vendor's signature on its bid signifies acceptance of the terms and conditions contained in the Solicitation and Vendor agrees to be bound by the terms of the Contract, as reflected in the Purchase Order, upon receipt.

- 14. REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee if applicable.

- 15. COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

- 16. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available.

- 17. PAYMENT:** Payment in advance is prohibited under this Contract. Payment may only be made after the delivery and acceptance of goods or services. The Vendor shall submit invoices, in arrears, to the Agency at the address on the face of the purchase order labeled "Invoice To."

- 18. UNIT PRICE:** Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

- 19. DELIVERY:** All quotations are considered freight on board destination ("F.O.B. destination") unless alternate shipping terms are clearly identified in the bid. Vendor's listing of shipping terms that contradict the shipping terms expressly required by this Solicitation may result in bid disqualification.

- 20. INTEREST:** Interest attributable to late payment will only be permitted if authorized by the West Virginia Code. Presently, there is no provision in the law for interest on late payments.

- 21. PREFERENCE:** Vendor Preference may only be granted upon written request and only in accordance with the West Virginia Code § 5A-3-37 and the West Virginia Code of State Rules. A Resident Vendor Certification form has been attached hereto to allow Vendor to apply for the preference. Vendor's

failure to submit the Resident Vendor Certification form with its bid will result in denial of Vendor Preference. Vendor Preference does not apply to construction projects.

22. **SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid on or after July 1, 2012, in accordance with West Virginia Code §5A-3-37(a)(7) and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to submission of its bid to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority-owned business shall be applied in accordance with W. Va. CSR § 148-22-9.
23. **TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
24. **CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-7.16.2.
25. **WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.
26. **TIME:** Time is of the essence with regard to all matters of time and performance in this Contract.
27. **APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.
28. **COMPLIANCE:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendors acknowledge that they have reviewed, understand, and will comply with all applicable law.
29. **PREVAILING WAGE:** On any contract for the construction of a public improvement, Vendor and any subcontractors utilized by Vendor shall pay a rate or rates of wages which shall not be less than the fair minimum rate or rates of wages (prevailing wage), as established by the West Virginia Division of Labor under West Virginia Code §§ 21-5A-1 et seq. and available at <http://www.sos.wv.gov/administrative-law/wagerates/Pages/default.aspx>. Vendor shall be responsible for ensuring compliance with prevailing wage requirements and determining when prevailing wage

requirements are applicable. The required contract provisions contained in West Virginia Code of State Rules § 42-7-3 are specifically incorporated herein by reference.

30. **ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.
31. **MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). **No Change shall be implemented by the Vendor until such time as the Vendor receives an approved written change order from the Purchasing Division.**
32. **WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.
33. **SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.
34. **ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments. Notwithstanding the foregoing, Purchasing Division approval may or may not be required on certain agency delegated or exempt purchases.
35. **WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.
36. **STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.
37. **BANKRUPTCY:** In the event the Vendor files for bankruptcy protection, the State of West Virginia may deem this Contract null and void, and terminate this Contract without notice.

38. [RESERVED]

- 39. CONFIDENTIALITY:** The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.
- 40. DISCLOSURE:** Vendor's response to the Solicitation and the resulting Contract are considered public documents and will be disclosed to the public in accordance with the laws, rules, and policies governing the West Virginia Purchasing Division. Those laws include, but are not limited to, the Freedom of Information Act found in West Virginia Code § 29B-1-1 et seq.

If a Vendor considers any part of its bid to be exempt from public disclosure, Vendor must so indicate by specifically identifying the exempt information, identifying the exemption that applies, providing a detailed justification for the exemption, segregating the exempt information from the general bid information, and submitting the exempt information as part of its bid but in a segregated and clearly identifiable format. Failure to comply with the foregoing requirements will result in public disclosure of the Vendor's bid without further notice. A Vendor's act of marking all or nearly all of its bid as exempt is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor's act of marking a bid or any part thereof as "confidential" or "proprietary" is not sufficient to avoid disclosure and WILL NOT BE HONORED. In addition, a legend or other statement indicating that all or substantially all of the bid is exempt from disclosure is not sufficient to avoid disclosure and WILL NOT BE HONORED. Vendor will be required to defend any claimed exemption for nondisclosure in the event of an administrative or judicial challenge to the State's nondisclosure. Vendor must indemnify the State for any costs incurred related to any exemptions claimed by Vendor. Any questions regarding the applicability of the various public records laws should be addressed to your own legal counsel prior to bid submission.

- 41. LICENSING:** In accordance with West Virginia Code of State Rules §148-1-6.1.7, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.
- 42. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Purchase Order from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired

by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

- 43. VENDOR CERTIFICATIONS:** By signing its bid or entering into this Contract, Vendor certifies (1) that its bid was made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, person or entity submitting a bid for the same material, supplies, equipment or services; (2) that its bid is in all respects fair and without collusion or fraud; (3) that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; and (4) that it has reviewed this RFQ in its entirety, understands the requirements, terms and conditions, and other information contained herein. Vendor's signature on its bid also affirms that neither it nor its representatives have any interest, nor shall acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

The individual signing this bid on behalf of Vendor certifies that he or she is authorized by the Vendor to execute this bid or any documents related thereto on Vendor's behalf; that he or she is authorized to bind the Vendor in a contractual relationship; and that, to the best of his or her knowledge, the Vendor has properly registered with any State agency that may require registration.

- 44. PURCHASING CARD ACCEPTANCE:** The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract unless the box below is checked.

☐ Vendor is not required to accept the State of West Virginia's Purchasing Card as payment for all goods and services.

- 45. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, *etc.* and the filing of all necessary documents, forms and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

- 46. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered

by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

- 47. PURCHASING AFFIDAVIT:** In accordance with West Virginia Code § 5A-3-10a, all Vendors are required to sign, notarize, and submit the Purchasing Affidavit stating that neither the Vendor nor a related party owe a debt to the State in excess of \$1,000. The affidavit must be submitted prior to award, but should be submitted with the Vendor's bid. A copy of the Purchasing Affidavit is included herewith.
- 48. ADDITIONAL AGENCY AND LOCAL GOVERNMENT USE:** This Contract may be utilized by and extends to other agencies, spending units, and political subdivisions of the State of West Virginia; county, municipal, and other local government bodies; and school districts ("Other Government Entities"). This Contract shall be extended to the aforementioned Other Government Entities on the same prices, terms, and conditions as those offered and agreed to in this Contract. If the Vendor does not wish to extend the prices, terms, and conditions of its bid and subsequent contract to the Other Government Entities, the Vendor must clearly indicate such refusal in its bid. A refusal to extend this Contract to the Other Government Entities shall not impact or influence the award of this Contract in any manner.
- 49. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire any interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.
- 50. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:
- ☒ Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.
 - ☐ Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.requisitions@wv.gov.
- 51. BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the Director of the Division of Protective Services shall require any service provider whose employees are regularly employed on the grounds or in the buildings of the Capitol complex or who have access to sensitive or critical information

to submit to a fingerprint-based state and federal background inquiry through the state repository. The service provider is responsible for any costs associated with the fingerprint-based state and federal background inquiry.

After the contract for such services has been approved, but before any such employees are permitted to be on the grounds or in the buildings of the Capitol complex or have access to sensitive or critical information, the service provider shall submit a list of all persons who will be physically present and working at the Capitol complex to the Director of the Division of Protective Services for purposes of verifying compliance with this provision.

The State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check.

Service providers should contact the West Virginia Division of Protective Services by phone at (304)558-9911 for more information.

52. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.

The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

- a. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
- b. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

53. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products.

This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

CERTIFICATION AND SIGNATURE PAGE

By signing below, I certify that I have reviewed this Solicitation in its entirety, understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid or proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Strawser Construction, Inc.
(Company)

Douglas C. Perry
(Authorized Signature)

Douglas C. Perry, Senior Estimator
(Representative Name, Title)

513-874-6192 513-870-0141
(Phone Number) (Fax Number)

2/24/14
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: 6614C027

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Strawser Construction, Inc.

 Company
Douglas C. Perry

 Authorized Signature
2/24/14

 Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways to establish an open-end Contract for Surface Treatment work for use on maintenance and repair projects throughout the state of West Virginia.
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1 **"Contract Item" or "Contract Items"** means the list of items identified in Section 3.2.
 - 2.2 **"Pricing Pages"** means the schedule of prices, estimated order quantity, and totals attached hereto as Exhibit A and used to evaluate the RFQ.
 - 2.3 **"RFQ"** means the official request for quotation published by the Purchasing Division and identified as 6614C027.
 - 2.4 **"WVDOH"** used throughout this RFQ means the West Virginia Division of Highways.
 - 2.5 **"Contractor" or "Vendor"** used throughout this RFQ and in any cited sections of the West Virginia Department of Transportation, Division of Highways Standard Specifications, Roads and Bridges, adopted 2010, as modified by all subsequent annual Supplemental Specifications, are interchangeable.
 - 2.6 **"Standard Specs"** used throughout this RFQ means the West Virginia Department of Transportation, Division of Highways Standard Specifications, Roads and Bridges, adopted 2010, as modified by all subsequent annual Supplemental Specifications.
3. **GENERAL REQUIREMENTS:**
 - 3.1 The following sections of the Standard Specs shall apply to the administration of this Contract: Sections 101, 102.4, 102.5, 105.1, 105.3, 105.4, 105.10, 105.11, 105.12, 105.13, 106.3, 106.4, 106.5, 106.6, 106.7, 106.9, 107.1, 107.2, 107.3, 107.12, 107.14, 107.15, 107.16, 107.19, 107.20, 107.23, 108.3, 108.5, 108.6, 108.7, 108.8, 109.1, 109.2, 109.9, 109.10, 109.20 and 401.9.3. Copies attached.

A complete hard copy of the Standard Specs may be obtained from:

West Virginia Division of Highways
Contract Administration
Building 5, Room 722
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305
(Phone) 304-558-2885

A complete electronic copy of the Standard Specs may be obtained by sourcing:
<http://www.transportation.wv.gov/highways/Contractadmin/specifications/2010StandSpec/Pages/default.aspx>

- 3.2 Contract Items and Mandatory Requirements:** Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

ACCORDING TO SECTION 405.2, MATERIALS FROM THE STANDARD SPECS, NOTE 1 SHALL BE MODIFIED, FOR THIS CONTRACT, TO READ AS FOLLOWS:

“In addition to meeting the gradation requirements specified in Table 703.4, the aggregates shall have a maximum of 2.0% passing the #200 sieve, when sampled at the source (the Vendor’s last point of possession), prior to shipment, as determined by AASHTO T-11 and T-27. The aggregates shall be crushed with a minimum of 80% two face fracture.

- 3.2.1** Surface Treatment shall be furnished and administered in accordance with the requirements of Section 405 of the Standard Specs with the exception that the cost to haul aggregate is not to be included in Contract Items A, B and C as is stated in Section 405.14, Basis of Payment, of the Standard Specs. Instead, it is to be bid as Contract Item K of this Contract and is to be computed in accordance with Section 3.2.6 of this Contract. Contract Items A, B and C shall include F.O.B. Vendor’s Equipment Storage Lot.

3.2.1.1 Section 405, Surface Treatment, Type B Single, Contract Item A

3.2.1.2 Section 405, Surface Treatment, Type C Double, Contract Item B

3.2.1.3 Section 405, Surface Treatment, Type D Triple, Contract Item C

- 3.2.2** **Bituminous Material**, grades 705.4 and 705.11, shall be included in the unit bid price for all Contract Items in Section 3.2.1 of these specifications; however, a surcharge can be added for supplying grade 705.12, Polymer Modified Cationic Emulsified Asphalt if requested by the District on an Agency Release. This cost shall be Contract Item A-2, B-2 and C-2.

- 3.2.3 Maintenance of Traffic:** While undergoing Surface Treatment, the project site shall be kept open to traffic in such condition that both local and through traffic will be adequately and safely accommodated. All construction operations shall be scheduled by the Contractor to keep traffic delay to a minimum.

Traffic Control may be furnished by the WVDOH. When Pilot Truck and Driver, Contract Item D, Traffic Control Devices, Contract Item E, Flagger, Contract Item F and/or Arrow Board, Contract Item G are requested by the WVDOH for a project, traffic shall be maintained by the Vendor in accordance with Section 636 of the Standard Specs.

- 3.2.4 Mobilization:** Mobilization will be paid when the Contractor is required to move his equipment from his Equipment Storage Lot location to the WVDOH project site. When the Contractor has multiple projects, mobilization will be paid from project to project or from the Vendor's Equipment Storage Lot location to the project, whichever is less mileage. Mobilization will only be paid one way. Contract Items H and I.
- 3.2.5 Vendor's Equipment Storage Lot:** The Vendor shall provide the 911 address or the most recent physical address of the Equipment Storage Lot that will be used to supply the materials requested on this Contract on the Pricing Page, as Contract Item J. A different Equipment Storage Lot address can be utilized for each District.
- 3.2.6 Aggregate Hauling Surcharge per County:** The Vendor shall provide a per ton cost for aggregate hauling per County bid in a District, Contract Item K. Vendors may bid any or all Counties located in a District. This Contract Item is to fairly compensate the Vendors for hauling aggregate to jobsites that are yet to be determined. The intent is for Vendors to determine the sources of aggregate for each county and to determine their cost to transport that aggregate to a location anywhere within the county being bid. The Vendor may use any distance in that calculation, but it is anticipated that an average distance from the aggregate source to the jobsite will be used. The WVDOH shall use the following formula when calculating the hauling surcharge, converting the per square yard of surface treatment to tons of aggregate required for single, double and triple course treatments:

$$\text{Item A} \times 0.01 + \text{Item B} \times 0.0225 + \text{Item C} \times 0.040 = \text{ton}$$

4. PRICE ADJUSTMENTS:

- 4.1 **Price Adjustment of Asphalt Cement:** Due to the uncertainty in estimating the cost of petroleum products that will be used during the life of this Contract, adjustment in compensation for Contract Items A, B and C is provided for in the table below:

Item	Description	AC (Average Asphalt Content)
A	Section 405 – Surface Treatment, Type B Single	0.325
B	Section 405 – Surface Treatment, Type C Double	0.625
C	Section 405 – Surface Treatment, Type D triple	1.1

The WVDOH shall use the following formula when calculating the asphalt adjustment cost per gallon rate:

$$\text{Item A} \times 0.325 + \text{Item B} \times 0.625 + \text{Item C} \times 1.10 = \text{gallon}$$

- 4.2 **Price Adjustment of Fuel Oil No. 2 (Diesel Fuel):** Due to the uncertainty in estimating the cost of diesel fuel that will be used during the life of this Contract, adjustment in compensation for hauling aggregate for Contract Items A, B and C is provided for in Section 109.9 of the Standard Specs.

The following formula shall be used to convert the square yards of Contract Items A, B and C to tons of aggregate for use of "Factor Q" in the fuel adjustment formula.

$$\text{Item A} \times 0.01 + \text{Item B} \times 0.0225 + \text{Item C} \times 0.040 = \text{ton}$$

5. CONTRACT AWARD:

- 5.1 **Contract Award:** The Contract is intended to provide Agencies with a purchase price on all Contract Items. All qualified responsible Vendors that meet all mandatory requirements of this Contract shall be awarded a Contract.
- 5.2 **Pricing Pages:** Vendor shall complete the Pricing Pages by providing unit prices per Contract Item requested. Vendors may bid any or all Districts and any or all Counties in a District. The Vendor shall be required to bid Items A through I and required to provide the Equipment Storage Lot 911 address or most recent physical address as Contract Item J on a District's Pricing Page; however, the

Vendor may choose to bid any or all Counties located within such District, Item K.

The Pricing Pages contain a list of the Contract Items with no guarantee that any Contract Item will be purchased throughout the life of this Contract. Estimated quantities are not available.

Notwithstanding the foregoing, the Purchasing Division may correct errors at its discretion. Vendor should type or electronically enter the information into the Pricing Pages to prevent errors in the evaluation. The Pricing Pages were created as a Microsoft Excel document and Vendor can request an electronic copy for bid purposes by sending an email request to the following address:
crystal.g.rink@wv.gov.

6. **DETERMINING LOW BID PER PROJECT:** To determine the low bid Vendor for individual treatment projects, the WVDOH District Manager will calculate the lowest overall total cost of Contract Item A, B or C, plus any additional cost items required for each project and issue the Agency Release to that Vendor.

WVDOH reserves the right to request any one or combination of items for which bids are awarded at the lowest overall total as set forth in this section.

7. **ORDERING AND PAYMENT:**

- 7.1 **Ordering:** Vendor shall accept orders by regular mail, facsimile, e-mail, or any other written forms of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Any on-line ordering system must have the capability to restrict prices and available items to conform to the Catalog originally submitted with this RFQ. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.
- 7.2 **Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia. The State of West Virginia currently utilizes a Purchasing Card program, administered under contract by a banking institution, to process payment for goods and services. The Vendor must accept the State of West Virginia's Purchasing Card for payment of all orders under this Contract.

8. PROJECT ACCEPTANCE, DELIVERY AND RETURN:

- 8.1 Project Acceptance:** Upon receipt of an Agency Release, the Vendor shall advise the WVDOH, in writing, within five (5) calendar days of their acceptance of the project work of the Agency Release. Failure on the Vendor's part to acknowledge acceptance of the project work may result in cancellation of the Agency Release and re-award of the project to the next lowest bidder.
- 8.2 Delivery Time:** All Agency Releases shall specify a starting date and a completion date based on the Vendor's acceptance of the Agency Release. If work is not started by the Vendor by the specified starting date on the Agency Release, the Agency Release may be cancelled and issued to the next low bidder. If work is not completed by the completion date as specified on the Agency Release, liquidated damages may be assessed in accordance with Section 108.7 of the Standard Specs. Vendor shall deliver emergency orders within an agreed upon acceptable timeframe after orders are received. Vendor shall ship all orders in accordance with the dates assigned to each project per the Agency Release and shall not hold orders until a minimum delivery quantity is met. No Vendor is authorized to ship, nor is the WVDOH authorized to receive materials prior to the issuance of an Agency Release.
- 8.3 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 8.4 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.
- 8.5 Return of Unacceptable Items – Acceptance Criteria:** Materials found not in compliance with the requirements of this Contract or if the work performed, visually appears to be unacceptable, by visual inspection of the WVDOH District Manager, the work may be rejected, removed and replaced at the Contractor's expense. Aggregate not conforming to the gradation requirements will be paid for at the adjusted Contract price based the degree of nonconformance as specified in Table 405.2.3.2 of the Standard Specs.

9. **LABOR RATES:** All labor rates paid by the Vendor under this Contract must be in compliance with the West Virginia Department of Labor Prevailing Rates, Chapter 21-5A, Series 15, 2006 as stipulated in Section 29 of the General Terms and Conditions.

Vendors may reference the following website:

<http://www.transportation.wv.gov/highways/contractadmin/Pages/default.aspx>. From this site, choose Prevailing Wage Rates. The Vendor should choose Prevailing Wage Worker Classification 2010 for a job class description. The Vendor then should choose Prevailing Wage Rates directing them to the 2013 Heavy and Highway option.

10. **MISCELLANEOUS:**

- 10.1 **No Substitutions:** The Vendor shall supply only Contract Items submitted in response to the RFQ unless a Contract modification is approved in accordance with the provisions contained in this Contract.
- 10.2 **Vendor Supply:** The Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, the Vendor certifies that it can supply the Contract Items contained in its bid response.
- 10.4 **Reports:** The Vendor shall provide quarterly reports and annual summaries to the Agency showing the Contract Items purchased, quantities of Contract Items purchased and the total dollar value of the Contract Items purchased. The Vendor shall also provide reports, upon request, showing the Contract Items purchased during the term of this Contract, the quantity purchased for each of those Contract Items and the total value of purchases for each of those Contract Items. Failure to supply such reports may be grounds for cancellation of this Contract.
- 10.5 **Contract Manager:** During its performance of this Contract, the Vendor must designate and maintain a primary Contract manager responsible for overseeing the Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. The Vendor should list its Contract manager and his or her contact information below.

Contract Manager: DOUG PERRY
Telephone Number: 513-874-6192
Fax Number: 513-870-0141
Email Address: dperry@terryasphalt.com

SECTION 101 DEFINITION OF TERMS

101.1-ABBREVIATIONS:

Whenever the following abbreviations are used in these Specifications, Plans or Contract Documents, they are to be construed the same as the respective expressions represented:

AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
AIA	American Institute of Architects
AISC	American Institute of Steel Construction, Incorporated
AISI	American Iron and Steel Institute
AMA	Automotive Manufacturer's Association
AMS	Aerospace Material Specification
ANSI	American National Standards Institute
ARA	American Railway Association
AREA	American Railway Engineering Association
AREMA	American Railway Engineering and Maintenance of Way Association
ASCE	American Society of Civil Engineers
ASD	Aluminum Standards & Data-Aluminum Association
ASLA	American Society of Landscape Architects
ASTM	American Society for Testing and Materials
ATSSA	American Traffic Safety Services Association
AWWA	American Water Works Association
AWS	American Welding Society
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards, General Services Administration
IEEE	Institute of Electronic and Electrical Engineers
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
MIL	Military Specification
MP	Materials Procedure (see 101.2 in definition)
NBFU	National Board of Fire Underwriters
NEC	National Electric Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
PEI-ALS	Porcelain Enamel Institute: Aluminum Standards
UL	Underwriters Laboratories
SAE	Society of Automotive Engineers
SSPC	Society for Protective Coatings
TTE-TTP	Federal Specifications and Standards

101.2-DEFINITIONS:

~ A ~

ACCESS CONNECTION-Any roadway facility by means of which vehicles enter or leave arterial highways.

ADVERTISEMENTS-The public announcement, as required by law, inviting bids for work to be performed, or material to be furnished.

ARTERIAL HIGHWAY-A general term denoting a highway primarily for through traffic.

AUXILIARY LANE-The portion of the roadway adjoining the traveled way for parking, speed-change or other purposes supplementary to through traffic movement.

AWARD-The acceptance by the Division of a bid.

~ B ~

BASE COURSE-A layer or layers of specified material of designated thickness placed on a subbase or a subgrade to support a surface course or courses.

BIDDER-An individual, firm, corporation, or combination thereof, acting directly or through a duly authorized representative, and prequalified according to the requirements and provisions of the Division, submitting a bid for the proposed work.

BRIDGE-A structure, including supports, erected over a depression or an obstruction, such as water, a highway or railway and having a track or passageway for carrying traffic or other moving loads and having a length measured along the center of roadway of more than 20 ft. (6.1 meters) between undercopings of abutments or extreme ends of openings for multiple boxes.

The length of a bridge structure is the overall length measured along the line of survey stationing back to back of abutments if present, otherwise, end to end of the bridge floor, but in no case less than the total clear opening of the structure. Roadway width is the clear width measured at right angles to the longitudinal centerline of the bridge between the bottom of curbs.

~ C ~

CALENDAR DAY-Every day shown on the calendar.

CERTIFIED TECHNICIAN-A Certified Technician is an individual who has been examined by the joint Industry-Division Certification Board and deemed competent in the particular technical field for which the individual has been examined. This competency is documented by written notification and issuance of a certificate to the individual and remains in effect for a given period of time as determined by the regulations of the Board. Should any questions develop concerning the status of an individual, verification may be made through the Training section of the Personnel Division of the Division.

CHANGE ORDER-A general term referring to force account work orders, supplemental agreements, and work orders of the Contract.

CHANNEL-A natural or artificial water course.

CITY, TOWN OR DISTRICT-A subdivision of the county used to designate or identify the location of the proposed work.

COMMISSIONER-West Virginia Commissioner of Highways.

CONSTRUCTION LIMITS-The physical limits of construction as described by designated lines drawn on the Plans.

CONTRACT-The written agreement between the Division and the Contractor covering the performance of the work, the furnishing of labor, equipment and materials, and the basis of payment. The Contract includes the invitation of bids, proposal, contract form, contract bond, specifications, supplemental specifications, special provisions, plans, notice to proceed, any change orders and supplemental agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, all of which constitute one instrument.

CONTRACT BOND-The approved form of security, executed by the Contractor and their surety, guaranteeing completion of the work and payment of all legal debts pertaining to the construction of the project.

CONTRACT PERIOD-The period from the specified date of commencement of work to the specified date of completion of the work, both dates inclusive, as is specified in the Contract.

CONTRACT TIME-The number of work or calendar days specified in the proposal, indicating the time allowed for the completion of the work contemplated, including authorized time extensions.

CONTRACTOR-The individual, firm or corporation, party of the second part to the Contract, acting directly or through their agents, employees, or subcontractors.

CONTROL OF ACCESS, FULL-The condition where the right of owners or occupants of abutting land or other persons to access, light, air or view in connection with a highway is fully controlled by public authority. The authority to control access is exercised to give preference to through traffic by providing access connections with selected public roads only and by prohibiting crossings at grade or direct driveway connections.

CONTROL OF ACCESS, PARTIAL-The condition where the right of owners or occupants of abutting land or other persons to access, light, air or view in connection with a highway is partially controlled by public authority. The authority to control access is exercised to give preference to through traffic to a degree that, in addition to access connections with selected public roads, there may be some crossings at grade and some private driveway connections.

COUNTY-The County or Counties of West Virginia in which the work is to be done.

CULVERT-Any structure not classified as a bridge which provides an opening under the roadway.

~ D ~

DEPARTMENT-West Virginia Department of Transportation.

DIVISION-West Virginia Division of Highways

DIVIDED HIGHWAY-A highway with separated roadways for traffic in opposite directions.

~ E ~

EASEMENT-A right acquired by one party to use land belonging to another party for a specified purpose.

EMBANKMENT-The structure of soils, soils aggregate and broken rock between the embankment foundation and the subgrade.

EMBANKMENT FOUNDATION-The material below the original ground surface whose physical characteristics affect the support of the embankment.

EMPLOYEE-Any person working on behalf of the project who is under the direction of the Contractor or any subcontractor.

ENGINEER-The State Highway Engineer of the Division, or an authorized representative, limited by the scope of duties assigned.

EQUIPMENT-All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the work.

ESTIMATES-The official written itemization of the value of materials in place and work performed.

EXPRESSWAY-A divided arterial highway for through traffic with full or partial control of access and generally with grade separations at intersections.

EXTRA WORK-An item of work not provided for in the contract as awarded, but found essential to the satisfactory completion of the Contract within its intended scope. See further 104.3.

~ F ~

FORCE ACCOUNT WORK ORDER-An order signed by the Engineer or an authorized representative, directing additional work to be performed, with payments based on labor, materials used, equipment cost, plus specified percentages.

FREEWAY-An expressway with full control of access.

FRONTAGE STREET OR ROAD-A local street or road auxiliary to and located on the side of an arterial highway for service to abutting property and adjacent areas, and for control of access.

~ G ~

~ H ~

HIGHWAY-The entire improvement comprising the entire right-of-way. See definition for Road in Section 101.

HIGHWAY GRADE SEPARATION-Any structure carrying highway or street traffic over or under another highway or street.

HOLIDAYS-Official holidays are New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, West Virginia Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day, and any day in which an election (Primary or General) is held through the State and such other days as the President, Governor, or other duly constituted authority shall proclaim to be holidays. If a holiday falls on Sunday, the following Monday shall be observed in lieu thereof. If a holiday falls on a Saturday, the previous Friday shall be observed in lieu thereof.

~ I ~

INSPECTOR-The Engineer's authorized representative assigned to make any or all necessary inspection of the work as further described in 105.10.

INSTRUCTIONS TO BIDDERS-The notice to Contractors containing all necessary information as to provisions, requirements, date and time of submitting Proposals.

INVITATION FOR BIDS-The advertisement for bids, as required by law, inviting bids for work to be performed or material to be furnished.

ITEM-A specifically described unit of work for which a price is provided in the contract.

~ J ~

~ K ~

~ L ~

LABORATORY-The testing laboratories of the Division or any other testing laboratory designated by the Division.

LOT-A lot is an isolated quantity of specified material from a single source or a measured amount of specified construction assumed to be produced by the same process.

~ M ~

MATERIALS-Any substances specified for use in the construction of the project and its appurtenances.

