# State of Nebraska - INVITATION TO BID CONTRACT

Date	9-7-23		Page 1 of 2
Solicitation	n Number	6787 OF REI	BID
Opening D	ate and Time	10-03-23	2:00 pm
Buyer		BRENDA SE	NSIBAUGH (AS)

DESTINATION OF GOODS
DEPARTMENT OF TRANSPORTATION
5001 S 14TH ST
PO BOX 94759
LINCOLN NE 68509-4759

Per Nebraska's Transparency in Government Procurement Act, DAS is required to collect statistical information regarding the
number of contracts awarded to Nebraska contractors. This information is for statistical purposes only and will not be
considered for contract award purposes.

NEBRASKA CONTRACTOR AFFIDAVIT: Bidder hereby attests that bidder is a Nebraska Contractor. "Nebraska Contractor" shall mean any bidder who has maintained a bona fide place of business and at least one employee within this state for at least the six (6) months immediately preceding the posting date of this ITB.

\_\_\_\_\_ I hereby certify that I am a Resident disabled veteran or business located in a designated enterprise zone in accordance with Neb. Rev. Stat. §73-107 and wish to have preference, if applicable, considered in the award of this contract.

Contract to supply and deliver Steel W Beam to the State of Nebraska as per the attached specifications for a Two (2) year period from date of award. The contract may be renewed for Three (3) additional One (1) year periods when mutually agreeable to the vendor and the State of Nebraska.

(5-9-23 BMS)

aleb Gasseling

INVITATION						
		Unit of				
Line	Description	Quantity	Measure	Unit Price	Price	
1	STEEL W-BEAM, W6 X 15	100.0000	EA	_\$4,848.80	_\$484,880.00	
2	STEEL W-BEAM, W8 X 18	20.0000	EA	\$5,825.40	\$116,508.00	
3	STEEL W-BEAM, W8 X 24 OPTIONAL	10.0000	EA	\$7,944.50	\$79,445.00	

#### BIDDER MUST COMPLETE THE FOLLOWING

DISCOUNT PAYMENT TERMS: 0 % 0 DAYS

By signing this Invitation to Bid form, the bidder guarantees compliance with the provisions stated in this Invitation to Bid, agrees to the terms and conditions unless otherwise agreed to and certifies that bidder maintains a drug free work place environment. Vendor will furnish the items requested within 30 days after receipt of order. Failure to enter Delivery Date may cause quotation to be REJECTED.

Here	(Authorized Signature Mandatory/ Form must be signed manually in link or by DocuSign)	E	Enter Contact Information Below
VENDOR	#	Contact	Caleb Gasseling
VENDOR	R&C Welding and Fabrication	Telephone	308.635.0081
Address:	880 Country Club Rd	Email	calebg@rcwelding.com
	Gering Ne, 69341		

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PO BOX 94759
LINCOLN NE 68509-4759

Description		Unit of		Extended
Jeachhaon	Quantity	Measure	<b>Unit Price</b>	Price
STEEL W-BEAM, W8 X 31 OPTIONAL	10.0000	EA	\$10,051.60	\$100,516.00
STEEL W-BEAM, W8 X 48 DPTIONAL	10.0000	EA	\$15,179.90	\$151,799.00
3	OPTIONAL STEEL W-BEAM, W8 X 48	OPTIONAL STEEL W-BEAM, W8 X 48 10.0000	STEEL W-BEAM, W8 X 48 10.0000 EA	DPTIONAL 10.0000 EA \$15,179.90

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# **GLOSSARY OF TERMS**

**Acceptance Test Procedure:** Benchmarks and other performance criteria, developed by the State or other sources of testing standards, for measuring the effectiveness of products or goods and the means used for testing such performance

Addendum: Something to be added or deleted to an existing document; a supplement

After Receipt of Order: After Receipt of Order

**Agency:** Using agencies shall mean and include all officers of the state, departments, bureaus, boards, commissions, councils, and institutions receiving legislative appropriations

Agent/Representative: A person authorized to act on behalf of another

Amend: To alter or change by adding, subtracting, or substituting

Amendment: A written correction or alteration to a document

Appropriation: Legislative authorization to expend public funds for a specific purpose. Money set apart for a specific use

Automated Clearing House: Electronic network for financial transactions in the United States

Award: All purchases, leases, or contracts which are based on competitive bid will be awarded according to the provisions in the solicitation

Best and Final Offer: In a competitive bid, the final offer submitted which contains vendors most favorable terms for price

**Bid Bond:** An insurance agreement, accompanied by a monetary commitment, by which a third party (the surety) accepts liability and guarantees that the vendor will not withdraw the bid

Bidder: A vendor who submits an offer bid in response to a written solicitation

Breach: Violation of a contractual obligation by failing to perform or repudiation of one's own promise.

**Business:** Any corporation, partnership, individual, sole proprietorship, joint-stock company, joint venture, or any other private legal entity

Business Day: Any weekday, except State-recognized holidays

Calendar Day: Every day shown on the calendar including Saturdays, Sundays, and State/Federal holidays

Cancellation: To call off or revoke a bid, purchase order or contract without expectation of conducting or performing at a later time

**Catalog/Non-Core:** A printed or electronic list of products a vendor may provide at a discounted rate or discount off list price to the State. Initial contract award(s) is not based on Catalog/Non-Core items

**Central Processing Unit:** Any computer or computer system that is used by the State to store, process, or retrieve data or perform other functions using Operating Systems and applications software

Change Order: Document that provides amendments to an executed purchase order

**Collusion:** An agreement or cooperation between two or more persons or entities to accomplish a fraudulent, deceitful, or unlawful purpose

Commodities: Any equipment, material, supply or goods; anything movable or tangible that is provided or sold

**Commodities Description:** Detailed descriptions of the items to be purchased; may include information necessary to obtain the desired quality, type, color, size, shape, or special characteristics necessary to perform the work intended to produce the desired results

Competition: The effort or action of two or more commercial interests to obtain the same business from third parties

Confidential Information: Unless otherwise defined below, "Confidential Information" shall also mean proprietary trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and serve no public purpose (see Neb. Rev. Stat. §84-712.05(3)). In accordance with Nebraska Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific, named competitor(s) who would be advantaged by release of the information and the specific advantage the competitor(s) would receive

**Contract:** An agreement between two or more parties creating obligations that are enforceable or otherwise recognizable at law; the writing that sets forth such an agreement

Contract Administration: The management of the contract which includes and is not limited to contract signing, contract amendments and any necessary legal actions

**Contract Management:** The management of day to day activities at the agency which includes and is not limited to ensuring deliverables are received, specifications are met, handling meetings and making payments to the Vendor

Contract Period: The duration of the contract

**Vendor:** An individual or entity lawfully conducting business in the State, who seeks or agrees to provide goods or services under the terms of a written contract.

