

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

15234

412-437-1105

Solicitation

NUMBER 04130825 PAGE 1

ADDRESS CORRESPONDENCE TO ATTENTION OF:

LAN CUMMINGS 304-558-2402

DIVISION OF HIGHWAYS DISTRICT FOUR I-79 EXIT 121

P MEADOWBROOK ROAD BRIDGEPORT, WV

26330

304-842-1500

VEZDOR

DATE PRINTED 09/09/2013

\*709005300

PITTSBURGH PA

SKYLINE STEEL CORPORATION

300 MT LEBANON BLVD #2211

| BID OPENING DAT | E: 10/02/2                               | 2013                     |                          | BID  | OPENING TIME 1:3                 | 3 O P M      |
|-----------------|--|--------------------------|--------------------------|--|----------------------------------|--------------|
| LINE            | QUANTITY                                 | UOP                      | CAT.<br>NO.              | ITEM NUMBER  | UNIT PRICE                       | AMOUNT       |
| 001             | 588,000<br>HP 10 X 42 PT<br>359 PCS @ 40 |                          | !                        | 570-56   | #.3630/LB                        | #213, 444.60 |
| 002             | 72,000<br>HP 8 X 36 PII<br>50pcs @ 40'   | LB<br>LING               |                          | 570-56<br>-  | # .3630/LB                       | #26,136.00   |
| 003             | 6,800<br>HP FLAT 1/2"<br>25pcs @ 20'     | .B<br>X 8"               |                          | 570-56<br>ВАК Н  | # .5140/LB                       | #3,495.20    |
|                 |  |                          |                          | FOR QUOTATION<br>IME PURCHASE)                                     |                                  |              |
|                 | AGENCY, THE V<br>SOLICITING B            | VEST V<br>DS TO<br>STEEL | /IRGII                   | E PURCHASING DIVINA DIVISION OF INVIDE THE AGENCY NO PER THE ATTAC | IGHWAYS, IS<br>WITH THE ONE-TIME |              |
|                 | 09/25/13 09:<br>West Virgini             | 31:35 A<br>a Purch       | M<br>asin <del>g</del> L | )ivision   |                                  |              |

4/2-417-1105 1/24/13 TITLE ADDRESS CHANGES TO BE NOTED ABOVE 222198913 District Sales



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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

SKYLINE STEEL CORPORATION

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NUMBER 04130825 PAGE 2

ADDRESS CORRESPONDENCE TO ATTENTION OF:

ALAN CUMMINGS 04-558-2402

DIVISION OF HIGHWAYS DISTRICT FOUR I-79 EXIT 121 MEADOWBROOK ROAD BRIDGEPORT, WV

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| BID OPENING DATE:  | 10/02     | /2013           |                  | PENING TIME 1:3 | BOPM              |
|--------------------|-----------|-----------------|------------------|-----------------|-------------------|
| LINE               | QUANTITY  | UOP CAT.<br>NO. | ITEM NUMBER      | UNIT PRICE      | AMOUNT            |
| ,                  | ***** THI | S IS THE EN     | ND OF RFQ 041308 | 25 ***** TOTAL: | # 243, 075.20     |
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| SIGNATURE<br>TITLE |           | FEIN            | TELEPHONE        | ADDRESS CHANGES | TO BE NOTED ABOVE |
|                    |           |                 |                  | ADDRESS CHANGES | TO DE NOTED ABOVE |

## 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.

| PREI | PREBID MEETING: The item identified below shall apply to this Solicitation.   |  |  |  |  |
|------|---|--|--|--|--|
| V    | 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

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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: 09/25/2013

Submit Questions to:

Alan Cummings

2019 Washington Street, East

Charleston, WV 25305 Fax: 304-558-3970

Email: Alan.W.Cummings@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 bid delivery address is:

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

| The bid should contain the information list considered:                                   | ed below on the face of the envelope or the bid may not be  |  |
|---|---|--|
| SEALED BID  |   |  |
| BUYER:  |   |  |
| SOLICITATION NO.:   |   |  |
| BID OPENING I   | DATE:   |  |
| BID OPENING TIME:   |   |  |
| FAX NUMBER:   |   |  |
| technical and one original cost proposal plu<br>Division at the address shown above. Addi | request for proposal, the Vendor shall submit one original as n/a convenience copies of each to the Purchasing tionally, the Vendor should identify the bid type as either a ch bid envelope submitted in response to a request for |  |
| BID TYPE:   | Technical Cost  |  |
| identified below on the date and time listed  | esponse to this Solicitation will be opened at the location dibelow. Delivery of a bid after the bid opening date and time rposes of this Solicitation, a bid is considered delivered when ision time clock.                        |  |
| Bid Opening Date and Time:  | 10/2/2013 - 1:30 P.M.   |  |
| Bid Opening Location:   | Department of Administration, Purchasing Division<br>2019 Washington Street East<br>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.

7.

# **GENERAL TERMS AND CONDITIONS:**

- 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. |   | TRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in dance 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.  |

|    | <b>\</b> | 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. | receiv   | ICE TO PROCEED: Vendor shall begin performance of this Contract immediately upon ving notice to proceed unless otherwise instructed by the Agency. Unless otherwise specified, the executed Purchase Order will be considered notice to proceed  |
| 5. |          | NTITIES: The quantities required under this Contract shall be determined in accordance with tegory 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.  |
|    | <b>√</b> | 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.   |
| certificor irre<br>same :<br>labor/1 | of the Bid Bond, Performance Bond, and Labor/Material Payment Bond, the Vendor may provide ed checks, cashier's checks, or irrevocable letters of credit. Any certified check, cashier's check vocable letter of credit provided in lieu of a bond must be of the same amount and delivered on the schedule as the bond it replaces.  A letter of credit submitted in lieu of a performance and material payment bond will only be allowed for projects under \$100,000. Personal or business 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.  |
|                                      | <b>INSURANCE:</b> 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.   |
|                                      |   |
|                                      |   |
|                                      |   |
|                                      |   |
|                                      |   |

| 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   |

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 .5% of the release amount for delivery delays beyond 90 working days. This amount shall be assessed daily.