MATERIALS PROCEDURE-A procedure defining standard methods or guidelines for the inspection, sampling, testing, evaluation, and documentation of the Material's Division activities relative to the quality assurance program for materials, products, and processes. Each Materials Procedure is identified by the letters MP followed by seven digits, (i.e. MP XXX.XX.XX).

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

MEDIAN LANE-A speed-change lane within the median to accommodate left-turning vehicles.

MULTIPLE DEFICIENCY-A multiple deficiency is defined as a failure to meet specified requirements involving more than one characteristic of a material within the same lot.

~ N ~

NOTICE TO PROCEED-Written notice to the Contractor to proceed with the contract work including, when applicable, the date of beginning of contract time.

~ O ~

~ P ~

PARKING LANE-An auxiliary lane primarily for the purpose of vehicular parking.

PARKWAY-An arterial highway for non-commercial traffic, with full or partial control of access, and usually located within a park or a ribbon of parklike development.

PAVEMENT STRUCTURE-The combination of subbase, base course, and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.

PLANS-The approved Plans, profiles, typical cross sections, working drawings, standard drawings, and supplemental drawings, or exact reproductions thereof, which show the location, character, dimensions and details of the work to be done.

PRE-CONSTRUCTION CONFERENCE-A conference normally called by the District Engineer, following award and prior to start of construction, to be attended by Division officials and by the responsible officials of the Contractor and other affected parties.

PRE-QUALIFICATION STATEMENT-The approved form or forms upon which Contractors shall furnish information as to their ability to perform work, their experience, personnel, equipment and financial condition.

PROFILE GRADE-The trace of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadway. Profile grade means either elevation or gradient of such trace according to the context.

PROJECT-The specific section of the highway, together with all appurtenances and construction to be performed, under the Contract.

PROJECT ENGINEER OR PROJECT SUPERVISOR-The representative of the Engineer on a project. See further 105.9.

PROPOSAL-The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and material at the prices quoted.

PROPOSAL FORM-The approved form on which the Division requires a bid to be prepared and submitted for the work.

PROPOSAL GUARANTY-The security furnished with a bid to guarantee that the bidder will enter into the Contract if their bid is accepted.

~ Q ~

~ R ~

RAILWAY-HIGHWAY SEPARATION-Any structure carrying highway traffic over or under the tracks of any railway.

RAMP-A connecting roadway between two intersecting highways, usually at a highway grade separation.

RIGHT-OF-WAY-A general term denoting land, property, or interest, usually in a strip, acquired for or devoted to a highway.

ROAD-A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way, or needed for the maintenance of travel. See West Virginia Code, Chapter 17, Article 1, Section 3.

ROADBED-The grade portion of a highway, within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

ROADSIDE-A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.

ROADSIDE DEVELOPMENT-Those items necessary to the complete highway which provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching and the placing of other ground covers; such suitable planting and other improvements as may increase the effectiveness and enhance the appearance of the highway.

ROADWAY-The portion of the highway within limits of construction.

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SEASONAL RESTRICTIONS-Limitations imposed on the work which prohibit the Contractor from performing certain types of work during specific seasons of the year.

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

SIDEWALK-That portion of the roadway primarily intended for the use of pedestrians.

SINGLE DEFICIENCY-A single deficiency is defined as a failure to meet specified requirements involving one characteristic of a material.

SPECIAL PROVISIONS-Additions and revisions to the Standard and Supplemental Specifications covering conditions peculiar to an individual project.

SPECIALTY ITEM-An item of work designated as "Specialty Item" in the proposal that is limited to work which 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 applied to all directions, provisions, and requirements pertaining to performance of the work.

STATE-The State of West Virginia.

STREET-A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

STRUCTURES-Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other features which may be encountered in the work and not otherwise classed.

SUBBASE-The layer or layers of specified or selected materials of designed thickness placed on a subgrade to support a base course.

SUBCONTRACTOR-An individual, firm, or corporation to whom the Contractor sublets part of the Contract.

SUBGRADE-The upper portion of a roadbed upon which the pavement structure and shoulders are constructed.

SUBSTANTIAL COMPLETION or SUBSTANTIALLY

COMPLETE-The work on the Contract will be considered substantially complete when the Project could be opened continuously for the safe, convenient, and unimpeded use of the traveling public, or the Project has met the intention of the plans, as reasonably determined by the Engineer.

SUBSTRUCTURE-All that part of the structure below the bearings of simple and continuous spans, skewbacks of arches and tops of footings of rigid frames, together with the backwalls, wingwalls, and wing protection railings.

SUPERINTENDENT-The Contractor's authorized representative in responsible charge of the work.

SUPERSTRUCTURE-The entire structure except the substructure.

SUPPLEMENTAL AGREEMENT-A modification of the Contract covering changes in the Plans or quantities, or both, and establishing the basis of payment and time adjustment for the work necessitated by reason of the modification, requiring the signature of the Commissioner, the Contractor, and the Surety, or their authorized representatives.

SUPPLEMENTAL SPECIFICATIONS-Additions to and revisions of the Standard Specifications that are approved subsequent to issuance of the printed book. Supplemental Specifications prevail over Standard Specifications when in conflict therewith.

SURETY-The corporation, partnership, or individual, other than the Contractor, executing a bond furnished by the Contractor.

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TEMPORARY STRUCTURE-A structure required for the use of traffic or other purpose while construction is in progress and not to be retained as a part of the improvement.

TITLES-The titles or headings of the sections and subsections are intended for convenience of reference and shall not be considered as having any bearing on their interpretation except those titles and headings used in conjunction with the definition of terms.

TRAFFIC LANE-The portion of the roadway for the movement of a single line of vehicles.

TRAVELED WAY-The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

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WORK-Work shall mean the furnishing of all labor, materials, equipment, and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all duties and obligations imposed by the contract.

WORKING DAY-Every day shown on the calendar, exclusive of Saturdays, Sundays, and Holidays as set forth in definitions for Holidays in Section 101, on which weather and other conditions not under the control of the Contractor will permit construction operations to proceed for a minimum of five hours with normal working forces engaged in performing the controlling item or items of work.

WORKING DRAWINGS-The Contractor shall submit to the Engineer all stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplemental plans or similar data for the Engineer's use.

WORK ORDER-A written order, signed by the Engineer, requiring certain performance by the Contractor without negotiation. Such order shall not change quantities of major items beyond the twenty-five percent (25%) limitations, shall not create new items, nor make revisions to item prices.

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101.3-INTERPRETATIONS:

In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be done, if, as, or, when, or where "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected, or condemned," it shall be understood as if the expression were followed by the words "by the Engineer" or "to the Engineer".

The Division may at its discretion issue to a Contractor a Proposal requiring prequalification in excess of the amount allotted the Contractor provided it considers that this Contractor is particularly fitted by reason of their experience or equipment, or both, to perform work of this type involved in an amount exceeding their prequalification limits and further provided that the prospective bidder furnish the Division with a letter from a reputable Surety advising of their willingness to furnish bond to the Contractor for the project.

When more than one project is advertised, Proposals will be issued on as many projects as the Contractor requests, providing the Contractor is qualified as above for each individual project, but no contracts will be awarded exceeding the permissible limit of the Contractor's prequalification rating except as otherwise provided in 103.1.

102.4-INTERPRETATION OF APPROXIMATE ESTIMATES:

The quantities appearing in the proposal form are approximate only and are prepared for the comparison of bids. Payment to the Contractor will be made only for the work accepted, or for materials furnished in accordance with the Contract. If upon completion of the construction the actual quantities show either increase or decrease, the unit bid prices offered in the Proposal will prevail except as further provided.

102.5-EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:

The bidder is required to examine carefully the Plans, Specifications, Supplemental Specifications, contract forms, and the site of the work contemplated. The submission of a bid shall be considered prima facie evidence that the bidder has made such examination and has judged for and satisfied themselves as to the character, quality, and quantity of work to be performed and material required to be furnished under the Contract.

102.6-PREPARATION OF PROPOSAL:

The bidders Proposal must be submitted through the Division's Bid Express Website. The bidder must furnish a unit price or a lump sum price as called for in the Proposal, in numerical figures, for each pay item listed, except that in the case of alternates, the bid may be made on only one alternate if so desired.

The Contractor or qualified and authorized agent shall use a digital signature as provided at law for the Proposal submission.

The proposal shall comply with West Virginia Contractor Licensing Act, Chapter 21, Article 11 Code of West Virginia, except that on Federal-Aid Projects a Contractor's license is not required at time of bid, but will be required before work can begin.

102.7-IRREGULAR PROPOSALS:

Proposals will be considered irregular and will be rejected for any of the following reasons:

SECTION 105 CONTROL OF WORK

105.1-AUTHORITY OF THE ENGINEER:

The Engineer will decide all questions which may arise as to the quantity, quality, and acceptability of materials furnished and work performed, and as to the rate of progress of the work; all questions which may arise as to the interpretation of the Plans and Specifications; and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor. The decision of the Engineer will be final.

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 employees or the general public, for failure to carry out orders, for such periods as the Engineer may deem necessary due to unsuitable weather, for conditions considered unsuitable for the prosecution of the work, or for any other condition or reason deemed to be in the public interest. All such suspension orders will be directed to the Contractor in writing.

The Engineer is not authorized to increase the obligation of the Division to any Contract except as provided.

105.2-PLANS AND WORKING DRAWINGS:

Approved Plans will show the location, profile, typical cross section, structures, except as specified, incidental items, and a summary of all items appearing in the Proposal. Any deviations which may be required by the exigencies of the construction will be determined by the Engineer and authorized by the Engineer in writing. The Contractor shall keep one set of approved Plans available on the work at all times.

Plans will show such details as are necessary to give a comprehensive idea of the construction contemplated. Any information which may be shown on drawings regarding results obtained from test piles or borings will be a record of conditions encountered at the place where such test piles were driven or borings were made, as nearly as these conditions could be interpreted by the Engineer observing the operations. The Contractor shall interpret the data in the light of their own experience. The Contractor is not bound to accept or rely on the data shown on the drawings, but may make such additional borings and investigations, including test piles, as the Contractor may desire in order to satisfy themselves concerning the lengths of piles and the conditions governing or entering into the construction of foundations.

The Plans will show the foundation depths and dimensions on which the estimate of quantities is based. These depths and foundation dimensions, however, are subject to such variations as may be necessary to secure a foundation satisfactory to the Engineer, and the right is expressly reserved to increase or diminish the dimensions and depths of the foundations as the Engineer may determine.

The Contractor shall submit to the Engineer all stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplemental plans or similar data for the Engineers use.

any submittal which does not comply with the requirements of this Special Provision. The verification and distribution or rejection of Contractor approved shop drawings will normally require seven (7) calendar days after receipt of the drawings.

Additional certifications and/or slightly different wording of the above tow certification may be used if approval is given by the Legal Division. This approval must be obtained prior to any submission of contractor approved shop drawings. This approval may take up to thirty (30) days to be obtained. If this approval is obtained, a copy of the approval letter must be submitted with the first submission of shop drawings for distribution.

The Division shall reserve the right to review any submission of shop drawings or catalog sheets. This review shall not delay the contractor in the construction project or delay the distribution of the approved shop drawings or catalog sheets.

105.3-CONFORMITY WITH PLANS AND SPECIFICATIONS:

All work performed and all materials furnished shall be in reasonably close conformity with the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the Plans or indicated in the Specifications.

Should the Engineer determine the materials, or the finished product do not conform to the Specifications or the Plans, the Engineer will then make a determination if the work will be accepted and remain in place in accordance with 106.3.1 and 106.7. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for an adjusted payment. All nonconforming material or construction judged to be inadequate for the use intended shall be either reworked or removed and replaced at no expense to the Division.

Each supplemental agreement containing an adjusted price will also have added the sum of Two Hundred Dollars to each adjusted price, for the Divisions administration costs, to be deducted from monies due the Contractor.

105.4-COORDINATION OF PLANS, SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS:

These Specifications, the Supplemental Specifications, 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 case of discrepancy, calculated dimensions will govern over scaled dimensions; Supplemental Specifications will govern over Specifications; Plans will govern over Specifications and Supplemental Specifications; Special Provisions will govern over Specifications, Supplemental Specifications and Plans. When the plans provide that new work is to connect with existing structures, the Contractor must verify all dimensions with the Engineer before proceeding with the work.

The Specifications, Supplemental Specifications, and Special Provisions are in dual units. The first Primary unit is in English with the Metric unit

following in parentheses “()”. The Metric values are considered replacements for the English units and they are not conversions.

The Contractor shall take no advantage of any apparent error or omission in the Plans or Specifications. In the event the Contractor discovers such an error or omission, the Contractor shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Plans and Specifications.

105.5-COOPERATION BY CONTRACTOR:

The Contractor will be furnished One (1) complete set of plans and profile sheets, and one (1) set of Cross Sections upon request, without charge. The Contractor shall maintain on the Project at all times one complete set of Plans, Specifications, and Special Provisions.

The Contractor shall give the work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer, their inspectors, other Contractors, and utilities in every way possible.

The Contractor shall have on the work at all times, as an agent, a competent superintendent capable of reading and thoroughly understanding the Plans and Specifications, and thoroughly experienced in the type of work being performed, who shall receive instructions from the Engineer or an authorized representatives. The Superintendent shall have full authority to execute orders or directions of the Engineer without delay, and to promptly supply such materials, equipment, tools, labor, and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of work sublet.

The Contractor shall furnish to the Engineer a list of addresses and telephone numbers of their personnel who may be reached in case of emergency during hours when no work is to be performed. On weekends, holidays, during suspensions of work, and during storms the Contractor shall alert certain of their personnel to stand by and shall inform the Engineer of arrangements so made.

The Contractor shall provide all reasonable facilities and furnish the Division the information, assistance and samples required by the Engineer and Inspector for proper inspecting or testing of materials and workmanship.

On some contracts it may be necessary, to insure proper coordination between the work of the Contractor and the work of various utilities, to hold a pre-construction utility meeting. The Division will arrange for the affected utilities to be present. The Contractor or their representative, authorized to make decisions for them in regard to the scheduling of the proposed work, is required to attend the meeting. A report of the pre-construction utility meeting will be prepared and distributed by the Engineer to all represented at the meeting.

105.6-COOPERATION WITH UTILITIES:

The Division will notify all utility companies, all pipe line owners, or other parties affected, and endeavor to have all necessary adjustments of the public or private utility fixtures, sewers, pipe lines, and other appurtenances within or adjacent to the limits of construction, made as soon as practicable.

Water lines, gas lines, wire lines, sewer lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction which are to be relocated or adjusted are to be moved by the owners

with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

In the event the Engineer finds further coordination effort is necessary, the Engineer shall call a meeting of the Contractors involved. After the meeting has been held, the Engineer may notify the Contractors of the action required of each and the Engineer's decision shall be final.

105.8-CONSTRUCTION STAKES, LINES AND GRADES:

Except when "Construction Layout Stakes", is included in the Contract, the Engineer will set construction stakes establishing lines, slopes and continuous profile-grade, together with necessary reference stakes and bench marks. The Engineer will set sufficient right-of-way stakes to define the right-of-way limits. The Engineer will set stakes to mark centerline and establish bench marks for bridges and special structures as may be considered necessary.

The stakes and marks in the paragraph above shall constitute field control by and in accordance with which the Contractor shall establish all additional stakes and marks necessary to secure a correct layout of all the work. All stakes, except those set by the Engineer, shall be furnished by the Contractor. The Contractor shall not engage the services of any person or person in the employ of the Division for the performance of any of the Contractor's layout work.

The Contractor shall be responsible for having the finished work in reasonably close conformity with the lines, grades, elevations, and dimensions called for on the Plans or established by the Engineer. The Contractor shall be held responsible for the preservation of stakes, marks, and references, and shall have them reset at the Contractor's expense when they are damaged, lost, displaced, or removed.

105.9-AUTHORITY AND DUTIES OF THE PROJECT ENGINEER OR PROJECT SUPERVISOR:

The project Engineer or Supervisor has immediate charge of the engineering details of each construction project. The Engineer or Supervisor are responsible for the administration and satisfactory completion of the project.

The Project Engineer or Supervisor has the authority to reject defective material and to suspend any work that is being improperly performed.

The Project Engineer or Supervisor 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 employees or the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for such periods as they may deem necessary due to unsuitable weather. All such suspension orders will be directed to the Contractor in writing. The suspension of the work for the above reasons does no relieve the Contractor of their responsibility according to 107.16.

105.10-AUTHORITY AND DUTIES OF THE INSPECTOR:

Inspectors employed by the Division will be authorized to inspect all work done and materials furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication or manufacture of the materials to be used. The Inspector is not authorized to alter or waive the provisions of the Contract. The Inspector is authorized to call the attention of the Contractor to any failure of the work or materials to conform to the Specifications and Contract.

The Inspector is authorized to reject materials which do not meet specification requirements or suspend the portion of the work involved until any question at issue can be referred to the Project Engineer or Project Supervisor. The Inspector is not authorized to issue instructions contrary to the Plans and Specifications. The Inspector shall not act as foreman or perform other duties for the Contractor, nor interfere with the management of the work by the latter.

105.11-INSPECTION OF WORK AND MATERIALS:

All materials and each part or detail of the work shall be subject to inspection by the Engineer. The Engineer or a representative shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection. To facilitate the inspection of materials, all delivery tickets shall contain as a minimum the information required in MP 700.00.01.

At the Engineer's request, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed shall be at the Contractor's expense.

Any work done or materials used without supervision or inspection by an authorized Division representative may be ordered removed and replaced at the Contractor's expense. Failure to reject any defective material or work shall not in any way prevent later rejection when such defects are discovered, nor obligate the Division to final acceptance.

When any unit of government or political subdivision or any railroad corporation is to pay a portion of the cost of the work covered by this Contract, its respective representatives shall have the right to inspect the work. Such inspection shall in no sense make any unit of government or political subdivision or any railroad corporation a party to this Contract, and shall in no way interfere with the rights of either party hereunder.

No work shall be done at night, Saturdays, Sundays, or Holidays without documented prior approval of the Engineer.

105.12-REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK:

Except as provided in 105.3, all work which does not conform to the requirements of the Contract will be considered as unacceptable work.

Unaccepted work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner.

Unacceptable material shall be removed from the job site.

No work shall be done without lines and grades having been given or approved by the Engineer. Work done contrary to the instructions of the Engineer, work done beyond the lines shown on the Plans, or as given, except as specified, or any extra work done without authority, will be considered as

unauthorized and will not be paid for under the provisions of the Contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply promptly with any order of the Engineer, made under the provisions of this Subsection, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed, and to deduct the costs from any monies due or to become due the Contractor.

105.13-LOAD RESTRICTIONS:

The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads. A special permit will not relieve the Contractor of liability for damage which may result from the moving of equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or the roadway or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base or structure before the expiration of the curing period. In no case shall legal load limits be exceeded unless permitted in writing. The Contractor shall be responsible for all damage done by their own equipment.

105.14-MAINTENANCE DURING CONSTRUCTION:

The Contractor shall maintain the work during construction and until the project is accepted except as otherwise provided in 105.16.1. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces to the end that the roadway and structures are kept in satisfactory condition at all times.

In the case of a Contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All cost of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various pay items, and the Contractor will not be paid an additional amount for such work except as otherwise provided in 104.5.

105.15-FAILURE TO MAINTAIN ROADWAY OR STRUCTURE:

If the Contractor, at any time, fails to comply with the provisions of 105.14, the Engineer will immediately notify the Contractor of such non-compliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Engineer may immediately proceed to maintain the project, and the entire cost of maintenance will be deducted from monies due or to become due the Contractor on their Contract.

105.16-ACCEPTANCE:

105.16.1-Partial Acceptance: If at any time during the prosecution of the project, the Contractor completes a unit or portion of the project, such as a structure, an interchange, or a section of road or pavement, the Contractor may request the Engineer to make final inspection of that unit. If the Engineer finds upon inspection that the unit has been completed in compliance with the

as provided in 652 without additional compensation. Where practicable, borrow pits, gravel pits, and quarry sites shall be located so they will not be visible from the highway.

In accordance with the agreement between the Division of Highways and the Division of Environmental Protection, the Contractor cannot furnish material from borrow areas outside the right of way for any other public or private use.

106.3-SAMPLES, TESTS, CITED SPECIFICATIONS:

All materials will be inspected, tested and approved prior to incorporation into the work. Any work which incorporates materials prior to the above evaluation shall be performed at the Contractor's risk, and may subsequently be considered as unacceptable. Unless otherwise specified, the materials shall meet the applicable Standard or Interim Specifications of the American Association of State Highway and Transportation Officials, the Standard or Tentative Specifications of the American Society for Testing and Materials, or Standards adopted by other specifying agencies, with preference given in the same order in which the above agencies are listed. The specification which is current at the time of advertisement for bids shall govern, except that, with the approval of the Engineer, subsequent revisions or adoptions may govern. All materials being used are subject to inspection, testing or rejection at any time prior to final acceptance of the completed work.

The Contractor shall be responsible for the quality of construction and materials incorporated. When called for in the Specifications, the Contractor shall perform all necessary process control inspection, sampling and testing. All materials will be approved for acceptance through the Division's acceptance procedures. The Division has the exclusive right and responsibility for determining the acceptability of the construction and materials incorporated. The Division may use the results of the Contractor's inspection, sampling and testing for acceptance purposes.

Lot or subplot sizes will normally be designated. In the event that operational conditions cause work to be interrupted, or only partially completed before the lot size designated has been achieved, the lot or subplot may be redefined by the Engineer as being either the amount of work accomplished within the day or that work partially completed combined with the next lot or subplot of work. It is the intent of these Specifications that the number of samples required to evaluate each lot or subplot will be unchanged even when the lot or subplot is redefined.

When an acceptance plan is cited, it shall be in accordance with 106.3.1.

106.3.1-Acceptance Plans:

106.3.1.1-Percent Within Tolerance: The percentage of each lot or subplot of material, product, item of construction, or completed construction within the specified tolerances will be determined by the procedures as referenced by the specification requirements. When West Virginia AP-A is referenced, it will consist of Tables 106-1 to 106-5 inclusive, published in MP 106.00.20.

106.3.1.2-Sampling of Reworked Lots or Sublots: It is the intent of these Specifications that lots or sublots of materials, products, items of construction or completed construction meet specification requirements at the time of submission. Lots or sublots generally will not be resampled unless reworked before submission. Sampling after reworking will be at the expense of the Contractor.

106.4-PLANT INSPECTION:

The Engineer may undertake the inspection of materials at the source.

In the event plant inspection is undertaken, the following conditions shall be met:

- i. The Engineer shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.
- ii. The Engineer shall have full entry at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished.
- iii. Adequate safety measures are to be provided and maintained.

The Division reserves the right to retest all materials, which have been tested and accepted at the source of supply, after the materials have been delivered to the project and prior to incorporation into the work and to reject all materials which, when retested, do not meet the requirements of these Specifications or those established for the specific project.

106.5-STORAGE OF MATERIALS:

Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate their prompt inspection. Approved portions of the right-of-way may be used for storage purposes and for the placing of the Contractor's plant and equipment, but any additional space required therefore must be provided by them at their expense. Private property shall not be used for storage purposes without written permission of the owner or lessee, and if requested by the Engineer, copies of such written permission shall be furnished. All storage sites shall be restored to their original condition by the Contractor at their expense. This shall not apply to the stripping and storing of topsoil, or to other materials salvaged from the work.

Care shall be exercised to protect finished concrete surfaces from being stained from storing or placing materials, including but not limited to reinforcing bars or mesh or unpainted structural steel, on same. Any such material so stored shall be adequately protected from weather. Any stains resulting from storage of materials on finished concrete surfaces shall be removed by the Contractor at their expense.

Aggregate stockpiles may be made on ground that is denuded of vegetation, hard, and well drained. If necessary, the ground shall be covered with two inch (50 mm) plank. Different kinds and sizes of aggregates shall be kept separate during transportation, handling, and storage until batched. If necessary,

partitions of suitable height and strength shall be constructed between stockpiles to prevent different materials from becoming mixed. Care must be taken to prevent segregation of the coarse and fine particles of aggregates from taking place during handling or hauling. The inclusion of foreign materials will not be permitted. Aggregates placed directly on the ground shall not be removed from the stockpiles within one foot (300 mm) of the ground until the final cleaning up of the work, and then only the clean aggregate will be permitted to be used.

106.6-HANDLING MATERIALS:

All materials shall be handled in such manner as to preserve their quality and fitness for the work. Aggregates shall be transported from the storage site to the work in tight vehicles, so constructed as to prevent loss or segregation of materials after loading and measuring, in order that there may be no inconsistencies in the quantities of materials intended for incorporation in the work as loaded and the quantities as actually received at the place of operations.

106.7-UNACCEPTABLE MATERIALS:

106.7.1-Acceptance or Rejection: Following the application of the appropriate acceptance plan, the decision of the Engineer will be final as to the acceptance, rejection, or acceptance at an adjusted price of sampled lots or sublots.

106.7.2-Disposition of Lots or Sublots: Lots or sublots not conforming to specification requirements may be reworked or removed and replaced and resubmitted for acceptance. All nonconforming lots or sublots evaluated as unsatisfactory for the use intended shall be reworked or removed and replaced and resubmitted for acceptance. When the evaluation indicates the lots or sublots may satisfactorily remain in place, acceptance will be an adjusted price as stated in the Specifications or as directed by the Engineer.

106.8-DIVISION-FURNISHED MATERIAL:

The Contractor shall furnish all materials required to complete the work, except those specified to be furnished by the Division.

Materials furnished by the Division will be delivered or made available to the Contractor at the points specified in the Contract.

The cost of handling and placing all materials after they are furnished to the Contractor shall be considered as included in the contract price for the item in connection with which they are used.

The Contractor will be held responsible for all material delivered to them, and deductions will be made from any monies due the Contractor to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur after such delivery, and for any demurrage charges.

106.9-SILENCE OF SPECIFICATIONS:

The apparent silence of these Specifications, Supplemental Specifications, plans and Special Provisions as to any detail, or the apparent omission from them of a detailed description concerning any point shall be regarded as meaning that only material and workmanship of acceptable quality are to be used.

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.1-LAWS TO BE OBSERVED:

The Contractor shall keep fully informed of all Federal and State laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the State and its representatives against any claim or liability arising from or based on the violation of any such laws, ordinances, regulations, orders, or decrees, whether by themselves, their subcontractors or their employees.

107.2-PERMITS, LICENSES AND TAXES:

The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work.

107.3-PATENTED DEVICES, MATERIALS, AND PROCESSES:

If the Contractor employs any design, devise, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the surety shall indemnify and save harmless the Division, and affected third party, or political subdivision from and claims for infringement by reasons of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Division for any costs, expenses, and damages which it may be obligated to pay by reason of any infringement, at any time during the prosecution or after the completion of the work.

107.4-RESTORATION OF SURFACES OPENED BY PERMIT:

The right to construct or reconstruct any utility service in the highway or street or to grant permits for same, at any time, is expressly reserved by the Division for the proper authorities of the municipality in which the work is done, and the Contractor shall not be entitled to any damages either for the digging up of the street or for any delay occasioned.

Any individual, firm, or corporation wishing to make an opening in the highway must secure a permit from the Division. The Contractor shall allow parties bearing such permits, and only those parties, to make openings in the highway. The Contractor shall, when ordered by the Engineer, make in an acceptable manner all necessary repairs due to such openings and such necessary work will be paid for as "Extra Work", or as provided in these Specifications, and will be subject to the same conditions as original work performed.

107.5-FEDERAL-AID PROVISIONS:

When the United States Government pays any portion of the cost of a project, the Federal Laws and the Rules and Regulations made pursuant to such laws must be observed by the Contractor, and the work shall be subject to the inspection of the appropriate Federal Agency.

107.12-PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE:

The Contractor shall be responsible for the preservation of all public and private property and shall protect carefully from disturbance or damage all land monuments and property marks until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in the Contractor's manner or method of executing the work, or at any time due to defective work or materials, and this responsibility will not be released until the project shall have been completed and accepted.

When or where and direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the nonexecution thereof by the Contractor, the Contractor shall restore, at their own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in as acceptable manner.