Cooperative Purchasing: The combining of requirements of two or more political entities to obtain advantages of volume purchases, reduction in administrative expenses or other public benefits

**Copyright:** A property right in an original work of authorship fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt and distribute the work

Core List: Items specifically listed on the solicitation upon which a bid is evaluated for award .

Critical Program Error: Any Program Error, whether or not known to the State, which prohibits or significantly impairs use of the Licensed Software as set forth in the documentation and intended in the contract

**Customer Service:** The process of ensuring customer satisfaction by providing assistance and advice on those products or goods provided by a Vendor

**Default:** The omission or failure to perform a contractual duty

**Deviation:** Any proposed change(s) or alteration(s) to either the terms and conditions or deliverables within the scope of the written solicitation or contract

**Evaluation:** The process of examining an offer after opening to determine the vendors responsibility, responsiveness to requirements, and to ascertain other characteristics of the offer that relate to determination of the successful award

**Evaluation Committee:** Committee(s) appointed by the requesting agency that advises and assists the procuring office in the evaluation of bid/s (offers made in response to written solicitations)

**Extension:** Continuance of a contract for a specified duration upon the agreement of the parties beyond the original Contract Period. Not to be confused with "Renewal Period"

Free on Board Destination: The delivery charges are included in the quoted price and prepaid by the vendor. Vendor is responsible for all claims associated with damages during delivery of product

**Free on Board Point of Origin:** The delivery charges are not included in the quoted price and are the responsibility of the agency. Agency is responsible for all claims associated with damages during delivery of product

Foreign Corporation: A foreign corporation that was organized and chartered under the laws of another state, government, or country.

**Installation Date:** The date when the procedures described in "Installation by Vendor", and "Installation by State", as found in the solicitation, or contract are completed.

Interested Party: A person, acting in their personal capacity, or an entity entering into a contract or other agreement creating a legal interest therein

Invalid Bid: A bid that does not meet the requirements of the solicitation or cannot be evaluated against the other bids.

Invitation to Bid (ITB): A written solicitation utilized for obtaining competitive offers for Services or Goods

Late Bid: An offer received after the Opening Date and Time

**Licensed Software Documentation:** The user manuals and any other materials in any form or medium customarily provided by the Vendor to the users of the Licensed Software which will provide the State with sufficient information to operate, diagnose, and maintain the Licensed Software properly, safely, and efficiently

Mandatory/Must: Required, compulsory, or obligatory

May: Discretionary, permitted; used to express possibility

Module (see System): A collection of routines and data structures that perform a specific function of software

Must: See Mandatory/Must and Shall/Will/Must

National Institute for Governmental Purchasing: National Institute of Governmental Purchasing – Source used for assignment of universal commodity codes to goods and services

Non-core: See Catalog.

**Open Market Purchase:** Authorization may be given to an agency to purchase items above direct purchase authority due to the unique nature, price, quantity, location of the using agency, or time limitations by the AS Materiel Division, State Purchasing Bureau

Opening Date and Time: Specified date and time for the public opening of received, labeled, and sealed formal bids

**Operating System:** The control program in a computer that provides the interface to the computer hardware and peripheral devices, and the usage and allocation of memory resources, processor resources, input/output resources, and security resources

**Outsourcing:** The contracting out of a business process which an organization may have previously performed internally or has a new need for, to an independent organization from which the process is purchased back

Payroll & Financial Center: Electronic procurement system of record

**Performance Bond:** An insurance agreement, accompanied by a monetary commitment, by which a third party (the surety) accepts liability and guarantees that the Vendor fulfills any and all obligations under the contract

**Platform:** A specific hardware and Operating System combination that is different from other hardware and Operating System combinations to the extent that a different version of the Licensed Software product is required to execute properly in the environment established by such hardware and Operating System combination

Point of Contact: The person designated to receive communications and to communicate

Pre-Bid Conference: A meeting scheduled for the purpose of clarifying a written solicitation and related expectations

**Product:** Something that is distributed commercially for use or consumption and that is usually (1) tangible personal property, (2) the result of fabrication or processing, and (3) an item that has passed through a chain of commercial distribution before ultimate use or consumption

**Program Error:** Code in Licensed Software which produces unintended results or actions, or which produces results or actions other than those described in the specifications. A program error includes, without limitation, any Critical Program Error

**Program Set:** The group of programs and products, including the Licensed Software specified in the solicitation, plus any additional programs and products licensed by the State under the contract for use by the State

**Project:** The total scheme, program, or method worked out for the accomplishment of an objective, including all documentation, commodities, and goods to be provided under the contract

Bid: An offer, bid, or quote submitted by a vendor in a response to a written solicitation

**Proprietary Information:** Proprietary information is defined as trade secrets, academic and scientific research work which is in progress and unpublished, and other information which if released would give advantage to business competitors and service no public purpose (see Neb. Rev. Stat. § 84-712.05(3)). In accordance with Attorney General Opinions 92068 and 97033, proof that information is proprietary requires identification of specific named competitor(s) advantaged by release of the information and the demonstrated advantage the named competitor(s) would gain by the release of information

**Protest/Grievance:** A complaint about a governmental action or decision related to the solicitation or resultant contract, brought by a vendor who has timely submitted a bid response in connection with the award in question, to AS Materiel Division or another designated agency with the intention of achieving a remedial result

Public Bid Opening: The process of opening correctly submitted offers at the time and place specified in the written solicitation and in the presence of anyone who wished to attend

Quote: See Bid

Recommended Hardware Configuration: The data processing hardware (including all terminals, auxiliary storage, communication,

and other peripheral devices) to the extent utilized by the State as recommended by the Vendor.

