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

Solicitation

NUMBER	PAGE
08140161	1

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

VENDOR
*621152258 304-842-0367
JAMATT INC
91 CLEMANS RD

FLEMINGTON WV 26347

SHIP TO
DIVISION OF HIGHWAYS
DISTRICT EIGHT
P.O. BOX 1516
1101 N RANDOLPH AVE
ELKINS, WV
26241-1516 304-557-0215

DATE PRINTED
03/06/2014

BID OPENING DATE: 04/02/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	32,118	LB		570-76	$1.04	$33,402.72

W21X101, GALVANIZED W-SHAPED STRUCTURAL STEEL

REQUEST FOR QUOTATION
(ONE-TIME PURCHASE)

THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS FOR THE ONE-TIME PURCHASE OF GALVANIZED STRUCTURAL STEEL FOR THE UPPER SENECA CREEK BRIDGE PROJECT PER THE ATTACHED SPECIFICATIONS.

0002	1,242	LB		570-76	$1.21	$1,502.82

C12X20.7, GALVANIZED STRUCTURAL STEEL CHANNEL

0003	525	LB		570-76	$1.03	$540.75

L 6"X4"X1/2" (16.2#/LF) GALVANIZED STRUCTURAL STEEL

04/02/14 09:56:51AM
West Virginia Purchasing Division

SIGNATURE James C. Matheny TELEPHONE 304-842-0367 DATE 03/31/2014

PRESIDENT FEIN 201894398 ADDRESS CHANGES TO BE NOTED ABOVE

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

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

Solicitation

NUMBER	PAGE
08140161	2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
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VENDOR
*621152258 304-842-0367
JAMATT INC
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FLEMINGTON WV 26347

SHIP TO
DIVISION OF HIGHWAYS
DISTRICT EIGHT
P.O. BOX 1516
1101 N RANDOLPH AVE
ELKINS, WV
26241-1516 304-557-0215

DATE PRINTED
03/06/2014

BID OPENING DATE: 04/02/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0004	1,143	LB		570-76	$1.06	$1,211.58
	HSS 6"X6"X1/2 GALV. STRUCTURAL STEEL TUBING					
0005	512	LB		570-76	$2.10	$1,075.20
	L 4"X4"X1/2"(12.8#/LF) GALVANIZED STRUCTURAL STEEL					
0006	512	LB		570-76	$2.10	$1,075.20
	L 4"X4"X1/2" (12.8#/LF) GALVANIZED STRUCTURAL STEEL					
0007	497	LB		570-76	$1.00	$497.00
	3/4"X6" GALVANIZED STRUCTURAL STEEL BAR					
0008	148	LB		570-76	$1.14	$168.72
	7/8"X6" GALVANIZED STRUCTURAL STEEL BAR					

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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

Solicitation

NUMBER	PAGE
08140161	3

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

VENDOR
*621152258 304-842-0367
JAMATT INC
91 CLEMANS RD

FLEMINGTON WV 26347

SHIP TO
DIVISION OF HIGHWAYS
DISTRICT EIGHT
P.O. BOX 1516
1101 N RANDOLPH AVE
ELKINS, WV
26241-1516 304-557-0215

DATE PRINTED
03/06/2014

BID OPENING DATE: 04/02/2014 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0009	201	LB		570-76	$1.11	$223.11
	3/4" X 6" GALVANIZED STRUCTURAL STEEL BAR					
	****** THIS IS THE END OF RFQ 08140161 ****** TOTAL:					$39,697.10

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	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:	March 19, 2014 at 5:00 PM EST
Submit Questions to:	Crystal Rink 2019 Washington Street, East Charleston, WV 25305 Fax: 304-558-4115 Email: crystal.g.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:	April 2, 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.

GENERAL TERMS AND CONDITIONS:

1. **CONTRACTUAL AGREEMENT:** Issuance of a Purchase Order signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. **DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

   2.1 "Agency" or **"Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

   2.2 "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods and services requested in the Solicitation.

   2.3 "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

   2.4 "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

   2.5 "Purchase Order" means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the successful bidder and Contract holder.

   2.6 "Solicitation" means the official solicitation published by the Purchasing Division and identified by number on the first page thereof.

   2.7 "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

   2.8 "Vendor" or **"Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. **CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

☐ **Term Contract**

Initial Contract Term: This Contract becomes effective on

and extends for a period of year(s).

Renewal Term: This Contract may be renewed upon the 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). Any request for renewal must be submitted to the Purchasing Division Director thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Renewal of this Contract is limited to successive one (1) year periods. Automatic renewal of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases. Attorney General approval may be required for vendor terms and conditions.

Reasonable Time Extension: At the sole discretion of the Purchasing Division Director, and with approval from the Attorney General's office (Attorney General approval is as to form only), this Contract may be extended for a reasonable time after the initial Contract term or after any renewal term as may be necessary to obtain a new contract or renew this Contract. Any reasonable time extension shall not exceed twelve (12) months. Vendor may avoid a reasonable time extension by providing the Purchasing Division Director with written notice of Vendor's desire to terminate this Contract 30 days prior to the expiration of the then current term. During any reasonable time extension period, the Vendor may terminate this Contract for any reason upon giving the Purchasing Division Director 30 days written notice. Automatic extension of this Contract is prohibited. Notwithstanding the foregoing, Purchasing Division approval is not required on agency delegated or exempt purchases, but Attorney General approval may be required.

Release Order Limitations: In the event that this contract permits release orders, a release order may only be issued during the time this Contract is in effect. Any release order issued within one year of the expiration of this Contract shall be effective for one year from the date the release order is issued. No release order may be extended beyond one year after this Contract has expired.

☐ **Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within days.

☑ **One Time Purchase:** The term of this Contract shall run from the issuance of the Purchase Order until all of the goods contracted for have been delivered, but in no event shall this Contract extend for more than one fiscal year.

☐ **Other:** See attached.

4. **NOTICE TO PROCEED:** Vendor shall begin performance of this Contract immediately upon receiving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the fully executed Purchase Order will be considered notice to proceed

5. **QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

☐ **Open End Contract:** Quantities listed in this Solicitation are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

☐ **Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

☐ **Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

☑ **One Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

6. **PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification.

7. **EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute of breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

8. **REQUIRED DOCUMENTS:** All of the items checked below must be provided to the Purchasing Division by the Vendor as specified below.

☐ **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:

☐ **Commercial General Liability Insurance:**
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.

☐

☐

☐

☐

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 n/a for n/a

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.

JAMATT, INC.
(Company)

James E. Mattingly
(Authorized Signature)

JAMES E. MATTINGLY, PRESIDENT
(Representative Name, Title)

304-842-0367 304-842-2634
(Phone Number) (Fax Number)

03/28/2014
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: 08140161

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)

☐ Addendum No. 1	☐ Addendum No. 6
☐ Addendum No. 2	☐ Addendum No. 7
☐ Addendum No. 3	☐ Addendum No. 8
☐ Addendum No. 4	☐ Addendum No. 9
☐ Addendum No. 5	☐ 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.

JANATT, INC.
Company

James P. Mattingly
Authorized Signature

3/28/2014
Date

NOTE: This addendum acknowledgement 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 West Virginia Division of Highways to establish a contract for the one time purchase of galvanized structural steel for Project #S336-7/1-0.02, Upper Seneca Creek Bridge.

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"** means galvanized structural steel as described in the Cost Sheet and as detailed in the attached Sketches.

   2.2 **"Pricing Page"** means the pages upon which Vendor should list its proposed price for the Contract Items in the manner requested. The Pricing Page is either included on the last page of this RFQ or attached hereto as Exhibit A.

   2.3 **"RFQ"** means the official request for quotation published by the Purchasing Division and identified as 08140161.

3. **GENERAL REQUIREMENTS:**

   3.1 **Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.

      3.1.1 **Galvanized Structural Steel**

         3.1.1.1 Galvanized structural steel must be in accordance with West Virginia Division of Highways Standard Specifications Roads and Bridges, adopted 2010 and the current Supplemental Specifications (http://www.transportation.wv.gov/highways/contractadmin/specifications/2010StandSpec/Pages/default.aspx) and the attached control prints. The galvanized structural steel shall conform to Section S4, Non-Fracture-Critical, Zone 2, toughness testing and requirements.

4. **CONTRACT AWARD:**

   4.1 **Contract Award:** The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the

Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

4.2 Pricing Page: Vendor should complete the Pricing Page by providing the unit price for each item in the Cost Sheet. The Total is the product of the Quantity and the Unit Price for an item. The Grand Total is the sum of the Total column in the Cost Sheet. Vendor should complete the Pricing Page in full as failure to complete the Pricing Page in its entirety may result in Vendor's bid being disqualified.

Notwithstanding the foregoing, the Purchasing Division may correct errors as it deems appropriate. Vendor should type or electronically enter the information into the Pricing Page to prevent errors in the evaluation.

5. PAYMENT:

5.1 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia. The Vendor must send an invoice to:

West Virginia Division of Highways, District Eight
P.O. Box 1516
Elkins, WV 26241
Attention: Tom Beverage

5.2 Partial Payment of Approved Structural Steel
Upon completion of manufacture/fabrication and approval by the Division of Highways of all steel specified on the purchase order, the vendor may invoice and the Division will pay for the cost of manufacturing/fabricating the steel, not to exceed 65% of the total cost of the delivered steel. The remaining, 35% or more, may be invoiced when all the steel is delivered. Partial payment for steel shall be subject of the following conditions:

a. The vendor must request partial payment and furnish an official invoice for the manufactured/fabricated and approved steel.
b. The partial payment invoice shall be accompanied by a surety bond equal to the invoiced amount guaranteeing delivery of all items specified on the purchase order.
c. The vendor shall furnish a statement of approved steel's condition and exact storage location.
d. The vendor shall furnish a legal right-of-entry onto the storage site to Division of Highways' employees and/or agents for the purpose of inspecting, sampling, testing, and removing any or all steel.

e. The vendor shall certify that the stored steel is suitably marked and identified as property of the Division of Highways and will not be used for any purpose not designated by the Division.

6. DELIVERY AND RETURN:

6.1 Shipment and Delivery: Vendor shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Vendor shall deliver the Contract Items within 50 working days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at WVDOH District Eight, 1101 North Randolph Avenue, Elkins WV 26241 during normal working hours of 7:30 am to 4:00 pm, Monday -Friday. The Vendor shall notify the District Storekeeper at 304-637-0226 48 hours in advance of delivery to provide necessary personnel and equipment for unloading. Delivery is an integral part of this purchase order and failure to comply will be cause to initiate a WV-82, Vendor Performance Form. This form will officially notify the West Virginia Division of Purchasing and the Vendor of unsatisfactory performance in the execution of this purchase order and the requirements herein.

6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.