107.13-FOREST PROTECTION:

In carrying out work within or adjacent to State or National Forests, the Contractor shall comply with all regulations of the State Fire Marshall, Division of Natural Resources, or any other authority having jurisdiction, governing the protection of forests and the carrying out of work within forests, and shall observe all sanitary laws and regulations with respect to the performance of work in forest areas. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tank, and other structures in accordance with the requirements of the Forest Supervisor.

The Contractor shall take all reasonable precaution to prevent and suppress forest fires and shall require their employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress and to assist in preventing and suppressing forest fires and to make every possible effort to notify a forest official at the earliest possible moment of the location and extent of any fire seen by them.

107.14-RESPONSIBILITY FOR DAMAGE CLAIMS:

The Contractor shall indemnify and save harmless the Division, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of the Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Worker's Compensation Act," or any other law, ordinance, order, or decree; and so much of the money due the Contractor under and by virtue of their Contract as may be

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considered necessary by the Division for such purpose may be retained for the use of the Division or, in case no money is due, their surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the Division; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that the Contractor is adequately protected by public liability and property damage insurance.

107.15-OPENING SECTIONS OF PROJECT TO TRAFFIC:

At the option of the Engineer, certain sections of the work may be opened for traffic. Such opening will not constitute acceptance of the work, or any part thereof, or a waiver of any provisions of the Contract; provided however, that on such portions of the project as are accepted for use of traffic, the Contractor shall not be required to assume any expense entailed in maintaining the roadway for traffic. Such expense will be borne by the Division or will be compensated for in the manner provided in 109.4. Any damage to the highway not attributable to traffic which might occur on such section, except slides, shall be repaired by the Contractor at their expense. The removal of slides shall be performed by the Contractor and payment will be in accordance with 104.3.

If the Contractor is dilatory in completing shoulders, drainage structures, or other features of the work, the Engineer may order all or a portion of the project open to traffic, but in such event the Contractor shall not be relieved of their liability and responsibility during the period the work is so opened prior to final acceptance. The Contractor shall conduct the remainder of their construction operations so as to cause the least obstruction to traffic.

107.16-CONTRACTOR'S RESPONSIBILITY FOR WORK:

Until final written acceptance of the project by the Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements, or from the nonexecution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault of or negligence of the Contractor, including but not restricted to acts of God, of the public enemy or governmental authorities.

In case of suspension of work from any cause whatever, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the project, provide for normal drainage and to erect any necessary temporary structures, signs, or other facilities at their expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under their Contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

107.17-CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES:

At points where the Contractor's operations are adjacent to properties of railway, telegraph, telephone, and power companies, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, that duplication of rearrangement work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event of interruption to water or utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with such authority in the restoration of service. If water service is interrupted, repair work shall be continuous until the service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

107.18-FURNISHING RIGHT-OF-WAY:

The Division will be responsible for securing all necessary right-of-way in advance of construction. Any exceptions will be indicated in the Contract.

107.19-PERSONAL LIABILITY OF PUBLIC OFFICIALS:

In carrying out any of the provisions of these Specifications, or is exercising and power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the Commissioner, Engineer, or their authorized representatives, either personally or as officials of the State, it being understood that in all such matters they act solely as agents and representatives of the Division.

107.20-NO WAIVER OF LEGAL RIGHTS:

The Division shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate or certificate is untrue or is incorrectly made, nor that the work or materials do not in fact conform to the Contract. The Division shall not be precluded or estopped, notwithstanding and such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or sureties, or both, such damage as it may sustain by reason of their failure to comply with the terms of the Contract. Neither the acceptance by the Division or any representative of the Division, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Division, shall operate as a waiver of any portion of the Contract or of any power reserved or of any right to damages. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

that during and after completion of the work, erosion will not result in water pollution.

107.21.2-Pollution: The Contractor shall exercise every reasonable precaution throughout the life of the Project to prevent pollution of rivers, streams, or impoundments. Pollutions such as chemicals, fuels, lubricants, bitumens, raw sewage, products associated with bridge cleaning and painting, and other harmful wastes shall not be discharged into or alongside of rivers, streams, impoundments, or into natural or man-made channels leading thereto. The quality of the surface waters affected by construction shall meet the requirements of the West Virginia Code, Volume 8A, Chapter 22, Article 11.

The manual entitled, "West Virginia Division of Highways, Best Management Practice for Containment/Disposal of Waste Products Generated During Bridge Cleaning and Painting Activities". Latest addition, as amended is made part of the contract as a guide to follow for containment/disposal activities.

107.21.3-Basis of Payment: Except when pay items are specifically described and furnished as pay items in 642, Temporary Pollution Control, the water pollution and erosion and siltation control requirements set forth shall be at the expense of the Contractor.

107.22-PLANT PEST REGULATIONS:

The indiscriminate movement of nursery stock, hay or straw mulch, equipment and soil samples into and out of West Virginia constitutes a potential hazard to State and National Agriculture. Therefore, it shall be the responsibility of the prime Contractor to comply with all applicable State and Federal Plant Pest Regulations in the fulfillment of this contract.

Information regarding these regulations may be obtained from Plant Pest Control Division, West Virginia Department of Agriculture, Charleston, West Virginia 25305, or United States Department of Agriculture, Agriculture Research Service, Plant Pest Control Division, P.O. Box 1257, Roanoke, Virginia 24001.

107.23-AIR POLLUTION CONTROL:

The Contractor shall exercise every reasonable precaution throughout the life of the project to keep air pollution to a minimum. The Contractor shall also comply with the applicable regulations of the West Virginia Air Pollution Control Commission. During times of limited dispersion, construction operations may be suspended.

All plants in West Virginia producing bituminous concrete for the Division shall obtain a permit or certification from the West Virginia Air Pollution Control Commission.

107.24-CLEAN WATER ACT/WETLANDS:

The Contractor will comply with all aspects of Section 404 of the Clean Water Act including any and all regards to wetlands on all work associated with the project. A wetland will not be filled or disturbed on the project or any work related to the project such as a haulroad, waste area, borrow pit or any other activity without a permit.

by the Contractor's own equipment or by recognized hauling companies, shall be considered as subcontracting under these provisions. If batching plants or mixing plants are set up at rail or water delivery points and materials in part supplied to such plants by rail or water transportation companies, the remaining materials required at such batching or mixing plants may be hauled to such plants without such hauling being considered as subcontracting.

108.2-NOTICE TO PROCEED:

The Notice to Proceed will stipulate the date on which it is expected the Contractor shall begin work and from which date Contract time will be charged. In the event a Notice to Proceed cannot be issued, a Conditional Notice to Proceed may be issued upon the mutual agreement of the Division and the Contractor. The Conditional Notice to Proceed will be used to allow the Contractor to begin work on a portion of the project not impacted by the issue that created the need for the Conditional Notice to Proceed.

108.3-PROSECUTION OF THE WORK:

108.3.1-General: The Contractor shall provide sufficient resources (materials, equipment, and labor, etc.) to guarantee the completion of the project in accordance with the Plans and Specifications within the time set forth in the Proposal.

The Contractor shall submit a Detailed Construction Schedule and any subsequent schedules, as required by this specification, in the form of an Activities Schedule Chart (ASC) or a Critical Path Method (CPM) Schedule with all graphic and tabular supporting documentation, hereinafter referred to as "Schedule."

ASC and CPM Schedules will not be required for projects on which the major portion of the work is resurfacing, landscaping, signing, lighting, installing signals, guardrail or bridge painting, or on which the Contract Bid Amount is \$2,000,000 or less. However, on all projects not requiring an ASC or CPM schedule, the contractor will provide the Division with an Anticipated Payment Summary (APS) for the project.

The contractor's Anticipated Payment Summary (APS) will be provided to the Division within fourteen (days) of the Notice of Award. The APS will detail the Contractors anticipated monthly payments from the Division throughout the life of the contract. The Summaries shall be for the calendar months of the project. The Contractor will provide the Division with an updated APS within fourteen (14) days of any schedule changes to the project.

Activities Schedule Chart (ASC) will be required for all projects on which the Contract Bid Amount is greater than \$2,000,000 but less than \$7,500,000, except for project types as noted in the previous paragraph.

Critical Path Method (CPM) Schedules will be required for all projects on which the Contract Bid Amount is equal to or exceeding \$7,500,000 or containing an I/D Clause.

The submitted Schedule shall include a written certification on the face of the Schedule, as well as on any diagrams and drawings, stating that the Schedule is within the contractual limits and that the submitted Schedule is the only schedule the Contractor will use for all critical work activities,

interdependent work activities, phase construction, stage construction, resource needs, transmittals for Contractor designs, drawings and other submissions, activities for subcontractors, vendors, and suppliers, and all other controlling and subsequent activities. This same written certification shall be included on all Schedule updates and revisions.

The Schedule shall show the interdependent and logical sequence of construction activities. The Schedule shall reflect that all contract time requirements are essential conditions of the Contract and shall also include allowances for seasonal weather conditions, the influence of high or low ambient temperatures, as well as any extra shifts, overtime, or additional manpower and equipment necessary to complete the critical and non-critical activities within the allotted Contract time without additional cost to the Division.

The Contractor shall provide an activity or milestone that designates the substantial completion date of the project. The substantial completion date shall equal the contract completion date. Additional activities that do not impact the project's substantial completion may be included in the Schedule subsequent to the contract completion date. However, these additional activities shall not impact the float of any preceding portion of the Schedule.

The Contractor may submit a Schedule with a Substantial Completion date earlier than the Contract Completion Date set forth in the Proposal. The Substantial Completion Date shall equal the Contract Completion Date. Additional activities that do not impact the project's Substantial Completion Date may be included in the schedule subsequent to the Contract Completion Date.

The Division's review of the Schedule does not represent approval of the Contractor's estimate of resources (labor, material and equipment), method of operation, or production rates.

108.3.1.1-Submission of Construction Schedules: The Contractor shall designate a competent representative, hereinafter referred to as Construction Coordinator, who shall have the decision-making authority for the Contractor to control the work in accordance with the Schedule(s) for the duration of the Contract.

With the exception of the following preliminary items: establishing the field office, setting up traffic control, and mobilizing equipment, no item of work under the contract may be pursued following the Notice to Proceed or the Conditional Notice to Proceed until a Preliminary Construction Schedule or Detailed Construction Schedule has been submitted by the Contractor and reviewed by the Engineer. The Engineer may withhold estimates until such time as a Schedule has been received and reviewed.

108.3.1.2-Preliminary Construction Schedule: Within thirty (30) calendar days of the contract award date, the Contractor may submit a sixty (60) calendar day Preliminary Construction Schedule for review by the Engineer. The Preliminary Schedule shall include a generalized project schedule for the balance of the work in summary form indicating the contract completion date. The Contractor shall maintain and submit

monthly a sixty (60) calendar day Preliminary Construction Schedule until the Detailed Construction Schedule is submitted by the Contractor and reviewed by the Engineer.

108.3.1.3-Detailed Construction Schedule: The Detailed Construction Schedule shall include a report system that is maintained throughout the life of the project to measure all factors that affect the completion date. Within sixty (60) calendar days of the contract award date, the Contractor shall submit a Detailed Construction Schedule indicating the contract completion date for review by the Engineer.

The Engineer will review the Detailed Construction Schedule and supporting documentation for compliance with the Contract within fourteen (14) calendar days after receipt in accordance with provision 108.6.2. The Contractor shall provide the Engineer with a revised Detailed Construction Schedule incorporating any compliance recommendations made in the Engineer's review. This schedule shall become the official Schedule and shall be used by the Contractor. The official Schedule must be completed within ninety (90) calendar days of the Contract award date. The Engineer may withhold estimate payments for any item of work under the Contract after ninety (90) calendar days until the Contractor's Detailed Construction Schedule has been reviewed and all comments have been addressed.

108.3.1.4-Construction Schedule Requirements: The Preliminary Schedule and the official Detailed Construction Schedule shall be submitted in hard copy and shall include a legend for symbols and abbreviations used. Activities with duration times in excess of fifteen (15) working days, except for non-construction activities, shall be kept to a minimum and be subject to review by the Engineer. The Schedule shall provide a minimum of ten (10) activities or categories, hereafter referred to as "Activities," per million dollar value of the Contract and a maximum of three hundred (300) activities or as directed by the Engineer.

The Schedule shall indicate the interdependence of Activities (how the start of a given activity depends on the completion of preceding Activities) and the sequence of work (how failure to complete a given activity may restrain the start of successive activities).

The Schedule shall include the Contract completion date and any interim completion dates contained in the Contract, as well as any coordination and cooperation requirements, construction restrictions, or other requirements of the Contract.

The Schedule shall include Activities for all work required by the Contract, including Activities for subcontractors, vendors, and suppliers. In addition to construction activities, the Schedule shall include as a minimum the procurement, fabrication, and delivery of critical or special materials and equipment, as well as submission and review of all shop/work drawings, Contractor designs, and all other submissions required by the Contract.

The Activities are to be described by Contract item number, location, phase, and sequence so that the work is readily identifiable and the

progress of each Activity can be measured. For CPM Schedules, the Contractor shall provide the labor and equipment involved with each Activity. For CPM and ASC Schedules, each Activity will have an associated dollar amount documented on the Schedule. This Activity dollar amount will be in direct relation to the bid items and quantity of work included in the Activity. Activity duration shall be logical and consistent with the Contract documents and shall be based on realistic and available resources of the Contractor. The above requirements are applicable for all CPM Schedules, including the official Detailed Construction Schedules, required updates, and any revised Schedules.

Requiring the Contractor to submit Schedules allocating resources to project Activities does not imply acceptance, approval, or agreement by the Division that the Contractor's scheduled allocation of resources is sufficient to complete either the project or a scheduled activity in a scheduled time.

108.3.2-Critical Path Method (CPM) Schedule: The Schedules shall be prepared using the version of the scheduling and cost control system specified at the time of letting in Section 640.11.

The Schedule shall be submitted on standard D size sheets (24" x 36"). The critical path shall be distinguished from other paths on the Schedule. All back-up data used to generate the Schedule shall be submitted in digital form on acceptable media that is compatible with the computer system.

The submitted Print Out of the Schedule shall include the following data for each activity in the initial submittal and in all updates and revisions:

1. Activity number, as well as preceding and following activity numbers;
2. Activity description;
3. Duration of activity, in working days;
4. All quantities in accordance with pay items;
5. Dollar value of activity;
6. Remaining duration of activity, in working days;
7. Earliest start date, by calendar date;
8. Earliest finish date, by calendar date;
9. Actual start date, by calendar date;
10. Actual finish date, by calendar date;
11. Latest start date, by calendar date;
12. Latest finish date, by calendar date;
13. Total float for activity;
14. Free float for activity;

In addition to the above, the following information and data shall be included with the submission of the digital form to the Division:

15. Number of shifts per work day, hours per shift for activity;
16. Number of work days per week for activity;
17. Major equipment and corresponding hours for activity;
18. Manpower by Trade or entity and corresponding hours for activity;
19. Activity Usage Profile Cost of Contractor's Income.

108.3.3-Activities Schedule Chart (ASC) Schedule: The ASC Schedule shall meet the requirements of a CPM schedule as described in Section 108.3.2 with the exception of Bullet 7 (Major equipment and corresponding hours for activity) and Bullet 8 (Manpower by Trade or entity and corresponding hours for activity). The controlling operation must be distinguished from other operations on the schedule. The duration shall note periods of non-work when the non-working period exceeds three (3) consecutive calendar days. The Schedule shall be submitted with a written narrative accompanied by a precedence diagram, chronologically sequenced and to time scale, showing construction prosecution or preparation, including an activity description for each activity as well as its duration by working days (for working day Contracts only) or calendar days. The precedence diagram shall be submitted on standard legal size sheets (8.5" x 14") or larger.

108.3.4-Progress Reporting and Schedule Updating: The Contractor shall submit weekly a summary of work force by Trade including all workmen and subcontractors together with a weekly summary of all equipment used on the project. The Division shall maintain the Contractor's resource information in a confidential manner. The Contractor's certified payrolls may be a substitute for the work force summary. A Project Control Meeting shall be held monthly by the Engineer with the Contractor's Construction Coordinator to review actual progress, planned progress for the next period, and any changes since the previous update(s). Projects that require ASC Schedules may hold Project Control Meetings less frequently if deemed appropriate by the Regional Engineer, but not less than quarterly.

For projects that require CPM Schedules, at least five (5) working days before the meeting, the Construction Coordinator shall provide the Engineer with a complete update of all schedule activity information included in 108.3.3. The Engineer may withhold estimate payments until the Contractor submits a Schedule update five (5) working days prior to the next Project Control meeting.

For projects that require ASC Schedules, the Construction Coordinator shall provide the Engineer with a complete update of all schedule activity information included in 108.3.2 within five (5) working days after the end of the month. The Engineer may withhold estimate payments until the Contractor submits a Schedule update within five (5) working days after the end of the month.

The Contractor shall submit with the monthly update a narrative report which shall include, but not be limited to, a description of progress along the critical path in terms of days ahead or behind the Schedule dates, any problem areas (current and anticipated), any delaying factors and their impact, and an explanation of any corrective actions taken or proposed. The narrative report shall state any and all changes made in the Schedule since the previous update(s) and detail all activities or portions of activities, including dollar value, completed during the update period.

Prior to submittal, the contractor shall compare the updated progress Schedule to the most current estimate payment. The total activity cost to date shown on the Schedule shall match the total paid to date on the estimate. To

achieve this match the contractor is required to account for all ancillary costs by altering activity dollar amounts due to overruns and under-runs. Change Orders, Value Engineering and other required project modifications shall be incorporated into the Schedule as necessary to reflect the actual cost and scope of work being performed.

The method for accurately incorporating the project costs into the Schedule will be determined by the Contractor. The method for incorporating the project cost into the Schedule will be subject to review and comment by the Engineer. In any case, the intent is to create updated schedules that accurately reflect the progress of the project. Inclusive of the progress shall be the tracking of project costs in such a way that future project expenditures can be determined with relative accuracy.

Extension of Interim Completion Dates, the Contract Completion Date, or the revised Contract Completion Date will be governed by the provisions of 108.6.

If the Division revises work which would affect the sequence of operations or duration of time on work activities, the Contractor shall submit to the Engineer, within seven (7) calendar days after receipt of the revision, a written report in accordance with 108.6 outlining the effect on work time and cost that the revision is expected to have on the Schedule.

108.3.5-Submission of Revised Construction Schedule: The Engineer shall request the Contractor to submit a revised Schedule when any one of the following conditions is reflected by the latest Schedule:

1. A delay greater than ten (10) calendar days in the completion of any critical activity;
2. The performance of any work in a sequence or manner which varies from that represented on the Schedule;
3. The addition, deletion, or revision of activities required by Contract modification.

The revised Schedule shall indicate all additional resources (labor, material, and equipment) and modification(s) of operations necessary to meet the contract time requirements.

The Engineer will review the revised Schedule and supporting documentation for compliance with the Contract. The Contractor shall incorporate any compliance recommendations made in the Engineer's review. Should the Contractor fail to submit a revised Schedule within seven (7) calendar days of the Engineer's written request, the Engineer may withhold estimate payments for any item of work under the Contract until such Schedule is submitted.

108.4-LIMITATION OF OPERATIONS:

The Contractor shall conduct the work at all times in such manner and in such sequence as will assure the least interference with traffic. The Contractor shall have due regard to the location of detours and to the provisions for handling traffic. The Contractor shall not open up work to the prejudice or detriment of

work already started, and the Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional sections if the opening of such section is essential to public convenience.

108.5-CHARACTER OF WORKERS; METHODS AND EQUIPMENT:

The Contractor shall at all times employ sufficient labor and equipment for prosecuting the several classes of work to full completion in the manner and time required by these Specifications.

All employees shall have sufficient skill and experience to perform properly the work assigned to them. Employees engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform all work properly and satisfactorily.

Any person who, in the opinion of the Engineer, does not perform *his/her* work in a proper and skillful manner or is intemperate or disorderly shall, at the request of the Engineer, be removed forthwith. Any Contractor or *his/her* subcontractor employing such person shall not reemploy such person on the project without the written approval of the Engineer. Should a Contractor fail to remove such a person or persons as required above or fail to furnish suitable and sufficient personnel for the proper prosecution of the work, the Engineer may suspend the work by written notice until such order is complied with.

All equipment which is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the project shall be such that no damage to the roadway, adjacent property, or other highways will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the Contract, the Contractor is free to use any methods or equipment that the Contractor demonstrates will accomplish the Contract work in conformity with the requirements of the Contract.

When the Contract specifies that the construction be performed by the use of certain methods and/or equipment, such methods and/or equipment shall be used unless others are authorized by the Engineer. Should the Contractor desire to use a method or type of equipment other than specified in the Contract, the Contractor shall request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor shall be fully responsible for producing construction work in conformity with Contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet Contract requirements, the Contractor shall discontinue the use of the substitute methods or equipment and shall complete the remaining construction with the specified methods or equipment. The Contractor shall remove the deficient work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the construction items involved nor in Contract time as a result of authorizing a change in method or equipment under these provisions.

108.6-DETERMINATION AND EXTENSION OF CONTRACT TIME:

108.6.1-General: The Division shall determine and specify in the Contract the number of working days and/or a fixed calendar date allowed for completion of the Work, hereinafter called Contract Time.

A potential working day is every day on the calendar except Saturday, Sunday and holidays as set forth in 101.2.

When the Contract Time is specified on a working day basis, the Engineer will inform the Contractor weekly, by written statement, of the number of working days charged for the preceding week, the accumulated number of working days charged against the Contract, and *the* number of working days remaining for completion of the Contract. The Contractor shall submit in writing to the Engineer any protest concerning the weekly statement within seven (7) calendar days after receipt of the statement. The written protest shall set forth what the Contractor considered incorrect, along with supporting information; otherwise, the statement shall be deemed to have been accepted by the Contractor as correct. The Engineer shall review any such protest and supporting information and shall render a decision either affirming or correcting the number of working days previously reported for the contested week, within fourteen (14) calendar days after receipt of the written protest.

When the Contract Time is specified on a fixed calendar date basis, it will consist of the number of calendar days counting from the effective date of the Engineer's issuance of the Notice to Proceed or Conditional Notice to Proceed to the calendar date specified for completion of the project, including all Saturdays, Sundays, holidays, and non-working days. All calendar days elapsing between the effective dates of any orders of the Engineer to suspend work and to resume work for suspensions not the fault of the Contractor shall be excluded.

The work on the Contract will be considered substantially complete when the Project could be opened continuously for the safe, convenient, and unimpeded use of the traveling public, or the Project has met the intention of the plans, as reasonably determined by the Engineer. When the Project is considered substantially complete, the Contract time charges shall be discontinued prior to final acceptance being made by the Engineer as prescribed in 105.16.

108.6.2-Extension Of Contract Time: The Contractor shall be responsible for any delays caused by failing to start a work activity on the earliest date any activity can begin after its predecessors have been completed, unless the activity has float. The Contractor shall also be responsible for any delays caused by lack of continuous effort, inadequate allocation and scheduling of resources and coordination of the work, inadequate or insufficient application of resources, or inability to meet interim completion dates due to Contractor's approach to the work. Such delays shall not be considered for an extension of Interim Completion Dates, Contract Completion Date, or the Revised Contract Completion Date.

If the Contractor finds it impossible for reasons beyond his control to complete an activity or the work within the Contract time as specified or as

extended according to the provisions of this Section, the Contractor shall notify the Engineer, in writing, within seven (7) calendar days of the Contractor becoming aware of the following:

- 1) a problem that develops requiring direction to the Contractor by the Engineer;
- 2) the occurrence of any delay including delays in critical path activities;
- 3) in the absence of a CPM or ASC schedule, delays in the controlling operation during the prosecution of Work that the Contractor believes may warrant revision of an Interim Completion date or the Contract Completion Date.

The notification shall set forth the reasons that shall justify the granting of the request, and as a minimum, identify the cause(s) for the delay, the particular critical path activity(s) or controlling operation(s) affected, the effect of any Division act or omission on each activity or operation delayed, and the significant dates that encompass the periods of delay. On projects with Schedules, the Contractor shall submit a Schedule update within seven (7) calendar days of becoming aware of the delay and another Schedule update when the Contractor indicates or the Engineer believes the delay has been resolved. In instances where controlling or critical path activities are claimed by the Contractor or determined by the Division to be delayed, the notification and Schedule update shall be considered by the Division as a request by the Contractor for a Contract time extension. If the schedule updates relating to the delays, are not received as mentioned above, the Contractor forfeits his rights to any claims or time extensions.

In the absence of a CPM or ASC Schedule, the controlling item will be determined from the Division's records. The Engineer will inform the Contractor weekly, by written statement, of controlling items identified for the previous week. The Contractor shall submit in writing to the Engineer any protest concerning the weekly statement within seven (7) calendar days after receipt of the statement. The written protest shall set forth what the

Contractor considered incorrect, along with supporting information; otherwise, the statement shall be deemed to have been accepted by the Contractor as correct. The Engineer shall review any such protest and supporting information and shall render a decision either affirming or correcting the controlling items reported for the contested week.

If notification is not given by the Contractor within the prescribed time of the Contractor becoming aware of any delay, or if, having given notification as provided herein, the Contractor does not afford the Engineer proper facilities for keeping strict account of actual costs and loss of time, the Contractor waives any claim for additional compensation and Contract time extension. Delay costs allegedly incurred more than the allowable seven (7) days before the Contractor notifies the Engineer in accordance with this provision shall not be allowed.

If the Engineer determines that the Work was delayed because of conditions beyond the control of and without the fault or negligence of the Contractor, the Engineer may extend the time for project completion as the conditions justify.

Only delays in the activities on the critical path, or in the absence of scheduling requirements, delays in the controlling operation will be considered for a Contract time extension, provided when required, the Contractor has submitted proper notification and supporting documentation justifying the request. For projects with Schedule requirements, Time Extension reviews will be evaluated along the critical path, as determined by the project's longest path. Time Extension reviews will consider the free float and total float of all relevant activities in determining the actual delay periods. The Engineer shall within fourteen (14) Calendar Days advise the Contractor in writing of the approval or rejection of the time extension request. If approved, the extended time for completion shall then be in full force and effect the same as though it were the original time for completion.

108.6.2.1-Excusable Noncompensable Delays: An excusable noncompensable delay is a delay in the critical path activity, or in the absence of a project Schedule, a delay in the controlling operation that was beyond the Contractor's control and not caused by the Contractor's fault or negligence. Consideration may be given to an adjustment in Contract time, but no consideration shall be given for additional monetary compensation. Excusable non-compensable delays include, but are not limited to:

1. Delay of Notice to Proceed or Conditional Notice to Proceed of more than thirty (30) calendar days after the contract award date for reasons beyond the control of and without the fault or negligence of the Contractor. Consideration for an adjustment of Contract time will be limited to the number of calendar days in excess of thirty (30) calendar days, counting from the Contract award date to the effective date of the Engineer's issuance of the Notice to Proceed.
2. Delay of the Notice to Proceed more than seven (7) calendar days after the contract award date for contracts with Incentive/Disincentive clauses, as long as the reasons are beyond the control of and without the fault or negligence of the Contractor. Consideration for an adjustment of Contract time will be limited to the number of calendar days in excess of seven (7) calendar days on contracts with Incentive/Disincentive clauses, counting from the Contract award date to the effective date of the Engineer's issuance of the Notice to Proceed.
3. Delays due to acts of God, labor strikes (not within the Contractor's power to settle) freight embargoes, states of national emergency, or other reasons beyond the control of the Contractor. Consideration for an adjustment of contract time shall be limited to the number of potential working days lost as determined by the Engineer.
4. Delays in obtaining materials due to extraordinary market conditions caused by industry- wide strike, natural disaster, area-wide shortage, official federal declaration that a material is critical due to national defense efforts, or for other reasons

beyond the control of the Contractor. Consideration for an adjustment of contract time shall be limited to the number of potential working days lost as determined by the Engineer.

5. Delays due to adverse weather. Lost days due to adverse weather may include:

- (1) Days with inclement weather or conditions beyond the Contractor's control that prevent the involvement of their normal working forces engaged in performing critical or controlling item(s) of work for at least sixty (60) percent of the total scheduled daily hours, and
- (2) Days when weather conditions prevent work from beginning at the regular time and the crew is dismissed, regardless of whether or not conditions improve for the rest of the day.