Release Date: The date of public release of the written solicitation to seek offers

Renewal Period: Optional contract periods subsequent to the original Contract Period for a specified duration with previously agreed to terms and conditions. Not to be confused with Extension

**Request for Information :** A general invitation to vendor is requesting information for a potential future solicitation. The RFI is typically used as a research and information gathering tool for preparation of a solicitation

**Responsible Vendor**: A Vendor who has the capability in all respects to perform fully and lawfully all requirements with integrity and reliability to assure good faith performance

Responsive Vendor: A Vendor who has submitted a bid which conforms to all requirements of the solicitation document

Shall: See Must

Should: Expected; suggested, but not necessarily mandatory

Software License: Legal instrument with or without printed material that governs the use or redistribution of licensed software

Sole Source - Commodity: When an item is available from only one source due to the unique nature of the requirement, its vendor, or market conditions

**Sole Source – Service:** A service of such a unique nature that the vendor selected is clearly and justifiably the only practical source to provide the service. Determination that the vendor selected is justifiably the sole source is based on either the uniqueness of the service or sole availability at the location required

**Specifications:** The detailed statement, especially of the measurements, quality, materials, and functional characteristics, or other items to be provided under a contract

Statutory: These clauses are controlled by state law and are not subject to negotiation

Sub contractor: Individual or entity with whom the vendor enters a contract to perform a portion of the work awarded to the vendor

**Termination:** Occurs when the contract expires or either party, pursuant to a power created by agreement or law puts an end to the contract prior to the stated expiration date. All obligations which are still executory on both sides are discharged but any right based on prior breach or performance survives

**Third-Party:** Any person or entity, including but not limited to fiduciaries, shareholders, owners, officers, managers, employees, legally disinterested persons, and sub-vendors or agents, and their employees. It shall not include any entity or person who is an interested Party to the contract or agreement

**Trade Secret:** Information, including, but not limited to, a drawing, formula, pattern, compilation, program, device, method, technique, code, or process that (a) derives independent economic value, actual or potential, from not being known to, and not being ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (b) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy (see Neb. Rev. Stat. § 87-502(4))

**Trademark:** A word, phrase, logo, or other graphic symbol used by a manufacturer or vendor to distinguish its product from those of others, registered with the U.S. Patent and Trademark Office

Upgrade: Any change that improves or alters the basic function of a product of service

**Vendor Performance Report:** A report completed by the using agency and submitted to State Purchasing Bureau documenting products or services delivered or performed which exceed or fail to meet the terms of the purchase order, contract, and/or solicitation specifications.

Vendor: Inclusive term for any Bidder or Vendor.

Will: See Mandatory/Must/Shall

Work Day: See Business Day

# **ACRONYM LIST**

ARO – After Receipt of Order			
ACH – Automated Clearing House			
BAFO – Best and Final Offer			
COI – Certificate of Insurance			
CPU – Central Processing Unit			
DAS – Department of Administrative Services			
F.O.B. – Free on Board			
ITB – Invitation to Bid			
NDOT - Nebraska Department of Transportation			
NIGP – National Institute for Governmental Purchasing			
PA – Participating Addendum			
POC – Point of Contact			
RFI – Request for Information			

# I. PROCUREMENT PROCEDURE

#### A. GENERAL INFORMATION

The ITB is designed to solicit bids from qualified Vendors who will be responsible for providing **Steel W-Beams** at a competitive and reasonable cost. Terms and Conditions, Project Description and Scope of Work, Bid instructions, and Cost Bid Requirements may be found in Sections II through VI.

Bids shall conform to all instructions, conditions, and requirements included in the ITB. Prospective Vendors are expected to carefully examine all documents, schedules, and requirements in this solicitation, and respond to each requirement in the format prescribed. Bids may be found non-responsive if they do not conform to the ITB.

# B. PROCURING OFFICE AND COMMUNICATION WITH STATE STAFF AND EVALUATORS

Procurement responsibilities related to this solicitation reside with SPB. The point of contact (POC) for the procurement is as follows:

ITB#: 6787 OF

Name: Brenda Sensibaugh, PCO Agency: State Purchasing Bureau Address: 1526 K Street, Suite 130

Telephone: 402-471-6500

E-Mail: <u>as.materielpurchasing@nebraska.gov</u>

Lincoln, NE 68508

From the date the solicitation is issued until the Intent to Award is issued, communication from the Bidder is limited to the POC listed above. After the Intent to Award is issued, the Bidder may communicate with individuals the State has designated as responsible for negotiating the contract on behalf of the State. No member of the State Government, employee of the State, or member of the Evaluation Committee is empowered to make binding statements regarding this solicitation. The POC will issue any answers, clarifications or amendments regarding this solicitation in writing. Only the SPB or awarding agency can award a contract. Bidders shall not have any communication with, or attempt to communicate or influence any evaluator involved in this solicitation.

The following exceptions to these restrictions are permitted:

- 1. Contact made pursuant to pre-existing contracts or obligations;
- Contact required by the schedule of events or an event scheduled later by POC; and
- 3. Contact required for negotiation and execution of the final contract.

The State reserves the right to reject a bidder's bid, withdraw an Intent to Award, or terminate a contract if the State determines there has been a violation of these procurement procedures.

# C. SCHEDULE OF EVENTS

The State expects to adhere to the procurement schedule shown below, but all dates are approximate and subject to change.

	ACTIVITY	DATE/TIME
1.	Release Solicitation  ITB Posted the Website at: <a href="https://das.nebraska.gov/materiel/bidopps.html#">https://das.nebraska.gov/materiel/bidopps.html#</a>	August 3, 2023
2.	Last day to submit written questions  Upload questions for 6787 OF via ShareFile to: <a href="https://nebraska.sharefile.com/r-rd756c99c54444fd2b49675e9358471b6">https://nebraska.sharefile.com/r-rd756c99c54444fd2b49675e9358471b6</a>	August 15, 2023
3.	State responds to written questions through a solicitation "Addendum" and/or "Amendment" to be posted to the Internet at:  https://das.nebraska.gov/materiel/bidopps.html#	August 18, 2023
4.	Upload electronic Bid submissions for 6787 OF via ShareFile to: https://nebraska.sharefile.com/r-r347f6a558ec1443986089fa7d60eb983  Zoom Meeting Information: Zoom Meeting https://us02web.zoom.us/j/2629176739?pwd=NkhobXNpOU94UmFmTG1wYmJqTXhpUT09  Meeting ID: 262 917 6739 Passcode: 5VwBuR  IT IS THE BIDDERS' RESPONSIBILITY TO ENSURE ALL BIDS SHALL BE SUBMITTED AND RECEIVED BY THE DATE AND TIME INDICATED IN THE SCHEDULE OF EVENTS FOR EACH BID SUBMITTED.	August 31, 2023 2:00 PM Central Time
5.	Post "Notification of Intent to Award" to Internet at: http://das.nebraska.gov/materiel/purchasing.html	TBD

#### D. WRITTEN QUESTIONS AND ANSWERS

Questions regarding the meaning or interpretation of any solicitation provision must be submitted in writing to SPB and clearly marked "ITB Number 6787 OF; Steel W-Beams Questions". POC is not obligated to respond to questions that are received late per the Schedule of Events.