  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 88 21-5A-1 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 <a href="http://www.state.wv.us/admin/purchase/privacy/default.html">http://www.state.wv.us/admin/purchase/privacy/default.html</a>.
- 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 nondiclosure 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.
- 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

50. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following

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 Revised 08/21/2013

email at purchasing.requisitions@wv.gov.

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.

| Skyline Steel, LLC (Company)   |
|--|
| Michael P. Romanton  |
| (Authorized Signature)   |
| Michael Renningen, District Jales Manager (Representative Name, Title) |
| 412-437-1105 412-561-5936  |
| (Phone Number) (Fax Number)  |
| 9/24/13  |
| (Date)   |

# ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: 04130825

**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.

| 7/27/28 953 85 555               | Numbers Received:  ox next to each addendum received.             | ived)                 |  |
|----------------------------------|---|-----------------------|--|
|                                  | 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  |
| further unders<br>discussion hel | stand that any verbal representa<br>d between Vendor's representa | tion mad<br>tives and | enda may be cause for rejection of this bid. I<br>e or assumed to be made during any oral<br>l any state personnel is not binding. Only the<br>cations by an official addendum is binding. |
|                                  |   |                       | Skyline Steel LLC  |
|                                  |   |                       | Company  |
|                                  |   |                       | Mulal P. Renninga  |
|                                  |   |                       | Authorized Signature   |
|                                  |   |                       | 9/24/13  |
|                                  |   |                       | 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 STEEL.
- 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 piling steel various sizes.
  - 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 04-13-0825.

# 3. GENERAL REQUIREMENTS:

- 3.1 Mandatory Contract Item Requirements: Contract Item must meet or exceed the mandatory requirements listed below.
  - 3.1.1 HP10x42 piling
    - 3.1.1.1 HP10x42 piling must be at 40'-0" each.
  - 3.1.2 HP 8x36 steel
    - 3.1.2.1 HP 8x36 steel must be at 40'-0" each.
  - 3.1.3 Bar-H, Flat 1/2"x8"x20"

3.1.4 Items on this contract shall meet all requirements on the West Virginia Division of Highways, Standard Specifications for Road and Bridges adopted 2010 and supplemental specifications dated 2012. See Section 709.12. These specifications are available on the following website...

www.transportation.wv.gov/highways/engineering/pages/publications.aspx

3.1.5 Structural Steel must be AASHTO M270 Grade 50 (American Association of State Highway Transportation Officials) Exhibit B.

Structural Steel must be ASTM A709 Grade 50 (American Society of Testing Materials).

http://www.astm.org/Standards/A709.htm

#### 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 entering a unit price and extended amount for each item as well as a grand total. Vendor is not to modify any aspect of the quantity or description on the bid evaluation page. 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.

# 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 90 working days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at West Virginia Division of Highways, District Four lot, located off of Exit 121 on I-79, Clarksburg, WV 26302. Vendor to notify District Four Heavy Maintenance 24-hours prior to delivery at 304-842-1612.
- 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

# REQUEST FOR QUOTATION 04-13-0825 STEEL

be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

# Pricing Page (Exhibit A) RFQ#: 04-13-0825

| Item<br>Number | Quantity | Unit of<br>Measure | Description  | Unit Price | <b>Extended Amount</b> |
|----------------|----------|--------------------|--|------------|------------------------|
| 1              | 588,000  | pounds             | 350 Each of HP10x42 Steel<br>Piling in 40' lengths | .3630      | 213, 444.00            |
| 2              | 72,000   | pounds             | 50 Each of HP 8x36 Steel<br>Piling in 40' Lengths  | . 3670     | 26,136.00              |
| 3              | 6,800    | pounds             | 25 Each of HP 1/2"x8"x20' Bar-<br>H                | -5140      | 7,495.20               |
|                |          |                    |  |            |                        |
|                |          |                    |  |            |                        |
| Grand Tot      | al       |                    |  |            | \$ 243,675-2           |

#### 709.8-HIGH STRENGTH LOW ALLOY STRUCTURAL METAL:

High-strength structural steel for bridges shall conform to AASHTO M270, grades 50, 50W, or HPS 70W. High-strength steel for all other applications shall conform to AASHTO M222 (weathering) or AASHTO M223.

#### 709.9-BLANK

# 709.10-GRAY IRON, MALLEABLE IRON AND DUCTILE IRON CASTINGS:

Gray iron castings shall conform to the requirements of AASHTO M 105, Class No. 30.

Malleable iron castings shall conform to the requirements of ASTM A 47, Grade 32510. Castings shall be boldly filleted at angles, and the arrises shall be sharp and perfect.

Malleable iron castings for railings posts shall be Grade No. 32510 and shall be galvanized with hot-dipped zinc coating in accordance with AASHTO M 232.

Ductile iron castings shall conform to the requirements of ASTM A-536, Grade 80-55-6, 65-45-12 or 60-40-18.

The dimension tolerance for gray iron castings is  $\pm 1/16$  inch per foot (5.2 mm per meter) and the weight tolerance is  $\pm 5\%$ .

All castings shall contain a manufacturer's heat number, lot number, or cast date. This identification shall be cast into the material at the time of manufacturer.

#### 709.11-BLANK

#### 709.12-STRUCTURAL AND EYEBAR STEEL:

All structural steel for bridges shall conform to the applicable grade of AASHTO M270 that is specified in the Plans. When no specific grade is called for, AASHTO M270, Grade 36 shall be used. Non-designated structural steel in all other sections of the Specifications shall conform to ASTM A36.

#### 709.13-STEEL FORGINGS AND STEEL SHAFTING:

709.13.1-Steel Forgings: Steel forgings shall conform to AASHTO M 102, Class E. They shall be bored as specified in 615.4.9.2. A record of the annealing or normalizing changes shall be furnished showing the forgings in such charge, the melt or melts from which they were secured and the treatment they received.

709.13.2-Steel Shafting: Cold finished carbon steel shafting shall conform to AASHTO M169 Grades 1016 through 1030, inclusive, unless otherwise specified.

#### 709.14-STEEL CASTINGS:

Steel castings shall conform to the requirements of AASHTO M 103, except steel produced by the converter process shall not be used. All steel castings shall be grade 65-35 (450-240). Sharp unfilleted angles or corners shall not be permitted.