An adjustment of Contract time shall not be considered for loss of time due to adverse weather:

- a. before the start of construction operations;
- b. during periods when no on site- work on a controlling operation or critical path activity occurs;
- c. after November 30 and before April 1 of the following year;
- d. after the Contract completion date or the Revised Contract completion date.
- e. Consideration for an adjustment of contract time shall be limited to the number of potential working days lost each month, as determined by the Engineer. Notification by the Contractor of weather related delays may be consolidated into a single request that shall be included in the narrative letter transmitting the monthly schedule update. On projects that do not require Schedules, the request shall be received within seven (7) calendar days of the end of the month in which the weather delays occurred. If a Schedule is not required for the project, any time extensions granted by the Engineer shall be on the basis of an additional working day for each potential working day lost.

The allowable time required for the Division to take action on properly prepared submissions shall be fourteen (14) calendar days after receipt unless otherwise specified in the Contract documents.

108.6.2.2-Excusable Compensable Delays: An excusable compensable delay is a delay in the critical path activity, or in the absence of a project Schedule, a delay in the controlling operation that was caused solely by the Department. An adjustment in Contract time may be considered along with additional monetary compensation, if entitled. Excusable compensable delays include:

1. Delays in a critical path activity, or in the absence of a project Schedule, a delay in the controlling operation due to contract modifications resulting in the performance of added work, revised work, or work in greater quantities than those set forth in the Proposal except as provided in 104.11. The Division reserves the right to negotiate unit prices that include the cost for additional resources (labor, material and equipment) required to complete added work, revised work, or work in greater quantities within the originally scheduled dates, thereby negating the need for a Contract time adjustment.

Should a substantial delay be anticipated, the Department may request the Contractor to submit his/her costs and conditions for demobilization and remobilization. The Department may pay the Contractor for demobilization/remobilization expenses in lieu of further idle equipment costs.

Consideration for adjustment of Contract time for added or revised work shall be limited to the extra time allowances as agreed on and specified in the Change Order that covers the added or revised work. Mark-up for the added or revised work will be negotiated and specified in the Change Order. The adjustment of contract time and the allowable mark-up will be full and just compensation for any and all claims that the Contractor may have regarding the added or revised work. No additional consideration will be given for Home office overhead and/or Field office overhead.

Any adjustment of Contract time for Work authorized in accordance with 104.11 that requires the performance of work in greater quantities than those specified in the Contract shall be made at the discretion of the Engineer in accordance with one of the two options below:

- a. The extra time allowances as agreed on and specified in the Change Order that covers the additional or increased work;
or
 - b. The same ratio that the total cost of the added or increased work shall bear to the total contract bid amount, provided the added or increased work is judged to be a critical path activity or, in the absence of a project Schedule, a controlling operation.
2. Loss of time due to differing site conditions. Consideration for adjustment of Contract time shall be according to Section 104.9.
 3. Loss of time due to any written orders of the Engineer suspending work or delaying critical path activities on the project not the fault of the Contractor. Consideration for adjustment of Contract time shall be according to Section 104.10.

4. Loss of time due solely to acts or omissions by the Division and not caused or contributed to by the Contractor's fault or negligence.

The allowable time required for the Division to take action on properly prepared submissions shall be fourteen (14) calendar days after receipt unless otherwise specified in the Contract documents.

Consideration for an adjustment of Contract time shall be limited to the number of potential working days lost as determined by the Engineer.

108.7-COMPLETION DATES:

108.7.1-Failure To Complete On Time And Liquidated Damages:

Time is an essential element of the Contract, and it is important that the work be completed within the time specified. The cost to the Division for the administration of the Contract, including engineering, inspection, and supervision, will increase as the time required to complete the work is increased.

Therefore, for each calendar day the project is deemed not to be Substantially Complete after the Contract Time specified for completion of the work, subject to such extensions of contract time required or permitted in 108.6, the Division will assess liquidated damages against the Contractor. Daily charges will be deducted for each calendar day, as defined in 101.2, on all contracts, except daily charges will not be deducted between November 30 and April 1. The total amount of daily charges will be deducted from any monies due the Contractor, not as a penalty but as liquidated damages. Unless specified elsewhere in the Contract, the amount of the daily charge will be calculated from the table posted at the WVDOH Contract Administration's Specifications and Documents website:

<http://www.transportation.wv.gov/highways/contractadmin/specifications/Pages/LiquidDatedDamages.aspx> on the date the project is first advertised.

108.7.2-Interim Completion Date: When an interim completion date has been specified in the Contract documents for the Contractor to complete a specific amount of work, pay item, or structure, and if the Contractor fails to meet the interim date, the Division will assess a per calendar day charge as liquidated damages, as specified elsewhere in the Contract documents until such amount of work, pay item, or structure has been completed. Extension of interim completion dates will be governed by the provisions of 108.6. The liquidated damages provided for in this subsection are in addition to those provided for elsewhere in this Section.

108.7.3-Incentive/Disincentive for Early Completion: When an Incentive/Disincentive (I/D) provision has been included in the Contract documents, Subsection 108.7.1 relating to liquidated damages remains in effect and is applicable to the total Contract time; however, there will be concurrent assessment of liquidated damages with disincentive assessments. Extension of the date(s) established for completion of work stages covered by the I/D provision and/or the Contract completion date will be governed by the provisions of 108.6.

108.8-DEFAULT AND TERMINATION OF CONTRACT:

If the Contractor:

1. fails to begin work under the Contract within the time specified in the "Notice to Proceed"; or
2. fails to perform the work with sufficient employees and equipment or sufficient materials to assure the prompt completion of the work; or
3. performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable;
4. discontinues the prosecution of the work; or
5. fails to resume work which has been discontinued within a reasonable time after notice to do so; or
6. becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency; or
7. allows any final judgment to stand against the Contractor unsatisfied for a period of ten (10) days; or
8. makes an assignment for the benefit of creditors; or
9. for any other cause whatsoever, fails to carry out the Contract terms in an acceptable manner;

the Engineer will give notice in writing to the Contractor and his/her Surety of such delay, neglect or default. If the Contractor or Surety, within a period of ten (10) days after such notice, shall not proceed in accordance therewith, the Division will, upon written notification from the Engineer of the fact of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority, without violating the Contract, to terminate the Contract. The Division may appropriate or use any or all materials and equipment on the ground as may be suitable and acceptable and may enter into an agreement with another contractor for the completion of the Contract according to the terms and provisions thereof, or use such other methods as in the opinion of the Engineer will be required for the completion of the Contract in an acceptable manner.

All cost charges incurred by the Division, together with the cost of completing the work under Contract, will be deducted from any money due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the Contract, then the Contractor and the surety shall be liable and shall pay to the Division the amount of such excess.

108.9-TERMINATION OF CONTRACT FOR CONVENIENCE OF THE STATE:

The Division may terminate the entire Contract or any portion thereof, if the Engineer determines that a termination is in the Division's interest. The Engineer will deliver to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

SECTION 109 MEASUREMENT AND PAYMENT

109.1-MEASUREMENT OF QUANTITIES:

All work completed under the Contract will be measured by the Engineer according to United States standard measure.

The method of measurement and computations to be used in determining of quantities of materials furnished and of work performed under the Contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise indicated, the requirements prescribed shall govern.

Earthwork will be computed by the average end area method, using the horizontal length measured along the centerline as the distance between sections, applying corrections for curvature where the apparent error exceeds 25 percent of the volume in any one cut. Other acceptable methods may be used.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally and no deductions will be made for individual fixtures having an area of nine square feet (one square meter) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the Plans or ordered in writing by the Engineer.

Structures will be measured according to neat lines shown on the Plans or as altered to fit field conditions.

All items which are measured by the linear foot (meter), such as pipe culverts, guardrail, underdrains, etc., will be measured parallel to the base or foundations upon which such structures are placed.

The term "gage" when used in connection with the measurements of plates, will mean the U.S. Standard Gage.

The galvanized sheet thicknesses to be used in the manufacture of metal cribbing, corrugated steel culvert pipe, underdrain pipe, plate pipe, pipe arches, plate pipe arches and plate arches shall be as specified in AASHTO M 36 or AASHTO M 167. The sheet thicknesses to be used in the manufacture of corrugated aluminum alloy culvert pipe, underdrain pipe, plate pipe, pipe arches, plate pipe arches and plate arches shall be as specified in AASHTO M 196 or AASHTO M 219.

The "size number" used in the measurement of wire will be as specified in AASHTO M 32 or AASHTO M 225.

The term ton will mean the short ton consisting of 2,000 lb (The term megagram is defined as a mass of 1,000 kg). All materials which are measured or proportioned by weight shall be weighed on approved scales by competent, qualified personnel. Scales for weighing shall be of either the beam type, springless-dial type or digital recorder type. All plant and truck scales and metering devices shall be inspected, approved and sealed in accordance with the requirements of the West Virginia Division of Labor, Bureau of Weights and Measures, or other appropriate agencies of the State or its political subdivisions. Poles shall be designed to be locked in any position to prevent unauthorized changes. When the beam type scales are used, provisions for a "telltale" dial shall be made for indicating to the operator that the required load in the weighing hopper is being approached. A device on the weighing beams shall clearly indicate the critical position.

Truck scales shall be provided by the producer or Contractor, except that truck scales are not required where the material is weighed at properly calibrated automatic batching plant facilities which are equipped with digital print-out equipment. The scales shall be of sufficient size and capacity to weigh the heaviest loaded trucks that are used for delivery of the material. All truck scales shall be mounted on solid foundations which will ensure their remaining plumb and level.

A weigh person shall be provided by the producer. The weigh person shall certify that the weight of the material, as determined either by the truck scales or from the digital print-out of the weights, is correct. To signify the certification of weight the weigh person must either sign their full name on each ticket, or if the ticket printer prints the weigh person's full name they must at least initial each ticket.

Each truck shall be weighed empty prior to each load, except at automatic batch plants approved to operate without truck scales. A digital recorder shall be required on all truck scales. The digital recorder shall produce a printed record of the gross, tare and net weights, and the time, date, truck identification and project number. Provision shall be made for constant zero compensation and further provision shall be made so that the scales may not be manually manipulated during the printing process. The system shall be interlocked so as to allow printing only when the scale has come to rest.

In case of a breakdown of the automatic equipment, the Engineer may permit manual operation for a reasonable time, normally not to exceed 48 hours, while the equipment is being repaired.

If material is shipped by rail, the car weight may be accepted provided the actual weight of material only will be paid for. However, car weights will not be acceptable for material to be passed through mixing plants.

Devices, used to meter or measure component or other materials in a simultaneous manner, shall be located so as to be readily accessible and visible to a single Inspector, unless otherwise directed by the Engineer.

Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured at the point of delivery. Vehicles for this purpose may 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. 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 approved by the Engineer, material specified to be measured by the cubic yard (meter) may be weighed and these weights converted to cubic yard (meter)s for payment purposes. Further, when it is impractical to measure the material by weighing, or in its original position, the material will be measured in its final position and adjusted by a volume change factor. These conversion factors will be determined by the Engineer and shall be agreed to by the Contractor before these methods of measurement are used.

When bituminous material is measured by volume, the measured volume at loading temperature shall be converted to volume at 60° F (15° C) using the temperature correction factors in 705 for asphaltic materials and 706 for tar materials, except that when volume is measured by an approved temperature compensated metering device, no further volume correction for temperature shall be required. When bituminous material is measured by weight, the actual specific

gravity, API gravity, or weight per gallon (liter) of the material shall be used to convert the measured weight to volume at 60° F (15° C). The Contractor shall furnish all information necessary as determined solely by the Division to determine the amount of bituminous material actually incorporated into the project.

Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when bituminous material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work.

When bituminous materials are shipped by truck or transport, net certified weights or volume, subject to correction for loss or foaming may be used for computing quantities.

Cement will be measured by the cwt (hundredweight = 100 lb) (kilogram). For the purpose of determining the total amount used in the mixture, one bag of cement shall be considered as weighing 0.94 cwt (42.64 kg), and one barrel of cement shall be considered as weighing 3.76 cwt (175.55 kg).

Timber will be measured by the thousand feet board measure (mfbm) (cubic meters) 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 work described in the Contract.

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

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

109.2-SCOPE OF PAYMENT:

The Contractor shall receive and accept compensation provided for in the Contract as full payment for furnishing all materials and for performing all work under the Contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof, subject to the provisions of 107.20.

If the "Basis of Payment" clause in the Specifications relating to any unit price in the bid schedule requires that the unit price cover and be considered compensation for certain work or material essential to the item, this work or material will not also be measured or paid for under any other pay item which may appear elsewhere in the Specifications, except as provided in 104.6.

When the Contract specifies payment of an item or a portion of an item on a plan quantity basis, the quantities for payment will be those shown on the Plans with deductions from or additions to such quantities resulting from authorized deviations from the Plans.

If the Contractor believes that a quantity which is specified for payment on a plan quantity basis is incorrect, the Contractor may request the Division in writing to check the questionable quantity. The request shall be accompanied by calculations, drawing, or other evidence indicating why the plan quantity is believed to be in error. If the plan quantity is found to be in error, payment will be made in accordance with the corrected plan quantity.

The Division reserves the right to check the quantity of an item which is specified for payment on a plan quantity basis if there is reason to believe that it is inaccurate. If the quantity is found to be in error, payment will be made in accordance with the corrected plan quantity.

Should the Division determine during construction that conditions have varied from those anticipated in design to the extent that actual measurement of a plan quantity item is warranted, the Division will make such measurement, and payment will be based in lieu of the plan quantity.

109.2.1-General Basis of Adjusted Payment:

109.2.1.1-Single Deficiency: In the case of the single characteristic deficiency, the resulting deficiency shall be used directly to determine an adjusted price.

109.2.1.2-Multiple Deficiency: In the case of a multiple deficiency, the related adjusted percentage of contract price as determined by the acceptance plan for each characteristic shall be determined and the resulting percent of contract price to be paid shall be the product of these related adjusted percentages.

109.2.2-Basis of Charges for Additional Testing: When additional acceptance testing is performed by the Division for reworked lots or sublots in accordance with 106.3.1.2, the cost of such testing will be deducted on current estimates from the amount due the Contractor by the Division. The cost of such testing will be determined in accordance with the unit costs per test as shown in Table 9-1, published in MP 109.00.20.

109.3-COMPENSATION FOR ALTERED QUANTITIES:

When the accepted quantities of work vary from the quantities in the bid schedule, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit price for the accepted quantities of work done. No allowance except as provided in 104.2 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursements therefore or from any other cause.

Increased work involving supplemental agreements will be paid for as stipulated in such agreements. The Contractor shall furnish substantiating data required in the preparation of these agreements.

109.7-PAYMENT FOR MATERIAL ON HAND:

Partial payment may be made to the extent of the delivered costs of material to be incorporated into the work, provided the material meets the requirements of the Plans and Specifications when delivered in the vicinity of the project or at approved off-site locations. In any event, partial payment for material on hand will not exceed the bid price. Such material shall be stored in acceptable storage places, and the Contractor shall furnish evidence of payment for the delivered cost of the material within 90 days of the cut-off date of the estimate on which this material was paid.

109.8-ACCEPTANCE AND FINAL PAYMENT:

When the project has been accepted, as provided in 105.16, the Engineer will prepare the final estimate of the quantities of the various classes of work performed. Before the final payment is made, the Contractor shall execute the Statement of Acceptance on the back of the final estimate. After the Contractor executes such final estimate or if the Contractor fails or declines to execute the final estimate within 30 days after receipt, the Division will consider the estimate approved and accepted and he will be paid the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the Contract. Upon written request from the Contractor received within 30 days of his receipt of the final estimate, the time for review and execution of the final estimate will be extended up to 60 additional calendar days. Should the Contractor desire to reserve the right to file a claim with the State Court of Claims for any sum or compensation not included in the final estimate, growing out of the Contract, then a Reservation of Right stipulating the nature, each item and the amount claimed shall be added at the end of the acceptance statement. This claim must be filed with the State Court of Claims within 120 days of execution of the final estimate. If any monies owed the Division are not paid within 120 days of the execution of the final estimate, the Division shall have the right to revoke the Contractor's Prequalification until the monies are paid.

All prior partial estimates and payments will be subject to correction in the final estimate and payment.

109.9-PRICE ADJUSTMENT OF FUELS:

Because of the uncertainty in estimating the cost of diesel fuel that will be used during the life of this contract, adjustment in compensation for certain contract items is provided for as follows:

Product price quotations for Fuel Oil No. 2 (diesel fuel) as published by the Oil Price Information Service (OPIS) will be utilized to establish the contract base price as well as the monthly base price thereafter. These prices will be the average of the individual prices for the following locations:

**Charleston, West Virginia
Ashland, Kentucky
Pittsburgh, Pennsylvania
Roanoke, Virginia
Marietta, Ohio**

as published on the Thursday prior to the date of the first letting of the month. If the Thursday prior to the first letting date of the month falls on a holiday or the price is otherwise not published for that date, the index will be based on prices published by OPIS for the Wednesday prior to the date of the first letting of the month.

The contract base price (Cbp) and the monthly base price (Mbp) may be found posted on Contract Administration's website for Fuel And Asphalt Prices at the following link:

<http://www.transportation.wv.gov/highways/contractadmin/Lettings/Pages/FuelandAsphaltPrices.aspx>.

Any dispute concerning the (Cbp) shall be resolved during the first voucher estimate review.

The portion of the contract unit price which reflects the cost of the specified material will be adjusted for the change in accordance with the following formulae:

$$Pa = [(Mbp \div Cbp) - 1.00] \times Cbp \times C \times Q$$

Where:

Pa	=	Price Adjustment
Mbp	=	Monthly base price at time of placement
Cbp	=	Contract Base Price at time of bidding
C	=	Cost Adjustment Factors per Unit of Contract Item Bid as outlined in chart below
Q	=	'As Constructed' Quantity

Adjustments in compensation for any period may be either plus or minus. If (Mbp) is greater than (Cbp), the adjustment will be plus. If (Cbp) is greater than (Mbp), the adjustment will be minus.

The adjustment in compensation for diesel fuel used for the listed items will be made on the separate items on the basis of the average diesel fuel requirements for processing a unit of the item as shown in the table below.

The gallons (liters) of diesel fuel for price adjustment will be determined by multiplying the usage factors listed in the table below by the amount of acceptable work performed on the separate adjustable items during an estimate period.

All adjustments will be made based on the gallons (liters) of diesel fuel indicated in the table below and no changes will be made for variations between these usage factors and the actual factors.

**TABLE OF MATERIALS TO BE ADJUSTED
AND
COST ADJUSTMENT FACTORS FOR DIESEL FUEL USAGE**

		UNITS	FACTOR
Class 1:	Excavation under Sections 207 and 211	Gallons per cubic yard (Liters per cubic meter)	0.25 (1.24)
Class 2:	Crushed aggregate under Sections 307, 311, and 405	Gallons per ton** (Liters per megagram)	0.62 (2.59)
Class 3:	Bituminous concrete under Sections 401 and 402	Gallons per ton** (Liters per megagram)	1.06 (4.43)
Class 4:	Rigid concrete pavement under Sections 501 and 502	Gallons per cubic yard (Liters per cubic meter)	0.76 (3.77)

** Where the pay item for aggregate is in cubic yards (meters), conversion to tons (megagrams) for the purpose of diesel fuel price adjustment will be made on the basis that one cubic yard (meter) equals 1.75 tons (2.08 megagrams).

Any difference between the checked final quantity and the sum of quantities shown on the monthly estimates for any item will be adjusted by the following formula:

$$FA = (FCQ \div PRQ) \times EA$$

Where:

- FA = Final Adjustment (dollars) for the item which increased or decreased
- FCQ = Final Checked Quantity of the item which increased or decreased
- PRQ = Total Quantity of said item previously reported on the most recent estimate
- EA = Total adjustment in dollars of said item shown on most recent estimate

The monthly base price for determining price adjustments for all work performed after the contract completion date, as revised by approved time extensions, will be the monthly base price (Mbp) at the time of the contract completion date (as extended) or at the time the work was performed, whichever is less.

The final adjustment will take into consideration any error(s) that may have been made in the computation of any prior monthly adjustments.

109.10-PRICE ADJUSTMENT OF ASPHALT BINDER:

Because of the uncertainty in estimating the cost of petroleum products that will be used during the life of this contract, adjustment in compensation for certain contract items is provided for as follows:

The contract items listed in the Proposal in the *TABLE OF MATERIALS TO BE ADJUSTED FOR PRICE OF ASPHALT AT THE TIME OF PLACEMENT* will be adjusted in accordance with the Division's indices for asphalt binder. The bidding index (**Ib**) for asphalt binder will be equal to the placement index for the month immediately prior to the month in which the project is bid. The placement index (**Ip**) will be the price in effect for the month in which the specified adjustable material was actually placed. Both the bidding index (**Ib**) and the placement index (**Ip**) will be based on the average of the posted prices of PG 64-22 asphalt binder per ton/megagram as reported from the following sources for the first day of each calendar month:

Marathon Petroleum Company, LLC, Catlettsburg, Kentucky
Marathon Petroleum Company, LLC, Floreffe, Pennsylvania
Asphalt Materials, Inc., Marietta, Ohio
NuStar Asphalt Refining Company, Baltimore, Maryland
Associated Asphalt, Martinsburg, West Virginia

The bidding index (**Ib**) and the placement index (**Ip**) may be found posted on Contract Administration's website for Fuel And Asphalt Prices at the following link:

<http://www.transportation.wv.gov/highways/contractadmin/Lettings/Pages/FuelandAsphaltPrices.aspx>.

If one of the sources listed above changes ownership and/or name the posted price for that terminal will continue in use as though the ownership and/or name change had not occurred.

If one of the sources used for determining either the bidding index or the placement index goes out of business, any future index will be based on the average of the remaining sources. Thus, the bidding index (**Ib**) could be based on the average of five sources and the placement index (**Ip**) on the average of four sources or vice-versa. If a source that goes out of business reopens at a later date, the placement index would once again be based on the average of five sources as indicated above.

The posted price for each source will be compared to the average of all sources. If the difference between the average and the individual price is greater than 25 % of the average, that individual source will be excluded from the calculation of the average price (**Ib**) or (**Ip**) and a new average will be calculated using the remaining sources.

The monthly base price for determining price adjustments for all work performed after the contract completion date, as revised by approved time extensions, will be the monthly base price (Mbp) at the time of the contract completion date (as extended) or at the time the work was performed, whichever is less.

The final adjustment will take into consideration any error(s) that may have been made in the computation of any prior monthly adjustments.

109.10-PRICE ADJUSTMENT OF ASPHALT BINDER:

Because of the uncertainty in estimating the cost of petroleum products that will be used during the life of this contract, adjustment in compensation for certain contract items is provided for as follows:

The contract items listed in the Proposal in the *TABLE OF MATERIALS TO BE ADJUSTED FOR PRICE OF ASPHALT AT THE TIME OF PLACEMENT* will be adjusted in accordance with the Division's indices for asphalt binder. The bidding index (**Ib**) for asphalt binder will be equal to the placement index for the month immediately prior to the month in which the project is bid. The placement index (**Ip**) will be the price in effect for the month in which the specified adjustable material was actually placed. Both the bidding index (**Ib**) and the placement index (**Ip**) will be based on the average of the posted prices of PG 64-22 asphalt binder per ton/megagram as reported from the following sources for the first day of each calendar month:

Marathon Petroleum Company, LLC, Catlettsburg, Kentucky
Marathon Petroleum Company, LLC, Floreffe, Pennsylvania
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Associated Asphalt, Martinsburg, West Virginia

The bidding index (**Ib**) and the placement index (**Ip**) may be found posted on Contract Administration's website for Fuel And Asphalt Prices at the following link:

<http://www.transportation.wv.gov/highways/contractadmin/Lettings/Pages/FuelandAsphaltPrices.aspx>.

If one of the sources listed above changes ownership and/or name the posted price for that terminal will continue in use as though the ownership and/or name change had not occurred.

If one of the sources used for determining either the bidding index or the placement index goes out of business, any future index will be based on the average of the remaining sources. Thus, the bidding index (**Ib**) could be based on the average of five sources and the placement index (**Ip**) on the average of four sources or vice-versa. If a source that goes out of business reopens at a later date, the placement index would once again be based on the average of five sources as indicated above.

The posted price for each source will be compared to the average of all sources. If the difference between the average and the individual price is greater than 25 % of the average, that individual source will be excluded from the calculation of the average price (**Ib**) or (**Ip**) and a new average will be calculated using the remaining sources.

Sources chosen for the index are required to report their posting to the Division no later than the first day of each month. Failure to report in a timely manner may impact source approval.

The portion of the contract unit price which reflects the cost of the specified material will be adjusted for the change in accordance with the following formulae:

$$Pa = [(Ip \div Ib) - 1.00] \times Q \times \text{Applicable "C" Factor (C1 or C2)}$$

Where:

Pa	=	Price Adjustment
Ip	=	Price Index at time of placement
Ib	=	Price Index for Bidding
C1, C2	=	Adjustable Material Cost per Unit of Contract Item Bid
Q	=	"As Constructed" Quantity

The price index for determining price adjustments for all work performed after the contract completion date, as revised by approved time extensions, will be determined as follows: The price index (Ip) shall be for the month in which the contract completion date (as extended) falls, or the price index for the month in which the work was performed, whichever is less.

**TABLE OF MATERIALS TO BE ADJUSTED FOR
PRICE OF ASPHALT AT THE TIME OF PLACEMENT
(English & Metric)**

Adjustable Material	Bidding Index (I _b)	Adjustable Material Cost (C), (C ₁) or (C ₂) Dollars Per Unit of Asphalt Mixture or Per Gallon (Liter) or Liquid Asphalt Material
Asphalt Binder under Sections 401 and 402	*	(C ₁)
Asphalt Binder under Section 311	*	(C ₂)

*The bidding Indexes (I_b) and the placement indexes (I_p) may be found posted on Contract Administrations website for Fuel And Asphalt Prices at the following link:
<http://www.transportation.wv.gov/highways/contractadmin/Lettings/Pages/FuelandAsphaltPrices.aspx>.

The bidding index for asphalt binder will be the price in effect for the month prior to the month in which this contract is let.

Any dispute concerning the bidding index shall be resolved during the first voucher estimate review.

**In order to determine the applicable adjustable material cost ("C") factor for asphalt material under sections 405 and 636, multiply the bidding index (I_b) by 0.0027 for English or 0.001 for metric.

The "C" values given per gallon of Liquid Asphalt Material is based on the use of an emulsion which is assumed to contain 65% asphalt material and a gallon of emulsion weighs 8.43 pounds or a liter of emulsion weighs 1.00 kg. If a cut-back asphalt is used "C" as given in the above table must be multiplied by 1.54 to arrive at a modified "C" factor for use in the formula. No change will be made in the Adjustable Material Cost (C) for variations between these assumptions and actual factors.

The adjustable materials costs (C_1) and (C_2) are based on the approved job mix formula for the specific asphalt mixture being placed in accordance with the following formulae:

$$(C_1) = I_b \times A_c \times 1 \text{ ton or } [(C_1) = I_b \times A_c \times 1 \text{ megagram}]$$

Where A_c equals the approved asphalt content expressed in decimals, i.e. 5.8% asphalt content equals 0.058. When reclaimed asphalt pavement (RAP) is used in the mix, A_c is the % virgin or new asphalt added to the mix.

$$(C_2) = I_b \times A_c \times 1.6 \text{ tons/cy or } [(C_2) = I_b \times A_c \times 1.9 \text{ mg/m}^3 \times 1 \text{ meter}]$$

where A_c equals approved asphalt content expressed in decimals and it is assumed that a cubic yard of asphalt treated open-graded free draining base weighs 1.6 tons or 1.9 Mg. No change will be made in C_2 for variations between this assumption and the actual factor.

109.11 THROUGH 109.19-BLANK:

109.20-LOAD LIMIT VIOLATIONS AND WEIGH TICKETS:

The Allowable Gross Weight for any vehicle being used to haul materials on publicly maintained highways under the terms of this contract shall be as follows.