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

6.3 Delivery Payment/Risk of Loss: Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.

6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

6.5 **Return Due to Agency Error**: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

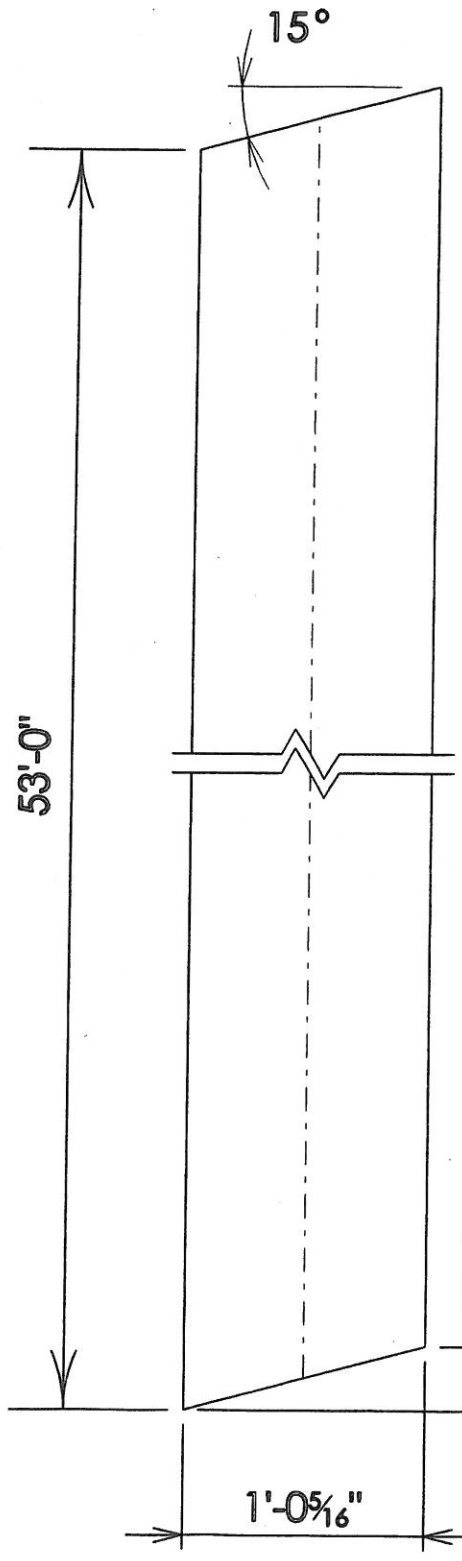
Cost Sheet
RFQ #08140161

Item Number	Quantity	Unit of Measure	Description	Unit Price	Total
1	32,118	lb	W21x101, Galvanized W-shaped Structural Steel, AASHTO M270, Grade 50 Ship 6 pcs @ 53'-0" fabricated in accordance with Sketch #1	$1.04	$33,402.72
2	1242	lb	C12x20.7, Galvanized Structural Steel Channel, AASHTO M270, Grade 50 Ship 3 pcs @ 20'-0"	$1.21	$1,502.82
3	525	lb	L 6"x4"x ½" (16.2#/LF) Galvanized Structural Steel Angle, AASHTO M270, Grade 50 Ship 2 pcs @ 16'-2 5/8" fabricated in accordance with Sketch #2	$1.03	$540.75
4	1143	lb	HSS 6"x6"x½" Galv. Structural Steel Tubing (35.24 #/LF), ASTM A500 Ship 2 pcs @ 16'-2 5/8" fabricated in accordance with Sketch #3	$1.06	$1,211.58
5	512	lb	L 4"x4"x ½" (12.8#/LF) Galvanized Structural Steel Angle, AASHTO M270, Grade 50 Ship 40 pcs @ 1'-0" fabricated in accordance with Sketch #4	$2.10	$1,075.20
6	512	lb	L 4"x4"x ½" (12.8#/LF) Galvanized Structural Steel Angle, AASHTO M270, Grade 50 Ship 40 pcs @ 1'-0" fabricated in accordance with Sketch #5	$2.10	$1,075.20
7	497	lb	¾" x 6" Galvanized Structural Steel Bar (15.3 #/LF), AASHTO M270, Grade 50 Ship 2 pcs @ 16'-3" fabricated in accordance with Sketch #6	$1.00	$497.00
8	148	lb	⅞" x 6" Galvanized Structural Steel Bar (17.9 #/LF), AASHTO M270, Grade 50 Ship 5 pcs @ 1'-7 7/8" fabricated in accordance with Sketch #7	$1.14	$168.72
9	201	lb	¾" x 6" Galvanized Structural Steel Bar (15.3 #/LF), AASHTO M270, Grade 50 Ship 5 pcs @ 2'-7 1/2" fabricated in accordance with Sketch #7	$1.11	$223.11
	36,898		**Grand Total** →		39,412.97

JAMATT, INC.

WV DEPT. OF TRANSPORTATION - DIVISION OF HIGHWAYS
DISTRICT 8, P.O. BOX 1516
ELKINS, WV 26241

RFQ NO. 0814016 1
SKETCH #1



GALVANIZED W21x101 BEAM (Grade 50)
6 Required

GALVANIZE IN ACCORDANCE WITH AASHTO M111

RFQ NO. 08140161
SKETCH #2

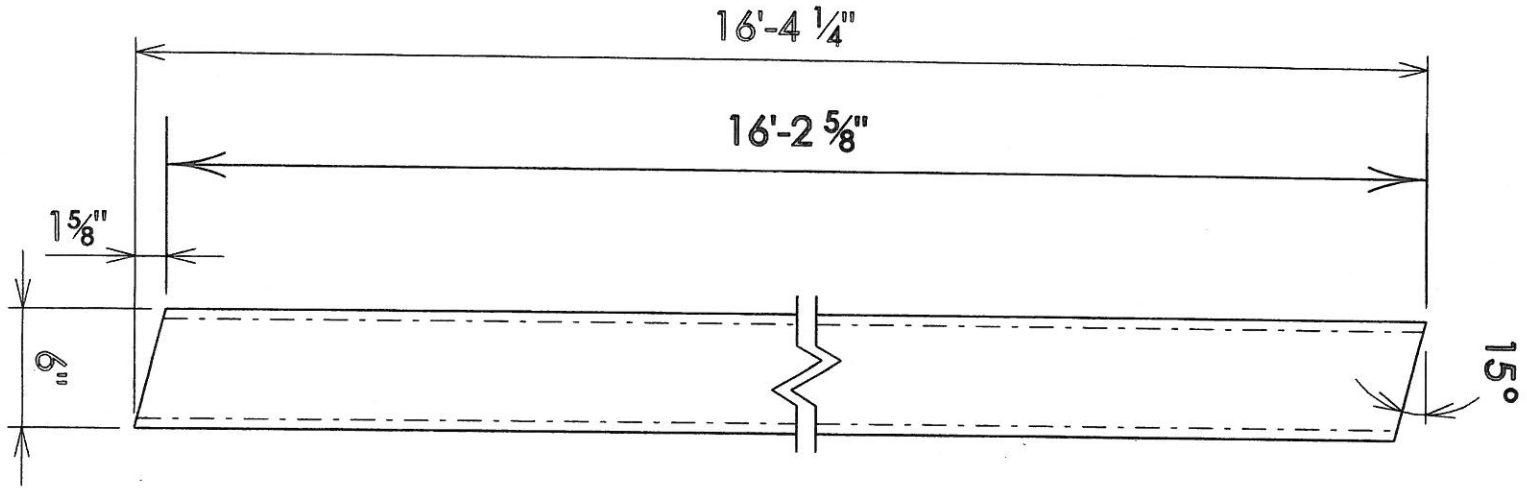
GALVANIZED L6"x4"x ½ " ANGLE (Grade 50)

2 Required

GALVANIZE IN ACCORDANCE WITH AASHTO M111

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DISTRICT 8, P.O. BOX 1516
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RFQ NO. 08140161
SKETCH #3



GALVANIZED 6"x6"x ½ " TUBING (ASTM A500)

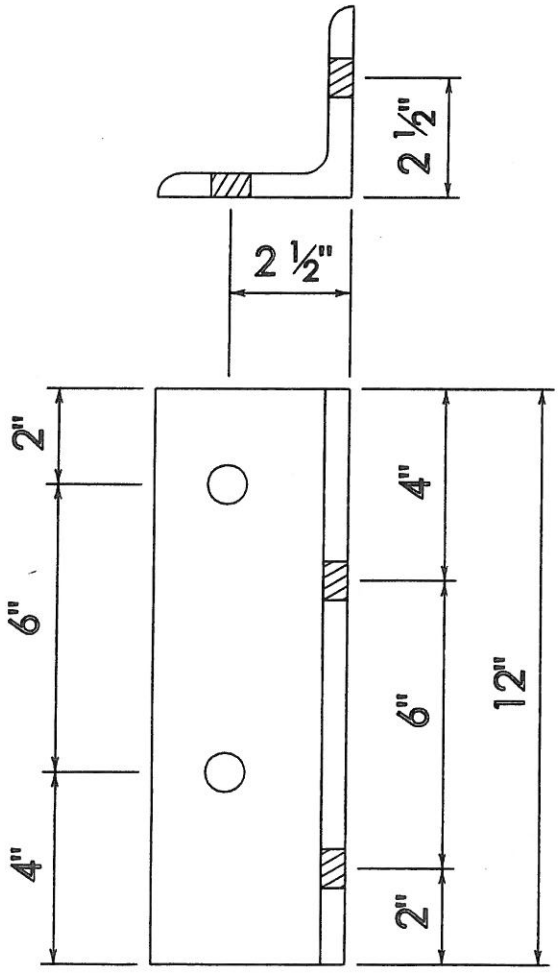
2 Required

GALVANIZE IN ACCORDANCE WITH AASHTO M111

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RFQ NO. 08140161
SKETCH #4



ALL HOLES 13/16" DIAMETER

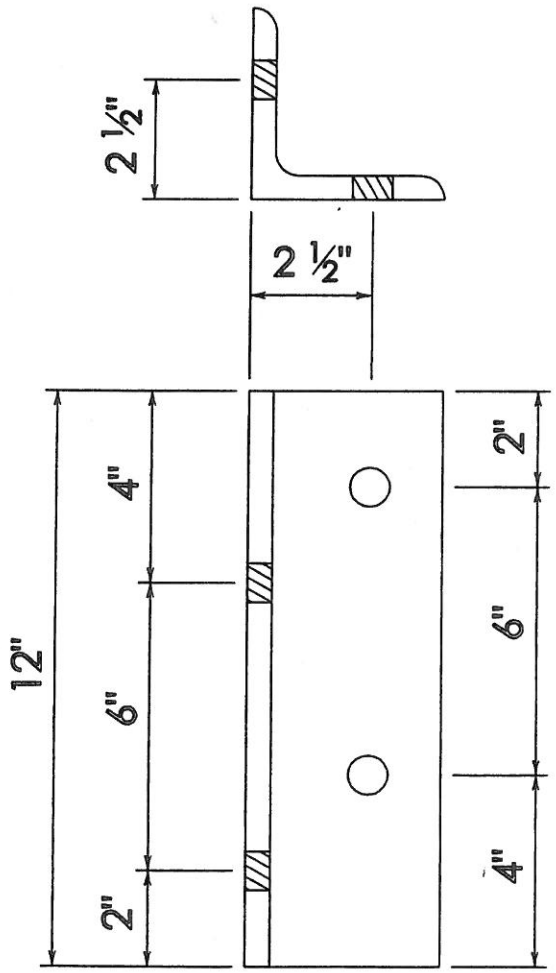
GALVANIZED CLIP ANGLE

ANGLE 4" x 4" x ½" - 40 REQUIRED

GALVANIZE IN ACCORDANCE WITH AASHTO M111

WV DEPT. OF TRANSPORTATION - DIVISION OF HIGHWAYS
DISTRICT 8, P.O. BOX 1516
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RFQ NO. 08140161
SKETCH #5