Designation: A709/A709M - 13

# Standard Specification for Structural Steel for Bridges<sup>1</sup>

This standard is issued under the fixed designation A709/A709M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (e) indicates an editorial change since the last revision or reapproval.

#### 1. Scope\*

1.1 This specification covers carbon and high-strength lowalloy steel structural shapes, plates, and bars and quenched and tempered alloy steel for structural plates intended for use in bridges. Seven grades are available in four yield strength levels as follows:

| Grade U.S. [SI]     | Yield Strength, ksi [MPa] |  |  |
|---------------------|---------------------------|--|--|
| 36 (250)            | 36 (250)                  |  |  |
| 50 (345)            | 50 (345)                  |  |  |
| 50S [345S]          | 50 (345)                  |  |  |
| 50W (345W)          | 50 (345)                  |  |  |
| HPS 50W [HPS 345W]  | 50 (345)                  |  |  |
| HPS 70W [HPS 485W]  | 70 (485)                  |  |  |
| HPS 100W [HPS 690W] | 100 [690]                 |  |  |

- 1.1.1 Grades 36 [250], 50 [345], 50S [345S], and 50W [345W] are also included in Specifications A36/A36M, A572/A572M, A992/A992M, and A588/A588M, respectively. When the requirements of Table 8 or Table 9 or the supplementary requirements of this specification are specified, they exceed the requirements of Specifications A36/A36M, A572/A572M, A992/A992M, and A588/A588M.
- 1.1.2 Grades 50W [345W], HPS 50W [HPS 345W], HPS 70W [HPS 485W], and HPS 100W [HPS 690W] have enhanced atmospheric corrosion resistance (see 13.1.2). Product availability is shown in Table 1.
- 1.2 Grade HPS 70W [HPS 485W] or HPS 100W [HPS 690W] shall not be substituted for Grades 36 [250], 50 [345], 50S [345S], 50W [345W], or HPS 50W [HPS 345W]. Grade 50W [345W], or HPS 50W [HPS 345W] shall not be substituted for Grades 36 [250], 50 [345] or 50S [345S] without agreement between the purchaser and the supplier.
- 1.3 When the steel is to be welded, it is presupposed that a welding procedure suitable for the grade of steel and intended use or service will be utilized. See Appendix X3 of Specification A6/A6M for information on weldability.
- 1.4 For structural products to be used as tension components requiring notch toughness testing, standardized requirements are provided in this standard, and they are based upon

American Association of State Highway and Transportation Officials (AASHTO) requirements for both fracture critical and non-fracture critical members.

- 1.5 Supplementary requirements are available but shall apply only if specified in the purchase order.
- 1.6 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.
- 1.7 For structural products produced from coil and furnished without heat treatment or with stress relieving only, the additional requirements, including additional testing requirements and the reporting of additional test results, of Specification A6/A6M apply.

#### 2. Referenced Documents

2.1 ASTM Standards:2

A6/A6M Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling

A36/A36M Specification for Carbon Structural Steel

A370 Test Methods and Definitions for Mechanical Testing of Steel Products

A572/A572M Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel

A588/A588M Specification for High-Strength Low-Alloy Structural Steel, up to 50 ksi [345 MPa] Minimum Yield Point, with Atmospheric Corrosion Resistance

A673/A673M Specification for Sampling Procedure for Impact Testing of Structural Steel

A992/A992M Specification for Structural Steel Shapes

G101 Guide for Estimating the Atmospheric Corrosion Resistance of Low-Alloy Steels

#### 3. Terminology

3.1 Definitions of Terms Specific to This Standard:

<sup>&</sup>lt;sup>1</sup> This specification is under the jurisdiction of ASTM Committee A01 on Steel. Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.02 on Structural Steel for Bridges, Buildings, Rolling Stock and Ships.

Current edition approved May 1, 2013. Published May 2013. Originally approved in 1974. Last previous edition approved in 2011 as A709/A709M - 11. DOI: 10.1520/A0709\_A0709M-13.

<sup>&</sup>lt;sup>2</sup> For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

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#### TABLE 1 Tensile and Hardness Requirements<sup>4</sup>

Note 1-Where "..." appears in this table, there is no requirement.

|   |  |                               | Yield Point                            |                           |                       | Minimum E            | longation, %          |                      |                               |
|---|--|-------------------------------|--|---------------------------|-----------------------|----------------------|-----------------------|----------------------|-------------------------------|
| Grade .                                 | Dista Thiskness                                | Structural Shape Flange       |  | Plates and Bars C.E       |                       | Shapes <sup>®</sup>  |                       | Reduc-<br>tion of    |                               |
|   | Plate Thickness,<br>in. (mm)                   | or Leg<br>Thickness, in. [mm] | Strength, <sup>8</sup><br>ksi<br>[MPa] | Strength,<br>ksi [MPa]    | 8 in.<br>or 200<br>mm | 2 in.<br>or 50<br>mm | 8 in.<br>or 200<br>mm | 2 in.<br>or 50<br>mm | Area <sup>C,O</sup><br>min, % |
| 36 [250]                                | to 4 [100], incl                               | to 3 in. [75 mm], incl        | 36 [250] min                           | 58-80 [400-550]           | 20                    | 23                   | 20                    | 21                   |                               |
|   |  | over 3 in. [75 mm]            | 36 [250] min                           | 58 [400] min              |                       |                      | 20                    | 19                   |                               |
| 50 [345]                                | to 4 (100), incl                               | all                           | 50 (345) min                           | 65 [450] min              | 18                    | 21                   | 18                    | 21                   |                               |
| 50\$ (345\$)                            | G "  | ali                           | 50-65<br>[345-450] <sup>HI</sup>       | 65 (450) <sup>™</sup> min |                       |                      | 18                    | 21                   |                               |
| 50W (345W) and<br>HPS 50W<br>(HPS 345W) | to 4 (100), incl                               | ali                           | 50 [345] min                           | 70 (485) min              | 18                    | 21                   | 18                    | 21,7                 |                               |
| HPS 70W<br>[HPS 485 W]                  | to 4 [100], incl                               | G                             | 70 (485) min <sup>®</sup>              | 85-110 [585-760]          |                       | 19 <sup>K</sup>      |                       |                      |                               |
| HPS 100W                                | to 21/2 (65), incl                             | G                             | 100 [690] min <sup>s</sup>             | 110-130 [760-895]         |                       | 18 <sup>K</sup>      |                       |                      | ι                             |
| [                                       | over 2½ to 4<br>[65 to 100], incl <sup>M</sup> | . в                           | 90 (620) min <sup>8</sup>              | 100-130 [690-895]         |                       | 16 <sup>K</sup>      |                       |                      | L                             |

See specimen orientation and preparation subsection in the Tension Tests section of Specification A6/A6M.