Title 23 Code of Federal Regulations, Section 658.17, establishes maximum allowable gross weight on the Interstate System. The maximum allowable gross weight on WV and US Routes will be as established in Chapter 17C, Articles 17 and 17A of the Official Code of West Virginia, as amended. The Public Service Commission, Weight Enforcement Section is responsible for the enforcement of these provisions.

A weigh ticket shall be required with each load of material from a commercial source which would normally have truck scales. This includes, but is not limited to, all asphalt paving materials and all aggregates regardless of the contract pay unit. The weigh ticket shall include gross, tare, and net weights, time and date of loading, Item Number or Description of Materials, Contract Number or Project Number, number of axles on haul unit, license number of haul unit, and signature of the weigher certifying that all information on the ticket is correct. If the weigher's name is printed by the computer on the ticket, then it only needs to be initialed by the weigher.

For material from a commercial source or a batch plant, which would not normally have truck scales, a weigh ticket documenting the tare weight, number of axles on the haul unit, license number of haul unit, date weighed, location of

The "C" values given per gallon of Liquid Asphalt Material is based on the use of an emulsion which is assumed to contain 65% asphalt material and a gallon of emulsion weighs 8.43 pounds of a liter of emulsion weighs 1.00 kg. If a cut-back asphalt is used "C" as given in the above table must be multiplied by 1.54 to arrive at a modified "C" factor for use in the formula. No change will be made in the Adjustable Material Cost (C) for variations between these assumptions and actual factors.

The adjustable materials costs (C_1) and (C_2) are based on the approved job mix formula for the specific asphalt mixture being placed in accordance with the following formulae:

$$(C_1) = I_b \times A_c \times 1 \text{ ton or } [(C_1) = I_b \times A_c \times 1 \text{ megagram}]$$

Where A_c equals the approved asphalt content expressed in decimals, i.e. 5.8% asphalt content equals 0.058. When reclaimed asphalt pavement (RAP) is used in the mix, A_c is the % virgin or new asphalt added to the mix.

$$(C_2) = I_b \times A_c \times 1.6 \text{ tons/cy or } [(C_2) = I_b \times A_c \times 1.9 \text{ mg/m}^3 \times 1 \text{ meter}]$$

where A_c equals approved asphalt content expressed in decimals and it is assumed that a cubic yard of asphalt treated open-graded free draining base weighs 1.6 tons or 1.9 Mg. No change will be made in C_2 for variations between this assumption and the actual factor.

109.11 THROUGH 109.19-BLANK:

109.20-LOAD LIMIT VIOLATIONS AND WEIGH TICKETS:

The Allowable Gross Weight for any vehicle being used to haul materials on publicly maintained highways under the terms of this contract shall be as follows.

Title 23 Code of Federal Regulations, Section 658.17, establishes maximum allowable gross weight on the Interstate System. The maximum allowable gross weight on WV and US Routes will be as established in Chapter 17C, Articles 17 and 17A of the Official Code of West Virginia, as amended. The Public Service Commission, Weight Enforcement Section is responsible for the enforcement of these provisions.

A weigh ticket shall be required with each load of material from a commercial source which would normally have truck scales. This includes, but is not limited to, all asphalt paving materials and all aggregates regardless of the contract pay unit. The weigh ticket shall include gross, tare, and net weights, time and date of loading, Item Number or Description of Materials, Contract Number or Project Number, number of axles on haul unit, license number of haul unit, and signature of the weigher certifying that all information on the ticket is correct. If the weigher's name is printed by the computer on the ticket, then it only needs to be initialed by the weigher.

For material from a commercial source or a batch plant, which would not normally have truck scales, a weigh ticket documenting the tare weight, number of axles on the haul unit, license number of haul unit, date weighed, location of

scales, and signature of the weigher certifying that all information on the ticket is correct, may be supplied for each haul unit as an alternate to the ticket required in the previous paragraph. The tare weight ticket shall be supplied for each contract on a yearly basis and when modifications are made to the vehicle or combination of vehicles. The weight of the material delivered shall be calculated and furnished by the vendor/supplier shipping the material to the project site or DOH facility. This includes, but is not limited to, concrete, structural steel, piling, reinforcing steel and all prepackaged material of known weight, such as cement, grout, fertilizer, lime, abrasives, etc.

If the haul unit is a combination of vehicles, the license number shall be supplied for each component. The tare weight shall be for the complete haul unit.

All weighing shall be done on scales approved and sealed by the West Virginia Division of Labor, Bureau of Weights and Measures. If the scales are moved or upon the request of the Engineer, the scales shall be reapproved and sealed. The Engineer shall be notified of any scale malfunctions. The Division of Highways may, at its option, accept inspection and sealing by out of state agencies when the material is being loaded outside West Virginia.

Any material, covered by this provision, which is delivered without the proper weigh ticket shall not be accepted by the Division of Highways.

Nothing in this provision relieves any party from compliance with the State Law on load limits or any fines which may be assessed for violation of said law.

401.9.2-Dust Collector: An efficient dust collecting system shall be provided to prevent the loss of fine material. The material collected may be returned to the mixture at a uniform rate or discarded.

401.9.3-Truck Scales: Truck scales shall be provided at each Plant, except that truck scales are not required at properly calibrated automatic batching plant facilities which are equipped with digital printout equipment, and which load the trucks directly from the mixer or the weigh hopper in a surge or storage bin.

A person designated as a weigher shall be provided by the producer. The weigher shall certify that the weight of the HMA, as determined either by the truck scales or from the digital printout of the batch weights, is correct.

Each truck shall be weighed empty prior to each load, except at automatic batch plants approved to operate without truck scales.

All truck scales shall be mounted on solid foundations which will insure them remaining plumb and level.

Approval and sealing of scales shall be conducted at the frequency determined by the West Virginia Division of Labor, Bureau of Weights and Measures, and when the plant is moved, or upon the request of the Engineer. The Engineer shall be notified of any scale malfunctions when material is being furnished to Division of Highways projects. The Division may, at its option, accept inspection and sealing by out-of-state agencies when the mixing plant is located outside West Virginia.

A digital recorder shall be required on all truck scales. The digital recorder shall produce a printed record of the gross, tare and net weights, and the time, date, truck identification, and project number. Provision shall be made for constant zero compensation and further provision shall be made so that the scales may not be manually manipulated during the printing process. The system shall be interlocked so as to allow printing only when the scale has come to rest. In case of breakdown of the automatic equipment, the Engineer may permit manual operation for a reasonable time, normally not to exceed 48 hours, while the equipment is being repaired.

The scales shall be of sufficient size and capacity to weigh the loaded trucks that are used for delivery of HMA from the plant.

401.9.4-Test Weights: As part of its standard equipment, each plant which proportions aggregate by weight shall provide a minimum of ten 50-pound (22.68 kg) test weights for the purpose of maintaining the continued accuracy of its weighing equipment.

Plants which proportion asphalt material by weight shall furnish, in addition to the above, one five pound (2.268 kg) test weight.

401.9.5-Surge and Storage Bins: During the normal daily operation of the plant, HMA may be stored in a surge or storage bin for a maximum of 12 hours, provided the bin has received prior evaluation and acceptance through the District plant inspection. The resulting temperature of the material at time of placement and compaction shall be sufficient to comply with 401.10.3 and 401.10.4

SECTION 405 SURFACE TREATMENTS

405.1-DESCRIPTION:

This work shall consist of the construction of a wearing course, composed of bituminous material and aggregate, in one or more applications upon the completed and accepted base course or existing surface, in accordance with these Specifications and in reasonably close conformity with the lines, grades, thicknesses, and cross sections shown on the Plans or established by the Engineer.

The type of surface treatment will be indicated on the Plans. The contractor may select the emulsion grade from the table below. The District may specify the use of a polymer modified emulsion.

The contractor shall notify the engineer a minimum of two weeks prior to starting any surface treatment operation.

405.2-MATERIALS:

The materials shall conform to the requirements of the following Subsections of Division 700:

MATERIALS	SUBSECTION	KIND OR GRADATION
¹ Coarse Aggregate	703.1-4	57, 67, 8 or 9
Liquid Asphalt Asphalt Emulsion	705.4	RS-2, MS-2, HFMS-2, or HFRS-2 Grades
Polymer Modified Cationic Emulsified Asphalt	705.12	CRS-2P
² Cationic Emulsified Asphalt	705.11	CMS-2 or CRS-2 Grades

¹In addition to meeting the gradation requirements specified in Table 703.4 the aggregates shall have a maximum of 2.0% passing the #200 (75µm) sieve as determined by AASHTO T-11 and T-27. The aggregates shall be crushed with a minimum of 80% two face fracture.

²May be used with aggregate other than gravel only if the aggregate asphalt combination meets the requirements of ASTM D1664 for the dry aggregate coating test.

405.2.1-Quality Control Testing: Quality control is the responsibility of the Contractor as specified in 106.1.

The contractor shall design a quality control plan in accordance with applicable section of MP307.00.50, excluding the attached page, detailing the methods by which the quality control program will be conducted. Samples will be obtained at a minimum frequency of one sample per day of aggregate placement.

405.2.2-Acceptance Testing: Acceptance sampling and testing of aggregates is the responsibility of the Division, except for furnishing the necessary materials. Quality control sampling and testing performed by the Contractor may be used by the Division for Acceptance.

405.2.3-Acceptance for the Grading of Coarse Aggregate: Acceptance for gradation shall be on the basis of test results on consecutive random samples from a lot. A lot shall be considered the quantity of material represented by an average test value, not to exceed five sublots. Generally at the beginning of the project, the average shall be started on the second sample in accordance with MP 300.00.51. A subplot is the quantity of material represented by a single gradation test. In the case where only one sample is taken, this subplot shall be considered the lot. The material shall be sampled and tested in accordance with the applicable specification. The gradation test results shall be plotted on a control chart in accordance with MP 300.00.51. When the average, or when the most recent three consecutive individual test values fall outside the limits of Table 703.4 the lot of material represented will be considered nonconforming to the extent that the last of its sublots is nonconforming. When this occurs, the last subplot shall have its price adjusted in accordance with Table 405.2.3.2. In the case where the average is nonconforming and the last subplot contained is conforming, then there would be no price adjustment. In no event, however, shall a subplot of material have its price adjusted more than once, and the first adjustment, which is determined, shall apply.

405.2.3.1-Degree of Nonconformance: When a subplot of material is to have its price adjusted, the percentage point difference between the nonconforming test value and the specification limit shall be determined for each sieve size determined to be nonconforming and this value shall be multiplied by its appropriate multiplication factor as set forth in Table 405.2.3.1 to determine the degree of nonconformance on that sieve.

TABLE 405.2.3.1

NONCONFORMING MULTIPLICATION SIEVE SIZE	FACTOR
4 IN (100mm) to No 16(1.18mm)	1.0
No 40 (4.25µm) to No 50 (300µm)	1.5
No 100 (150µm)	2.0
No 200 (75µm)	3.0

The total measure of nonconformance of an individual subplot is the sum of all nonconformances on the various sieve sizes of that subplot. When the total degree of nonconformance has been established and it is 12.0 or less, the material will be paid for at an adjusted contract price as specified in Table 405.2.3.2. When the degree of nonconformance is greater than 12.0, the nonconforming subplot shall be resolved on an individual basis, requiring a special investigation by the Engineer to determine the appropriate course of action to be followed.

If the degree of nonconformance exceeds 8.0 then the contractor shall cease operations and review and/or revise the quality control plan and/or procedure to become in compliance with these specifications.

405.2.3.2-Price Adjustment: Aggregates not conforming with the gradation requirements will be paid for at the adjusted contract price based on the degree of nonconformance as specified in Table 405.2.3.2.

TABLE 405.2.3.2

ADJUSTMENT OF CONTRACT PRICE FOR GRADATION NOT WITHIN SPECIFICATIONS	
Degree Of Nonconformance	Percent Of Contract Price To Be Reduced
1.1 to 3.0	2
3.1 to 5.0	4
5.1 to 8.0	7
8.1 to 12.0	11
Greater than 12	*

* The Division will make a special evaluation of the material and determine the appropriate action. Pending resolution of the matter, additional lifts of base or pavement shall not be placed over the nonconforming material.

CONSTRUCTION METHODS

405.3-WEATHER RESTRICTIONS:

Surface treatment shall be constructed only when the condition of the base, subbase or existing surface is satisfactory to the Engineer, when the temperature of the material being overlaid is 50° F (10° C) or above, and when other weather conditions are satisfactory for construction. The temperature may be waived but only when approved by the Engineer. No surface treatment shall be performed between October 1 and May 1.

Surface treatment operations shall be suspended immediately when rain begins or when the project engineer determines that a rain event is imminent.

405.4-EQUIPMENT:

Equipment shall include equipment for heating bituminous material, a self powered bituminous material pressure distributor, an aggregate spreader, and compaction equipment. Equipment shall also include scrapers, hand brooms, shovels, and other items as may be necessary to thoroughly clean the base or surface.

Equipment for heating bituminous material shall consist of a retort coil so designed that steam will not be introduced into the material and shall not degrade the emulsion.

The distributor shall be so designed, equipped, maintained and operated that bituminous material at even heat may be applied uniformly on variable widths of surface up to 15 ft. (4.6 m) at readily determined and controlled rates from 0.05 to 2.0 gal. Per sq. yd (0.22 to 9.3 liters m²) with uniform pressure and with an allowable variation from any specified rate not to exceed 0.02 gal. per sq. yd (0.09 liter m²) The distributor shall also have a cab-metering system, that will automatically adjust the flow of the bituminous material as the speed of the truck changes and allow the operator to adjust the rate of application from the cab of the truck.

Distributor equipment shall include a tachometer, pressure gages, and accurate volume measuring devices or a calibrated tank, and a thermometer for measuring temperatures of tank contents. Distributors shall be equipped with a power unit for the pump, and full circulation spray bars adjustable laterally and vertically. A manifold connection shall be provided and hand spraying equipment shall be available to cover areas and patches inaccessible to the distributor.

The spreader for cover grades of coarse aggregates shall be self-propelled. It shall be a mechanical revolving cylinder type or mechanical roller hopper spreader that can be so adjusted to spread accurately the required amounts of materials per square yard. The spreader for other grades of coarse aggregate shall be a self-propelled mechanical stone spreader capable of laying a uniform surface.

Compaction equipment shall be a pneumatic-tired roller conforming to the requirements of Section 401.9.10.

405.5-PREPARING AND REPAIRING EXISTING SURFACE:

This operation shall be performed as prescribed in 401.

405.6-CLEANING AND SWEEPING:

Immediately before starting construction, the existing surface shall be swept and thoroughly cleaned by the use of tools or machinery as may be required to remove all mud, dirt, dust, and other caked or loose material foreign to the type of surface to be placed. Cleaning shall be done to a minimum width of one foot on each side beyond the width of the surface to be placed excluding the shoulder.

When the new surface is to be placed on an untreated aggregate surface, the sweeping shall continue until embedded larger aggregate is exposed to a depth of approximately $\frac{1}{4}$ in (6 mm). When the new surface is being compacted and finished, the Contractor shall maintain a neat edge of the surface treatment. Materials collected in the cleaning operation shall be removed and disposed of as directed.

405.7-APPLICATION OF BITUMINOUS MATERIAL:

This operation shall be performed as prescribed in 401, except as modified. The bituminous material shall be applied to the prepared surface at the rate specified in 405.12.

Except when required to maintain traffic, surface treatment operations shall be done upon the full width of the section.

Only Type-C or Type-D surface treatment shall be used on new bases.

405.8-APPLICATION OF AGGREGATE:

Immediately following each application of bituminous material, aggregate at the rate or rates called for in 405.12 shall be spread with the spreader in such a manner that the entire area being treated is uniformly covered. Equipment shall be operated so that bituminous material will be covered with aggregate before equipment passes over the area that was tacked with bituminous material. Additional aggregate shall be spread if necessary, and hand spreading shall be done to cover areas inaccessible to the spreading equipment. When directed by the Engineer, the aggregate shall be dried or moistened as required in order to obtain a near Surface Saturated Dry condition.

405.9-BROOMING AND ROLLING:

Immediately following spreading of each layer of aggregate, the entire surface of the aggregate shall be rolled until the aggregate is keyed into the bitumen. Any area that tends to ravel shall be repaired and rerolled. Rolling shall be parallel to the centerline and shall begin at the edges of the treatment and progress toward the center; on superelevated curves, rolling shall begin at the low edge of the curve and continue the entire width of the treatment, each trip uniformly overlapping the preceding trip.

Rolling shall cease before the aggregate is crushed to any appreciable extent. Rollers shall be the type and weight specified in 405.4. The number of rollers shall be sufficient to obtain compaction to the satisfaction of the Engineer. Water, to prevent adhesion of the bituminous material to the roller wheels, shall not be used in excessive amounts. The use of fuel oil, paraffin oil, and kerosene on rollers or other equipment, for the purpose of preventing material from picking up or sticking, is prohibited.

405.10-JOINTS:

The longitudinal construction joints between adjacent lanes shall be kept clean of material foreign to the type of surface being treated. The joints shall be constructed without overlaps or gaps between the materials.

The transverse joint at the end of successive sections or lanes shall be covered with paper to prevent overlapping of the bituminous material. Following its use, the paper shall be removed and disposed of satisfactorily.

405.11-PROTECTION OF PAVEMENT AND TRAFFIC CONTROL:

The Contractor shall be responsible for the protection of the surface against damage by their equipment and personnel. Traffic shall not be permitted on any part of the work under construction until the treatment has cured sufficiently to prevent raveling or pickup under traffic. The applicable provisions of 636 shall apply for regulating traffic.

405.12-SEQUENCE OF OPERATIONS AND QUANTITIES OF MATERIALS:

The quantities and kinds of materials to be used and the sequence of applications and operations for the various treatments shall be as follows. The quantities shown are the rates per square yard (meter).

Maximum quantities of bituminous material shall be used only when the old surface is open or porous. For blast furnace slag aggregate, 91 percent of the aggregate quantities shown shall be used and the quantity of bituminous material shall be increased to a maximum of 10 percent.

The rates of aggregate and bituminous material may be adjusted by the engineer. When in the opinion of the engineer adequate coverage is not being obtained.

405.12.1-Type A-Light Seal:

- i. Clean and sweep.
- ii. Apply 0.15 to 0.25 gal. (0.7 to 0.9 liters) of bituminous material.
- iii. Spread immediately 8 to 10 lb. (4.4 to 5.5 kg) of #9 aggregate.
- iv. Roll immediately.

405.12.2-Type B-Single Surface Treatment:

- i. Clean and sweep.
- ii. Apply 0.25 to 0.40 gal. (0.9 to 1.6 liters) of bituminous material.
- iii. Spread immediately 15 to 25 lb. (8.3 to 13.5 kg) of #8 aggregate (#9 aggregate if directed by the Engineer).
- iv. Roll immediately.

405.12.3-Type C-Double Surface Treatment:

- i. Clean and sweep.
- ii. Apply 0.25 to 0.40 gal. (0.9 to 1.6 liters) of bituminous material.
- iii. Spread immediately 25 to 35 lb. (13.5 to 19 kg) of #8 aggregate (#57 or #67 aggregate if directed by the Engineer).
- iv. Roll tightly.
- v. Apply 0.25 to 0.35 gal. (0.9 to 1.5 liters) of bituminous material.
- vi. Spread immediately 10 to 20 lb. (5.5 to 11 kg) of #8 aggregate (#9, #57 or #67 aggregate if directed by the Engineer).
- vii. Alternately roll.

405.12.4-Type D-Triple Surface Treatment:

- i. Clean and sweep.
- ii. Apply 0.30 to 0.50 gal. (1.0 to 1.8 liters) of bituminous material.
- iii. Spread immediately 25 to 45 lb. (13.5 to 20.4 kg) of #8 aggregate (#57 or #67 aggregate if directed by the Engineer).
- iv. Roll tightly.
- v. Apply 0.30 to 0.50 gal. (1.0 to 1.8 liters) of bituminous material.
- vi. Spread immediately 25 to 35 lb. (13.5 to 19 kg) of #8 aggregate (#57 or #67 aggregate if directed by the Engineer).
- vii. Roll tightly.
- viii. Apply 0.25 to 0.35 gal. (0.9 to 1.5 liters) of bituminous material.
- ix. Spread immediately 10 to 20 lb. (5.5 to 11 kg) of #8 aggregate (#9 or #57 aggregate if directed by the Engineer).
- x. Alternately roll.

405.13-METHOD OF MEASUREMENT:

No materials shall be removed from the Project for any purpose until the operation has been completed and the quantities of materials incorporated into the operations have been determined, except when authorized by the Engineer.

The quantities of work done will be measured as follows:

The quantity of "Surface Treatment Aggregate" & "Patching & Leveling Aggregate" shall be measured by the ton (megagram) of material complete in place and accepted.

The number of tons (megagrams) of "Surface Treatment Aggregate" & "Patching & Leveling Aggregate" shall be determined by the total of the weights shown on receipted railroad freight bills with materials are shipped by rail; by actual measured displacement of barges certified by the producer when water shipments are made, providing materials delivered by the methods are not stockpiled or stored; or determined by the Contractor from the total and weigh slips for each vehicle load weighed on an approved standard scale or from digital printout slips from an automatic batching plant, and certified by the Contractor to be correct.

Truck scales shall be provided by the producer or Contractor, except that truck scales are not required where the material is weighed at properly calibrated automatic batching plant facilities which are equipped with digital print-out equipment. The scales shall be of sufficient size and capacity to weigh the heaviest loaded trucks that are used for delivery of the material.

All truck scales shall be mounted on solid foundations which will insure their remaining plumb and level. All truck scales shall be inspected and sealed by the West Virginia Division of Labor, Bureau of Weights and Measures, or other appropriate agencies of the State or its political subdivisions. The Division may, at its option, accept inspection and sealing by out of state agencies when the material is weighed outside West Virginia.

A weigh person shall be provided by the producer. The weigh person shall certify that the weight of the material, as determined either by the truck scales or from the digital printout of the weights, is correct.

Each truck shall be weighed empty prior to each load, except at automatic batch plants approved to operate without truck scales.

A digital recorder shall be required on all truck scales. The digital recorder shall produce a printed record of the gross, tare and net weights, and the time, date, truck identification and project number. Provision shall be made for constant zero compensation and further provision shall be made so that the scales may not be manually manipulated during the printing process. The system shall be interlocked so as to allow printing only when the scale has come to rest. In case of a breakdown of the automatic equipment, the Engineer may permit manual operation for a reasonable time, normally not to exceed 48 hours, while the equipment is being repaired.

The weight of all surface moisture in the aggregate will be deducted from the pay quantity.

The quantity of "Bituminous Material" shall be the number of gallons (liters) incorporated into the completed work, which volume will be measured as prescribed in 109.1.

Where a surface treatment is placed upon a base constructed as an item in the same contract, the conditioning and cleaning and sweeping of the base shall be considered as a part of the construction of the base and no additional compensation will be allowed for "Cleaning and Sweeping".

The Quantity of "Surface Treatment" when specified to be paid by the square yard shall be measured by the total length of the area the surface treatment is applied times the average applied width of the treated area.

When items for maintaining traffic are included in the Contract, they will be measured and paid as provided in 636.

405.14-BASIS OF PAYMENT:

The quantities, determined as provided above, will be paid for at the contract unit prices bid for the items listed below, which prices and payments shall be full compensation for furnishing all the materials and doing all the work prescribed in a workmanlike and acceptable manner, including all labor, tools, equipment, supplies, and incidentals necessary to complete the work.

The Quantity of "Surface Treatment" when specified to be paid by the square yard shall include the cleaning and sweeping, aggregate and all labor and equipment required to perform the operation

405.15-PAY ITEMS:

ITEM	DESCRIPTION	UNIT
405001-*	Surface Treatment Aggregate, **	Ton (Megagram)
405002-*	Patching And Leveling Aggregate, **	Ton (Megagram)
405003-*	Bituminous Material	Gallon (Liter)
405004-*	Cleaning And Sweeping	Square Yards (Square Meters)
405005-*	SURFACE TREATMENT, TYPE "Type"	Square Yards (Square Meters)

* Sequence number

** Type of Aggregate "type" from section 405.12

TABLE 703.4-STANDARD SIZES OF COARSE AGGREGATES (AASHTO M 43)

Amounts finer than each laboratory sieve (square openings), percentage by weight												
Size #	Nominal size square openings Φ	4 (100)	3-1/2 (90)	3 (75)	2-1/2 (63)	2 (50)	1-1/2 (37.5)	1 (25)	3/4 (19)	1/2 (12.5)	3/8 (9.5)	No.4 (4.75)
1	3-1/2 to 1-1/2 (90 to 37.5)	100	90 to 100		25 to 60		0 to 15		0 to 5			
2	2-1/2 to 1-1/2 (63 to 37.5)			100	90 to 100	35 to 70	0 to 15		0 to 5			
24	2-1/2 to 3/4 (63 to 19.0)			100	90 to 100		25 to 60		0 to 10	0 to 5		
3	2 to 1 (50 to 25.0)				100	90 to 100	35 to 70	0 to 15		0 to 5		
357	2 to No. 4 (50 to 4.75)				100	95 to 100		35 to 70		10 to 30		0 to 5
4	1-1/2 to 3/4 (37.5 to 19.0)					100	90 to 100	20 to 55	0 to 15		0 to 5	
467	1-1/2 to No. 4 (37.5 to 4.75)					100	95 to 100		35 to 70		10 to 30	0 to 5
5	1 to 1/2 (25.0 to 12.5)						100	90 to 100	20 to 55	0 to 10	0 to 5	
56	1 to 3/8 (25.0 to 9.5)						100	90 to 100	40 to 85	10 to 40	0 to 15	0 to 5
Size #	Nominal size square openings Φ	1-1/2 (37.5)	1 (25)	3/4 (19)	1/2 (12.5)	3/8 (9.5)	No.4 (4.75)	No.8 (2.36)	No.16 (1.18)	No.50 (300 μ m)	No.100 (150 μ m)	
57	1 to No. 4 (25.0 to 4.75)	100	95 to 100		25 to 60		0 to 10	0 to 5				
6	3/4 to 3/8 (19 to 9.5)		100	90 to 100	20 to 55	0 to 15	0 to 5					
67	3/4 to No. 4 (19 to 4.75)		100	90 to 100		20 to 55	0 to 10	0 to 5				
68	3/4 to No. 8 (19 to 2.36)		100	90 to 100		30 to 65	5 to 25	0 to 10	0 to 5			
7	1/2 to No. 4 (12.5 to 4.75)			100	90 to 100	40 to 70	0 to 15	0 to 5				
78	1/2 to No. 8 (12.5 to 2.36)			100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5			
8	3/8 to No. 8 (9.5 to 2.36)				100	85 to 100	10 to 30	0 to 10	0 to 5			
89	3/8 to No. 16 (9.5 to 1.18)				100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5		
9	No. 4 to No. 16 (4.75 to 1.18)					100	85 to 100	10 to 40	0 to 10	0 to 5		
10	No. 4 to 0 \bullet (4.75 to 0)					100	85 to 100				10 to 30	

Φ In inches (millimeters), except where otherwise indicated. Numbered sieves are those of the United States Standard Sieve Series.

\bullet Screenings

705.1-WINTER GRADE CUT-BACK ASPHALT:

This material shall conform to the requirements specified for MC-250 in AASHTO M 82 and in addition shall meet the requirements of AASHTO T 182.

TABLE 705.1-ASPHALT EMULSION

Specification Designation	CBAE Primer	AEM-1
Furol Viscosity at 77°F (25° C)	30-100	40-250
Coating Test	Note 1	Note 2
Water Content (percent)	3-8	3-8
Residue by Distillation (percent)	45 +	50 +
Residue Penetration 77°F (25° C) 100 g 5 sec	50-200	
Residue Solubility in Trichloroethylene (percent)	97.5 +	98 +
Residue Ash Content (percent)	3.0	

Note 1: Wet Stone Coating Test. Fifty grams of a standard reference gravel washed in distilled water, having a minimum pH of 6.3, air-dried for a minimum of 24 hour, and graded to a size that 100 % passes a 3/8 in. (9.5 mm) sieve and is retained on a No. 4 (4.75 mm) sieve, shall be weighed into an eight-ounce seamless tin box and covered with distilled water for five minutes, after which the excess water shall be drained off, and four grams of primer shall be placed on the wet gravel immediately. The mass shall be stirred vigorously for not over five minutes, using a heavy glass rod or metal paddle. At the end of the period the aggregate shall be completely coated with asphalt. Samples of Ohio River gravel aggregate for testing purposes may be secured from the Contract Administration Division's Materials Section, Charleston, West Virginia.