Bidder should present, as questions, any assumptions upon which the Bidder's bid is or might be developed. Bids will be evaluated without consideration of any known or unknown assumptions of a Bidder. The contract will not incorporate any known or unknown assumptions of a Bidder.

Questions should be uploaded to ShareFile at; https://nebraska.sharefile.com/r-rd756c99c54444fd2b49675e9358471b6

It is recommended that Bidders submit questions using the following format.

Solicitation Section Reference	Solicitation Page Number	Question

Written answers will be posted at https://das.nebraska.gov/materiel/bidopps.html per the Schedule of Events.

# E. SECRETARY OF STATE/TAX COMMISSIONER REGISTRATION REQUIREMENTS (Statutory)

All Bidders must be authorized to transact business in the State and comply with all Nebraska Secretary of State Registration requirements. The Bidder who is the recipient of an Intent to Award will be required to certify that it has complied and produce a true and correct copy of its current (within ninety (90) calendar days of the intent to award) Certificate or Letter of Good Standing, or in the case of a sole proprietorship, provide written documentation of sole proprietorship and the United States Citizenship Attestation Form, available on the DAS website at: <a href="http://das.nebraska.gov/materiel/purchasing.html">http://das.nebraska.gov/materiel/purchasing.html</a>. This must be accomplished prior to execution of the contract.

#### F. ETHICS IN PUBLIC CONTRACTING

The State reserves the right to reject bids, withdraw an intent to award or award, or terminate a contract if a Bidder commits or has committed ethical violations, which include, but are not limited to:

- 1. Offering or giving, directly or indirectly, a bribe, fee, commission, compensation, gift, gratuity, or anything of value to any person or entity in an attempt to influence the bidding process;
- 2. Utilize the services of lobbyists, attorneys, political activists, or consultants to influence or subvert the bidding process;
- **3.** Being considered for, presently being, or becoming debarred, suspended, ineligible, or excluded from contracting with any state or federal entity:
- **4.** Submitting a bid on behalf of another party or entity;
- **5.** Collude with any person or entity to influence the bidding process, submit sham bids, preclude bidding, fix pricing or costs, create an unfair advantage, subvert the bid, or prejudice the State.

The Bidder shall include this clause in any subcontract entered into for the exclusive purpose of performing this contract.

Bidder shall have an affirmative duty to report any violations of this clause by the Bidder throughout the bidding process, and throughout the term of this contract for the successful Bidder and their subcontractor s.

#### G. DEVIATIONS FROM THE INVITATION TO BID

The requirements contained in the solicitation (Sections II through VI) become a part of the terms and conditions of the contract resulting from this solicitation. Any deviations from the solicitation in Sections II through VI must be clearly defined by the Vendor in its bid and, if accepted by the State, will become part of the contract. Any specifically defined deviations must not be in conflict with the basic nature of the solicitation, solicitation requirements, or applicable state or federal laws or statutes. "Deviation", for the purposes of this solicitation, means any proposed changes or alterations to either the contractual language or deliverables within the scope of this solicitation. The State discourages deviations and reserves the right to reject proposed deviations.

All bids must be submitted to SPB in the matter set forth below. It is the Bidder's responsibility to submit the Electronic Bid(s) and be received by the date and time of the Bid Opening indicated in the Schedule of Events. The State is not responsible for bids that are late or lost, regardless of cause (e.g., hardware, software, or electronic failure) or fault. Late bids will not be accepted.

# 1. UPLOADING ELECTRONIC BID(S) TO SHAREFILE (SUBMITTED DOCUMENTS MUST NOT BE PASSWORD PROTECTED)

- a. Bidders should upload bid(s) via ShareFile to: https://nebraska.sharefile.com/r-r347f6a558ec1443986089fa7d60eb983
- b. Each bid will have an individual ShareFile link. <u>Bidders must sure to upload their Bid(s) to the</u> correct ShareFile link.
- **c.** Not all browsers are compatible with ShareFile. <u>Currently Chrome, Internet Explorer and Firefox</u> are compatible, but Microsoft Edge is not.
- d. After the bidder clicks the bid submission link, the bidder will be prompted to enter contact information including an e-mail address so that the bidder will receive a confirmation email confirming the successful upload directly from ShareFile.
- **e.** If it is the bidder's intent to submit multiple bids, the bidder must clearly identify each submission separately (see "Electronic ITB File Names" below).
- f. The Bidder is solely responsible for any variance between the copies submitted.
- g. If multiple bids are submitted, the State will retain only the most recently submitted bid.
- h. Any **Proprietary information** (if applicable) should be uploaded as separate and distinct files.
- i. Do not submit bid file(s) more than <u>30 days prior</u> to the Bid Opening. Once uploaded the bid documents are <u>only available for 30 days</u>.

# 2. ELECTRONIC ITB FILE NAMES

**a.** The Bidder should clearly identify the uploaded Bid files.

- **DO NOT ADD any language to the naming conventions below**. Long titles can make the files difficult to work with.
- c. If the bidder submits the bid/bid documents as <u>one (1) complete packet (preferred method)</u>, please use the following naming convention:
  - 6787 OF Steel W-Beams NAME OF BIDDER Bid.
- d. If the bidder submits the bid/bid documents as separate files, please use the following naming convention(s):
  - 6787 OF Steel W-Beams NAME OF BIDDER Bid/File 1/File 2, etc....
- e. If multiple bids are submitted for the same ITB <u>number and Attachment</u>, follow the same naming convention as letter "e", for example:
  - 6787 OF Steel W-Beams NAME OF BIDDER Bid 2/Bid 2 File 1/Bid 2 File 2, etc...

SPB will **ONLY** accept bids by mail, email, voice, or telephone for one-time purchases under \$50,000.00.

It is the responsibility of the Bidder to check the website often at <a href="https://das.nebraska.gov/materiel/bidopps.html">https://das.nebraska.gov/materiel/bidopps.html</a> for all information relevant to this ITB to include Addenda issued prior to the Opening Date and Time.

#### H. BID PREPARATION COSTS

The State shall not incur any liability for any costs incurred by Bidder in replying to this ITB, including any activity related to bidding on this ITB.