#### TABLE 2 Grade 36 [250] Chemical Requirements (Heat Analysis)

Note I—Where "..." appears in this table there is no requirement. The heat analysis for manganese shall be determined and reported as described in the Heat Analysis section of Specification A6/A6M.

|  |                            | Plates <sup>8</sup> |                                     |                                | Bars*                                |                       |                                     |                              |
|--|----------------------------|---------------------|-------------------------------------|--------------------------------|--------------------------------------|-----------------------|-------------------------------------|------------------------------|
| Product<br>Thickness,<br>in. (mm)            | Shapes <sup>A</sup><br>All | To ¾<br>[20], incl  | Over ¾<br>to 1½ (20 to 40),<br>incl | Over 1½ to 2½ [40 to 65], incl | Over 2½ to 4<br>(65 to 100),<br>incl | To ¾<br>(20),<br>incl | Over ¾ to<br>1½ [20 to<br>40], incl | Over 11/2 to<br>4 [100], inc |
| Carbon, max, %                               | 0.26                       | 0.25                | 0.25                                | 0.26                           | 0.27                                 | 0.26                  | 0.27                                | 0.28                         |
| Manganese, %                                 |                            | •••                 | 0.80-1.20                           | 0.80-1.20                      | 0.85-1.20                            | ***                   | 0.60-0.90                           | 0.60-0.90                    |
| Phosphorus, max, %                           | 0.04                       | 0.04                | 0.04                                | 0.04                           | 0.04                                 | 0.04                  | 0.04                                | 0.04                         |
| Sulfur, max, %                               | 0.05                       | 0.05                | 0.05                                | 0.05                           | 0.05                                 | 0.05                  | 0.05                                | 0.05                         |
| Silicon, %                                   | 0.40 max                   | 0.40 max            | 0.40 max                            | 0.15-0.40                      | 0.15-0.40                            | 0.40 max              | 0.40 max                            | 0.40 max                     |
| Copper, min, % when copper steel is specific | 0.20<br>ed                 | 0.20                | 0.20                                | 0.20                           | 0.20                                 | 0.20                  | 0.20                                | 0.20                         |

Amanganese content of 0.85 to 1.35 % and silicon content of 0.15 to 0.40 % is required for shapes with flange thickness over 3 in. [75 mm].

- 3.1.1 fracture critical member—a main load-carrying tension member or tension component of a bending member whose failure would be expected to cause collapse of a structure or bridge without multiple, redundant load paths.
- 3.1.2 main load-carrying member—a steel member designed to carry primary design loads, including dead, live, impact, and other loads.
- 3.1.3 non-fracture critical member—a main load-carrying member whose failure would not be expected to cause collapse of a structure or bridge with multiple, redundant load paths.
- 3.1.4 non-tension component—a steel member that is not in tension under any design loading.
- 3.1.5 secondary member—a steel member used for aligning and bracing of main load-carrying members, or for attaching

<sup>&</sup>lt;sup>b</sup> Measured at 0.2 % offset or 0.5 % extension under load as described in Section 13 of Test Methods A370.

<sup>&</sup>lt;sup>C</sup> Elongation and reduction of area not required to be determined for floor plates.

P For plates wider than 24 in. [600 mm], the reduction of area requirement, where applicable, is reduced by five percentage points.

For plates wider than 24 in. [600 mm], the etongation requirement is reduced by two percentage points. See elongation requirement adjustments in the Tension Tests section of Specification A6/A6M.

F Elongation in 2 in. or 50 mm: 19 % for shapes with flange thickness over 3 in. [75 mm].

<sup>&</sup>lt;sup>G</sup> Not applicable.

<sup>&</sup>quot;The yield to tensile ratio shall be 0.87 or less for shapes that are tested from the web location; for all other shapes, the requirement is 0.85.

A maximum yield strength of 70 ksi [480 MPa] is permitted for structural shapes that are required to be tested from the web location.

For wide flange shapes with flange thickness over 3 in. [75 mm], elongation in 2 in. or 50 mm of 18 % minimum applies.

K if measured on the Fig. 3 (Test Methods A370) 11/2-in. [40-mm] wide specimen, the elongation is determined in a 2-in. or 50-mm gage length that includes the fracture and shows the greatest elongation.

and shows the greatest elongation.

40 % minimum applies if measured on the Fig 3 (Test Methods A370) 1½-in. (40-mm) wide specimen; 50 % minimum applies if measured on the Fig. 4 (Test Methods A370) ½-in. (12.5-mm) round specimen.

Mot applicable to Fracture Critical Tension Components (see Table 9).

For each reduction of 0.01 % below the specified carbon maximum, an Increase of 0.06 % manganese above the specified maximum will be permitted up to a maximum of 1.35 %.

## TABLE 3 Grade 50 [345] Chemical Requirements<sup>4</sup> (Heat Analysis)

| Manimum   |                   |                       |                       |                   |   | Silicon <sup>C</sup>  | Columbium,<br>Vanadium<br>and Nitrogen |
|---|-------------------|-----------------------|-----------------------|-------------------|---|---|--|
| Maximum Diameter, Thickness, or Distance Between Parallel Faces, In. [mm] | Carbon,<br>mex, % | Manganese, 5 . max, % | Phosphorus,<br>max, % | Sulfur,<br>max, % | Plates to 11/2-In. [40-mm] Thick, Shapes with flange or leg thickness to 3 in. [75 mm] inclusive, Sheet Piling, Bars, Zees, and Rolled Tees, max, % | Plates Over 11/2-in. [40-mm] Thick and Shapes with flange thickness over 3 in. [75 mm], % | and two gen                            |
| 4 [100]   | 0.23              | 1.35                  | 0.04                  | 0.05              | 0.40  | 0.15.0.40   |  |

A Copper when specified shall have a minimum content of 0.20 % by heat analysis (0.18 % by product analysis)

Silicon content in excess of 0.40 % by heat analysis must be negotiated.