ALL HOLES 13/16" DIAMETER

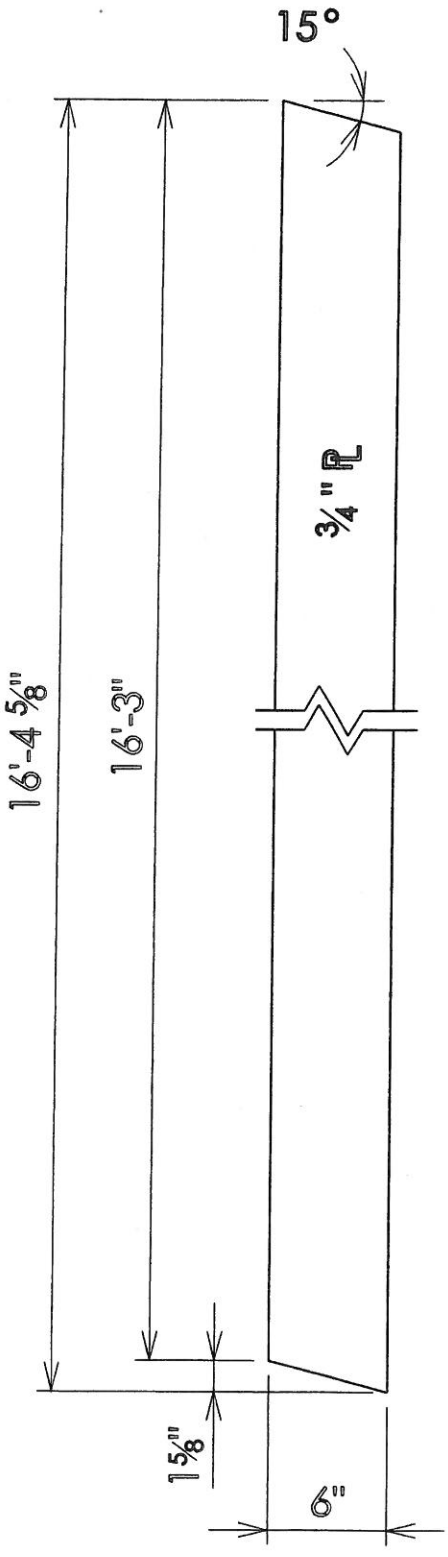
GALVANIZED CLIP ANGLE

ANGLE 4" x 4" x ½" - 40 REQUIRED

GALVANIZE IN ACCORDANCE WITH AASHTO M111

WV DEPT. OF TRANSPORTATION - DIVISION OF HIGHWAYS
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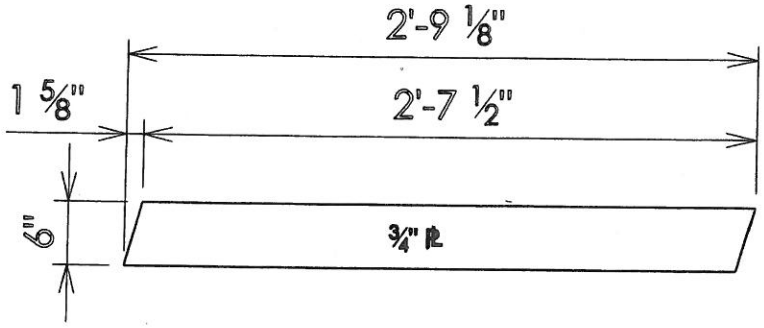
RFQ NO. 0814016I
SKETCH #6



GALVANIZED 3/4" PLATE - MARK M1
2 Required

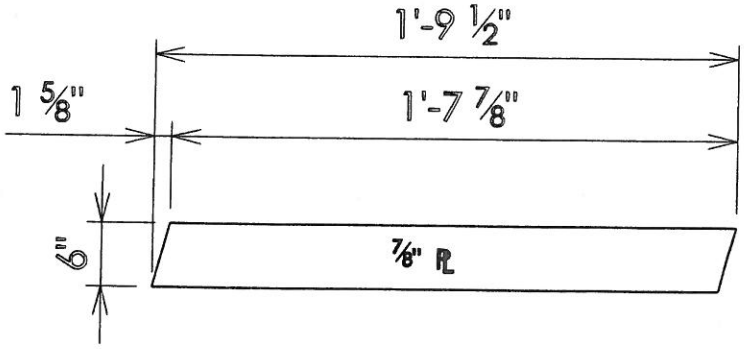
GALVANIZE IN ACCORDANCE WITH AASHTO M111

WV DEPT. OF TRANSPORTATION - DIVISION OF HIGHWAYS
DISTRICT 8, P.O. BOX 1516
ELKINS, WV 26241



GALVANIZED 3/4" PLATE - MARK P2

(5 Required)



GALVANIZED 7/8" PLATE - MARK P1

(5 Required)

RFQ NO. 08140161

SKETCH #7

GALVANIZE IN ACCORDANCE WITH AASHTO M111

SECTION 615
STEEL STRUCTURES

615.1-GENERAL:

615.1.1-Description: The work shall consist of furnishing, fabricating, and erecting steel structures and structural steel portions of other structures in accordance with these Specifications, the Special Provisions, and the details shown on the plans.

Fabricators of bridges that have welded shop splices shall be certified under the American Institute of Steel Construction's (AISC) Quality Certification Program "Major Steel Bridges" category. The fabricators of fracture critical members shall be certified as category: "Major Steel Bridges" and, in addition, shall possess an "F" endorsement by AISC. Fabrication of grades HPS 50W and HPS 70W steel shall only be performed by fabricators possessing an "F" endorsement. Fabricators of rolled beam bridges shall be certified by AISC in either the "Major Steel Bridges" category or the "Simple Steel Bridges" category. Ancillary bridge components such as expansion dams, drains, scuppers, and pedestrian handrail may be fabricated in shops that are AISC certified as "Bridge and Highway Metal Component Manufacturers."

The fabricator shall provide a quality control plan to the Engineer for approval. This plan shall contain information concerning the fabricator's internal control process. Information concerning the contents of the quality control plan can be found in the FHWA Region Three, Structural Committee for Economic Fabrication's Guidelines for the Development of a Quality Control Plan. The plan shall be approved by the Division prior to the start of fabrication.

Structural components designated on the plans or in the special provisions as "fracture critical" shall conform to the provisions of Section 12 of the ANSI/AASHTO/AWS Bridge Welding Code D1.5.

Painting shall conform to the provisions of Section 688.

615.1.2-Notice of Beginning of Work: The Contractor shall give the Engineer a minimum of two weeks notice prior to the beginning of work at the fabrication shop, so that inspection may be provided. No material shall be manufactured, or work done in the shop, before the Engineer has been so notified. Prior to beginning work, Engineer and Contractor representatives shall identify individuals who are responsible for the following functions: preparation, submittal, review, approval, and distribution of shop drawings; submittal and control of material test reports (MTRs). The Engineer will identify individuals or agents responsible for handling shop detail drawings, approving welding procedures, providing quality assurance, and accepting proposed repairs. Before work begins a prefabrication meeting may be held at the discretion of the Engineer or if requested by the Fabricator or Contractor.

615.1.3-Inspection: Structural steel shall be inspected in the fabrication shop. The Contractor shall furnish the Engineer with a copy of all mill orders and shop lists showing heat numbers to be used for each piece. Mill test

reports that document the chemical analysis and physical test results for each heat of steel to be used in the work shall also be furnished. Final approval of the material in the shop will not be given until the above data is approved.

With the approval of the Engineer, certificates of compliance shall be furnished in lieu of mill test reports for material that normally is not supplied with mill test reports, and for items such as fills, minor gusset plates and similar material when quantities are small and the material is taken from stock.

Certified mill test reports for steels with specified minimum impact values shall include, in addition to other test results, the results of Charpy V-Notch impact tests. When fine grain practice is specified, the test report shall confirm that the material was so produced. Copies of mill orders shall be furnished at the time orders are placed with the manufacturer. Certified mill test reports and Certificates of Compliance shall be furnished prior to the start of fabrication of material covered by these reports. The Certificate of Compliance shall be signed by the manufacturer and shall certify that the material is in conformance with the specifications to which it has been manufactured.

Material to be used shall be made available to the Engineer so that each piece can be examined. The Engineer shall have free access at all times to any portion of the fabrication shop where the material is stored or where work on the material is being performed.

615.1.4-Inspector's Authority: The Inspector shall have the authority to reject materials or workmanship which do not fulfill the requirements of these Specifications. In cases of dispute, the Contractor may appeal to the Engineer, whose decision shall be final.

Inspection at the shop is intended as a means of facilitating the work and avoiding error, and it is expressly understood that it will not relieve the Contractor of any responsibility in regard to defective material or workmanship and the necessity for replacing same.

The acceptance of any material or finished members by the Inspector shall not be a bar to their subsequent rejection, if found defective. Rejected materials and workmanship shall be replaced as soon as practical or corrected by the Contractor.

615.2-WORKING DRAWINGS:

Working drawings must be submitted in accordance with section 105.2.

615.2.1-Erection Drawings: The contractor shall submit drawings illustrating fully their proposed method of erection. The drawings shall show details of all falsework bents, bracings, guys, dead-men, lifting devices, and attachments to the bridge members: sequence of erection, location of cranes and barges, crane capacities, location of all lifting points on the bridge members, and weights of the members. The plans and drawings shall be complete in detail for all anticipated phases and conditions during erection. Design calculations, sealed by a West Virginia Registered Professional Engineer, shall be submitted by the Contractor to the Engineer seven days prior to commencing work. Receipt of plans, drawings and calculations does

not constitute review or approval or relieve the contractor of their responsibility to satisfactorily design the erection plan. The design calculations shall demonstrate that allowable stresses for falsework and steel members being erected are not exceeded and that member capacities and final geometry shall be correct.