#### I. FAILURE TO COMPLY WITH INVITATION TO BID

Violation of the terms and conditions contained in this solicitation or any resultant contract, at any time before or after the award, shall be grounds for action by the State which may include, but is not limited to, the following:

- 1. Rejection of a Bidder's bid;
- 2. Withdrawal of the Intent to Award;
- **3.** Withdrawal of the Award;
- **4.** Negative Vendor Performance Report(s)
- **5.** Termination of the resulting contract;
- **6.** Legal action; or,
- 7. Suspension of the Bidder from further bidding with the State for the period of time relative to the seriousness of the violation, such period to be within the sole discretion of the State.

#### J. BID CORRECTIONS

A Bidder may correct a mistake in a bid prior to the time of opening by giving written notice to the State of intent to withdraw the bid for modification or to withdraw the bid completely. Changing a bid after opening may be permitted if the change is made to correct a minor error that does not affect price, quantity, quality, delivery, or contractual conditions. In case of a mathematical error in extension of price, unit price shall govern.

#### K. LATE BIDS

Bids received after the time and date of the bid opening will be considered late bids. Late bids will be returned unopened, if requested by the Bidder and at Bidder's expense. The State is not responsible for bids that are late or lost regardless of cause or fault.

#### L. BID OPENING

Anyone may attend the opening. It is considered a public opening. The PCO will read the names of the respondents. Depending upon the complexity of the bid for goods, the PCO may read the bids aloud or allow bids be available for viewing by the public during the bid opening. Once the bid opening has concluded, the bids will not be available for viewing until the Intent to Award has been posted. An initial bid tabulation will be posted to the website as soon as feasible. Information identified as proprietary by the submitting vendor, in accordance with the solicitation and state statute, will not be posted. If the state determines submitted information should not be withheld, in accordance with the <a href="Public Records Act">Public Records Act</a>, or if ordered to release any withheld information, said information may then be released. The submitting vendor will be notified of the release and it shall be the obligation of the submitting vendor to take further action, if it believes the information should not be released.

#### M. INVITATION TO BID/BID REQUIREMENTS

The bids will first be examined to determine if all requirements listed below have been addressed and whether further evaluation is warranted. Bids not meeting the requirements may be rejected as non-responsive. The requirements are:

- 1. Original Commodity ITB form signed using an indelible method (electronic signatures are acceptable);
- **2.** Clarity and responsiveness of the bid;
- **3.** Completed Sections II through VI;
- 4. Completed ITB Form or State's Cost Sheet.

#### N. EVALUATION OF BIDS

All bids that are responsive to the solicitation will be evaluated based on the following:

#### 1. Cost Bid

Neb. Rev. Stat. §81-161 allows the quality of performance of previous contracts to be considered when evaluating responses to competitively bid solicitations in determining the lowest responsible bidder. Information obtained from any Vendor Performance Report (See Terms & Conditions, Section H) may be used in evaluating responses to solicitations for goods and services to determine the best value for the State.

**Neb. Rev. Stat. §73-107 allows for a preference for a resident disabled veteran or business located in a designated enterprise zone.** When a state contract is to be awarded to the lowest responsible vendor, a resident disabled veteran or a business located in a designated enterprise zone under the Enterprise Zone Act shall be allowed a preference over any other resident or nonresident vendor, if all other factors are equal.

Resident disabled veterans means any person (a) who resides in the State of Nebraska, who served in the United States Armed Forces, including any reserve component or the National Guard, who was discharged or otherwise separated with a characterization of honorable or general (under honorable conditions), and who possesses a disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense and (b)(i) who owns and controls a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection and (ii) the management and daily business operations of the business are controlled by one or more persons described in subdivision(a) of this subsection. Any contract entered into without compliance with this section shall be null and void.

Therefore, if a resident disabled veteran or business located in a designated enterprise zone submits a bid in accordance with Neb. Rev. Stat. §73-107 and has so indicated on the ITB cover page under "Vendor must complete the following" requesting priority/preference to be considered in the award of this contract, the following will need to be submitted by the vendor within ten (10) business days of request:

- Documentation from the United States Armed Forces confirming service;
- Documentation of discharge or otherwise separated characterization of honorable or general (under honorable conditions);
- 3. Disability rating letter issued by the United States Department of Veterans Affairs establishing a service-connected disability or a disability determination from the United States Department of Defense; and
- 4. Documentation which shows ownership and control of a business or, in the case of a publicly owned business, more than fifty percent of the stock is owned by one or more persons described in subdivision (a) of this subsection; and the management and daily business operations of the business are controlled by one or more persons described in subdivision (a) of this subsection.

Failure to submit the requested documentation within ten (10) business days of notice will disqualify the vendor from consideration of the preference.

# O. BEST AND FINAL OFFER

If BAFO are requested by the State and submitted by the vendor, they will be evaluated (using the stated BAFO criteria) and ranked by the Evaluation Committee. The State reserves the right to conduct more than one BAFO. The award will then be granted to the lowest responsible vendor. However, a vendor should provide its best offer in its original bid. Vendors should not expect that the State will request a BAFO.

#### P. REFERENCE AND CREDIT CHECKS

The State reserves the right to conduct and consider reference and credit checks. The State reserves the right to use third parties to conduct reference and credit checks. By submitting a bid in response to this solicitation, the vendor grants to the State the right to contact or arrange a visit in person with any or all of the vendor's clients. Reference and credit checks may be grounds to reject a bid, withdraw an intent to award, or rescind the award of a contract.

#### Q. AWARD

The State reserves the right to evaluate bids and award contracts in a manner utilizing criteria selected at the State's discretion and in the State's best interest. After evaluation of the bids, or at any point in the solicitation process, the State of Nebraska may take one or more of the following actions:

- **1.** Amend the solicitation:
- **2.** Extend the time of or establish a new bid opening time;
- 3. Waive deviations or errors in the State's solicitation process and in vendor bids that are not material, do not compromise the solicitation process or a vendor 's bid, and do not improve a vendor 's competitive position:
- Accept or reject a portion of or all of a bid;
- 5. Accept or reject all bids;
- **6.** Withdraw the solicitation;
- 7. Elect to rebid the solicitation;
- **8.** Award single lines or multiple lines to one or more vendors; or,
- **9.** Award one or more all-inclusive contracts.