Bars over 1½ in. [40 mm] in diameter, thickness, or distance between parallel faces, shall be made by a killed steel practice.

E Alloy content shall be in accordance with Type 1, 2, 3, or 5 and the contents of the applicable elements shall be reported on the test report.

| Туре | Elements                            | Heat Analysis, %        |  |
|------|-------------------------------------|-------------------------|--|
| 1    | . Columbium <sup>A</sup>            | 0.005-0.05 <sup>B</sup> |  |
| 2    | Vanadium                            | 0.01-0.15               |  |
| 3    | Columbium <sup>4</sup>              | 0.005-0.05#             |  |
|      | Vanadlum<br>Columbium plus vanadium | 0.01-0.15               |  |
| 5    | Titanium                            | 0.02-0.15 <sup>c</sup>  |  |
|      |                                     | 0.006-0.04              |  |
| 2    | Nitrogen                            | 0.003-0.015             |  |
|      | Vanadium                            | 0.06 max                |  |

A Columbium shall be restricted to Grade 50 [345] plate, bar, zee, and rolled tee thickness of % in. [20 mm] max, and to shapes with flange or leg thickness to 11/2 in. [40 mm] inclusive unless killed steel is furnished. Killed steel shall be confirmed by a statement of killed steel on the test report, or by a report of the presence of a sufficient quantity of a strong deoxidizing element, such as silicon at 0.10 % or higher, or aluminum at 0.015 % or higher. Product analysis limits = 0.004 to 0.06 %.

#### TABLE 4 Grade 50W [345 W] Chemical Requirements (Heat Analysis)

Note 1-Types A and B are equivalent to Specification A588/A588M, Grades A and B, respectively.

| Element                 | Composition, %4 |           |  |  |  |
|-------------------------|-----------------|-----------|--|--|--|
|                         | Туре А          | Туре В    |  |  |  |
| Carbon <sup>®</sup>     | 0.19 max        | 0.20 max  |  |  |  |
| /langanese <sup>8</sup> | 0.80-1.25       | 0.75-1.35 |  |  |  |
| hosphorus               | 0.04 max        | 0.04 max  |  |  |  |
| Sulfur                  | 0.05 max        | 0.05 max  |  |  |  |
| Silicon                 | 0.30-0.65       | 0.15-0.50 |  |  |  |
| <b>Victor</b>           | 0.40 max        | 0.50 max  |  |  |  |
| Chromium                | 0.40-0.65       | 0.40-0.70 |  |  |  |
| Copper                  | 0.25-0.40       | 0.20-0.40 |  |  |  |
| /anadium                | 0.02-0.10       | 0.01-0.10 |  |  |  |

A Weldability data for these types have been qualified by FHWA for use in bridge construction.

utilities, signs, or other items to them, but not to directly support primary design loads

3.1.6 tension component—a part or element of a fracture critical or non-fracture critical member that is in tension under various design loadings.

#### TABLE 5 Grades HPS 50W [HPS 345W] and HPS 70W [HPS 485 W], and HPS 100W [HPS 690W] Chemical Requirements (Heat Analysis)

Note 1-Where "..." appears in this table, there is no requirement.

|                                       | Comp  | position, %                     |  |
|---------------------------------------|---|---------------------------------|--|
| Element                               | Grades<br>HPS 50W [HPS<br>345W],<br>HPS 70W [HPS<br>485W] | Grade<br>HPS 100W (HPS<br>690W] |  |
| Carbon                                | 0.11 max  |                                 |  |
| Manganese . 2.5 in. [65 mm] and under | 1.10-1.35   | 0.95-1.50                       |  |
| Over 2.5 in. [65 mm]                  | 1.10-1.50   | 0.95-1.50                       |  |
| Phosphorus                            | 0.020 max   | 0.015 max                       |  |
| Sulfur <sup>4</sup>                   | 0.006 max   | 0.006 max                       |  |
| Silicon                               | 0.30-0.50   | 0.15-0.35                       |  |
| Copper                                | 0.25-0.40   | 0.90-1-20                       |  |
| Nicket                                | 0.25-0.40   | 0.65-0.90                       |  |
| Chromium                              | 0.45-0.70   | 0.40-0.65                       |  |
| Molybdenum                            | 0.02-0.08   | 0.40-0.65                       |  |
| Vanadium                              | 0.04-0.08   | 0.04-0.08                       |  |
| Columbium (Niobium)                   |   | 0.01-0.03                       |  |
| Aluminum                              | 0.010-0.040   | 0.020-0.050                     |  |
| Nitrogen                              | 0.015 max   | 0.015 max                       |  |

A The steel shall be calcium treated for sulfide shape control.

Manganese, minimum by heat analysis of 0.80 % (0.75 % by product analysis) shall be required for all plates over % in. [10 mm] in thickness; a minimum of 0.50 % (0.45 % by product analysis) shall be required for plates % in. [10 mm] and less in thickness, and for all other products. The manganese to carbon ratio shall not be less than 2 to 1. For each reduction of 0.01 percentage point below the specified carbon maximum, an Increase of 0.06 percentage point manganese above the specified maximum is permitted, up to a maximum of 1.60 %.

C Product analysis limits = 0.01 to 0.16 %.

For each reduction of 0.01 percentage point below the specified maximum for carbon, an increase of 0.06 percentage point above the specified maximum for manganese is permitted, up to a maximum of 1.50 %.

TABLE 6 Grade 50S [345S] Chemical Requirements (Heat Analysis)

| <br>Element     | Composition, %            |
|-----------------|---------------------------|
| Carbon, max     | 0.23                      |
| Manganese       | 0.50 to 1.60 <sup>A</sup> |
| Silicon, max    | 0.40                      |
| Vanadium, max   | 0.15 <sup>8</sup>         |
| Columbium, max  | 0.05 <sup>8</sup>         |
| Phosphorus, max | 0.035                     |
| Sulfur, max     | 0.045                     |
| Copper, max     | 0.60                      |
| Nickel, max     | 0.45                      |
| Chromium, max   | 0.35                      |
| Molybdenum, max | 0.15                      |

A Provided that the ratio of manganese to sulfur is not less than 20 to 1, the minimum limit for manganese for shapes with flange or leg thickness not exceeding 1 in. [25 mm] shall be 0.30 %.