When the designated concrete deck overhang exceeds 30 inches from the edge of the beam flange, the erection drawings submitted by the Contractor/fabricator shall include complete details of the forming and bracing for the overhang and shall transmit the concrete dead load to an area of the beam or stringer which will prevent distortion.

615.2.3-Camber Diagram: A camber diagram shall be furnished to the Engineer by the Fabricator, showing the camber at each panel point in the cases of trusses or arch ribs, and at the location of field splices and fractions of span length (¼ points minimum) in the cases of continuous beam and girders or rigid frames. The camber diagram shall shown calculated cambers to be used in preassembly of the structure in accordance with Section 615.5.3.

615.3-MATERIALS:

615.3.1-Structural Steel

615.3.1.1-Quality: Steel shall be furnished according to the following specifications. The grade or grades of steel to be furnished shall be as shown on the plans or as specified. Material meeting equivalent AASHTO and ASTM specifications may be supplied under either specification. All steel for use in main load-carrying member components subject to tensile stress, including splice plates, shall conform to Zone 2 Charpy V-Notch Impact Test requirements of AASHTO M270.

615.3.1.2-Certifications and verification: Fabricators of structural steel shall provide certified mill test reports(MTRs) for all steel materials used in fabrication. MTRs must originate from the producer of the material and not a supplier.

615.3.1.3-High Performance Steel: Structural Steel designated on the plans as grades HPS 50W and HPS 70W shall conform to the requirements of AASHTO M270/M270M-04(or later version). All fabrication for grades HPS 50W and HPS 70W must conform to the current edition of the AASHTO/AWS D1.5 2008 Bridge Welding Code and by the latest edition of the AASHTO Guide Specification for Highway Bridge Fabrication with HPS 70W Steel. Only submerged arc welding(SAW) and shielded metal arc welding(SMAW) are permitted when welding grade HPS 70W steel.

615.3.1.4-Non-Destructive Testing(NDT): All NDT shall be performed in accordance with the AASHTO/AWS D1.5 2008 Bridge Welding Code. Whenever magnetic particle testing(MT) is performed

only the yoke technique will be allowed , as described in section 6.7.6.2 of AWS D1.5, modified to test using alternating current only.

615.3.1.5-Weld procedure qualification: The procedure qualification test record(PQR) and proposed welding procedure specification(WPS) must be submitted to the Engineer for review and approval prior to the start of fabrication. In general, post weld heat treatment shall not be required. If proposed by the Contractor for production or repair welding, such post weld heat treatment must be included in the procedure qualification testing, or qualified by additional PQR's, as appropriate.

615.3.2-High-Strength Fasteners: Bolts, nuts, and washers shall conform to 709.24 and shall be either mechanically galvanized or coated with zinc rich primer. Hot-dip galvanizing may be used only when specified by the Contract documents.

615.3.3-Welded Stud Shear Connectors: When design requires the use of welded stud shear connectors, they shall meet the requirements of Section 7 of the ANSI/AASHTO/AWS D1.5, Bridge Welding Code.

The connectors shall be attached in the field. With the exception of worker fall protection as described in section 615.3.3.1, no shop installation of welded stud shear connectors shall be permitted. The field installation of the welded stud shear connectors shall not commence prior to the installation of the deck forms in the area surrounding the welded stud shear connectors. Overhanging deck forms may be installed after the welded stud shear connectors are installed. The welded stud shear connectors and deck forms shall be installed in a sequence that permits workers access through the deck area without walking through installed welded stud shear connectors.

615.3.3.1 – Shear Studs for Worker Fall Protection: The Contractor may shop install shear studs to the beam or girder for the purpose of attaching a worker fall protection system. Only the shear studs required to properly install and support the worker fall protection system may be installed in the shop. The remaining shear studs at this location for an individual transverse row across the beam or girder flange may also be installed in the shop. All shop installed shear studs shall be shown on the drawings.

615.3.4-Steel Forgings and Steel Shafting:

615.3.4.1-Steel Forgings: Shall conform to 709.13.1.

615.3.4.2-Cold Finished Carbon Steel Shafting: Shall conform to 709.13.2.

615.3.5-Steel Castings: Shall conform to 709.14.

615.3.6-Iron Castings: Shall conform to 709.10.

615.3.7-Coating of Anchor Bolts, Nuts and Washers: All anchor bolts, nuts and washers shall be hot dip galvanized in accordance with AASHTO M111 after fabrication.

615.4-FABRICATION:

615.4.1-Identification and traceability: Ensure that all structural steel materials are identified in accordance with ASTM A6. Maintain heat numbers on all primary bridge materials until the material is permanently joined into a piece-marked member. Use low stress steel die stamps or a firmly attached tag. Maintain documentation of all primary member material for shop records and provide this documentation to the Quality Assurance Inspector(QAI) for the Engineer's records.

615.4.2-Storage of Materials: Structural material, either plain or fabricated, shall be stored above the ground on platforms, skids, or other supports. It shall be kept free from dirt, grease, and other foreign matter, and shall be protected as far as practicable from corrosion.

615.4.3-Plates:

615.4.3.1-Direction of Rolling: Unless otherwise shown on the plans, steel plates for main members and splice plates for flanges and main tension members, not secondary members, shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

615.4.3.2-Plate Cut Edges:

615.4.3.2.1-Edge Planeing: For primary members more than 5/8 inch in thickness, 3/16 inch shall be planed off sheared edges that remain exposed after fabrication.

615.4.3.2.2-Thermal Cutting: Shall conform to the requirements of the ANSI/AASHTO/AWS Bridge Welding Code D1.5.

615.4.3.2.3-Visual Inspection and Repair of Plate Cut Edges: Shall conform to the requirements of ANSI/AASHTO/AWS Bridge Welding code D1.5.

615.4.3.3-Bent Plates:

615.4.3.3.1General: Unwelded, load-carrying, rolled-steel plates to be bent shall conform to the following:

They shall be so taken from the stock plates that the bend line will be at right angles to the direction of rolling, except that cold-bent ribs for orthotropic-deck bridges may be bent with bend lines in the direction of rolling if permitted by the Engineer.

Before bending, the corners of the plates shall be rounded to a radius of approximately 1/16 inch (2 mm) throughout the portion of the plate at which the bending is to occur.

615.4.3.3.2-Cold Bending: Do not cold bend fracture critical materials. Cold bending shall be such that no cracking of the plate occurs. Visibly inspect all load points, and check any suspected damage by magnetic particle testing. Material with non-specified kinks or sharp bends, cracks, large dents, or visible reduction of section shall be rejected. Minimum bend radii, measured to the concave face of the metal, are shown in table 615.4.3.3.2.

TABLE 4.2 MINIMUM COLD-BENDING RADII

Material		Radius in Terms of Plate Thickness, t mm (in.)		
ASTM Specification	Grade	t<25 (1)	25 (1) <t<50 (2)	50 (2)<t
A36/A36M	---	1.5t	1.5t	2.0t
A572/A572M	290 (42)			
A709/A709M	250 (36)			
A572/A572M	345 (50)	1.5t	2.0t	2.5t
A588/A588M	---			
A709/A709M	345 (50), 345W (50W)			
A572/A572M	380 (55)	1.5t	2.5t	3.0t
A709/A709M	HPS 485 (70W)			

Allowance for springback of Grades 100 and 100W steels should be about three times that for Grade 36 steel. For break press forming, the lower die span should be at least 16 times the plate thickness. Multiple hits are advisable.

615.4.3.3.3-Hot Bending: If a radius shorter than the minimum specified for cold bending is essential, the plates shall be bent hot at a temperature not greater than shown in Table 615.4.7.

615.4.4-Fit of Stiffeners: Bearing stiffeners for girders and stiffeners intended as supports for concentrated loads shall have full bearing (either milled, ground or on weldable steel in compression areas of flanges, welded when shown on the plans or specified) on the flanges to which they transmit load or from which they receive load and shall meet the requirements of paragraph 3.5.1.9 of the 2008 ANSI/AASHTO/AWS Bridge Welding Code D1.5. Intermediate stiffeners not intended to support concentrated loads, unless shown or specified otherwise, shall have a tight fit against both flanges which is defined as having a gap of no more than 1/16 inch between stiffener and flange. Diaphragm, crossframes or floorbeam connection plates shall be welded to both top and bottom flanges.

615.4.5-Abutting Joints: When specified by the contract plans, butting joints in compression members of trusses and columns shall be milled or saw-

cut to give a square joint and uniform bearing. At other joints, not required to be faced, the opening shall not exceed 3/8 inch (10 mm).

615.4.6-Facing of Bearing Surfaces: The surface finish of bearing and base plates and other bearing surfaces that are to come in contact with each other or with concrete shall meet the ANSI surface roughness requirements as defined in ANSI B46.1, Surface Roughness, Waviness and Lay, Part I:

Steel slabs	ANSI 2,000
Heavy plates in contact in shoes to be welded	ANSI 1,000
Milled ends of compression members, milled or ground ends of stiffeners and fillers	ANSI 500
Bridge rollers and rockers	ANSI 250
Pins and pin holes	ANSI 125
Sliding bearings	ANSI 125

615.4.7-Straightening Material: The straightening of plates, angles, other shapes, and built-up members, when permitted by the Engineer, shall be done by methods that will not produce fracture or other injury to the metal. Straighten bridge member parts, such as plates, angles or shapes, before the parts are assembled. If members are cold straightened, follow the applicable provisions of section 615.4.3.3.2. Distorted members shall be straightened by mechanical means or, if approved by the Engineer, by carefully planned procedures and supervised application of a limited amount of localized heat, except that heat straightening of Grades 70W, 100 and 100W steel members shall be done only under rigidly controlled procedures, each application subject to the approval of the Engineer. In no case shall the maximum temperature exceed values shown in Table 615.4.7.

Table 615.4.7-Maximum Heat Straightening And Hot Bending Temperature {ENGLISH}	
Grade 70W > 6" from weld	1,075° F
Grade 70W < 6" from weld	900° F
Grade 100 or 100W > 6" from weld	1,125° F
Grade 100 or 100W < 6" from weld	950° F

In all other steels, the temperature of the heated area shall not exceed 1,200° F as controlled by temperature indicating crayons.

Parts to be heat straightened shall be substantially free of stress and from external forces, except stresses resulting from mechanical means used in conjunction with the application of heat.

Evidence of fracture following straightening of a bend or buckle will be cause for rejection of the damaged piece.

615.4.8-Bolt Holes:

615.4.8.1-Holes for High-Strength Bolts and Unfinished Bolts: (See Section 615.5.5 for bolts included in designation "Unfinished Bolts").