Note 2: The wet aggregate coating test of AASHTO T182 shall be met. Minimum area of aggregate coated shall be 95%.

705.2-LIQUID ASPHALT (RAPID CURING TYPE) :

Rapid curing liquid asphalt shall conform to the requirements of AASHTO M 81.

705.3-LIQUID ASPHALT (MEDIUM CURING TYPE) :

Medium curing liquid asphalt shall conform to the requirements of AASHTO M 82.

705.4-ASPHALT EMULSION:

Asphalt emulsion in the RS, HFRS, MS, HFMS, and SS grades shall conform to the requirements of AASHTO M 140. Additional cut-back asphalt emulsion grades shall conform to the requirements of Table 705.1. The cut-back asphalt emulsions in Table 705.1 shall be tested in accordance with the applicable methods of testing Liquid Asphalt (Rapid Curing Type), AASHTO M 81.

705.5-PERFORMANCE GRADED BINDERS:

Performance graded binders shall conform to the requirements of AASHTO M320. In addition, performance graded binders specified at a high temperature grade of 76 or greater (example: PG 76-22) shall also meet an elastic recovery requirement of 70% when tested in accordance with AASHTO T301 on a residue sample obtained from the rolling thin-film oven prepared in accordance with AASHTO T240.

705.6-BLANK**705.7-ASPHALT FOR DAMPPROOFING AND WATER-PROOFING:**

Materials shall conform to the requirements of ASTM D449. Unless otherwise specified, Type-II shall be used.

705.8-PRIMER FOR USE WITH ASPHALT IN DAMPPROOFING AND WATERPROOFING:

Materials shall conform to the requirements of ASTM D41.

705.9 THROUGH 705.10-BLANK**705.11-CATIONIC EMULSIFIED ASPHALT:**

Cationic emulsified asphalt shall conform to the requirements of AASHTO M 208.

705.12-POLYMER-MODIFIED CATIONIC EMULSIFIED ASPHALT:

Polymer-modified cationic emulsified asphalt shall conform to the requirements of AASHTO M 316.

SECTION 636 MAINTAINING TRAFFIC

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636.1-DESCRIPTION:

This work shall consist of all necessary measures to maintain and to protect traffic, to protect the work in process, to protect adjacent property from excess dust resulting from the construction area and to maintain traffic through, around or adjacent to the construction area, in accordance with these Specifications or as directed. The work shall include the furnishing and maintaining of all traffic control devices, flaggers and pilot truck; construction of temporary structures when required; labor, equipment and materials to keep the traveled road smooth; and the furnishing and application of dust palliatives.

636.2-MATERIALS:

Materials shall conform to the following requirements of Division 700, except as otherwise noted:

MATERIAL	SUBSECTION
Aggregate	704.6 Class 1 *
Asphalt Emulsion	705.4 SS-1, SS-1h, CBAEP, or AEM-1 **
Cationic Emulsified Asphalt	705.11 CSS-1 or CSS-1h **
Calcium Chloride	715.1
Traffic Control	715.9
Traffic Zone Paint	711.41 (Type II) or 711.40 (Temporary Paint).
Raised Pavement Markers and Other Pavement Marking Material	715.40
Pilot Truck	A Vehicle of the pick-up or jeep type, equipped with a prescribed sign mounted on the rear portion of the vehicle in such a manner as to be easily visible by following motorists.
Day	As used in this Specification, a day is considered to be a 24-hour period.

- * When aggregate for maintaining traffic is not to be part of any succeeding base or pavement course, the appropriate aggregate size shall be determined by the Engineer. If the aggregate is from an approved aggregate source, then it shall be accepted by visual inspection. If the contractor elects to use aggregate from an unapproved source, test results shall be provided to show that the liquid limit and plasticity index meet the requirements in Table 704.6.2B.

- ** SS-1, SS-1h, CSS-1 and CSS-1h may be diluted with water.

When aggregate is to become part of any succeeding base, all requirements of Section 307 for base course shall apply.

636.3-CONTROL OF TRAFFIC THROUGH WORK AREAS:

Control and protection of traffic through work areas shall comply with these Specifications and the provisions of the Plans. Traffic shall be maintained over the project, over such other routes as shown on the Plans, or as directed by the Engineer. The traffic route shall be kept as smooth as possible, passable and safe for anticipated speeds.

All traffic control devices shall be fabricated and installed according to the manual, "*Manual On Temporary Traffic Control for Streets and Highways*", latest version, published by the Division. The type of construction operation being performed will dictate the traffic control case (scheme) to be used as outlined in this manual and as called for on the Plans.

All stockpiles of materials shall be located so that they will not interfere with traffic being routed through or adjacent to work areas. Stockpiles of materials shall be located a minimum of 30 feet (10 m) from the edge of the traveled roadway unless traffic is protected by a positive barrier. Parking areas for the Contractor's employees, and all other vehicles shall be at locations which do not interfere with the safety of the traveling public, and on freeway type facilities shall be a minimum of 30 feet (10 m) from the edge of the traveled roadway unless traffic is protected by a positive barrier. At the end of a day's operation the Contractor shall have no equipment or materials on the traveled roadway, median area or shoulders or in any areas which interfere with the safe movement of traffic.

The traffic control plan specified in the contract for each traffic control situation is considered the plan to be followed by the Contractor. However, should the Contractor desire to adopt another traffic control plan during construction, this alternate method shall be submitted to the Engineer for review and approval at least 14 days in advance of the commencement of work in the affected areas.

The traffic control devices shall be installed immediately before the beginning of construction and shall remain in place only as long as they are needed and shall be removed immediately. Any traffic control device that does not apply to the existing condition shall be removed, covered or turned so as not to be readable by oncoming traffic.

All traffic control devices erected by the Contractor shall be maintained as indicated by the outcome of a weekly inspection, cleaned when directed by the Engineer and removed by the Contractor when conditions no longer warrant the devices.

The Engineer may require more frequent inspections if, in his opinion, the conditions warrant this measure.

Maintaining the traffic control devices shall include keeping them in good condition, correct position, and unobscured by weeds, brush, trees, work material or equipment.

The Contractor shall designate a trained person with authority to take all actions necessary for the safe control of traffic through the work zone. If noted on the plans, this person shall be American Traffic Safety Services Association (ATSSA) certified as a Traffic Control Technician or a Traffic Control Supervisor or shall demonstrate equal qualifications, approved by the Division. The

Contractor shall provide the Engineer with the telephone number and applicable proofs of certification of this person, along with the telephone number of any other person who is in charge of traffic control devices, in case of emergencies at night or on weekends.

All conflicting pavement markings, as determined by the Engineer, shall be eradicated by the Contractor as soon as practicable. The eradication shall be performed prior to shifting traffic.

Positive barriers shall be either temporary concrete barrier, or temporary guardrail barrier. Temporary guardrail barrier shall be installed with 6 feet 3 inches (1.905 meter) post spacing with block outs, unless otherwise specified. The end treatment for temporary guardrail barrier shall be FET or TET as specified on the Standard Details. Payment for the end treatment shall be made under the regular pay item. The ends of the temporary concrete barrier shall be either flared or protected, as indicated on Plans. Where temporary guardrail barrier is used, a minimum clearance behind the barrier of 4 feet (1.2 m) from the face of the guardrail shall be provided.

Barricades shall be used only as channelizing devices. When temporary guardrail barricades (mounted on barrels) are used, the ends of the guardrail shall be either flared or tapered as shown on the Plans.

636.4-AGGREGATES AND DUST PALLIATIVES:

Aggregates required for the maintenance of traffic, water, liquid asphalt, asphalt emulsion, cationic emulsified asphalt or calcium chloride for use as dust palliatives, shall be furnished and applied as directed by the Engineer. Water or other dust palliative shall be used on haul roads and any location on the project to minimize pollution from dust, when dust is creating a nuisance to the traveling public or adjacent property owners. No payment will be made for other dust control. Temporary roads shall be constructed when called for, and such roads, as well as the road under construction, shall be surfaced and maintained with aggregates, as shown on the Plans or as directed by the Engineer.

636.5-TEMPORARY STRUCTURES:

Temporary structures shall be constructed and maintained as shown on the Plans or as called for in the Proposal.

636.6-PILOT TRUCK AND DRIVER OR SHADOW VEHICLE:

636.6.1-Pilot Truck & Driver: A vehicle and a qualified driver shall be furnished by the Contractor when shown on the Plans or directed by the Engineer.

636.6.2-Shadow Vehicle: A shadow vehicle shall be furnished by the Contractor when called for on the Plans or directed by the Engineer. This vehicle shall be a standard truck weighing between 10,000 GVW (4 536 kg) and 24,000 GVW (10 880 kg) maximum, and shall be equipped with a flashing or rotary yellow beacon which can be seen in all directions and a truck-mounted attenuator mounted on the rear.

The shadow vehicle shall be used at the locations shown on the Plans where a lane is closed and work is in progress. When work is completed for

the day, the shadow vehicle shall be relocated behind a positive barrier or off the job site in a safe location.

636.7-ERADICATION OF PAVEMENT MARKINGS:

All markings which may conflict with desired traffic movement, as determined by the Engineer, shall be fully eradicated as soon as practicable. Eradication shall be performed prior to shifting of traffic.

Eradication shall be performed by hydro-blasting, sand blasting, chemicals, burning with excess oxygen or other suitable method.

Full eradication shall be defined as the removal of at least 90 percent of the existing marking. A 90 percent removal will be determined by the Engineer by comparison with the Eradication Visual Standard. This Standard can be obtained from the Engineer. In addition to the visual comparison, the 90 percent removal level is defined such that there will not be any remaining surface of the original paint film in the eradicated area. The remaining 10 percent of the existing marking will appear to be as part of the texture of the pavement.

The method used shall not materially damage the surface or texture of the pavement. Any damage caused by the Contractor's operations shall be corrected at the Contractor's expense and in a manner approved by the Engineer.

The Contractor shall take precaution to protect the public from any damage due to their operations. Accumulation of sand, water, dust or other residue resulting from the eradication operation shall be removed as the work progresses.

636.8-TEMPORARY PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS:

Temporary pavement markings and raised pavement markers shall be in accordance with 663.

Temporary pavement markings, to be used in delineating pavement lane and edge lines, shall be either temporary reflectorized pavement marking tape or reflectorized paint as approved by the Engineer.

When placing temporary pavement lane markings to separate traffic traveling in the opposite directions, it should be noted that, if there is no passing in both directions, double-yellow solid lines shall be placed; i.e. single-yellow solid lines are prohibited for separating opposite flowing traffic. In addition to temporary marking tape or paint, temporary raised, reflectorized pavement markers shall be placed, when called for on the Plans, for added delineation, at approximately 40 feet (12 meter) intervals along the lane lines that separate traffic traveling in the opposite directions, with the markers centered transversely between double-yellow lines, or at the spacing required on the Plans.

When temporary raised pavement markers are specified as an alternate to temporary paint or to temporary tape, the configurations shall be as follows: solid line-markers shall be placed on five foot (1.5 m) centers along the entire length of line; lane line - four markers shall be placed on three foot four inch (1 m) centers with 40-foot (12 m) spacing, first marker to first marker; double yellow-markers shall be placed on five foot (1.5 m) centers in pairs.

Temporary pavement markings and raised markers shall be placed as soon as practicable after construction of a detour or other roadway requiring this type of delineation.

636.9-TRAFFIC CONTROL DEVICES:

Traffic control devices for work areas include, but may not be limited to, signs, barricades, drums, cones, channelizer cones, delineators, and flashers. They shall be installed in accordance with standards detailed in the manual "*Manual On Temporary Traffic Control for Streets and Highways*", latest version, published by the Division, or as shown on the plans.

If the Total Contact Bid Amount is over \$500,000 or otherwise noted on the plans Traffic Control Devices also include work area signs indicating fines. These signs shall be installed 500' (150 m) after the first maintenance of traffic sign installed for each project. The signs shall be installed in both directions on the road under construction. The sizes, messages, and designs shall as shown in the Sign Frabrication Manual or as directed by the Engineer. with the larger size used for four lane expressway roadways with speeds of 55 MPH or greater and the smaller sign used for two lane roadways with speeds of 50 MPH or greater and with an ADT at 3,000 or greater. A 12' x 6' expressway sign (item 636011-* - 300 units) placed behind guardrail on 3-4 #BB U-Channel or on 3 - 4" x 4" wood post (breakaway) or 8' x 4' - two lane highway sign (item 636011-* - 180 units) placed behind guardrail on 2 - 4 #BB U-Channel or on 2 - 4" x 4" wood post (breakaway).

If the project is on an Interstate Highway, an APD (Appalachian Highway Corridor), a controlled access highway with posted speed limit of 40 Miles Per Hour (MPH) or greater, or if otherwise noted on the plans, Traffic Control Devices shall include work area signs designated "GIVE 'EM A BRAKE" (GEAB). The sign size, message, and design shall be as shown on Sign Fabrication G30-1 or as directed by the Engineer.

The sign (item 636011-*, 300 units) shall be installed 500'-1500' after the first lead-in work area sign unless the work zone is greater than one (1) mile, in length, in which case the GEAB sign shall be installed approximately ¼ mile in advance of the active work area. At no time shall the GEAB sign be closer than 500' from any other work area signing. The sign shall be installed in both directions on the right side of the highway. All GEAB signs shall be installed on three, 3 pound per foot u-channel posts driven to a depth of 3 ½ feet. The u-channel posts shall be continuous in length, or a combination of a stub driven to a depth of 3 ½ feet, an approved splice arrangement and an appropriate length supporting post.

GEAB sign shall only be installed in active work areas where workers are present and visible to passing motorists. During periods of inactivity in the work area, the GEAB sign(s) shall be covered or removed.

All traffic control devices shall be in compliance with the requirements of National Cooperative Highway Research Program Report 350 (NCHRP-350). This shall be accomplished through approval by the Federal Highway Administration (FHWA) based on crash testing of the device, or through manufacturer self certification for NCHRP-350 Category 1 devices, as applicable. The certification submitted for Category 1 devices shall be in substantial conformance with the format and content recommended by the FHWA.

Portable temporary traffic control sign systems (sign and stand), Type I, II, and III barricades, and other applicable devices shall be utilized in a manner that is in compliance with the device's FHWA NCHRP-350 approval letter or self

certification. Sign stands and barricades shall be utilized only as tested and approved or certified in regards to the sign mounting height, sign substrate material, application of lights, barricade rail material, and any other relevant parameters. Type III barricades are not required to be tested with lights attached if the lights utilized are 3.3 pounds or less. Sandbags are permitted as ballast for Type II and III barricades. For Type II barricades, the ballast shall be placed no higher than the bottom rail. The ballast may be draped on the bottom rail, or suspended from the top rail, hanging close to the ground. For Type III barricades, the ballast shall be placed at the ends of the skids.

Devices utilized by the Contractor shall be a model listed on the Division's Approved Products List (APL), as applicable. Devices approved and/or certified at Test Level 2, but not Test Level 3, shall not be utilized on roads having a normal posted speed limit greater than forty (40) MPH. Devices approved and/or certified at Test Level 1 only shall not be utilized on roads having a normal posted speed limit greater than twenty-five (25) MPH.

636.10-CLEANING OF TRAFFIC CONTROL DEVICES:

Cleaning of all traffic control devices, when directed by the Engineer, shall consist of hand cleaning with a mild detergent followed by a thorough rinse with clear water. No harsh chemical, abrasive cleaner or tool shall be used that will damage the reflectorized surfaces or otherwise reduce the useful life of the device.

636.11-FLAGGER-TRAFFIC DIRECTOR:

The flagger-traffic director are separate functions and therefore, shall not be interchanged.

All flaggers shall be furnished by the Contractor, and it shall be the Contractor's responsibility to provide flaggers at any location necessary to assure the safety of the travelling public. When flaggers are required at locations as a result of operations considered reasonable and necessary by the Engineer to complete the project, payment will be made under this provision.

Hand signaling devices, and approved vests shall be used by the Contractor's personnel assigned to traffic control responsibilities. Approved headgear, if worn, and vests worn by the Contractor's personnel shall not bear the Division symbol. Wireless two-way communication shall be provided to the flaggers when they are out of sight of each other.

The traffic control plan (TCP) and any approved revisions will be strongly considered in determining the appropriateness of payment. Flagger-Traffic Director required for operations that are not necessary but are initiated by the Contractor for their benefit or ease of operations shall not receive payment under this provision. Flagger-Traffic Director required outside of the project limits as a result of any of the Contractor's operations shall not receive payment. Flagger-Traffic Director required within the project limits in regards to the Contractor's transportation to or from waste areas, borrow pits, concrete plants or other necessary sites shall receive payment if considered reasonable and necessary as previously discussed.

636.13-CHANNELIZER CONES

If specified in the project plans, Channelizer Cones may be utilized for channelization of traffic in lieu of drums. Note, when used for closures that will be in effect at night, these devices shall be spaced at a maximum of forty (40) feet where a spacing of fifty (50) feet is normally called for in the Traffic Control Manual. In addition, the maximum spacing of these devices in all lane or shoulder tapers, day or night, shall be twenty-five (25) feet. Traffic control setups utilizing Channelizer Cones are to be reviewed at least once every twelve (12) hours during non-work periods by the Contractor responsible for traffic control on the project.

636.14-TEMPORARY CONCRETE BARRIERS:

This barrier type shall conform to the details on the Plans, set as directed on the Plans, with the barrier sections securely connected together by satisfactory fastening devices to Provide a more stable structure against impact.

Where temporary concrete barrier adjoins guardrail barrier, regardless if one is temporary and the other is permanent (newly constructed or previously in existence) or if both are temporary, they must be connected with a Temporary Guardrail Connector conforming to 636.16.2.

Where temporary concrete barrier adjoins bridge parapet or other essentially non-yielding barrier or obstacle, they must be joined in a manner to maintain barrier continuity and prevent vehicle snagging during impact. If they cannot be joined in this manner, a connecting device must be used to assure barrier continuity and to prevent vehicle snagging during impact.

When the temporary concrete median barriers are no longer needed, they will become the property of the Contractor, unless otherwise noted on the Plans.

636.15-REMOVING AND RESETTING TEMPORARY CONCRETE BARRIERS:

Temporary concrete barriers that are to be relocated within a project shall be salvaged and reinstalled as specified in 636.14 and set as indicated on the Plans.

636.16-TEMPORARY GUARDRAIL:

636.16.1-Temporary Guardrail Barrier: Temporary guardrail barrier shall consist of guardrail (beam) mounted on 6 feet 3 inches (1.905 m) post spacing with blockouts, conforming to the requirements of 607. Where temporary guardrail barrier adjoins concrete barrier, bridge parapet, or other essentially non-yielding obstacle, regardless if one is temporary and the other is permanent (newly constructed or previously in existence) or if both are temporary, they must be connected with a Temporary Guardrail Connector conforming to 636.16.2.

636.16.2-Temporary Guardrail Connector: This connector shall consist of the last 25 feet (7.62 m) of guardrail (beam) prior to the physical

connection to a non-yielding barrier or obstacle, mounted on 3 feet 1½ inches (0.9525) post spacing with blockouts, conforming to Standard Sheet G.R. 5 and an End Shoe conforming to Standard Sheet G.R. 2A. Four bolts shall be used in the End Shoe and standard posts may be substituted for the oversized wood posts.

636.17-REMOVING AND RESETTING TEMPORARY GUARDRAIL

BARRIER:

Temporary guardrail barrier that is to be relocated within the project shall be salvaged and reinstalled as specified in 636.16.

636.18-ELECTRIC ARROW:

The electric arrow panel shall be located as shown in the manual, "Traffic Control for Street and Highway Construction and Maintenance Operations", published by the Division, or as shown on the Plans. For construction areas, the electric arrow shall be portable, trailer mounted on a nonreflective flat black panel 48 inches high by 96 inches (1.2 meters high by 2.4 meters) wide with a minimum legibility distance of one mile (1.6 km). Minimum mounting height, measured from the roadway to the bottom of the panel, shall be 7 feet (2.1 m) except on vehicle mounted panels which shall be as high as practicable. The electric arrow shall have the capability of the following mode selection: Left Arrow, Right Arrow, Left and Right Arrow and Caution, with Caution mode consisting of four or more lamps arranged in a pattern which will not indicate a direction. Arrow panels shall automatically dim 50 percent from their rated lamp voltage during hours of darkness. The flashing rate of the lamps shall be between 25 and 40 flashes per minute. Minimum lamp "on time" shall be 50 percent.

636.19-PORTABLE MESSAGE SIGNS:

636.19.1-General: Portable Message signs shall consist of the furnishing, installing and maintaining of a variable message sign on a portable trailer. Each unit shall be self-contained and consist of a display board, controller, power supply, electrical cable and adjustable height structural support system. It shall be equipped to accept power supply from a completely self-contained diesel generator, existing commercial electrical service, or battery pack which is recharged automatically by solar panels. The trailer system assemblage shall conform to the laws of the State of West Virginia and all articles of the licensing regulations presently in effect. The sign shall only be attached to its tow vehicle when installation or removal is in progress. The trailer and its leveling jacks shall be designed to keep the unit from changing its deployed position once placed. Devices that lock the wheels and/or leveling jacks into place shall be employed. Sandbagging of the frame and/or leveling jacks is not an acceptable manner of lock down.

The unit shall be kept in good repair at all times. The Contractor shall maintain the device if failures occur. Failure, malfunction or damage to the unit for any reason shall require the Contractor to expedite the repair and furnish adequate signing and flaggers as deemed necessary by the Engineer to safely control traffic through the work area. Maintenance shall include periodic cleaning of the unit.

All parts of the system shall comply with codes annotated in the National Fire Protection Association and Underwriters Laboratory and all local electrical codes. Earth ground shall be tied to the sign's chassis. Lightning protection shall be supplied for the load site.

636.19.2-Display: The Portable Message Sign shall be the disc matrix or LED lamp matrix panel type capable of operating in temperatures from -30° to $+160^{\circ}$ F (-36° to 72° C) and capable of displaying alphanumeric characters and arrows. The sign panel assembly, including the mounting brackets, shall not exceed 128 inches (3.15 meters) in overall width. The bottom of the sign panel shall be a minimum of 7 feet (2.13 m) above the roadway. A minimum character height of 18 inches (450 mm), and character spacing at a minimum of two dots or one half the character width, unless otherwise approved by Engineer.

The trailer shall be marked with a minimum of 200 square inches (1.29 square meters) of four-inch (100 mm) alternating red/white conspicuity marking material (WV Type VI / Fed. Type IX Retroreflective sheeting) to be visible by motorists approaching the trailer from any direction.

If battery backup (in event of power interruption) is called for on the plans, all functional operations to include sign lighting shall be operational up to two hours. Fluorescent lighting or LED lamp matrix shall be applied to provide nighttime visibility and the intensity of the sign shall be adjustable by automatically dimming or manual control.

636.19.3-Sign Types:

636.19.3.1-Changeable Message Sign: The Changeable Message Sign system shall have three (3) lines, unless otherwise noted on the plans and shall conform to the general requirements of 636.19.1. The unit shall have several preprogrammed messages and be capable of programming at least fifty new messages and storing such. The controller shall be housed in a weatherproof lockable cabinet that is accessible from a suitable mounting on the trailer. The controller shall be a microprocessor controller or laptop computer with an incorporated keyboard and CRT that allows the users to access, generate, and store messages. The controller display shall be a miniaturized approximation of the actual display or a message being assembled. The display shall be yellow or amber character on black background, a 7 x 5-character font.

The cycle time and duration of message for a changeable message sign is a function of the highway operating speeds and the size letters displayed. The entire message should be visible at least twice at the operating speed. When traveling at 65 MPH (105 km/h) (freeway speeds), a driver has approximately seven (7) seconds to read the message, the message should not be longer than four (4) words or numbers and not longer than two (2) units of information. The message displayed from each unit shall be visible from one-half mile (805 meters).

The sign shall be capable of changing to and displaying a programmed default message or four corner dots flashing in the event of power failure.

636.19.3.2-Speed Monitoring Trailer: A Speed Monitoring Trailer system shall conform to the general requirements of 636.19 and shall consist of a trailer, radar, and display. The unit should be operational only while work is in progress.

636.19.3.2.1-Radar: The radar unit shall be capable of an output in miles per hour (mph) or kilometers per hour (km/h) operating at a frequency of 24.15 GHz (K-Band) \pm 100 MHz accurate to within 3 mph at a target speed of 10 to 199 mph (16 to 230 km/h).

636.19.3.2.2-Display: The display board shall be a minimum two-digit, high brightness, amber display on a black background. The system shall be equipped with a violator alert feature. This feature shall change the display from steady amber to flashing amber and flash the speed reading when a vehicle exceeds a programmable speed threshold. This threshold shall be adjustable. The display shall be mounted a minimum height of 4 feet (1.2 meters) above the roadway.

A 7-inch (175 mm) by 36-inch (900 mm) plaque reading "YOUR SPEED" in black letters on a yellow background shall be mounted directly above or directly below the display. The rack shall be secured with a lockable fastener and shall provide room to mount a minimum 30-inch (750 mm) by 36-inch (900 mm) speed limit sign (R2-1) above the display.

636.19.4-Placement: Site selection, protection from traffic, and message displayed shall be approved by the Engineer. A changeable message sign and a speed monitoring trailer are not to be placed where they conflict with one another.

The changeable message sign shall always be located behind the channelizing devices or barriers away from moving traffic lanes. In work zones, it shall be located in clear buffer barricades without reducing the sign's visibility.

The speed monitoring trailer system shall be located within the area of the reduced work zone speed limit, but shall not be located within or before a transition or taper. At locations where the shoulder is open, cones shall be tapered at 25 feet (7.5 meters) centers for a distance of 200 feet (61 meters) on the approach to the unit to differentiate it to oncoming motorists.

636.20-TEMPORARY TRAFFIC SIGNAL(S) OR TEMPORARY LIGHTING:

Temporary traffic signal(s) shall consist of furnishing, installing, maintaining and subsequent removal of various types of traffic signal systems as necessary due to the maintenance of traffic plan. It shall include, but not be limited to, traffic signals and traffic signal interconnections to be installed in accordance with Section 660 and Subsection 715.42 of the Specifications. As a minimum, the temporary traffic signal(s) shall be equipped with a three-dial fixed time controller. When the temporary traffic signal(s) are no longer needed, they will become the property of the Contractor.

Temporary lighting shall consist of furnishing, installing, maintaining, and subsequent removal of various types of lighting systems as necessary due to the

maintenance of traffic plan. It shall include but not be limited to lighting to be installed in accordance with Section 662 of the Specifications. When the temporary lighting is no longer needed, it will become the property of the Contractor.

636.21-TEMPORARY PIPE FOR MAINTAINING TRAFFIC:

Temporary pipe for maintaining traffic shall conform to the requirements of 604.

636.22-WARNING LIGHTS:

Warning lights shall consist of the furnishing, installation and maintenance of a portable, lens directed, enclosed light. The warning lights shall be in accordance with the requirements of 715.9.5 of the Standard Specifications.

636.23-METHOD OF MEASUREMENT:

The quantities of work done will be measured as follows:

636.23.1-Aggregate: The quantity of "Aggregate for Maintaining Traffic" will be measured in tons (megagrams) of aggregate applied and accepted.

The number of tons (megagrams) shall be determined by the total of the weights shown on receipted railroad freight bills when materials are shipped by rail; by actual measured displacement of barges certified by the producer when water shipments are made, providing materials delivered by the methods are not stockpiled or stored; or determined by the Contractor from the total of weigh slips for each vehicle load weighed on an approved standard scale or from digital printout slips from an automatic batching plant, and certified by the Contractor to be correct.

Truck scales shall be provided by the producer or Contractor, except that truck scales are not required where the material is weighed at properly calibrated automatic batching plant facilities which are equipped with digital print-out equipment. The scales shall be of sufficient size and capacity to weigh the heaviest loaded trucks that are used for delivery of the material.