TABLE 7 Relationship Between Impact Testing Temperature Zones and Minimum Service Temperature

| Zone | Minimum Service Temperature, °F [°C] |
|------|--------------------------------------|
| 1    | 0 (–18)                              |
| 2    | below 0 to -30 [-18 to -34]          |
| 3    | below -30 to -60 [-34 to -51]        |

#### 4. Ordering Requirements

- 4.1 In addition to the items listed in the ordering information section of Specification A6/A6M, the following items should be considered if applicable:
- 4.1.1 Type of component (tension or non-tension, fracture critical or non-fracture critical) (see Section 10).
  - 4.2 Impact testing temperature zone (see Table 7).

#### 5. General Requirements for Delivery

- 5.1 Structural products furnished under this specification shall conform to the requirements of the current edition of Specification A6/A6M, for the specific structural product ordered, unless a conflict exists in which case this specification shall prevail.
- 5.2 Coils are excluded from qualification to this specification until they are processed into a finished structural product. Structural products produced from coil means structural products that have been cut to individual lengths from a coil. The processor directly controls, or is responsible for, the operations involved in the processing of a coil into a finished structural product. Such operations include decoiling, leveling or straightening, hot-forming or cold-forming (if applicable), cutting to length, testing, inspection, conditioning, heat treatment (if applicable), packaging, marking, loading for shipment, and certification.

Note 1—For structural products produced from coil and furnished without heat treatment or with stress relieving only, two test results are to be reported for each qualifying coil. Additional requirements regarding structural products produced from coil are described in Specification A6/A6M.

#### 6. Materials and Manufacture

- 6.1 For Grades 36 [250] and 50 [345], the steel shall be semi-killed or killed.
- 6.2 For Grades 50W [345W], HPS 50W [HPS 345W], and HPS 70W [HPS 485W], the steel shall be made to fine grain practice.
- 6.3 For Grade 50S [345S], the steel shall be killed and such shall be affirmed in the test report by a statement of killed steel, a value of 0.10 % or more for the silicon content, or a value of 0.015 % or more for the total aluminum content.
- 6.4 For Grade 50S [345S], the steelmaking practice used shall be one that produces steel having a nitrogen content not greater than 0.015 % and includes the addition of one or more nitrogen-binding elements, or one that produces steel having a nitrogen content of not greater than 0.012 % (with or without the addition of nitrogen-binding elements). The nitrogen content need not be reported, regardless of which steelmaking practice was used.
- 6.5 For Grades HPS 50W [HPS 345W], HPS 70W [HPS 485W], and HPS 100W [HPS 690W], the steel shall be made using a low-hydrogen practice, such as vacuum degassing during steel making; controlled soaking of the ingots, slabs; controlled slow cooling of the ingots, slabs, or plates, or a combination thereof.
- 6.6 For Grade HPS 100W [HPS 690W], the requirements for fine austenitic grain size in Specification A6/A6M shall be met.
- 6.7 Grades HPS 50W [HPS 345W] and HPS 70W [HPS 485W] shall be furnished in one of the following conditions: as-rolled, control-rolled, thermo-mechanical control processed (TMCP) with or without accelerated cooling, or quenched and tempered.

#### 7. Heat Treatment

- 7.1 For quenched and tempered Grades HPS 50W [HPS 345W] and HPS 70W [HPS 485W], the heat treatment shall be performed by the manufacturer and shall consist of heating the steel to not less than 1650°F [900°C], quenching it in water or oil, and tempering it at not less than 1100°F [590°C]. The heat-treating temperatures shall be reported on the test certificates.
- 7.2 For Grade HPS 100W [HPS 690W], the heat treatment shall be performed by the manufacturer and shall consist of heating the steel to a temperature in the range from 1600 to 1700°F [870 to 925°C], quenching it in water, and tempering it at not less than 1050°F [565°C] for a time to be determined by the manufacturer. The heat-treating temperatures shall be reported on the test certificates.

#### 8. Chemical Requirements

- 8.1 The heat analysis shall conform to the requirements for the specified grade, as given in Tables 2-6.
- 8.2 For Grade 50S [345S], in addition to the elements listed in Table 6, test reports shall include, for information, the

<sup>&</sup>lt;sup>6</sup> The sum of columbium and vanadium shall not exceed 0.15 %.



TABLE 8 Non-Fracture Critical Tension Component Impact Test Requirements

| Grade  | Thickness, in. (mm)                                  | Minimum Average Energy, ft-lbf [J]                   |  |  |  |  |
|--|--|--|--|--|--|--|
|  | · · · · · · · · · · · · · · · · · · ·                | Zone 1   | Zone 2   | Zone 3   |  |  |
| 36T [250T] <sup>4</sup>  | to 4 [100] incl                                      | 15 [20] at 70°F [21°C]                               | 15 [20] at 40°F [4°C]                                | 15 [20] at 10°F [-12°C]                              |  |  |
| 50T (345T) <sup>A, B</sup> ,<br>50ST (345ST) <sup>A, B</sup> ,<br>50WT (345WT) <sup>A, B</sup> | to 2 [50] incl<br>over 2 to 4 [50 to 100] incl       | 15 [20] at 70°F [21°C]<br>20 [27] at 70°F [21°C]     | 15 [20] at 40°F [4°C]<br>20 [27] at 40°F [4°C]       | 15 [20] at 10°F [-12°C]<br>20 [27] at 10°F [-12°C]   |  |  |
| HPS 50WT<br>[HPS 345WT] <sup>A, B</sup>  | to 4 [100] incl                                      | 20 [27] at 10°F [-12°C]                              | 20 [27] at 10°F [-12°C]                              | 20 (27) at 10°F [-12°C]                              |  |  |
| HPS 70WT<br>[HPS 485WT] <sup>C. D</sup>  | to 4 [100] incl                                      | 25 [34] at -10°F [-23°C]                             | 25 [34] at -10°F [-23°C]                             | 25 [34] at -10°F [-23°C]                             |  |  |
| HPS 100WT<br>(HPS 690WT) <sup>C</sup>  | to 21/2 [65] Incl<br>over 21/2 to 4 [65 to 100] Incl | 25 [34] at -30°F [-34°C]<br>35 [48] at -30°F [-34°C] | 25 [34] at -30°F [-34°C]<br>35 [48] at -30°F [-34°C] | 25 (34) at -30°F (-34°C)<br>35 (48) at -30°F (-34°C) |  |  |

A The CVN-impact testing shall be at "H" frequency in accordance with Specification A673/A673M.