615.4.8.1.1-General: All holes for bolts shall be either punched or drilled. Material forming parts of a member composed of not more than five thicknesses of metal may be punched 1/16 inch (2 mm) larger than the nominal diameter of the bolts whenever the thickness of the material is not greater than ¾ inch (20 mm) for structural carbon steel, 5/8 inch (16 mm) for high-strength steel or ½ inch (12 mm) for quenched and tempered alloy steel, unless subpunching and reaming are required under Section 615.4.8.5.

When there are more than five thicknesses or when any of the main material is thicker than ¾ inch (20 mm) for structural carbon steel, 5/8 inch (16 mm) for high-strength steel, or ½ inch (12 mm) for quenched and tempered alloy steel, all holes shall either be subdrilled and reamed or drilled full size.

When required, all holes shall be either subpunched or subdrilled (subdrilled if thickness limitation governs) 3/16 inch (5 mm) smaller and, after assembling reamed 1/16 inch (2 mm) larger or drilled full size to 1/16 inch (2 mm) larger than the nominal diameter of the bolts.

When shown on the plans, enlarged or slotted holes are allowed with high-strength bolts.

615.4.8.1.2-Punched Holes: The diameter of the die shall not exceed the diameter of the punch by more than 1/16 inch (2 mm). If any holes must be enlarged to admit the bolts, such holes shall be reamed. Holes must be clean cut without torn or ragged edges. Do not punch holes full size in primary members. Apply these maximum thickness limits when punching: Grade 36-3/4 inch; Grade 50/50W-5/8 inch; Grade HPS 70W-1/2 inch.

615.4.8.1.3-Reamed or Drilled Holes: Shall be cylindrical, perpendicular to the member, and shall comply with the requirements of Section 615.4.8.1.1 as to size. Where practical, reamers shall be directed by mechanical means. Burrs on the outside surfaces shall be removed. Reaming and drilling shall be done with twist drills, twist reamers or rotobroach cutters. Connecting parts requiring reamed or drilled holes shall be assembled and securely held while being reamed or drilled and shall be match marked before disassembling. Parts shall not be held by welding.

615.4.8.1.4-Accuracy of Holes: Holes not more than 1/32 inch (1 mm) larger in diameter than the true decimal equivalent of the nominal diameter that may result from a drill or reamer of the nominal diameter are considered acceptable. The slightly conical hole that naturally results from punching operations is considered acceptable. The width of slotted holes which are produced by thermal cutting or a combination of drilling

or punching and thermal cutting shall be not more than 1/32 inch (1 mm) greater than the nominal width. The thermal cut surface shall be ground smooth. Do not thermally cut holes in quenched and tempered steel.

615.4.8.2-Accuracy of Hole Group:

615.4.8.2.1-Accuracy Before Reaming: All holes punched full size, subpunched, or subdrilled shall be so accurately punched so that after assembling (before any reaming is done) a cylindrical pin 1/8 inch (3 mm) smaller in diameter than the nominal size of the punched hole may be entered perpendicular to the face of the member, without drifting, in at least 75 percent of the contiguous holes in the same plane. If the requirement is not fulfilled, the improperly punched pieces will be rejected. If any hole will not pass a pin 3/16 inch (5 mm) smaller in diameter than the nominal size of the punched hole, this will be cause for rejection.

615.4.8.2.2-Accuracy after Reaming: When holes are reamed or drilled, 85 percent of the holes in any contiguous group shall, after reaming or drilling, show no offset greater than 1/32 inch (1 mm) between adjacent thickness of metal.

All steel templates shall have hardened steel bushings in holes accurately dimensioned from the centerlines of the connection as inscribed on the template. The centerlines shall be used in locating accurately the template from the milled or scribed ends of the members.

615.4.8.3-Numerically-Controlled Drilled Field Connections: In lieu of subsized holes and reaming while assembled, or drilling holes full-size while assembled, the Contractor shall have the option to drill or punch bolt holes full-size in unassembled pieces and/or connections including templates for use with matching subsized and reamed holes by means of suitable numerically controlled (N/C) drilling or punching equipment. Full-size punched holes shall meet the requirements of Section 615.4.8.1. If N/C drilling or punching equipment is used, the Contractor, by means of check assemblies, will be required to demonstrate the accuracy of this drilling or punching procedure in accordance with the provisions of Section 615.5.3.3.

Holes drilled or punched by N/C equipment shall be drilled or punched to appropriate size either through individual pieces, or drilled through any combination of pieces held tightly together. Pieces shall not be held by welding.

615.4.8.4-Holes for Ribbed Bolts, Turned Bolts, or Other Approved Bearing Type Bolts: All holes for ribbed bolts, turned bolts, or other approved bearing-type bolts shall be subpunched or subdrilled 3/16 inch (5 mm) smaller than the nominal diameter of the bolt and reamed when assembled, or drilled to a steel template or, after assembling, drilled from the solid at the option of the Fabricator. In any case the finished holes shall provide a driving fit.

615.4.8.5-Preparation of Field Connections: Holes in all field connections and field splices of main members of trusses, arches, continuous beam spans, bents, towers (each face), plate girders, and rigid frames shall be subpunched or subdrilled and subsequently reamed while assembled or drilled full size to a steel template. Holes for field splices of rolled beam stringers continuous over floor beams or cross frames may be drilled full size unassembled to a steel template. All holes for floor beams or cross frames may be drilled full size unassembled to a steel template. All holes for floor beam and stringer field end connections shall be subpunched and reamed while assembled or drilled full size to a steel template. Reaming or drilling full size of field connection holes through a steel template shall be done after the template has been located with utmost care as to position and angle and firmly bolted in place. Templates used for reaming matching members, or the opposite faces of a single member, shall be exact duplicates. Templates used for connections on like parts or members shall be so accurately located that the parts or members are duplicates and require no match-marking.

For any connection, in lieu of subpunching and reaming or subdrilling and reaming, the fabricator may, at his option, drill holes full size with all thicknesses or material assembled in proper position.

615.4.9-Pins and Rollers:

615.4.9.1-General: Pins and rollers shall be accurately turned to the dimensions shown on the drawings and shall be straight, smooth, and free from flaws. Pins and rollers more than 9 inches (225 mm) in diameter shall be forged rollers and annealed. Pins and rollers 9 inches (225 mm) or less in diameter may be either forged and annealed or cold-finished carbon-steel shafting.

In pins larger than 9 inches (225 mm) in diameter, a hole not less than 2 inches in (50 mm) diameter shall be bored full length along the axis after the forging has been allowed to cool to a temperature below the critical range, under suitable conditions to prevent damage by too rapid cooling, and before being annealed.

615.4.9.2-Boring Pin Holes: Pin holes shall be bored true to the specified diameter, smooth and straight, at right angles with the axis of the member and parallel with each other unless otherwise required. The final surface shall be produced by a finishing cut.

The diameter of the pin hole shall not exceed that of the pin by more than 1/50 0.015 inch (500 μm) for pins 5 inches (125 mm) or less in diameter, or by 1/32 inch (1 mm) for larger pins.

The distance outside to outside of end holes in tension members and inside to inside of end holes in compression members shall not vary from that specified more than 1/32 inch (1 mm). Boring of pin holes in built-up members shall be done after the member has been assembled.

615.4.9.3-Threads for Bolts and Pins: Threads for all bolts and pins for structural steel construction shall conform to the Unified Standard

Series UNC ANSI B1.1, Class 2A for external threads and Class 2B for internal threads, except that pin ends having a diameter of 1-3/8 inches (36 mm) or more shall be threaded six threads to the inch (25 mm).

615.4.10-Eyebars: Pin holes may be thermal cut at least 2 inches (50 mm) smaller in diameter than the finished pin diameter. All eyebars that are to be placed side by side in the structure shall be securely fastened together in the order that they will be placed on the pin and bored at both ends while so clamped. Eyebars shall be packed and match-marked for shipment and erection. All identifying marks shall be stamped with steel stencils on the edge of one head of each member after fabrication is completed so as to be visible when the bars are nested in place on the structure. Steel die stamps shall be low stress type.

The eyebars shall be straight and free from twists and the pin holes shall be accurately located on the centerline of the bar. The inclination of any bar to the plane of the truss shall not 0.5 percent.

The edges of eyebars that lie between the transverse centerline of their pin holes shall be cut simultaneously with two mechanically operated torches abreast of each other, guided by a substantial template, in such a manner as to prevent distortion of the plates.

615.4.11-Annealing and Stress Relieving: Structural members which are indicated in the contract to be annealed or normalized shall have finished machining, boring, and straightening done subsequent to heat treatment. Normalizing and annealing (full annealing) shall be as defined in ASTM A941. The temperatures shall be maintained uniformly throughout the furnace during the heating and cooling so that the temperature at no two points on the member will differ by more than 100° F (38° C) at any one time.

Members of Grades 100/100W or Grade 70W (690/690W or Grade 480W) steels shall not be annealed or normalized and shall be stress relieved only with the approval of the Engineer.

A record of each furnace charge shall identify the pieces in the charge and show the temperatures and schedule actually used. Proper instruments, including recording pyrometers, shall be provided for determining at any time the temperatures of members in the furnace. The records of the treatment operation shall be available to and meet the approval of the Engineer. The holding temperature for stress relieving Grades 100/100W and Grade 70W (690/690W and Grade 480W) steels shall not exceed 1,125° F and 1075° F (610° C and 580° C, respectively.

Members, such as bridge shoes, pedestals, or other parts that are built up by welding sections of plate together shall be stress relieved in accordance with the ANSI/AASHTO/AWS Bridge Welding Code D1.5 when required by the plans, specifications, or special provisions governing the contract.

615.4.12-Curved Girders:

615.4.12.1-General: Flanges of curved, welded girders may be cut to the radii shown on the plans or curved by applying heat as specified in the succeeding Sections providing the radii is not less than allowed by Article

10.15.2 of Division I of the AASHTO Standard Specifications for Highway Bridges.

615.4.12.2-Heat Curving Rolled Beams and Welded Girders

615.4.12.2.1-Materials: BLANK

615.4.12.2.2-Type of Heating: Beams and girders may be curved by either continuous or V-type heating as approved by the Engineer. For the continuous method, a strip or intermittent strips along the edge of the top and bottom flange shall be heated simultaneously depending on flange widths and thicknesses; the strip shall be of sufficient width and temperature to obtain the required curvature. For V-type heating, the top and bottom flanges shall be heated in truncated triangular or wedge-shaped areas having their base along the flange edge and spaced at regular intervals along each flange; the spacing and temperature shall be as required to obtain the required curvature, and heating shall progress along the top and bottom flange at approximately the same rate.