The State of Nebraska may consider, but is not limited to considering, one or more of the following award criteria:

- 1. Price;
- 2. Location:
- **3.** Quality:
- **4.** Delivery time;
- **5.** Vendor qualifications and capabilities;
- **6.** State contract management requirements and/or costs; and,

The solicitation does not commit the State to award a contract. Once intent to award decision has been determined, it will be posted to the Internet at:

http://das.nebraska.gov/materiel/purchasing.html

Any protests must be filed by a vendor within ten (10) business days after the intent to award decision is posted to the Internet. Grievance and protest procedure is available on the Internet at: http://das.nebraska.gov/materiel/purchasing.html

# R. SPECIFICATIONS

Any manufacturer's names, trade names, brand names, information and/or catalog numbers listed in a specification are for reference and not intended to limit competition, but will be used as the standard by which equivalent material offered will be judged. The Materiel Administrator will be the sole judge of equivalency. The Vendor may offer any brands which meets or exceeds the specification. When a specific product is required, the solicitation will so state. Any item bid is to be the latest current model under standard production at the time of order. No used or refurbished equipment will be accepted, unless otherwise stated.

# S. SAMPLES

When requested, samples should be furnished at the Vendor's expense prior to the opening of the bid, unless another time is specified. Each sample should be labeled clearly, and identify the Vendor's name, the ITB number, item number, and the brand and model number, if applicable. Samples submitted must be the commodities or equipment which would be delivered if awarded the bid. The State reserves the right to request samples even though this may not have been set forth in the solicitation. Samples may be destroyed in testing. If a sample is not destroyed in testing and a Vendor wishes to have the sample returned, it will be returned at the Vendor's expense upon request. The sample will not be returned until thirty (30) calendar days after any bid protest or, the execution of a contract. The Vendor shall have ten (10) calendar days to arrange for the return of the sample to the Vendor following any of the above dates. If no request from the Vendor is received within the above dates, the State reserves the right to use, donate, or surplus the samples in accordance with the State's policies.

#### T. ALTERNATE/EQUIVALENT BIDS

Vendor may offer bids which are at variance from the express specifications of the solicitation. The State reserves the right to consider and accept such bids if, in the judgment of the Materiel Administrator, the bid will result in goods and/or services equivalent to or better than those which would be supplied in the original bid specifications. Vendor must indicate on the solicitation the manufacturer's name, number and shall submit with their bid, sketches, descriptive literature and/or complete specifications. Reference to literature submitted with a previous bid will not satisfy this provision. Bids which do not comply with these requirements are subject to rejection. In the absence of any stated deviation or exception, the bid will be accepted as in strict compliance with all terms, conditions and specification, and the Vendor shall be held liable therefore.

# U. LUMP SUM OR "ALL OR NONE" BIDS

The State reserves the right to purchase item-by-item, by groups or as a total when the State may benefit by so doing. Vendors may submit a bid on an "all or none" or "lump sum" basis, but should also submit a bid on an item-by-item basis. The term "all or none" means a conditional bid which requires the purchase of all items on which bids are offered and Vendor declines to accept award on individual items; a "lump sum" bid is one in which the Vendor offers a lower price than the sum of the individual bids if all items are purchased, but agrees to deliver individual items at the prices quoted.

#### V. EMAIL SUBMISSIONS

SPB will not accept bids by email, voice, or telephone bids except for one-time purchases under \$50,000.00.

#### W. BID TABULATIONS

Bid tabulations are available on the website at: https://das.nebraska.gov/materiel/bidopps.html..

# X. REJECTION OF BIDS

The State reserves the right to reject any or all bids, wholly or in part, in the best interest of the State.

#### Y. RESIDENT BIDDER

Pursuant to Neb. Rev. Stat. §§ 73-101.01 through 73-101.02, a Resident Bidder shall be allowed a preference against a Non-resident Bidder from a state which gives or requires a preference to Bidders from that state. The preference shall be equal to the preference given or required by the state of the Nonresident Bidders. Where the lowest responsible bid from a resident Bidder is equal in all respects to one from a nonresident Bidder from a state which has no preference law, the resident Bidder shall be awarded the contract. The provision of this preference shall not apply to any contract for any project upon which federal funds would be withheld because of the provisions of this preference.

#### II. TERMS AND CONDITIONS

Bidders should complete Section II through VI as part of their bid. Bidder is expected to read the Terms and Conditions and must initial either accept, reject, or reject and provide alternative language for each clause. The Bidder should also provide an explanation of why the Bidder rejected the clause or rejected the clause and provided alternate language using "Track Changes". Upon request an electronic copy of the bid with "Track Changes" must be submitted in an editable Word format. By signing the solicitation, Bidder is agreeing to be legally bound by all the accepted terms and conditions, and any proposed alternative terms and conditions submitted with the bid. The State reserves the right to negotiate rejected or proposed alternative language. If the State and Bidder fail to agree on the final Terms and Conditions, the State reserves the right to reject the bid. The State is soliciting bids in response to the solicitation. The State reserves the right to reject bids that attempt to substitute the Bidder's commercial contracts and/or documents for this solicitation.

The Bidder should submit with their bid any license, user agreement, service level agreement, or similar documents that the Bidder wants incorporated in the Contract. Upon notice of Intent to Award, the Vendor must submit a copy of these documents in an editable Word format. The State will not consider incorporation of any document not submitted with the Bidder's bid. These documents shall be subject to negotiation and will be incorporated as addendums if agreed to by the Parties.

If a conflict or ambiguity arises after the addendums have been negotiated and agreed to, the addendums shall be interpreted as follows:

- 1. If only one (1) Party's document has a particular clause then that clause shall control;
- 2. If both Party's documents have a similar clause, but the clauses do not conflict, the clauses shall be read together;
- 3. If both Party's documents have a similar clause, but the clauses conflict, the State's clause shall control.

#### A. GENERAL

The contract resulting from this solicitation shall incorporate the following documents:

- 1. Invitation to Bid and Addenda;
- 2. Amendments to the solicitation;
- **3.** Questions and Answers;
- **4.** Bidder's bid response;
- 5. The executed Contract and any Addenda, if applicable, and properly submitted documents; and,
- **6.** Amendments to the Contract

These documents constitute the entirety of the contract.

Unless otherwise specifically stated in a future contract amendment, in case of any conflict between the incorporated documents, the documents shall govern in the following order of preference with number one (1) receiving preference over all other documents and with each lower numbered document having preference over any higher numbered document: 1) Amendment to the executed Contract with the most recent dated amendment having the highest priority, 2) executed Contract and any attached Addenda, 3) Amendments to solicitation and any Questions and Answers, 4) the original solicitation document and any Addenda, and 5) the Bidder's submitted Bid.