TABLE 9 Fracture Critical Tension Component Impact Test Requirements

| Grade  | Thickness, in.   | Minimum<br>Test                              | м  | linimum Average Energy <sup>A</sup> , ft-t     | ot [1]   |
|--|--|--|--|--|--|
|  | [mm]   | Value Energy, <sup>A</sup> ft-lbf [J] Zone 1 |  | Zone 2   | Zone 3   |
| 36F [250F]   | to 4 [100], incl   | 20 [27]                                      | 25 [34] at 70°F [21°C]                           | 25 [34] at 40°F (4°C)                          | 25 [34] at 10°F [-12°C]                            |
| 50F (345F) <sup>8</sup> , 50SF (345SF) <sup>8</sup> , 50WF<br>(345WF) <sup>8</sup> | to 2 [50], incl<br>over 2 to 4<br>[50 to 100],<br>incl   | 20 [27]<br>24 [33]                           | 25 [34] at 70°F [21°C]<br>30 [41] at 70°F [21°C] | 25 [34] at 40°F [4°C]<br>30 [41] at 40°F [4°C] | 25 [34] at 10°F [-12°C]<br>30 [41] at 10°F [-12°C] |
| HPS 50WF (HPS 345WF) <sup>8</sup>  | to 4 [100], incl   | 24 [33]                                      | 30 [41] at 10°F [-12°C]                          | 30 [41] at 10°F [-12°C]                        | 30 [41] at 10°F [-12°C]                            |
| HPS 70WF [HPS 485WF]C  | to 4 [100], incl   | 28 [38]                                      | 35 [48] at -10°F [-23°C]                         | 35 [48] at -10°F [-23°C]                       | 35 [48] at -10°F [-23°C]                           |
| HPS 100WF (HPS 690WF)  | to 2½ [65], incl<br>over 2½ to 4<br>[65 to 100],<br>incl | 28 [38]                                      | 35 [48] at -30°F [-34°C]<br>Not permitted        | 35 [48] at ~30°F [~34°C]<br>Not permitted      | 35 [48] at -30°F [-34°C]<br>Not permitted          |

The CVN-impact testing shall be at "P" frequency in accordance with Specification A673/A673M except for plates, for which the sampling shall be as follows:

chemical analysis for tin. Where the amount of tin is less than 0.02 %, it shall be permissible for the analysis to be reported as <0.02 %.

8.3 For Grade 50S [345S], the maximum permissible carbon equivalent value shall be 0.47 % for structural shapes with flange thickness over 2 in. [50 mm], and 0.45 % for other structural shapes. The carbon equivalent shall be based on heat analysis. The required chemical analysis as well as the carbon equivalent shall be reported. The carbon equivalent shall be calculated using the following formula:

$$CE = C + \frac{Mn}{6} + \frac{(Cr + Mo + V)}{5} + \frac{(Ni + Cu)}{15}$$
 (1)

If the yield point of the structural product exceeds 65 ksi [450 MPa], the testing temperature for the minimum average energy required shall be reduced by 15°F (8°C) for each increment of 10 ksi [70 MPa] above 65 ksi [450 MPa]. The yield point is the value given in the test report. The CVN-impact testing shall be at "P" frequency in accordance with Specification A673/A673M.

of the yield strength of the structural product exceeds 85 ksl [585 MPa], the testing temperature for the minimum average energy required shall be reduced by 15°F [8°C] for each increment of 10 ksi [70 MPa] above 85 ksi [585 MPa]. The yield strength is the value given in the test report.

<sup>(1)</sup> As-rolled (including control-rolled and TMCP) plates shall be sampled at each end of each plate-as-rolled.

<sup>(2)</sup> Normalized plates shall be sampled at one end of each plate, as heat treated.

<sup>(3)</sup> Quenched and tempered plates shall be sampled at each end of each plate, as heat treated. e If the yield point of the structural product exceeds 65 ksi [450 MPa], the testing temperature for the minimum average energy and minimum test value energy required shall be reduced by 15°F [8°C] for each increment of 10 ksi [70 MPa] above 65 ksi [450 MPa]. The yield point is the value given in the test report.

If the yield strength of the structural product exceeds 85 ksl [585 MPa], the testing temperature for the minimum average energy and minimum test value energy required shall be reduced by 15°F [8°C] for each increment of 10 ksi [70 MPa] above 85 ksi [585 MPa]. The yield strength is the value given in the test report.

#### 9. Tensile Requirements

- 9.1 The material as represented by test specimens, except as specified in 9.2, shall conform to the requirements for tensile properties given in Table 1.
- 9.2 For Grade 36 [250], shapes less than 1 in.<sup>2</sup> [645 mm<sup>2</sup>] in cross section and bars, other than flats, less than ½ in. [12.5 mm] in thickness or diameter need not be subjected to tension tests by the manufacturer.

#### 10. Impact Testing Requirements

- 10.1 Non-Fracture-Critical, T, Tension Components— Structural products ordered for use as tension components of non-fracture-critical members shall be impact tested in accordance with Specification A673/A673M and as given in Table 8. The test results shall meet the requirements given in Table 8.
- 10.2 Fracture-Critical, F, Tension Components—Structural products ordered for use as tension components of fracture-critical members shall be impact tested in accordance with Specification A673/A673M and as given in Table 9. The test results shall meet the requirements given in Table 9.
- 10.3 Steel grades ordered for use without suffix T or F as listed in 9.1 and 9.2 do not require impact testing and shall be used as non-tension components or secondary members only.