For V-type heating, the apex of the truncated triangular area applied to the inside flange surface shall terminate just before the juncture of the web and the flange is reached. To avoid unnecessary web distortion, special care shall be taken when heating the inside flange surfaces (the surfaces that intersect the web) so that heat is not applied directly to the web. When the radius of curvature is 1,000 feet (300 m) or more, the apex of the truncated triangular heating pattern applied to the outside flange surface shall extend to the juncture of the flange and web. When the radius of curvature is less than 1,000 feet (300 m), the apex of the truncated triangle heating pattern applied to the outside flange surface shall extend past the web for a distance equal to one-eighth of the flange or 3 inches (75 mm), whichever is less. The truncated triangular pattern shall have an included angle of approximately 15 to 30 degrees, but the base of the triangle shall not exceed 10 inches (250 mm). Variations in the patterns prescribed above may be made with the approval of the Engineer.

For both types of heating, the flange edges to be heated are those that will be on the inside of the horizontal curve after cooling. Heating both inside and outside flange surfaces is only mandatory when the flange thickness is 1¼ inches (32 mm) or greater, in which case, the two surfaces shall be heated concurrently. The maximum temperature shall be prescribed as follows.

615.4.12.2.3-Temperature: Bring the steel within the planned temperature as rapidly as possible without overheating. The heat-curving operation shall be conducted in such a manner that the temperature of the steel does not exceed 1200° F for grade 36 and grade 50 steel, and 1100° F for grades HPS 70W and HPS 100/100W steel as measured by temperature indicating crayons, pyrometers, or infrared non-contact thermometers. Measure the temperature 5-10 seconds after the heating flame leaves the area to be tested. The girder shall not be artificially

cooled until after naturally cooling to 600° F. Cooling with dry compressed air after the steel has cooled to below 600° F is permitted. Do not cool the steel with water or mist. Allow steel to cool below 250° F before applying another set of heating patterns. Do not handle, support, or load the member in a manner that causes material to yield without the application of heat.

615.4.12.2.4-Position for Heating: The girder may be heat-curved with the web in either a vertical or a horizontal position. If the radius is less than 1000 feet, heat curve only with the web in the horizontal position or preload to induce stress prior to heating. Do not heat curve portions of members where the required radius of curvature is less than 1000 feet and the flange width exceeds 30 inches. When curved in the vertical position, the girder must be braced or supported in such a manner that the tendency of the girder to deflect laterally during the heat-curving process will not cause the girder to overturn.

When curved in the horizontal position, the girder must be supported near its ends and at intermediate points, if required, to obtain a uniform curvature; the bending stress in the flanges due to the dead weight of the girder must not exceed the usual allowable design stress. When the girder is positioned horizontally for heating, intermediate safety catch blocks must be maintained at the mid-length of the girder within 2 inches (50 mm) of the flanges at all times during the heating process to guard against a sudden sag due to plastic flange buckling.

615.4.12.2.5-Sequence of Operations: The girder shall be heat-curved in the fabrication shop before it is painted. The heat curving operation may be conducted either before or after all the required welding of transverse intermediate stiffeners is completed. However, unless provisions are made for girder shrinkage, connection plates and bearing stiffeners shall be located and attached after heat curving. If longitudinal stiffeners are required, they shall be heat-curved or oxygen-cut separately and then welded to the curved girder. When cover plates are to be attached to rolled beams, they may be attached before heat curving if the total thickness of one flange and cover plate is less than 2½ inches (37.5 mm) and the radius of the curvature is greater than 1,000 feet (30 meters). For other rolled beams with cover plates, the beams must be heat-curved before the cover plates are attached; cover plates must be either heat curved or oxygen-cut separately and then welded to the curved beam.

615.4.12.2.6-Camber: Girders shall be cambered before heat curving. Camber for rolled beams may be obtained by heat-cambering methods approved by the Engineer. For plate girders, the web shall be cut to the prescribed camber with suitable allowance for shrinkage due to cutting, welding, and heat curving. However, subject to the approval of the Engineer, moderate deviations from specified camber may be corrected by a carefully supervised application of heat.

615.4.12.2.7-Measurement of Curvature and Camber: Horizontal curvature and vertical camber shall be measured for final acceptance after all welding and heating operations are completed and the flanges have cooled to a uniform temperature. Horizontal curvature shall be checked with the girder in the vertical position.

615.4.13-BLANK:

615.4.14-Full Size Tests: When full size tests of fabricated structural members or eyebars are required by the contract, the Contractor shall provide suitable facilities, material, supervision, and labor necessary for making and recording the required tests. The members tested in accordance with the contract shall be paid for in accordance with Section 615.7.2.

615.4.15-Marking and Shipping: Each member shall be painted or marked with an erection mark for identification and an erection diagram showing these marks shall be furnished to the Engineer.

The Contractor shall furnish to the Engineer as many copies of material orders, shipping statements, and erection diagrams as the Engineer may direct. The weights of the individual members shall be shown on the statements. Members weighing more than 3 tons (2.75 Mg) shall have the weights marked thereon. Structural members shall be loaded on trucks or railcars in such a manner that they may be transported and unloaded at their destination without being excessively stressed, deformed, or otherwise damaged.

High strength bolts, nuts, and washers shall be packaged as required by Section 709.24.9.1. Pins and small parts shall be shipped in boxes, crates, kegs, or barrels, but the gross weight of any package shall not exceed 300 pounds (136 kg). A list and description of the contained material shall be plainly marked on the outside of each shipping container.

615.5-ASSEMBLY:

615.5.1-Bolting: Surfaces of metal in contact shall be clean before assembling. The parts of a member shall be assembled, well pinned, and firmly drawn together before drilling, reaming, or bolting is commenced. Assembled pieces shall be taken apart for the removal of burrs and shavings produced by the operation. The member shall be free from twists, bends and other deformation.

The drifting done during assembling shall be only such as to bring the parts into position and not sufficient to enlarge the holes or distort the metal.

615.5.2-Welded Connections: Surfaces and edges to be welded shall be smooth, uniform, clean and free of defects which would adversely affect the quality of the weld. Edge preparation shall be done in accordance with ANSI/AASHTO/AWS Bridge Welding Code D1.5.

615.5.3-Preassembly of Field Connections:

615.5.3.1-General: Field connections of main members of trusses, arches, continuous beams, plate girders, bents, towers and rigid frames shall be preassembles prior to erection to verify the geometry of the completed structure of unit and to verify or prepare field splices. Attaining accurate geometry is the responsibility of the Contractor and they shall propose and appropriate method of preassembly and submit the plan to the Engineer. The method and details of preassembly shall be consistent with the erection procedure shown on the erection plans and camber diagrams prepared by the Contractor and submitted to the Engineer. Receipt of plans, drawings and calculations does not constitute review or approval or relieve the contractor of their responsibility to satisfactorily design the erection plan. As a minimum, the preassembly procedure shall consist of assembling three contiguous panels accurately adjusted for line and camber.

Successive assemblies shall consist of at least one section or panel of the previous assembly (repositioned if necessary and adequately pinned to assure accurate alignment) plus two or more sections or panels added at the advancing end. In the case of structures longer than 150 feet (45 meters), each assembly shall be not less than 150 feet (45 meters) long regardless of the length of individual continuous panels or sections. At the option of the fabricator, sequence of assembly may start from any location in the structure and proceed in one or both directions so long as the preceding requirements are satisfied.

615.5.3.2-Bolted Connections: For bolted connections, holes shall be prepared as outlined in Section 615.4.8. Where specified by the contract documents, major components shall be assembled with milled ends of compression members in full bearing and then shall have their subsized holes reamed to the specified size while the connections are assembled.

615.5.3.3-Check Assembly-Numerically Controlled Drilling: When the Contractor elects to use numerically controlled drilling, a check assembly shall be required for each major structural type, unless otherwise designated on the plans or in the special provisions, and shall consist of at least three contiguous shop sections or, in a truss, all members in at least three contiguous panels but not less than the number of panels associated with three contiguous chord lengths (i.e., length between field splices). Check assemblies should be based on the proposed order of erection, joints in bearing, special complex points, and similar considerations. Special points could be the portals of skewed trusses, for example. More than one check assembly may be required by the Engineer.

The check assemblies shall include the first sections of each major structural type to be fabricated and additional assemblies as required by the Engineer.

Shop assemblies other than the check assemblies will not be required.

If the check assembly fails in some specific manner to demonstrate that the required accuracy is being obtained, further check assemblies may be required by the Engineer for which there shall be no additional cost to the Division.

615.5.3.4-Field Welded Connections: For field welded connections the fit of members including the proper space between abutting surfaces shall be prepared and verified with the segment preassembled in accordance with Section 615.5.3.1.

615.5.3.5-Assembly Verification: Each assembly, including camber, alignment, accuracy of holes, and fit of milled or field welded joints, shall be approved by the Engineer before reaming or drilling is commenced or before an N/C drilled check assembly or field welded assembly is dismantled.

615.5.4-Match Marking: Connecting parts preassembled in the shop to assure proper fit in the field shall be match-marked, and a diagram showing such marks shall be furnished to the Engineer.

615.5.5-Connections Using Unfinished, Turned or Ribbed Bolts:

615.5.5.1-General: When unfinished bolts are specified, the bolts shall be unfinished, turned, or ribbed bolts, conforming to the requirements of Grade A Bolts of the Specification for Low-Carbon Steel Externally and Internally Threaded Standard Fasteners, ASTM A 307. Bolts shall have single self-locking nuts or double nuts unless otherwise shown on the plans or in the Special Provisions. Beveled washers shall be used where bearing faces have a slope of more than 1:20 with respect to a plane normal to the bolt axis. The requirements of this Section do not pertain to the use of high-strength bolts. Bolted connections using high-strength bolts shall conform to Section 615.5.6.

615.5.5.2-Turned Bolts: The surface of the body of turned bolts shall meet the ANSI roughness rating value of 125. Heads and nuts shall be hexagonal with standard dimensions for bolts of the nominal size specified or the next larger nominal size. Diameter of threads shall be equal to the body of the bolt or the nominal diameter of the bolt specified. Holes for turned bolts shall be carefully reamed with bolts furnished to provide for a tight driving fit. Threads shall be entirely outside of the holes. A washer shall be provided under the nut.

615.5.5.3-Ribbed Bolts: The body of ribbed bolts shall be of an approved form with continuous longitudinal ribs. The diameter of the body measured on a circle through the points of the ribs shall be 5/64 inch (2 mm) greater than the nominal diameter specified for the bolts.

Ribbed bolts shall be furnished with round heads conforming to ANSI B 18.5 unless otherwise specified. Nuts shall be hexagonal, either recessed or with a washer of suitable thickness. Ribbed bolts shall make a driving fit with the holes. The hardness of the ribs shall be such that the ribs do not mash down enough to permit the bolts to turn in the holes during tightening. If for any reason the bolt twists before drawing tight,

the hole shall be carefully reamed and an oversized bolt used as a replacement.