Any ambiguity or conflict in the contract discovered after its execution, not otherwise addressed herein, shall be resolved in accordance with the rules of contract interpretation as established in the State.

#### B. NOTIFICATION

Communications regarding the executed contract shall be in writing and shall be deemed to have been given if delivered personally or mailed, by U.S. Mail, postage prepaid, return receipt requested, to the parties at their respective addresses, or at such other addresses as may be specified in writing by either of the parties. All notices, requests, or communications shall be deemed effective upon personal delivery or five (5) calendar days following deposit in the mail.

Either party may change its address for notification purposes by giving notice of the change, and setting forth the new address and an effective date.

#### C. PCO REPRESENTATIVE

The State reserves the right to appoint a PCO's Representative to manage [or assist the PCO in managing] the contract on behalf of the State. The PCO's Representative will be appointed in writing, and the appointment document will specify the extent of the PCO's Representative authority and responsibilities. If a PCO's Representative is appointed, the Vendor will be provided a copy of the appointment document, and is expected to cooperate accordingly with the PCO's Representative. The PCO's Representative has no authority to bind the State to a contract, amendment, addendum, or other change or addition to the contract.

# D. GOVERNING LAW (Statutory)

Notwithstanding any other provision of this contract, or any amendment or addendum(s) entered into contemporaneously or at a later time, the parties understand and agree that, (1) the State of Nebraska is a sovereign state and its authority to contract is therefore subject to limitation by the State's Constitution, statutes, common law, and regulation; (2) this contract will be interpreted and enforced under the laws of the State of Nebraska; (3) any action to enforce the provisions of this contract must be brought in the State of Nebraska per state law; (4) the person signing this contract on behalf of the State of Nebraska does not have the authority to waive the State's sovereign immunity, statutes, common law, or regulations; (5) the indemnity, limitation of liability, remedy, and other similar provisions of the final contract, if any, are entered into subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity; and, (6) all terms and conditions of the final contract, including but not limited to the clauses concerning third-party use, licenses, warranties, limitations of liability, governing law and venue, usage verification, indemnity, liability, remedy or other similar provisions of the final contract are entered into specifically subject to the State's Constitution, statutes, common law, regulations, and sovereign immunity.

The Parties must comply with all applicable local, state and federal laws, ordinances, rules, orders, and regulations.

# E. AMENDMENT

This Contract may be amended in writing, within scope, upon the agreement of both parties.

#### F. CHANGE ORDERS OR SUBSTITUTIONS

The State and the Vendor, upon the written agreement, may make changes to the contract within the general scope of the solicitation. Changes may involve specifications, the quantity of work, or such other items as the State may find necessary or desirable. Corrections of any deliverable, service, or work required pursuant to the contract shall not be deemed a change. The Vendor may not claim forfeiture of the contract by reasons of such changes.

The Vendor shall prepare a written description of the work required due to the change and an itemized cost sheet for the change. Changes in work and the amount of compensation to be paid to the Vendor shall be determined in accordance with applicable unit prices if any, a pro-rated value, or through negotiations. The State shall not incur a price increase for changes that should have been included in the Vendor's bid, were foreseeable, or result from difficulties with or failure of the Vendor's bid or performance.

No change shall be implemented by the Vendor until approved by the State, and the Contract is amended to reflect the change and associated costs, if any. If there is a dispute regarding the cost, but both parties agree that immediate implementation is necessary, the change may be implemented, and cost negotiations may continue with both Parties retaining all remedies under the contract and law.

In the event any product is discontinued or replaced upon mutual consent during the contract period or prior to delivery, the State reserves the right to amend the contract or purchase order to include the alternate product at the same price.

<sup>\*\*\*</sup>Bidder will not substitute any item that has been awarded without prior written approval of SPB\*\*\*

# G. VENDOR PERFORMANCE REPORT(S)

The State may document any instance(s) of products or services delivered or performed which exceed or fail to meet the terms of the purchase order, contract, and/or solicitation specifications. The State Purchasing Bureau may contact the Vendor regarding any such report. Vendor performance report(s) will become a part of the permanent record of the Vendor.

#### H. NOTICE OF POTENTIAL BIDDER BREACH

If Bidder breaches the contract or anticipates breaching the contract, the Bidder shall immediately give written notice to the State. The notice shall explain the breach or potential breach, a proposed cure, and may include a request for a waiver of the breach if so desired. The State may, in its discretion, temporarily or permanently waive the breach. By granting a waiver, the State does not forfeit any rights or remedies to which the State is entitled by law or equity, or pursuant to the provisions of the contract. Failure to give immediate notice, however, may be grounds for denial of any request for a waiver of a breach.

#### I. BREACH

Either Party may terminate the contract, in whole or in part, if the other Party breaches its duty to perform its obligations under the contract in a timely and proper manner. Termination requires written notice of default and a thirty (30) calendar day (or longer at the non-breaching Party's discretion considering the gravity and nature of the default) cure period. Said notice shall be delivered by Certified Mail, Return Receipt Requested, or in person with proof of delivery. Allowing time to cure a failure or breach of contract does not waive the right to immediately terminate the contract for the same or different contract breach which may occur at a different time.

In case of breach by the Bidder , the State may, without unreasonable delay, make a good faith effort to make a reasonable purchase or contract to purchased goods in substitution of those due from the bidder . The State may recover from the Bidder as damages the difference between the costs of covering the breach. Notwithstanding any clause to the contrary, the State may also recover the contract price together with any incidental or consequential damages defined in UCC Section 2-715, but less expenses saved in consequence of Bidder's breach. OR In case of default of the Bidder , the State may contract the service from other sources and hold the Bidder responsible for any excess cost occasioned thereby.

The State's failure to make payment shall not be a breach, and the Bidder shall retain all available statutory remedies. (See Indemnity - Self-Insurance and Payment)

# J. NON-WAIVER OF BREACH

The acceptance of late performance with or without objection or reservation by a Party shall not waive any rights of the Party nor constitute a waiver of the requirement of timely performance of any obligations remaining to be performed.

# K. SEVERABILITY

If any term or condition of the contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the provision held to be invalid or illegal.