All truck scales shall be mounted on solid foundations which will insure their remaining plumb and level. All truck scales shall be inspected and sealed by the West Virginia Division of Labor, Bureau of Weights and Measures, or other appropriate agencies of the State or its political subdivisions. The Division may, at its option, accept inspection and sealing by out of state agencies when the material is weighed outside West Virginia.

A weigh person shall be provided by the producer. The weigh person shall certify that the weight of the material, as determined either by the truck scales or from the digital print-out of the weights, is correct.

Each truck shall be weighed empty prior to each load, except at automatic batch plants approved to operate without truck scales. A digital recorder and print-out shall be required on all truck scales. The digital recorder shall produce a printed record of the gross, tare and net weights, and the time, date, truck identification and project number.

Provision shall be made for constant zero compensation and further provision shall be made so that scales may not be manually manipulated

during the printing process. The system shall be interlocked so as to allow printing only when the scale has come to rest. In case of a breakdown of the automatic equipment, the Engineer may permit manual operation for a reasonable time, normally not to exceed 48 hours, while the equipment is being repaired.

636.23.2-Bituminous Material: The quantity of "Bituminous Material for Dust Palliative" shall be the number of gallons (liters), prior to dilution in the field, incorporated into the completed work and will be measured as prescribed in 109.1.

636.23.3-Calcium Chloride: The quantity of "Calcium Chloride for Dust Palliative" shall be the number of tons (megagrams) actually used for the work, determined by the total of the weights of the individual units when shipped in packages.

636.23.4-Temporary Structures: "Temporary Structures for Maintaining Traffic", as detailed on the Plans or called for by the Engineer, shall be on a lump sum basis for completing, maintaining and removal of the work.

636.23.5-Pilot Truck and Driver: "Pilot Truck and Driver" shall be on a per day basis and shall include auxiliary barriers and warning signs of all necessary types used in conjunction with the pilot truck.

636.23.6-Traffic Control Devices: "Traffic Control Devices" will be measured by the number of units of traffic control devices used and accepted. The relative value of each traffic control device in units shall be as shown in the traffic control device rate schedule. The total units of traffic control devices shown in the Contract is an estimated amount only and may be adjusted up or down by the Engineer in accordance with the needs of the project. When more than one sign is attached to a post(s), mount(s) or barricade, the signs will be measured as a sign assembly and not as individual signs.

The price bid per unit of traffic control devices shall include furnishing, maintaining and removing, filling drums with sand as required, providing sand bags as ballast on barricades, replacement batteries for flashers, turning, covering or otherwise causing signs to be unreadable to traffic when the message does not pertain to the existing condition and all other miscellaneous items required for maintaining traffic.

Traffic control devices completely destroyed by traffic or any other means shall be replaced by the Contractor, with no additional payment to the Contractor.

A payment of $\frac{1}{4}$ the rate shown shall be made to the Contractor for any traffic control devices that the Contractor moves more than 500 feet (150 m) when directed by the Engineer.

This rate shall not apply for continuous type operations such as resurfacing projects. Payment for continuous type operations shall be made for the initial placement only. No additional compensation will be made for

the moving of traffic control devices made necessary due to the nature of continuous type work.

When Cones are specified as the temporary channelizing device in a project, the Contractor may, at their option, utilize Channelizer Cones in lieu of Cones. However, the unit value assigned to the Channelizer Cones in this case shall be equal to the established unit value assigned to Cones.

TRAFFIC CONTROL DEVICES RATE SCHEDULE		
Device #	Description	Value in Units Each Traffic Control Device
1	Signs on portable mounts and barricades (Total sign area 16 sq. ft. (1.5 sq. meters) or greater)	170
2	Signs on portable mounts and barricades (Total sign area less than 16 sq. ft. (1.5 sq.meters))	80
3	Signs on permanent posts (Total sign area 16 sq. ft. (1.5 sq. meters) or greater)	180
4	Signs on permanent posts (Total sign area less than 16 sq. ft. (1.5 sq.meters))	90
5	Barricades-Type I	35
6	Barricades-Type II	60
7	Barricades-Type III	90
8	Drums	60
9	Cones	5
10	Vertical Panel or Ground Mounted Delineators	10
11	Barrier or Guardrail Mounted Delineators (Bid Incidental to Barrier or Guardrail)	0
12	Channelizer Cones	40
13	Oversize signs	300

- Orange sign sheeting to be retroreflective fluorescent orange, Type ASTM-VI (roll-up signs) or Type ASTM-IX (alum substrate signs). All other signs shall be manufactured using Type ASTM-III sheeting.
- Drum and Channelizer Cone sheeting to be six (6) inch, Type ASTM-III.
- Barricade sheeting shall be Type ASTM-III.
- Cone sheeting to be reboundable Type ASTM-III.
- Only those Drums, Sheetings, Ground Mounted Delineators, Barrier or Guardrail Mounted Delineators, and Channelizer Cones which have been field tested and approved by the Division will be permitted. A list of the approved suppliers and their code numbers may be obtained by contacting:

**West Virginia Division of Highways
Materials Division
190 Dry Branch Rd.
Charleston, WV 25306**

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Payment for furnishing, installing, and maintaining the work area signs indicating fines shall be as part of Item 636011-*. "TRAFFIC CONTROL DEVICES." And all the previous provisions of this Article shall apply.

636.23.7-Water for Dust Palliative: Water for dust palliative will be measured and paid for under Item 637001-*.

636.23.8-Eradication of Pavement Marking: The quantity of "Eradication of Pavement Markings" shall be the equivalent linear feet (meters) of 4 inches (100 mm) solid line actually removed from the pavement. As an example, an 8 inches (200 mm) solid line would double the linear quantity.

636.23.9-Temporary Pavement Markings-Paint: The quantity of "Temporary Pavement Markings-Paint" shall be the linear feet of 4 in. (100mm), 6 in. (150 mm), or 8 in. (200 mm) solid line actually placed on the pavement.

636.23.10-Temporary Pavement Markings-Tape: The quantity of "Temporary Pavement Markings-Tape" shall be the linear feet of 4 in. (100mm), 6 in. (150 mm), or 8 in. (200 mm) solid line actually placed on the pavement.

636.23.11-Temporary Raised Pavement Markers: The quantity of "Temporary Raised Pavement Markers" shall be the actual number of markers placed on the pavement. Payment shall include the subsequent removal of the temporary pavement markers.

636.23.12-Cleaning of Project Traffic Control Devices: The quantity of "Cleaning of Project Traffic Control Devices" shall be the actual number of times that all of the traffic control devices, including all channelizing devices, are cleaned on the entire project. Payment will be made for each time all the devices on the whole project are cleaned.

636.23.13-Cleaning of Individual Traffic Control Devices: The quantity of "Cleaning of Individual Traffic Control Devices" shall be the actual number of individual traffic control devices cleaned. When temporary guardrail barricades are cleaned, each barrel will be considered an individual device when payment is made under this item.

No additional payment shall be made for the cleaning of any delineator regardless of the type of material. Such costs shall be incidental to the cost of cleaning other traffic control devices. For cleaning purposes, any traffic control device attached to a barricade shall be considered part of the barricade.

Similarly, any warning light attached to a sign shall be considered part of the sign.

636.23.14-Flagger-Traffic Director: Flagger shall include the cost of furnishing, installing, maintaining and moving of the "Advance Flagger" signs along with the actual flagging of traffic. The flaggers shall be paid for the actual authorized time controlling traffic and up to 30 minutes travel from a previous assignment.

The quantity "Traffic Director" shall be the actual number of hours worked in traffic control. The traffic director shall be paid for the actual authorized time controlling traffic which includes the cost for the police vehicle.

636.23.15 THROUGH 636.23.16-BLANK

636.23.17-Temporary Concrete Barrier: The quantity of "Temporary Concrete Barrier" shall be the linear feet (meters) of barrier actually placed. Payment shall include terminal connecting devices, dismantling, removal and disposal of the barrier and devices when no further use is required.

636.23.18-Removing and Resetting Temporary Concrete Barrier: The quantity of "Removing and Resetting Temporary Concrete Barrier" shall be the linear feet (meters) of barrier reused in a different location. Payment shall include temporary storage if necessary, re-erecting, maintaining, dismantling, removal and disposal of the barrier.

636.23.19-Temporary Guardrail Barrier: The quantity of "Temporary Guardrail Barrier" shall be the linear feet (meters) of barrier actually placed, including the last twenty five foot (7.62 M) connector section. Payment shall include the dismantling, removal and disposal of the barrier and temporary connectors when no further use is required.

636.23.20-Removing and Resetting Temporary Guardrail Barrier: The quantity of "Removing and Resetting Temporary Guardrail Barrier" shall be the linear feet (meters) of barrier reused in a different location. Payment shall include temporary storage, if necessary, re-erecting, maintaining, dismantling, removal and disposal of the barrier.

636.23.21-Electric Arrow: The quantity of "Electric Arrow" shall be the actual number of days that the arrow is used on the project.

636.23.22-Portable Message Sign: The quantity of "Changeable Message Sign" and "Speed Motoring Trailer" shall be the actual number of days that the sign is used on the project.

636.23.23-Temporary Traffic Signal(s) or Temporary Lighting: "Temporary Traffic Signal(s)" or "Temporary Lighting" shall be on a lump sum basis and shall include the furnishing, installation, maintaining and

subsequent removal of all equipment and material necessary to adequately meet the requirements of the Traffic Control Plan.

636.23.24-Temporary Pipe for Maintaining Traffic: The quantity of "Temporary Pipe for Maintaining Traffic" shall be the linear feet (meters) of pipe actually placed, as detailed on the Plans. Payment shall include the removal and disposal of the pipe when no longer needed.

636.23.25-Warning Lights: The quantity of "Warning Lights" shall be the actual number of days that a light is used on the project.

636.23.26-Shadow Vehicle: A shadow vehicle shall be on a per-day basis and shall include the flashing beacon, fuel, crew and truck-mounted attenuator used in conjunction with the vehicle.

636.24-BASIS OF PAYMENT:

The quantities, determined as provided above, will be paid for at the contract unit price bid for the items listed below, which prices and payment shall be full compensation for furnishing all the materials and doing all the work prescribed in a workmanlike and acceptable manner, including all labor, tools, equipment, supplies and incidentals necessary to complete the work. When aggregate for maintaining traffic, dust palliatives, flagger, traffic director, cleaning of traffic control devices or the electric arrow are contained in the contract as pay items, payment for such pay items will not be made subsequent to the date of required completion of the project.

When a portable message sign or speed monitoring trailer is to become the property of the Division, each unit shall be delivered with the following items:

- i. Operator's manual for sign-raising mechanism and sign operations.
- ii. Schematic wiring diagram of the sign, remote control console and the control unit.
- iii. Service manual for the sign, sign-raising mechanism control unit and the remote control console.
- iv. Record of Serial Numbers, Model Numbers, and Model Types for the Portable message sign and any attendant diesel engine.
- v. Warranty on the sign-raising mechanism, sign remote control console and control unit.
- vi. Inspection and operational tests.

If during the prosecution of the work, additional items under this Section, not included in the contract, are found to be necessary as determined by the Engineer, payment for such additional items will be made under the provisions of 104.3.

636.25-PAY ITEMS:

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ITEM	DESCRIPTION	UNIT
636002-*	Aggregate For Maintaining Traffic, “**”	Ton (Megagram)
636003-*	Bituminous Material For Dust Palliative	Gallon (Liter)
636004-*	Calcium Chloride For Dust Palliative	Ton (Megagram)
636005-*	Temporary Structure For Maintaining Traffic	Lump Sum
636006-*	Pilot Truck And Driver	Day
636007-*	Eradication Of Pavement Marking	Linear Foot (Meter)
636008-*	Temporary Pavement Marking-Paint 4-In Solid Line	Linear Foot (Meter)
636009-*	Temporary Pavement Marking-Tape 4-In Solid Line	Linear Foot (Meter)
636010-*	Temporary Raised Pavement Marker	Each
636011-*	Traffic Control Device	Unit
636012-*	Project Traffic Control Device Cleaning	Each
636013-*	Individual Traffic Control Device Cleaning	Each
636014-*	Flagger	Hour
636014B-*	Traffic Director	Hour
636017-*	Temporary Concrete Barrier	Linear Foot (Meter)
636018-*	Remove And Reset Temporary Concrete Barrier	Linear Foot (Meter)
636019-*	Temporary Guardrail Barrier	Linear Foot (Meter)
636020-*	Remove And Reset Temporary Guardrail Barrier	Linear Foot (Meter)
636021-*	Electric Arrow	Day
636022-*	Changeable Message Sign	Day
636023-*	Temporary Traffic Signal	Lump Sum
636024-*	Temporary Pipe For Maintaining Traffic	Linear Foot (Meter)
636025-*	Warning Lights, Type “Type”	Day
636026-*	Temporary Lighting	Lump Sum
636027-*	Traffic Control	Site
636028-*	Shadow Vehicle	Day
636030-*	Speed Monitoring Trailer	Day

* Sequence number

** Type of aggregate such as stone, gravel, or slag.

405.2.3.2-Price Adjustment: Aggregates not conforming with the gradation requirements will be paid for at the adjusted contract price based on the degree of nonconformance as specified in Table 405.2.3.2.

TABLE 405.2.3.2

ADJUSTMENT OF CONTRACT PRICE FOR GRADATION NOT WITHIN SPECIFICATIONS	
Degree Of Nonconformance	Percent Of Contract Price To Be Reduced
1.1 to 3.0	2
3.1 to 5.0	4
5.1 to 8.0	7
8.1 to 12.0	11
Greater than 12	*

* The Division will make a special evaluation of the material and determine the appropriate action. Pending resolution of the matter, additional lifts of base or pavement shall not be placed over the nonconforming material.

CONSTRUCTION METHODS

405.3-WEATHER RESTRICTIONS:

Surface treatment shall be constructed only when the condition of the base, subbase or existing surface is satisfactory to the Engineer, when the temperature of the material being overlaid is 50° F (10° C) or above, and when other weather conditions are satisfactory for construction. The temperature may be waived but only when approved by the Engineer. No surface treatment shall be performed between October 1 and May 1.

Surface treatment operations shall be suspended immediately when rain begins or when the project engineer determines that a rain event is imminent.

405.4-EQUIPMENT:

Equipment shall include equipment for heating bituminous material, a self powered bituminous material pressure distributor, an aggregate spreader, and compaction equipment. Equipment shall also include scrapers, hand brooms, shovels, and other items as may be necessary to thoroughly clean the base or surface.

Equipment for heating bituminous material shall consist of a retort coil so designed that steam will not be introduced into the material and shall not degrade the emulsion.

The distributor shall be so designed, equipped, maintained and operated that bituminous material at even heat may be applied uniformly on variable widths of surface up to 15 ft. (4.6 m) at readily determined and controlled rates from 0.05 to 2.0 gal. Per sq. yd (0.22 to 9.3 liters m²) with uniform pressure and with an allowable variation from any specified rate not to exceed 0.02 gal. per sq. yd (0.09 liter m²) The distributor shall also have a cab-metering system, that will automatically adjust the flow of the bituminous material as the speed of the truck changes and allow the operator to adjust the rate of application from the cab of the truck.

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.55
	b) 25,001 - 75,000	SQ YARD	2.34
	c) 75,001 and greater	SQ YARD	2.20
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.94
	b) 25,001 - 75,000	SQ YARD	4.30
	c) 75,001 and greater	SQ YARD	4.13
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.33
	b) 25,001 - 75,000	SQ YARD	6.16
	c) 75,001 and greater	SQ YARD	6.05
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	11,750.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
K	Boone	TON	13.00
	Clay	TON	11.00
	Kanawha	TON	9.00
	Mason	TON	12.00
	Putnam	TON	9.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.52
	b) 25,001 - 75,000	SQ YARD	2.32
	c) 75,001 and greater	SQ YARD	2.18
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.90
	b) 25,001 - 75,000	SQ YARD	4.25
	c) 75,001 and greater	SQ YARD	4.09
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.27
	b) 25,001 - 75,000	SQ YARD	6.10
	c) 75,001 and greater	SQ YARD	5.99
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	11,750.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
K	Cabell	TON	11.00
	Lincoln	TON	11.00
	Logan	TON	13.00
	Mingo	TON	17.00
	Wayne	TON	16.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.54
	b) 25,001 - 75,000	SQ YARD	2.34
	c) 75,001 and greater	SQ YARD	2.20
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.94
	b) 25,001 - 75,000	SQ YARD	4.29
	c) 75,001 and greater	SQ YARD	4.12
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.32
	b) 25,001 - 75,000	SQ YARD	6.15
	c) 75,001 and greater	SQ YARD	6.05
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	11,750.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address:		
	1595 Frank Road		
	Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
K	Aggregate Hauling Surcharge per County		
	Calhoun	TON	17.00
	Jackson	TON	16.00
	Pleasants	TON	24.00
	Ritchie	TON	24.00
	Roane	TON	14.00
	Wirt	TON	16.00
	Wood	TON	20.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.50
	b) 25,001 - 75,000	SQ YARD	2.30
	c) 75,001 and greater	SQ YARD	2.16
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.85
	b) 25,001 - 75,000	SQ YARD	4.21
	c) 75,001 and greater	SQ YARD	4.04
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.18
	b) 25,001 - 75,000	SQ YARD	6.02
	c) 75,001 and greater	SQ YARD	5.90
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	14,500.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
K	Aggregate Hauling Surcharge per County		
	Doddridge	TON	17.00
	Harrison	TON	13.00
	Marion	TON	14.00
	Monongalia	TON	13.00
	Preston	TON	12.00
	Taylor	TON	11.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.59
	b) 25,001 - 75,000	SQ YARD	2.39
	c) 75,001 and greater	SQ YARD	2.25
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.99
	b) 25,001 - 75,000	SQ YARD	4.37
	c) 75,001 and greater	SQ YARD	4.21
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.39
	b) 25,001 - 75,000	SQ YARD	6.25
	c) 75,001 and greater	SQ YARD	6.14
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	16,500.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address:		
	1595 Frank Road		
	Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
K	Aggregate Hauling Surcharge per County		
	Berkeley	TON	9.00
	Grant	TON	9.00
	Hampshire	TON	15.00
	Hardy	TON	12.00
	Jefferson	TON	9.00
	Mineral	TON	11.00
	Morgan	TON	12.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.54
	b) 25,001 - 75,000	SQ YARD	2.33
	c) 75,001 and greater	SQ YARD	2.19
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.93
	b) 25,001 - 75,000	SQ YARD	4.28
	c) 75,001 and greater	SQ YARD	4.11
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.31
	b) 25,001 - 75,000	SQ YARD	6.40
	c) 75,001 and greater	SQ YARD	6.03
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	11,750.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
	Brooke	TON	9.00
	Hancock	TON	12.00
	Marshall	TON	9.00
	Ohio	TON	6.00
	Tyler	TON	17.00
	Wetzel	TON	16.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.52
	b) 25,001 - 75,000	SQ YARD	2.31
	c) 75,001 and greater	SQ YARD	2.17
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.88
	b) 25,001 - 75,000	SQ YARD	4.23
	c) 75,001 and greater	SQ YARD	4.07
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.22
	b) 25,001 - 75,000	SQ YARD	6.04
	c) 75,001 and greater	SQ YARD	5.94
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	14,500.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
	Barbour	TON	9.00
	Braxton	TON	16.00
	Gilmer	TON	14.00
	Lewis	TON	10.00
	Upshur	TON	12.00
	Webster	TON	14.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.56
	b) 25,001 - 75,000	SQ YARD	2.36
	c) 75,001 and greater	SQ YARD	2.22
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.96
	b) 25,001 - 75,000	SQ YARD	4.31
	c) 75,001 and greater	SQ YARD	4.15
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.33
	b) 25,001 - 75,000	SQ YARD	6.16
	c) 75,001 and greater	SQ YARD	6.06
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	16,500.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
K	Pendleton	TON	13.00
	Pocahontas	TON	15.00
	Randolph	TON	12.00
	Tucker	TON	10.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.50
	b) 25,001 - 75,000	SQ YARD	2.29
	c) 75,001 and greater	SQ YARD	2.15
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.84
	b) 25,001 - 75,000	SQ YARD	4.20
	c) 75,001 and greater	SQ YARD	4.03
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	7.15
	b) 25,001 - 75,000	SQ YARD	6.03
	c) 75,001 and greater	SQ YARD	5.93
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	14,500.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
K	Fayette	TON	14.00
	Greenbrier	TON	9.00
	Monroe	TON	12.00
	Nicholas	TON	13.00
	Summers	TON	12.00

Item	Items A, B and C shall include FOB Vendor's Equipment Storage Lot Item Description	Unit of Measure	Cost Per Unit
A-1	Section 405, Surface Treatment, Type B Single		
	a) 0 - 25,000	SQ YARD	2.44
	b) 25,001 - 75,000	SQ YARD	2.24
	c) 75,001 and greater	SQ YARD	2.10
A-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.15
B-1	Section 405, Surface Treatment, Type C Double		
	a) 0 - 25,000	SQ YARD	4.73
	b) 25,001 - 75,000	SQ YARD	4.09
	c) 75,001 and greater	SQ YARD	3.92
B-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.28
C-1	Section 405, Surface Treatment, Type D Triple		
	a) 0 - 25,000	SQ YARD	6.97
	b) 25,001 - 75,000	SQ YARD	5.85
	c) 75,001 and greater	SQ YARD	5.75
C-2	Surcharge for Polymer Modified Cationic Emulsified Asphalt, 705.12	SQ YARD	0.41
D	Pilot Truck and Driver	DAY	750.00
E	Traffic Control Devices	UNIT	1.30
F	Flagger	HOUR	65.00
G	Arrow Board	DAY	35.00
H	Mobilization for the First Mile	MILE	14,500.00
I	Mobilization for each Additional Mile	MILE	90.00
J	Vendor's Equipment Storage Lot Location - 911 Address or Most Recent Physical Address: 1595 Frank Road Columbus, Ohio 43223		
Item	Item Description	Unit of Measure	Cost Per Unit
	Aggregate Hauling Surcharge per County		
K	McDowell	TON	16.50
	Mercer	TON	10.50
	Raleigh	TON	18.50
	Wyoming	TON	16.50

Appendices I, II, III, IV and V

2013 JAN -2 AM 10: 19

West Virginia Division of Labor

Heavy and Highway

**Construction Rate
Appendices**

2013

2013 JAN -2 AM 10: 19

APPENDIX I

West Virginia Division of Labor

Heavy and Highway

Construction Rate Appendices Laborer Classifications

2013

WEST VIRGINIA DIVISION OF LABOR
HEAVY & HIGHWAY CONSTRUCTION RATES
2013

APPENDIX I

Page 1 of 2

LABORER CLASSIFICATIONS

CLASS I: Shall include Blacksmith, Tunnel Driller, Tunnel Miner, Tunnel Foreman, Laborer Foreman, Mucker Chucker, Reinforcing Bar Handler (structures), Toxic and Hazardous Waste Removal Laborer, Asbestos Abatement Laborer, and Lead Base Paint Removal Laborer, Inside Laborer, Powderman, Laser Screed Operator, Cement Specialist and GPS Operator.

CLASS II: Shall include Pipe Layer, (including Laser Beam Set-up), Form Setter (road), Drill Operator, Air Tool Operator, Grade Checker and Asphalt Raker, Vibrator Man, Whacker, Chainsaw Operator, Mortarman, Mason Tender, Blacksmith Helper, Cement Finisher Helper, Drill Helper, Powderman Helper, Waterproofing, Sheeter and Shorer, Placement of Lagging, Pipelayer Helper, Bull-float Man, Pavement Reinforcing Placer, Handyman, Signal Man, Greencutter, Georgia Power Buggy, Burner, Cement Blower Man, Bituminous Hand Sprayer, Bork 250 Remote Control Ditch Witch and Walk Behind Concrete Saw, Deckhand, Mulcher and Seeder (hand or machine), Fence Erector, Installation of Ground Mounted Post Supports and Signs, Installation of Ground Mounted Beams and Signs including Concrete Footers, Installation of Overhead Sign Supports and Signs including Concrete Footers, Installation of Guardrail and Anchors Assemblies, Tree Trimmer, Labor Operating a Bobcat on non-productive work, Labor Operating a Forklift, Casion Bottom Man, Bush Hammering, Core Drilling, Placement and Mixing of Grout and Bridge Demolition Specialist.** see page 2

CLASS III: Shall include Flag Person, Watchman, Traffic Control Maintenance Person, Carpenter's Tender and General Laborer.

WEST VIRGINIA DIVISION OF LABOR
HEAVY & HIGHWAY CONSTRUCTION RATES
2013

APPENDIX I

Page 2 of 2

LABORER CLASSIFICATIONS

**Wrecking and Dismantling

1. On wrecking or demolition of buildings, bridges or other structures where steel or other material is cut loose, dropped and loaded out, the work shall be under the jurisdiction of the Laborers'.
2. On projects with a gross contract value less than \$10,000,000.00. When large structural steel or machinery is removed with power rigging that portion of the work shall be under the jurisdiction of the Laborers' regardless of end use.

APPENDIX II

West Virginia Division of Labor

Heavy and Highway

**Construction Rate
Appendices
Operating Engineer Classifications
2013**

WEST VIRGINIA DIVISION OF LABOR
HEAVY & HIGHWAY CONSTRUCTION RATES
2013

APPENDIX II

OPERATING ENGINEER CLASSIFICATIONS

CLASS I: Shall include those operating the following equipment: cranes, tower cranes, derricks, derrick boats, dredge, draglines, clamshells, cableways, boom truck, loaders of six (6) cu. yd. capacity and over, Master Mechanics and Operating Engineer foremen. Class I shall also include excavators and shovels with an operating weight of one hundred ten thousand (110,000) pounds and over.

CLASS II: Shall include those operating the following equipment: loaders up to six (6) cubic yard capacity, gradall, hoist (two drums or more), mixer plant (two or more mixers including batch control), pile driver, core drill, trencher, backhoe, asphalt paver, cement paver, rotary drill, bulldozers, standard gauge locomotive, concrete pump, controlled fine grade machine, slip form paver, log leader, log skidder, motor grader, rubber tired scraper, tractor pan, Roto Miller, tow or work boat, mobile conveyor, transloader, articulating equipment, material hauler, carry deck, compactor with blade, skidsteer including attachments, fork lift, self-propelled concrete spreader, concrete finishing machine, derrick (single drum), hoist (single drum) single drum paver, air tugger, Ross Carrier, multiple concrete saw, hydraulic post driver, horizontal road-boring machine, tie distributor, track lining machine, ballast tamper, anchor application machine, ribbon rail puller, ballast regulator, auto sled, turn table, pavement breaker, asphalt batch plant, concrete batch plant, crushing plant, asphalt roller, compactor with blade, power broom, vac-all truck, self-propelled concrete spreader and concrete finishing machine, mechanics with tools and greasers. Class II shall also include excavators, and shovels with an operating weight of up to one hundred ten thousand (110,000) pounds.

CLASS III: Asphalt roller.

CLASS IV: Shall include those operating the following type of equipment: air compressor, concrete mixer (under one (1) cubic yard), light plant, narrow gauge locomotive, fireman, mechanic's tender, assistant engineer, deckhand, screedman, spreaderbox man, joint sealer and pump, steam jenny, stationary conveyor (belt or bucket), gasoline or diesel powered welder, brakeman of locomotive, conductor of locomotive, A-frame, tireman, screening and washing plant, form sub-grader, power form handling equipment, burlap and curing machine, form grader, bull float, bar and joint installing machine, roller and compactor, hydroblaster, concrete mixer (single drum, one (1) cu. yd. or over), portable concrete saw and highway striping operator. Utility operators shall be paid Class II rate when operating more than one (1) but less than five (5) air compressors, pumps, stationary conveyors (belt or bucket), light plants, and gasoline or diesel powered welders and all farm type tractors.

CLASS V: Class V shall include those operating the following typ of equipment: all off-road trucks.