615.5.6-Connections Using High-Strength Bolts:

615.5.6.1-General: This specification covers the assembly of structural connections using high-strength bolts and nuts with hardened washers where initial tension in the bolt produces friction on the contact surfaces of the connected pieces sufficient in magnitude to resist shear.

615.5.6.2-Bolted Parts: Surfaces of bolted parts in contact with the bolt head and nut shall not have a slope of more than 1 to 20 with respect to a plane normal to the bolt axis. Bolted parts shall fit solidly together when assembled and shall not be separated by gaskets or any other interposed compressible material. Holes may be punched, subpunched, reamed or drilled and shall be of nominal diameter not more than 1/16 inch (2 mm) in excess of the nominal bolt diameter.

When assembled, all joint surfaces, including those adjacent to the washers, shall be free of dirt, oil, loose scale, burrs, pits, and other defects that would prevent solid seating of the parts. All bolted surfaces shall be painted in accordance with Section 688.

615.5.6.3-Installation: Fasteners shall be protected from dirt and moisture at the job site. Only the fasteners anticipated to be installed and tightened during a work shift shall be removed from protected storage. Fasteners not used shall be returned to protected storage at the end of the shift. Lot identification of all components shall be maintained at all times. Galvanized and zinc coated nuts shall be checked to verify that a visible lubricant is on the threads and nut faces. Fasteners shall not be cleaned of lubricant that is present in the delivered condition. Where galvanized fasteners must be tensioned by turning the bolt head, a visible lubricant that meets the requirements of AASHTO M 164, shall be applied to the washer that will be placed under the bolt head. The lubricant may be applied to the washer by the manufacturer prior to shipment, by the fabricator at the fabrication shop, or by the erector in the field. Fasteners which have accumulated rust, dirt or have been wet, shall be cleaned and relubricated, prior to installation. Bolt, nut and washer combinations as installed shall be from the same rotational-capacity lot.

A tension measuring device and torque wrench, suitable to the Engineer, shall be provided and maintained by the Contractor at all job sites where high-strength fasteners are being installed. The tension measuring device shall be used to confirm: (1) the suitability to satisfy the requirement of Table 615.5.6.3 A of the completed fastener assembly, including lubricant, to be used in the work, (2) rotational capacity testing requirements, and (3) that the bolting crew understands proper installation procedures. The tension measuring device and torque wrench shall be calibrated by an approved testing agency at least yearly. Documentation of calibration shall be provided to the Engineer.

Immediately prior to installation in the fabrication shop or on the project site, all high-strength fasteners shall be subjected to rotational-capacity testing by the fabricator or the contractor. Testing shall be in accordance with Section 709.24.5 and shall be conducted at a frequency of two assemblies per rotational-capacity lot number as identified on the shipping containers. Test results shall meet the requirements of Section 709.24.5. When fasteners have been cleaned and relubricated, the rotational-capacity testing, on the affected fasteners, shall be reconducted. The Engineer may request additional tests as necessary to provide assurance of product compliance.

Bolts shall be installed with a hardened washer under the nut or bolt head, whichever is the element turned in tightening. A flat washer may be used when the abutting surface adjacent to the bolt head or nut does not have a slope of more than 1 to 20 with respect to a plane normal to the bolt axis, a smooth beveled washer shall be used to compensate for the lack of parallelism.

The threaded end of bolts shall be placed on the inside, where practicable, to protect them from the weather.

All fasteners shall be tightened to give at least the required minimum bolt tension shown in Table 615.5.6.3 A on completion of the joint. Tightening shall be done by the TURN-OF-NUT METHOD.

TABLE 615.5.6.3 A-FASTENER TENSION (ENGLISH)	
Bolt Size (inches)	Required Minimum Fastener Tension (kips)
½	12
5/8	19
¾	28
7/8	39
1	51
1-1/8	56
1¼	71
1-3/8	85
1½	103

TABLE 615.5.6.3 A-FASTENER TENSION (METRIC)	
Bolt Size (mm)	Required Minimum Fastener Tension (kN)
M16	91
M20	142
M22	176
M24	205
M27	276
M30	326
M36	475

Impact wrenches shall be of adequate capacity and sufficiently supplied with air to perform the required tightening in approximately 10 seconds. Tightening may be done by turning the bolt while the nut is prevented from rotating when it is impractical to turn the nut.

A representative sample of not less than three bolt, nut and washer assemblies of each diameter, length, and grade to be used in the work shall be checked at the start of work, by the contractor, in a device capable of indicating bolt tension. The test shall demonstrate that the method for estimating snug tight condition, and controlling the turns from snug tight to be used by the bolting crew will develop a tension at least 5 percent greater than the tension required by Table 615.5.6.3 A. All additional fasteners (bolts, nuts, and washers) necessary for inspection and testing shall be provided by the Contractor as required by Section 105.5.

Bolts shall be installed in all holes of the connection and brought to "snug tight" condition. Snug tight is defined as that tightness which exists when the plies of the joint are in firm contact and a tension is induced in the bolts of approximately 40-50 percent of the required tension specified in Table 615.5.6.3 A.

Snug tightening shall progress systematically from the most rigid part of the connection to the free edge, and then the bolts of the connection shall be again retightened to snug tight in a similar systematic manner until all bolts are simultaneously snug tight and the connection is fully compacted. Following this initial operation, all bolts in the connection shall be tightened further by the applicable amount of rotation in Table 615.5.6.3 B. During the tightening operation, there shall be no rotation of the part not turned by the wrench. Tightening shall progress systematically from the most rigid part of the joint to its free edges.

TABLE 615.5.6.3 B

NUT ROTATION FROM SNUG TIGHT CONDITION [a, b]

	DISPOSITION OF OUTER FACES OF BOLTED PARTS		
Bolt Length in Diameters (measured from underside of head to end of bolt)	Both faces normal to bolt axis	One face normal to bolt axis other face sloped not more than 1:20 (bevel washers not used)	Both faces sloped not more than 1:20 from normal to bolt axis (bevel washers not used)
Up to & including 4	1/3 turn	½ turn	2/3 turn
Over 4 but not exceeding 8	½ turn	2/3 turn	5/6 turn
Over 8 but not exceeding 12[c]	2/3 turn	5/6 turn	1 turn

a. Nut rotation is relative to bolt, regardless of the element (nut or bolt) being turned. For bolts installed by ½ turn and less, the tolerance shall be plus or minus 30 degrees; for bolts installed by 2/3 turn and more, the tolerance shall be plus or minus 45 degrees.

b. Applicable only to connections in which all material within the grip of the bolt is steel.

c. No research or testing has been performed to establish the

TURN-OF-NUT procedure for bolt lengths exceeding 12 diameters. Therefore, the required rotation must be determined by the Contractor by actual test in a suitable tension measuring device which simulates conditions of solidly fitted steel. Testing is subject to approval by the Engineer.

615.5.6.4-Inspection: The Engineer will determine the following requirements are met in the work.

Before the installation of fasteners in the work, the Engineer will check the markings, lot identifications, surface condition and lubrication, storage of all bolts, nuts and washers and the faying surfaces of joints for compliance with requirements of Sections 615.3.2, 615.5.6.2, 615.5.6.3 and 709.24.9. The Engineer will observe calibration and testing procedures required in Section 615.5.6.3 to confirm the procedure is properly used and, when so used with the fastener assemblies supplied, the tensions specified in Table 615.5.6.3 A are provided. The Engineer will observe the installation of fasteners in the work to assure the procedure, as demonstrated in the initial testing to provide specified tension, is routinely properly applied. Bolts installed by the turn-of-nut method may reach tensions substantially above the values given in Table 615.5.6.3 A, but this shall not be cause for rejection.

615.5.7-Welding: Fabrication of welded members, welding, welder qualifications, prequalification of weld details and inspection of welds shall conform to the requirements of the ANSI/AASHTO/AWS Bridge Welding Code D1.5. Ultrasonic testing (UT) may be used for nondestructive testing of butt welded joints in lieu of radiographic testing (RT) at the Contractor's option.

Brackets, clips, shipping devices or other material not required by the plans or Special Provisions shall not be welded or tacked to any member unless shown on the shop drawings and approved by the Engineer.

All of the above requirements apply equally to both shop and field welding operations.

615.6-ERECTION:

615.6.1-General: The Contractor shall provide all tools, machinery, and equipment necessary to erect the structure. The Contractor shall submit to the Engineer, plans for falsework or for changes in the existing structure necessary for maintaining traffic prior to commencing work. The falsework shall be properly designed and substantially constructed and maintained for the loads which will come upon it(see 615.2.2). Submission of the Contractor's plans shall not be considered as relieving the Contractor of any responsibility. In addition to the above, the Contractor's West Virginia Registered Professional Engineer shall certify to the Engineer that the falsework system has been assembled according to the falsework drawings, prior to placing loads on the falsework.

615.6.2-Handling and Storing Materials: Material to be stored at the job site shall be placed on skids above the ground. It shall be kept clean and properly drained. Girders and beams shall be placed upright and shored. Long members, such as columns and chords, shall be supported on skids placed near enough together to prevent damage from deflection. If the contract is for erection only, the Contractor shall check the material against the shipping lists and report promptly in writing any shortage or damaged discovered. The Contractor shall be responsible for the loss of any material while in their care, or for any damage caused to it after being received by the Contractor.

615.6.3-Bearings and Anchorage's: Masonry bearing plates shall not be placed upon bridge-seat bearings which are improperly finished, deformed, or irregular. Bearing plates shall be set level in exact position and shall have a full and even bearing upon the masonry. Preformed fabric pads, of the thickness shown on the Plans, shall be placed between the bearings and the masonry. The preformed fabric pads or other material when specified, shall be included in the price bid for structural steel.

The Contractor shall drill the holes and set the anchor bolts, except where the bolts are built into the masonry. The bolts shall be set accurately and fixed with Portland cement grout completely filling the holes. The location of anchor bolts in relation to the slotted holes in the expansion shoes shall correspond with the temperature at the time of erection. The nuts or anchor bolts at the expansion ends of spans shall be adjusted to permit the free movement of the span.

615.6.4-Erection Procedure:

615.6.4.1-Conformance to Drawings: The erection procedure shall conform to the erection drawings submitted in accordance with Section 615.2.2. Any modifications to or deviations from this erection procedure shall require revised drawings and verification of stresses and geometry by the Contractor's registered West Virginia Professional Engineer. The proposed revisions shall be approved by a West Virginia Registered Professional Engineer.

615.6.4.2-Erection Stresses: Any erection stresses that are induced in the structure as a result of the use of a method of erection or equipment which differs from that shown on the plans or specified, and which will remain in the finished structure as locked-in stresses shall be accounted for by the Contractor. The Contractor may provide additional material at their expense to keep both temporary and final stresses within the allowable limits used in design.