#### 11. Test Specimens and Number of Tension Tests

- 11.1 For Grades 36 [250], 50 [345], and 50W [345W], and non-quenched and tempered Grades HPS 50W [HPS 345W] and HPS 70W [HPS 485W], location and condition, number of tests, and preparation of test specimens shall meet the requirements of Specification A6/A6M.
- 11.2 The following requirements, which are in addition to those of Specification A6/A6M, shall apply only to Grade HPS 100W [HPS 690W] and quenched and tempered Grades HPS 50W [HPS 345W] and HPS 70W [HPS 485W].
- 11.2.1 When possible, all test specimens shall be cut from the plate in its heat-treated condition. If it is necessary to prepare test specimens from separate pieces, all of these pieces shall be full thickness, and shall be similarly and simultaneously heat treated with the material. All such separate pieces shall be of such size that the prepared test specimens are free of any variation in properties due to edge effects.
- 11.2.2 After final heat treatment of the plates, one tension test specimen shall be taken from a corner of each plate as heat treated.

Note 2-The term "plate" identifies the "plate as heat treated."

#### 12. Retests

12.1 Grades 36 [250], 50 [345], 50S [345S], and 50W [345W], and non-quenched and tempered HPS 50W [HPS

345W] and HPS 70W [HPS 485W] shall be retested in accordance with Specification A6/A6M.

12.2 The manufacturer may reheat treat quenched and tempered plates that fail to meet the mechanical property requirements of this specification. All mechanical property tests shall be repeated when the material is resubmitted for inspection.

#### 13. Atmospheric Corrosion Resistance

- 13.1 Steels meeting this specification provide two levels of atmospheric corrosion resistance:
- 13.1.1 Steel grades without suffix provide a level of atmospheric corrosion resistance typical of carbon or alloy steel without copper.
- 13.1.2 The steel for Grades 50W [345W], HPS 50W [HPS 345W], and HPS 70W [HPS 485W] shall have an atmospheric corrosion resistance index of 6.0 or higher, calculated from the heat analysis in accordance with Guide G101, Predictive Method Based on the Data of Larabee and Coburn (see Note 3). When properly exposed to the atmosphere, these steels can be used bare (unpainted) for many applications. The steel for Grade HPS 100W [HPS 690W] provides an improved level of atmospheric corrosion resistance over alloy steel without copper.

Note 3—For methods of estimating the atmospheric corrosion resistance of low-alloy steels, see Guide G101. The user is cautioned that the Guide G101 predictive equation (Predictive Method Based on the Data of Larabee and Coburn) for calculation of an atmospheric corrosion resistance index has only been verified for the composition limits stated in that guide.

#### 14. Marking

- 14.1 In addition to the marking requirements of Specification A6/A6M, the structural product shall be marked as follows:
- 14.1.1 For Grade 50W [345W], the composition type shall be included.
- 14.1.2 For structural products that conform to the requirements of 10.1, the letter T and the applicable zone number (1, 2, or 3) shall follow the grade designation.
- 14.1.3 For structural products that conform to the requirements of 10.2, the letter F and the applicable zone number (1, 2, or 3) shall follow the grade designation.

#### 15. Keywords

15.1 alloy; atmospheric corrosion resistance; bars; bridges; carbon; fracture-critical; high-strength; low-alloy; non-fracture critical; plates; quenched; shapes; steel; structural steel; tempered

#### SUPPLEMENTARY REQUIREMENTS

Supplementary requirements shall not apply unless specified in the purchase order or contract. Standardized supplementary requirements for use at the option of the purchaser are listed in Specification A6/A6M. Those that are considered suitable for use with this specification are listed by title:

#### S8. Ultrasonic Examination

S5.1 Refer to S8 of Specification A6/A6M.

#### S32. Single Heat Bundles

S32.1 Bundles containing shapes or bars shall be from a single heat of steel.

#### S60. Frequency of Tension Tests

S60.1 Tension testing that is additional to the tension testing required by Specification A6/A6M shall be made, as follows:

S60.1.1 Plate—One tension test shall be made using a test specimen taken from each as-rolled or as-heat treated plate.

S60.1.2 Structural Shapes—One tension test shall be made using a test specimen taken from each 5 tons [5 Mg] of material produced on the same mill of the same nominal size, excluding length, from each heat of steel. For single pieces that weigh more than 5 tons [5 Mg] individually, each piece shall be tested. If shapes are heat treated, one test shall be made on specimens taken from each heat of the same nominal size, excluding length, in each furnace lot.

S60.1.3 Bars—One tension test shall be made using a test specimen taken from each 5 tons [5 Mg] of the same heat and same diameter or thickness if the material is furnished as-rolled or is heat treated in a continuous-type furnace. For material heat treated in other than a continuous-type furnace, one test shall be taken from each heat of the same bar diameter or thickness for each furnace charge.

# S92. Atmospheric Corrosion Resistance

S92.1 When specified, the material manufacturer shall supply to the purchaser evidence of atmospheric corrosion resistance satisfactory to the purchaser.

S92.2 Refer to S23 of Specification A6/A6M (applicable only to Grades 36 [250] and 50 [345]).

# S93. Limitation on Weld Repair (Fracture Critical Material Only)

S93.1 Weld repair of the base metal by the material manufacturer or supplier is not permitted.

## ADDITIONAL SUPPLEMENTARY REQUIREMENTS

Standardized supplementary requirements for use at the option of the purchaser are listed in Specification A6/A6M as follows:

\$18. Maximum Tensile Strength (Grades 50 [345], 508 [3458], 50W [345W], and HPS 50W [HPS 345W]).

#### SUMMARY OF CHANGES

Committee A01 has identified the location of selected changes to this standard since the last issue (A709/A709M - I1) that may impact the use of this standard. (Approved May 1, 2013.)

(1) Revised 1.1.1.

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# 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 ar 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 (<br>require) | understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the ments for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty  |

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: | Skyline Steel, LLC | Signed: Muchael P. Remners    |
|---------|--------------------|-------------------------------|
| Date:   | 9/24/13            | Title: District Seles Manager |

| RFQ No. | 04130825   |
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# 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.

# Vendor's Name: Authorized Signature: State of County of \_\_\_\_\_\_, to-wit: Taken, subscribed, and sworn to before me this \_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_. My Commission expires \_\_\_\_\_\_, 20\_\_\_. AFFIX SEAL HERE NOTARY PUBLIC

Purchasing Affidavit (Revised 07/01/2012)

NOTE:

Vendor and Notary's date must be the same.

Notary required to AFFIX SEAL on Purchasing Affidavit.