CLASS V (A): Operators working in the following counties: Barbour; Braxton; Boone; Calhoun; Clay; Doddridge; Fayette; Gilmer; Greenbrier; Harrison; Jackson; Kanawha; Lewis; Marion; Mercer; McDowell; Monongalia; Monroe; Nicholas; Pleasants; Pocohontas; Preston; Putnam; Raleigh; Randolph; Roane; Ritchie; Summers; Taylor; Tucker; Tyler; Upshur; Webster; Wirt; Wood & Wyoming.

CLASS V (B): Operators working in the following counties: Cabell; Lincoln; Logan; Mason; Mingo & Wayne.

CLASS V (C): Operators working in the following counties: Berkeley; Grant; Hampshire; Hardy; Jefferson, Mineral; Morgan & Pendleton.

Note: \$2.00 per hour shall be added to the Class I rate for individuals operating a lattice boom crane with a fixed boom of 150 feet or more.

Capacities for equipment shall be as per manufactures maximum rated capacity

Twenty-five cents per hour shall be added to all of the above schedules for tunneling and for all other underground work.

APPENDIX III

2013 JAN -2 AM 10: 19

West Virginia Division of Labor

Heavy and Highway

**Construction Rate
Appendices
Teamster Classifications
2013**

WEST VIRGINIA DIVISION OF LABOR
HEAVY & HIGHWAY CONSTRUCTION RATES
2013

APPENDIX III

TEAMSTER CLASSIFICATIONS

CLASS I: SINGLE AXLE TRUCKS used as Dumps, Supply, Fuel, Water, Van, Flatbody, Monorail, Distributor (other than Bituminous Distributors) and including Towed Single Units, Material Checkers and Receivers, Team 4-Up, Greasers, Tiremen and Mechanic Tenders (Trucks), Warehouse, Yardmen, Team 2-Up and pick-up trucks.

CLASS II: TANDEM AND TRI-AXLE TRUCKS, used as Dumps, Supply, Fuel, Water, Van, Flatbody, Monorail and including Towed Single Units, Truck Tractors used in combination with Dump, Van, Tank, Flatbed, Low Platform, or Pole Trailers, Bituminous Distributors, Agitator or Mixer Trucks (up to and including 20 cubic yards), Rubber-tired Tractors (towing and pushing), Drag Drivers and Tag-alongs.

CLASS III: OFF HIGHWAY TRUCKS, Mobile Metered Mixer, Agitator or Mixer Trucks (over 20 cubic yards), Off Highway Rear Dump Trucks, Articulating Dumps, "A" Frame, Mechanic (Truck) and/or Dispatchers

Note: Double Hitched equipment operated by one driver shall pay 50% more than the wages set out above. Twenty-five cents (\$0.25) per hour shall be added for tunneling and all other underground work.

WELDERS: Receive rates prescribed for craft performing operation to which the welding is incidental.

APPENDIX IV

2013 JAN -2 AM 10: 19

West Virginia Division of Labor**Heavy and Highway****Construction Rate
Appendices
Ironworker Classification
2013**

WEST VIRGINIA DIVISION OF LABOR
HEAVY & HIGHWAY CONSTRUCTION RATES
2013

APPENDIX IV

IRONWORKER

Where precast, prestressed, reinforced concrete, structural, floor, side, top or bottom members (columns, beams, girders, slabs, panels, plus all post tensioning work) are used in the construction of building bridges and other structures and power equipment, such as derricks, cranes, jacks and/or rigging is used, the work of unloading, loading, handling and placing to complete erection and dismantling of same shall be performed by Ironworkers.

All reinforcing, structural steel or other material used as or taking the place of, and all falsework, S.I.P. or other decking, expansion dams and embedded metals, catwalks, handrails, stairs, platforms, guardrails, piling pertaining to falsework, scuppers, downspouts, piping and supports of the same, signs and supports, drilling of holes in the piers and abutments, when drilled through templates, or base plates to anchor same, shear connectors, welding on all the same, all repairs, fence, retrofits or replacement of materials or structures shall be performed by Ironworkers.

Wrecking and Dismantling

1. Where steel bridges or super-structures of structural steel are being dismantled and salvaged for re-erection immediately or at some time in the future, the work of dismantling such bridge or structure shall be under the jurisdiction of the Ironworkers.
2. On projects with gross contract value of \$10,000,000.00 or more.
When large structural steel or machinery is removed with power rigging that portion of the work shall be under the jurisdiction of the Ironworkers regardless of end use.

APPENDIX V

2013 JAN -2 At 10:19

West Virginia Division of Labor

Heavy and Highway

**Construction Rate
Appendices**

**Carpenter / Ironworker Classifications
2013**

WEST VIRGINIA DIVISION OF LABOR
HIGHWAY BRIDGE STAY-IN-PLACE FORMS RATES
2013

APPENDIX V

CARPENTER / IRONWORKER

S.I.P. Forms are pre-formed metal panels that replaced the wood form work previously utilized to form the bottom of poured in place concrete and to support reinforcing steel installation and the personnel and equipment utilized in constructing the roadway on highway bridges.

Custom and usage requires a composite crew of one carpenter to one iron worker comprising each two (2) person crew.

For any crew of workmen (regardless of the total number of crew members performing the S.I.P. form work) handling, and installing in its entirety, Stay in Place (S.I.P.) decking [forms], 50% of the workmen must be paid at the Carpenter (Highway Rate) and 50% of the workmen must be paid at the Iron Worker (Highway Rate) of wages as prescribed in the WV Division of Labor's Prevailing Wage Rate Schedule for those respective classifications.

The first and every odd numbered crew member hired/ assigned the S.I.P. form work must be paid the Carpenters Highway wage rate and the second and every even numbered crew member hired/ assigned the S.I.P. form work must be paid the Iron Workers Highway wage rate. The odd and even issue will be determined by the date each crew member begins work on the S.I.P. form work and the initial assignment of wages will remain the same for each crew member until the project is completed.

APPENDIX VI 2013 JAN -2 AM 10: 19

West Virginia Division of Labor

**Building / Heavy / Highway
Construction Rate Appendices /
Apprentice Fringe Rates**

2013

NOTE: All classifications of Apprentices must be paid the Journeyman fringe benefit rate for their respective classifications except those specified in the following pages of this appendix.

Those Apprentices listed in this appendix must be paid at least the amount of fringe benefit rates indicated for their respective classification.

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rates

Electrician
2013

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral and Morgan

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st	4.82
	2nd	4.91
	3rd	10.93
	4th	11.11
	5th	12.06
	6th	12.24

Barbour, Doddridge, Harrison, Lewis, Marion, Monongalia, Pendleton, Pocahontas, Preston, Randolph, Taylor, Tucker and Upshur

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st	8.14
	2nd	8.19
	3rd-10th	Full Fringe Rate

Cabell, Lincoln, Logan, Mason, Mingo and Wayne

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st & 2nd	11.08
	3rd	18.08
	4th	18.81
	5th	18.86
	6th	19.71
	7th	19.76
	8th	20.31
	9th	20.35
	10th	20.40

Jackson, Pleasants, Ritchie, Tyler, Wood and Wirt

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st & 2nd	7.54
	3rd	15.06
	4th	16.38
	5th	17.71
	6th	18.03

Hancock

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st	8.13
	2nd	9.46
	3rd	10.77
	4th	12.09
	5th	13.43
	6th	14.89
	7th	17.31
	8th	18.67
	9th	21.32
	10th	22.63

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rates

Electrician
2013

Greenbrier, McDowell, Mercer and Monroe

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st	14.75
	2nd	14.79
	3rd	14.83
	4th	14.86
	5th	14.87
	6th	15.08

Ohio, Marshall and Wetzel

CLASSIFICATION	Interval	FRINGE BENEFITS
ELECTRICIAN	1st	13.10
	2nd	14.81
	3rd	16.23
	4th	17.84
	5th	19.77
	6th	20.47

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

**WEST VIRGINIA DIVISION OF LABOR
APPRENTICE FRINGE RATES**

**Glaziers
2013**

Barbour, Berkeley, Boone, Braxton, Cabell, Calhoun, Clay, Doddridge, Fayette, Glimmer, Grant, Greenbrier, Hampshire, Hardy, Harrison, Jefferson, Kanawha, Lewis, Lincoln, Logan, Marion, Mason, McDowell, Mercer, Mineral, Mingo, Monongalia, Monroe, Morgan, Nicholas, Pendleton, Pocahontas, Preston, Putnam, Raleigh, Randolph, Summers, Taylor, Tucker, Upshur, Wayne, Webster and Wyoming

CLASSIFICATION		FRINGE BENEFITS
GLAZIERS	All Intervals	3.53

Brooke, Hancock, Marshall, Ohio and Wetzel

CLASSIFICATION		FRINGE BENEFITS
GLAZIERS	All Intervals	9.19

Jackson, Pleasants, Ritchie, Roane, Tyler, Wirt and Wood

CLASSIFICATION		FRINGE BENEFITS
GLAZIERS	All Intervals	3.08

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rate

Insulators
2013

Berkeley, Hampshire, Hardy, Jefferson and Morgan

CLASSIFICATION	Interval	FRINGE BENEFITS
INSULATORS	1st	4.87
	2nd - 4th	Full Fringe

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rate

Painter
2013

Brooke, Hancock, Marshall, Ohio and Wetzel

CLASSIFICATION	FRINGE BENEFITS
PAINTER	All Intervals 8.95

Barbour, Berkeley, Doddridge, Gilmer, Grant, Hampshire, Hardy, Harrison, Jefferson, Lewis, Marion Mineral, Monongalia, Morgan, Pendleton, Preston, Randolph, Taylor, Tucker, Upshur and Webster

CLASSIFICATION	FRINGE BENEFITS
PAINTER	All Intervals 8.33

Boone, Braxton, Cabell, Calhoun, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Monroe, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne and Wyoming

CLASSIFICATION	FRINGE BENEFITS
PAINTER	All Intervals 8.22

Jackson, Pleasants, Ritchie, Roane, Tyler, Wirt and Wood

CLASSIFICATION	FRINGE BENEFITS
PAINTER	All Intervals 8.20

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rate

Plumber/Pipefitter
2013

Berkeley, Jefferson and Morgan

CLASSIFICATION	Intervals	FRINGE BENEFITS
PLUMBER/PIPEFITTER	1st	9.57
	2nd	11.60
	3rd	12.37
	4th	13.23
	5th	13.66

Wood, Tyler, Pleasants, Wirt, Jackson and Calhoun

CLASSIFICATION	Intervals	FRINGE BENEFITS
PLUMBER/PIPEFITTER	1st & 2nd	6.75
	3rd - 10th	Full Fringe

Marshall, Ohio and Wetzel

CLASSIFICATION	Intervals	FRINGE BENEFITS
PLUMBER/PIPEFITTER	1st	16.27
	2nd	17.28
	3rd	18.29
	4th	19.30
	5th	20.32
	6th	21.33
	7th	22.34
	8th	23.35
	9th	24.37
	10th	25.38

Barbour, Braxton, Doddridge, Gilmer, Grant, Hampshire, Hardy, Harrison, Lewis, Marion, Mineral, Monongalia, Pendleton, Preston, Randolph, Taylor, Tucker and Upshur

CLASSIFICATION	Intervals	FRINGE BENEFITS
PLUMBER/PIPEFITTER	1st	11.03
	2nd	12.13
	3rd	13.23
	4th	14.33
	5th	15.44
	6th	16.54
	7th	17.64
	8th	18.74
	9th	19.85
	10th	20.95

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rate

Roofer
2013

Brooke, Hancock, Marshall and Ohio

CLASSIFICATION	Intervals	FRINGE BENEFITS
ROOFER	1st	9.33
	2nd - 6th	9.73

Boone, Cabell, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Monroe, Nicholas, Putnam, Raleigh, Summers, Wayne, Webster and Wyoming

CLASSIFICATION	Intervals	FRINGE BENEFITS
ROOFER	1st	7.79
	2nd	8.04
	3rd	8.29
	4th	8.54
	5th - 7th	Full Fringe

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rate

Sheetmetal Worker
2013

Cabell, Lincoln, Logan, Mingo and Wayne

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	0.62
	2nd	8.71
	3rd	14.43
	4th	17.05
	5th	18.35

Boone, Braxton, Clay, Fayette, Greenbrier, Kanawha, Mason, McDowell, Mercer, Monroe, Nicholas, Putnam, Raleigh, Summers and Wyoming

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	11.15
	2nd	12.16
	3rd	14.19
	4th	16.22
	5th	18.24

Calhoun, Gilmer, Jackson, Pleasants, Ritchie, Roane, Tyler, Wood and Wirt

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	12.29
	2nd	14.18
	3rd	19.55
	4th	19.63
	5th	19.72

Barbour, Doddridge, Harrison, Lewis, Marion, Monongalia, Pendleton, Pocahontas, Preston, Randolph, Taylor, Tucker, Upshur, Webster and Wetzel

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	10.32
	2nd	12.39
	3rd	14.46
	4th	16.52
	5th	18.59

Brooke, Hancock, Marshall and Ohio

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	10.49
	2nd	11.54
	3rd	12.59
	4th	13.64
	5th	15.74

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rate

Sheetmetal Worker
2013

Berkeley and Jefferson

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	12.34
	2nd	12.82
	3rd	17.26
	4th	17.30
	5th	17.34
	6th	17.37
	7th	17.41
	8th	17.44

Grant and Hardy

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	12.50
	2nd	12.78
	3rd	17.23
	4th	17.26
	5th	17.30
	6th	17.34
	7th	17.37
	8th	17.41

Hampshire, Mineral and Morgan

CLASSIFICATION	Interval	FRINGE BENEFITS
SHEETMETAL WORKER	1st	12.25
	2nd	12.73
	3rd	17.17
	4th	17.21
	5th	17.25
	6th	17.28
	7th	17.32
	8th	17.35

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locally worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Apprentice Fringe Rates

Sprinklerfitter
2013

All Counties

CLASSIFICATION	Interval	FRINGE BENEFITS
SPRINKLERFITTER	1st & 2nd	7.90
	3rd - 10th	14.22

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
Phone: (304) 347-5794

West Virginia Division of Labor

**Heavy and Highway
Construction Rates**

2013

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Boilermaker
2013

ALL COUNTIES EXCEPT:
Brooke, Grant, Hancock

CLASSIFICATION	RATE	FRINGE BENEFITS
BOILERMAKER	38.82	21.73
BOILERMAKER - WATER TANK CONSTRUCTOR	38.82	21.73

Brooke, Hancock

CLASSIFICATION	RATE	FRINGE BENEFITS
BOILERMAKER	38.17	24.89
BOILERMAKER - WATER TANK CONSTRUCTOR	38.17	24.89

Grant

CLASSIFICATION	RATE	FRINGE BENEFITS
BOILERMAKER	31.21	23.51
BOILERMAKER - WATER TANK CONSTRUCTOR	31.21	23.51

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5784

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Bricklayer
2013

Barbour, Berkeley, Doddridge, Gilmer, Grant, Hampshire, Hardy, Harrison, Jefferson, Lewis, Marion, Mineral, Monongalia, Morgan, Pendleton, Pocahontas, Preston, Randolph, Taylor, Tucker, Upshur, Webster

CLASSIFICATION	RATE	FRINGE BENEFITS
BRICKLAYER	29.60	16.75

Boone, Braxton, Clay, Fayette, Greenbrier, Kanawha, Logan, McDowell, Mercer, Monroe, Nicholas, Putnam, Raleigh, Summers, Wyoming

CLASSIFICATION	RATE	FRINGE BENEFITS
BRICKLAYER	28.91	18.35

Brooke, Hancock,

CLASSIFICATION	RATE	FRINGE BENEFITS
BRICKLAYER	27.34	16.22

Cabell, Lincoln, Mason, Mingo, Wayne

CLASSIFICATION	RATE	FRINGE BENEFITS
BRICKLAYER	28.34	19.55

Calhoun, Jackson, Pleasants, Ritchie, Roane, Wirt, Wood

CLASSIFICATION	RATE	FRINGE BENEFITS
BRICKLAYER	28.43	14.57

Marshall, Ohio, Tyler, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
BRICKLAYER	27.41	16.28

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Carpenter
2013

ALL COUNTIES EXCEPT:

Berkeley, Brooke, Grant, Hampshire, Hancock, Hardy, Jefferson, Marshall, Mineral, Morgan,
 Ohio, Pendleton

CLASSIFICATION	RATE	FRINGE BENEFITS
CARPENTER	26.67	17.69

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton

CLASSIFICATION	RATE	FRINGE BENEFITS
CARPENTER	30.06	14.50

Brooke, Hancock, Marshall, Ohio

CLASSIFICATION	RATE	FRINGE BENEFITS
CARPENTER	25.51	19.06
CARPENTER WELDER	26.86	19.06

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Cement Mason
2013

ALL COUNTIES

CLASSIFICATION	RATE	FRINGE BENEFITS
CEMENT MASON	28.16	16.76

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Diver
2013

ALL COUNTIES EXCEPT:

Berkeley, Brooke, Grant, Hampshire, Hancock, Hardy, Jefferson, Marshall, Mineral, Morgan,
 Monongalia, Ohio, Pendleton, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
DIVER	27.22	17.89
DIVER HELPER	26.67	17.89

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton

CLASSIFICATION	RATE	FRINGE BENEFITS
DIVER	31.05	14.50
DIVER HELPER	30.08	14.50

Brooke, Hancock, Marshall, Monongalia, Ohio, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
DIVER	47.63	14.42
DIVER HELPER	31.75	14.42

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5764

WEST VIRGINIA DIVISION OF LABOR
Heavy Construction Rates

Electrician
2013

**Boone, Braxton, Calhoun, Clay, Fayette, Gilmer, Kanawha, Nicholas, Putnam, Raleigh,
 Roane, Summers, Webster, Wyoming**

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	34.69	15.51

Greenbrier, McDowell, Mercer, Monroe

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	24.40	15.19

Cabell, Lincoln, Logan, Mason, Mingo, Wayne

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	32.22	20.34

**Barbour, Doddridge, Harrison, Lewis, Marion, Monongalia, Pendleton, Pocahontas, Preston,
 Randolph, Taylor, Tucker, Upshur**

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	28.64	20.85

Jackson, Pleasants, Ritchie, Tyler, Wirt, Wood

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	30.64	20.45

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	30.00	15.45

Brooke, Marshall, Ohio, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	28.91	22.41

Hancock

CLASSIFICATION	RATE	FRINGE BENEFITS
ELECTRICIAN	33.00	26.60

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Ironworker
2013

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton, Preston, Tucker,		
CLASSIFICATION	RATE	FRINGE BENEFITS
IRONWORKER	32.16	15.92

Barbour, Brooke, Hancock, Harrison, Marion, Marshall, Monongalia, Ohio, Taylor, Tyler, Wetzel		
CLASSIFICATION	RATE	FRINGE BENEFITS
IRONWORKER	34.29	21.69

Boone, Braxton, Clay, Fayette, Kanawha, Lincoln, Logan, McDowell, Mingo, Nicholas, Putnam, Raleigh, Randolph, Webster, Wyoming		
CLASSIFICATION	RATE	FRINGE BENEFITS
IRONWORKER	33.93	17.84

Calhoun, Doddridge, Gliner, Jackson, Lewis, Mason, Pleasants, Ritchie, Roane, Upshur, Wirt, Wood		
CLASSIFICATION	RATE	FRINGE BENEFITS
IRONWORKER	31.17	19.39

Cabell, Wayne		
CLASSIFICATION	RATE	FRINGE BENEFITS
IRONWORKER	32.64	20.58

Greenbrier, Mercer, Monroe, Pocahontas, Summers		
CLASSIFICATION	RATE	FRINGE BENEFITS
IRONWORKER	34.05	14.91

NOTE: Work to include structural steel & fiberglass erection, fence erection, tying reinforcing steel & fiberglass, precast erection and dismantling of same.

Equipment requiring State or Federal certification or certification of training shall be paid \$1.50 above listed rate.

An Iron Worker required to have an Electrical License will receive an additional \$1.00 per hour.

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Laborer
2013

ALL COUNTIES :

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	28.15	14.50
CLASS II	25.12	14.50
CLASS III	24.06	14.50

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Millwright
2013

ALL COUNTIES EXCEPT:

**Berkeley, Brooke, Cabell, Grant, Hampshire, Hancock, Hardy, Jefferson, Lincoln, Marshall,
 Mineral, Morgan, Ohio, Pendleton, Wayne**

CLASSIFICATION	RATE	FRINGE BENEFITS
MILLWRIGHT	31.10	18.29

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton

CLASSIFICATION	RATE	FRINGE BENEFITS
MILLWRIGHT	32.08	14.60

Brooke, Hancock, Marshall, Ohio

CLASSIFICATION	RATE	FRINGE BENEFITS
MILLWRIGHT	35.90	13.49
MILLWRIGHT - MONORAIL LAYOUT MAN	37.85	13.49
MILLWRIGHT - CERTIFIED WELDER	38.90	13.49

Cabell, Lincoln, Wayne

CLASSIFICATION	RATE	FRINGE BENEFITS
MILLWRIGHT	34.03	15.36

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Operating Engineer
2013

ALL COUNTIES

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	31.75	17.50
CLASS II	28.99	17.50
CLASS III	27.88	17.50
CLASS IV	24.42	17.50
CLASS V (A)	24.64	17.50
CLASS V (B)	27.14	17.50
CLASS V (C)	25.44	17.50

Note: \$2.00 per hour shall be added to the Class I rate for individuals operating a lattice boom crane with a fixed boom of 150 feet or more.

Capacities for equipment shall be as per manufactures maximum rated capacity

Twenty-five cents per hour shall be added to all of the above schedules for tunneling and for all other underground work.

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

All 55 Counties for Class 1, 2, 3, & 4.
 Class 5 A, B, & C are included in all
 Counties except: Brooke, Hancock,
 Marshall & Ohio Counties.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5784

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Painter
2013

Barbour, Berkeley, Doddridge, Glimmer, Grant, Hampshire, Hardy, Harrison, Jefferson, Lewis, Marlon, Mineral, Monongalia, Morgan, Pendleton, Preston, Randolph, Taylor, Tucker, Upshur, Webster

CLASSIFICATION	RATE	FRINGE BENEFITS
PAINTER	29.67	13.60

Boone, Braxton, Cabell, Calhoun, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Monroe, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne, Wyoming

CLASSIFICATION	RATE	FRINGE BENEFITS
PAINTER	30.20	13.55

Brooke, Hancock, Marshall, Ohio, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
PAINTER	28.89	13.62

Jackson, Pleasants, Ritchie, Roane, Tyler, Wirt, Wood

CLASSIFICATION	RATE	FRINGE BENEFITS
PAINTER	29.24	13.30

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Piledriver
2013

ALL COUNTIES EXCEPT:

Berkeley, Brooke, Grant, Hampshire, Hancock, Hardy, Jefferson, Marshall, Mineral,
 Monongalia, Morgan, Ohio, Pendleton, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
PILEDRIIVER	27.22	17.89

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton

CLASSIFICATION	RATE	FRINGE BENEFITS
PILEDRIIVER	31.05	14.50

Brooke, Hancock, Marshall, Monongalia, Ohio, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
PILEDRIIVER	31.75	14.42
WELDER AND/OR CREOSOTE	32.18	14.42

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.

Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Electrician
Signal and Lighting Rates
2013

ALL COUNTIES

CLASSIFICATION	RATE	FRINGE BENEFITS
JOURNEYMAN TECHNICIAN	26.12	17.18
JOURNEYMAN INSTALLER	26.30	17.07
JOURNEYMAN TECHNICIAN APPRENTICES		
1st 1000 hours (60% of J.T. Rate)	16.87	13.14
2nd 1000 hours (65% of J.T. Rate)	18.28	13.19
3rd 1000 hours (70% of J.T. Rate)	19.68	13.25
4th 1000 hours (75% of J.T. Rate)	21.09	13.80
5th 1000 hours (80% of J.T. Rate)	22.50	13.87
6th 1000 hours (90% of J.T. Rate)	25.31	14.97
(OPER.) ALL MECHANIZED EQUIPMENT	22.60	16.97
GROUNDMAN/TRUCK DRIVER W/CDL "A"	19.79	16.85
GROUNDMAN WITHOUT CDL	16.71	16.69
FLAGGER *	13.69	7.78

NOTE: Work to include street lighting and signage, traffic signals, traffic signal controls, airport runway lighting and signage, and campground facility lighting excluding buildings.

* Flagger rate only to be applied to signal and lighting work.

APPRENTICE SCHEDULE:

Check with the Federal Bureau of Apprenticeship & Training in the locality worked.
 Phone: (304) 347-5794

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Teamster
2013

Barbour, Braxton, Boone, Calhoun, Clay, Doddridge, Fayette, Gilmer, Greenbrier, Harrison, Jackson, Kanawha, Lewis, Marion, Mercer, McDowell, Monongalia, Monroe, Nicholas, Pleasants, Pocahontas, Preston, Putnam, Raleigh, Randolph, Ritchie, Roane, Summers, Taylor, Tucker, Tyler, Upshur, Webster, Wirt, Wood, Wyoming

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	25.77	14.75
CLASS II	26.56	14.75
CLASS III	27.24	14.75

Cabell, Lincoln, Logan, Mason, Mingo, & Wayne

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	28.14	14.65
CLASS II	29.11	14.65
CLASS III	29.90	14.65

NOTE: Double Hitched equipment operated by one driver shall pay 60% more than the wages set out above.

Twenty-five cents per hour shall be added for tunneling and all other underground work.

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

WELDERS: Receive rates prescribed for craft performing operation to which the welding is incidental.

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Teamster
2013

Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, Pendleton

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	24.62	16.61
CLASS II	25.51	16.81
CLASS III	26.28	16.61

NOTE: Double Hitched equipment operated by one driver shall pay 50% more than the wages set out above.

Twenty-five cents per hour shall be added for tunneling and all other underground work.

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

WELDERS: Receive rates prescribed for craft performing operation to which the welding is incidental.

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Teamster
2013

Marshall, Ohio, Wetzel

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	26.25	14.36
CLASS II	27.15	14.36
CLASS III	27.75	14.36

NOTE: Double Hitched equipment operated by one driver shall pay 50% more than the wages set out above.

Twenty-five cents per hour shall be added for tunneling and all other underground work.

Pensions at the above stated rates per week shall be paid for employees working one (1) or more working days.

Health & Welfare hourly rates are not to exceed the above listed rates. If maximum rates are determined to be less, the difference is to be added back into the wages.

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

WELDERS: Receive rates prescribed for craft performing operation to which the welding is incidental.

WEST VIRGINIA DIVISION OF LABOR
Heavy and Highway Construction Rates

Teamster
2013

Brooke and Hancock

CLASSIFICATION	RATE	FRINGE BENEFITS
CLASS I	27.18	13.36
CLASS II	28.02	13.36
CLASS III	29.71	13.36

NOTE: Double Hitched equipment operated by one driver shall pay 50% more than the wages set out above.

Twenty-five cents per hour shall be added for tunneling and all other underground work.

NOTE: To apply the wage rates properly use H&H Appendix I, II, III, IV and V.

WELDERS: Receive rates prescribed for craft performing operation to which the welding is incidental.

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. Application is made for 2.5% resident vendor preference for the reason checked:

- ____ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
 ____ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or**,
 ____ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or**,

2. Application is made for 2.5% resident vendor preference for the reason checked:

- ____ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,

3. Application is made for 2.5% resident vendor preference for the reason checked:

- ____ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or**,

4. Application is made for 5% resident vendor preference for the reason checked:

- ____ Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or**,

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

- ____ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or**,

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

- ____ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7. Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.

- ____ Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: _____

Signed: _____

Date: _____

Title: _____

RFQ No. 66140027STATE OF WEST VIRGINIA
Purchasing Division**PURCHASING AFFIDAVIT**

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:Vendor's Name: Strawser Construction, Inc.Authorized Signature: Douglas C. Perry Date: 2/24/14State of OhioCounty of Butler, to-wit:Taken, subscribed, and sworn to before me this 24 day of February, 2014.My Commission expires 4/17, 2016.

Tina M. Bastin
Notary Public, State of Ohio
My Commission Expires 04-17-2016

NOTARY PUBLIC

Tina M. Bastin
Purchasing Affidavit (Revised 07/01/2012)**NOTE:**

Vendor and Notary's date must be the same.

Notary required to AFFIX SEAL on Purchasing Affidavit.