The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

615.6.4.3-Maintaining Alignment and Camber: During erection the Contractor will be responsible for supporting segments of the structure in

a manner that will produce the proper alignment and camber in the completed structure. Cross frames and diagonal bracing shall be installed as necessary during the erection process to provide stability and assure correct geometry. Temporary bracing, if necessary at any stage of erection, shall be provided by the Contractor.

615.6.5-Field Assembly: The parts shall be accurately assembled as shown on the plans or erection drawings, and any match-marks shall be followed. The material shall be carefully handled so that no parts will be bent, broken, or otherwise damaged. Hammering which will damage or distort the members shall not be done. Bearing surfaces and surfaces to be in permanent contact shall be cleaned before the members are assembled. Splices and field connections shall have all holes filled with high strength bolts before snug tightening begins. Snug tightening and final tightening shall be in accordance with Section 615.5.6.3.

Fitting-up bolts may be the same high-strength bolts used in the installation provided all requirements of Section 615.5.6 are strictly adhered to. If other fitting-up bolts are used they shall be of the same nominal diameter as the high-strength bolts, and cylindrical erection pins shall be 1/32 inch (1 mm) larger.

615.6.6-Pin Connections: Pilot and driving nuts shall be used in driving pins. They shall be furnished by the Contractor without charge. Pins shall be so driven that the members will take full bearing. Pin nuts shall be screwed up tight and the threads burred at the face of the nut with a pointed tool.

615.6.7-Misfits: The correction of minor misfits involving minor amounts of reaming will be considered a legitimate part of the erection. However, any error in the shop fabrication or deformation resulting from handling and transporting will be cause for rejection.

The Contractor shall be responsible for all misfits, errors, and damage and shall make the necessary corrections and replacements. The Engineer's approval shall be obtained by the Contractor before any reaming of holes or other corrections are undertaken.

615.6.8-Removal of Falsework and Cleaning Up of Site: Upon completion of the erection and before final acceptance, the Contractor shall remove all falsework, excavated or useless materials, rubbish, and temporary buildings, shall restore, in an acceptable manner, all property which may have been damaged during the prosecution of the work, and shall leave the structure site and adjacent highway in a neat and presentable condition, satisfactory to the Engineer. All falsework or other obstructions placed in stream beds shall be removed by the Contractor.

615.7-MEASUREMENT AND PAYMENT:

615.7.1-General: Structural steel will be measured on a lump sum basis or on a pound (kilogram) basis, as required by the terms of the Contract, but it will be on a lump sum basis unless stipulated otherwise on the Plans.

Under contracts containing an item for structural steel, all metal parts, other than metal reinforcement for concrete, such as anchor bolts, nuts, shoes, rockers, rollers, bearing, and slab plate, pins and nuts, bolts embedded in concrete cradles and brackets, railing and railing posts, waterstops, preformed fabric or other type of bearing pads, and roadway drainage system when this material is connected to the metal work, will be paid for as structural steel unless otherwise noted, stipulated, or listed as separate pay items.

Steel grid flooring will be measured and paid for as structural steel only if noted on the Plans.

615.7.2-Lump Sum Contracts: In the case of a lump sum bid, it shall be the Contractor's responsibility to determine the weight on which he bases his bid, for the weight of structural steel shown on the Plans is approximate only. In the event of discrepancy between the Plan weight and the actual weight, no increase or decrease in the Contract lump sum price bid for the item will be made on account of such discrepancy.

615.7.3-Pound Price Contracts:

615.7.3.1-General: The payment in pound-price contracts will be based on the computed net weight of metal in the fabricated and erected structures, or on certified scale weights when so specified on the Plans. The weight of temporary erection bolts, drift pins, shop and field paint, boxes, crates and other containers used for shipping, and materials used for supporting members during transportation and erection will not be included.

615.7.3.2-Computed Weights Net: The weight of the metal work to be paid for under the Contract for structural steel will be computed on the following basis:

	Unit Weights Per Cubic Foot	Unit Kg Per Cubic Meter
Aluminum cast or wrought	173.0	2772
Bronze, cast	536.0	8586
Copper-alloy	536.0	8586
Copper sheet	558.0	8938
Iron, cast	445.0	7128
Iron, malleable	470.0	7529
Iron, wrought	487.0	7801
Lead, sheet	707.0	11 325
Steel: rolled, cast, copper bearing, silicon, nickel and stainless	490.0	7849
Zinc	450.0	7208

i. The weights of rolled shapes will be computed on the basis of

their nominal weights per foot (meter) as shown on the drawings or listed in the handbooks. The weights of plates will be computed on the basis of the nominal weight of the width and thickness as shown on the drawings, plus an estimated overrun computed as one-half of the "Permissible Variation in Thickness and Weight" as tabulated in AASHTO M160.

ii. The weights of castings will be computed from the dimensions shown on the approved shop drawings, deducting for open holes. To this weight will be added five percent allowance for fillets and overrun. Scale weights may be substituted for computed weights in the case of castings or of small complex parts for which accurate computations of weight would be difficult.

iii. For members comprising both carbon steel and other special steel or material, when separate unit prices are provided for such members, the weight of each class of steel in each such member will be separately computed and paid for at the Contract unit price.

iv. In computing pay weight on the basis of computed net weight, the following additional stipulations will apply:

The weight of all high-strength bolt heads, nuts, single washers and thread stick-throughs, both field and shop, will be included on the basis of Table 615.7.3.2.

TABLE 615.7.3.2 (ENGLISH)	
Nominal Diameter of High-Strength Bolt in Inches	Weight Per 100 Units In Lb Bolt Head, Nut, One Washer and Stick-Through
½	22
1/8	33
¾	55
7/8	84
1	120
1-1/8	169
1¼	216

TABLE 615.7.3.2 (METRIC)	
Nominal Diameter of High-Strength Bolt in Millimeters	Weight Per 100 Units in kg Bolt Head, Nut, One Washer and Stick-Through
M16	15.1
M20	26.2
M22	37.7
M24	51.4
M27	72.4
M30	92.6

The weight of weld metal will be computed on the basis of the theoretical volume from dimensions of the welds.

615.8-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 material and doing all the work herein prescribed in a workmanlike and acceptable manner including all labor, tools, equipment, supplies, falsework, painting, and incidentals necessary to complete the work.

615.9-PAY ITEMS:

ITEM	DESCRIPTION	UNIT
615001-*	Steel Superstructure	Lump Sum
615002-*	Prefabricated Steel Bridge Superstructure	Lump Sum
615003-*	Fabricated Structural Steel	Lump Sum
615004-*	Fabricated Structural Steel	Pound (Kilogram)

* Sequence number

The quantity of piles will be measured in linear feet (meters) of piles installed and accepted for the wall.

The quantity of lagging will be measured in square feet (meters) installed and accepted as measured by the total area of wall as measured through all wall elements, without deductions for gaps between lagging, piles, etc.

SECTION 615
STEEL STRUCTURES

615.3-MATERIALS:

615.3.2-High-Strength Fasteners:

DELETE PARAGRAPH ONE AND REPLACE WITH THE FOLLOWING:

Bolts, nuts, and washers shall conform to Section 709.24 and shall be mechanically galvanized in accordance with ASTM B695. Hot-dip galvanizing or coating with a zinc rich primer may be used only when specified by the Contract documents.

INSERT THE FOLLOWING SUBSECTION:

615.3.2.1-Weathering Steel Bridges: High strength fasteners shall meet Section 709.24 and shall be Type 3 (weathering steel), per ASTM A325. High strength fasteners used in regions of the structure that require painting shall be Type 1 or 3, per ASTM A325, and mechanically galvanized in accordance with ASTM B695.

615.3.7-Coating of Anchor Bolts, Nuts and Washers:

DELETE PARAGRAPH ONE AND REPLACE WITH THE FOLLOWING:

All anchor bolts, nuts and washers shall be hot dip galvanized in accordance with AASHTO M232 after fabrication.

615.4-FABRICATION:

REPLACE THE FOLLOWING SUBSECTION:

615.4.2-Storage of Materials: Steel members must not be gouged, scratched, dented, or allowed to rub against other members that would result in damage to the steel member or coating. Members shall be handled using softeners and slings instead of chokers and chains.

Store members in the fabrication shop and on the project site in such a manner as to be kept free and clean of all foreign substances such as grease, oil, mortar and concrete splatter , chalk and crayon marks, paint, and dirt. All storage must be above ground and sloped to allow free drainage of melted snow, rainwater, and dew. If the members are stored for periods longer than three months, the members must be placed on metal supports. For a period of storage up to three months, members may be placed on clean, untreated wood timbers. Do not allow treated lumber or treated timber to contact steel members.

Store plate girders and rolled beams with the web in the upright position. The members may be stacked on metal or wood supports provided, as noted above; individual members must be kept separate. Under no circumstances shall members be nested together or bundled.

615.5-ASSEMBLY:

615.5.7-Welding:

INSERT THE FOLLOWING AS PARAGRAPHS TWO AND THREE:

No field welding is permitted unless shown on the plans or approved by the Engineer.

Exercise caution while making field or shop welds while an elastomeric bearing pad is in contact with the steel. In no case shall the elastomer or elastomer band be exposed to instantaneous temperatures greater than 400 degrees F. Any damage to the elastomeric bearing due to welding will be cause for rejection. The temperature shall be monitored by heat crayons furnished by the Contractor.

615.6-ERECTION:

INSERT THE FOLLOWING SECTION:

615.6.9-Final Cleaning Of Weathering Steel Bridges: Upon completion of all concrete curing operations, the contractor shall clean all steel surfaces to remove all grease, oil, concrete residue, dirt, and other foreign substances to the satisfaction of the Engineer.

Cleaning may be by high pressure water, powered or hand wire brushing, or by Brush off Blast Cleaning according to SSPC-SP 7. Cleaning shall be followed by a clean water rinse to remove all residues of detergents and cleaners if they were used. All grease and oil shall be removed prior to the clean water rinse by solvent cleaning.
Do not use acids to remove stains.

Areas of the shop applied paint system which are damaged during erection and high strength bolted connection areas that were only prime

State of West Virginia
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: JANATT, Inc **Signed:** James C. Mattingly

Date: 03/28/2014 **Title:** PRESIDENT

RFQ No. 08140161

STATE 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 exceed 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: JAMATT, INC.

Authorized Signature: [signature] Date: 03/31/2014

State of WEST VIRGINIA

County of TAYLOR, to-wit:

Taken, subscribed, and sworn to before me this 31st day of MARCH, 2014.

My Commission expires NOVEMBER 29, 2020.

AFFIX SEAL HERE

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
JENEANE B. MATTINGLY
91 CLEMANS ROAD
FLEMINGTON, WV 26347
My Commission Expires November 29, 2020

NOTARY PUBLIC Jeneane B. Mattingly

NOTE:
Vendor and Notary's date must be the same.
Notary required to AFFIX SEAL on Purchasing Affidavit.