# L. INDEMNIFICATION

#### 1. GENERAL

The Bidder agrees to defend, indemnify, and hold harmless the State and its employees, volunteers, agents, and its elected and appointed officials ("the indemnified parties") from and against any and all claims, liens, demands, damages, liability, actions, causes of action, losses, judgments, costs, and expenses of every nature, including investigation costs and expenses, settlement costs, and attorney fees and expenses ("the claims"), sustained or asserted against the State for personal injury, death, or property loss or damage, arising out of, resulting from, or attributable to the willful misconduct, negligence, error, or omission of the Bidder, its employees, Subcontractor, consultants, representatives, and agents, resulting from this contract, except to the extent such Bidder liability is attenuated by any action of the State which directly and proximately contributed to the claims.

# 2. SELF-INSURANCE (Statutory)

The State is self-insured for any loss and purchases excess insurance coverage pursuant to Neb. Rev. Stat. § 81-8,239.01 (Reissue 2008). If there is a presumed loss under the provisions of this contract, Vendor may file a claim with the Office of Risk Management pursuant to Neb. Rev. Stat. §§ 81-8,829 through 81-8,306 for review by the State Claims Board. The State retains all rights and immunities under the State Miscellaneous (Section 81-8,294), Tort (Section 81-8,209), and Contract Claim Acts (Section 81-8,302), as outlined in Neb. Rev. Stat. § 81-8,209 et seq. and under any other provisions of law and accepts liability under this contract to the extent provided by law.

#### M. ATTORNEY'S FEES

In the event of any litigation, appeal, or other legal action to enforce any provision of the contract, the Parties agree to pay all expenses of such action, as permitted by law and if ordered by the court, including attorney's fees and costs, if the other party prevails.

#### N. ASSIGNMENT, SALE, OR MERGER

Either party may assign the contract upon mutual written agreement of the other party. Such agreement shall not be unreasonably withheld.

The Bidder retains the right to enter into a sale, merger, acquisition, internal reorganization, or similar transaction involving Bidder's business. Bidder agrees to cooperate with the State in executing amendments to the contract to allow for the transaction. If a third party or entity is involved in the transaction, the Bidder will remain responsible for performance of the contract until such time as the person or entity involved in the transaction agrees in writing to be contractually bound by this contract and perform all obligations of the contract.

# O. CONTRACTING WITH OTHER POLITICAL SUB-DIVISIONS OF THE STATE OR ANOTHER STATE

The Bidder may, but shall not be required to, allow agencies, as defined in Neb. Rev. Stat. § 81-145, to use this contract. The terms and conditions, including price, of the contract may not be amended. The State shall not be contractually obligated or liable for any contract entered into pursuant to this clause.

The Bidder may, but shall not be required to, allow other states, agencies or divisions of other states, or political subdivisions of other states to use this contract. The terms and conditions, including price, of this contract shall apply to any such contract, but may be amended upon mutual consent of the Parties. The State of Nebraska shall not be contractually or otherwise obligated or liable under any contract entered into pursuant to this clause. The State shall be notified if a contract is executed based upon this contract.

#### P. FORCE MAJEURE

Neither party shall be liable for any costs or damages, or for default resulting from its inability to perform any of its obligations under the contract due to a natural or man-made event outside the control and not the fault of the affected party ("Force Majeure Event"). The Party so affected shall immediately make a written request for relief to the other party, and shall have the burden of proof to justify the request. The other Party may granted the relief requested; relief may not be unreasonably withheld. Labor disputes with the impacted party's own employees will not be considered a Force Majeure Event.

#### Q. CONFIDENTIALITY

All materials and information provided by the Parties or acquired by a Party on behalf of the other Party shall be regarded as confidential information. All materials and information provided or acquired shall be handled in accordance with federal and state law, and ethical standards. Should said confidentiality be breached by a Party, the Party shall notify the other Party immediately of said breach and take immediate corrective action.

It is incumbent upon the Parties to inform their officers and employees of the penalties for improper disclosure imposed by the Privacy Act of 1974, 5 U.S.C. 552a. Specifically, 5 U.S.C. 552a (i)(1), which is made applicable by 5 U.S.C. 552a (m)(1), provides that any officer or employee, who by virtue of his/her employment or official position has possession of or access to agency records which contain individually identifiable information, the disclosure of which is prohibited by the Privacy Act or regulations established thereunder, and who knowing that disclosure of the specific material is prohibited, willfully discloses the material in any manner to any person or agency not entitled to receive it, shall be guilty of a misdemeanor and fined not more than \$5,000.

#### R. EARLY TERMINATION

The contract may be terminated as follows:

- 1. The State and the Bidder, by mutual written agreement, may terminate the contract at any time.
- The State, at its sole discretion, may terminate the contract for any reason upon thirty (30) calendar day's written notice to the Bidder. Such termination shall not relieve the Bidder of warranty or other service obligations incurred under the terms of the contract. In the event of termination the Bidder shall be entitled to payment, determined on a pro rata basis, for products or services satisfactorily performed or provided.
- **3.** The State may terminate the contract immediately for the following reasons:
  - **a.** if directed to do so by statute;
  - **b.** Bidder has made an assignment for the benefit of creditors, has admitted in writing its inability to pay debts as they mature, or has ceased operating in the normal course of business;
  - a trustee or receiver of the Bidder or of any substantial part of the Bidder's assets has been appointed by a court;
  - d. fraud, misappropriation, embezzlement, malfeasance, misfeasance, or illegal conduct pertaining to performance under the contract by its Bidder, its employees, officers, directors, or shareholders:
  - e. an involuntary proceeding has been commenced by any party against the Bidder under any one of the chapters of Title 11 of the United States Code and (i) the proceeding has been pending for at least sixty (60) calendar days; or (ii) the Bidder has consented, either expressly or by operation of law, to the entry of an order for relief; or (iii) the Bidder has been decreed or adjudged a debtor;
  - f. a voluntary petition has been filed by the Bidder under any of the chapters of Title 11 of the United States Code;
  - **g.** Bidder intentionally discloses confidential information;
  - h. Bidder has or announces it will discontinue support of the deliverable; and,
  - i. In the event funding is no longer available.

#### S. CONTRACT CLOSEOUT

Upon termination of the contract for any reason the Bidder shall within thirty (30) days, unless stated otherwise herein:

- 1. Transfer all completed or partially completed deliverables to the State:
- 2. Transfer ownership and title to all completed or partially completed deliverables to the State;
- 3. Return to the State all information and data, unless the Bidder is permitted to keep the information or data by contract or rule of law. Bidder may retain one copy of any information or data as required to comply with applicable work product documentation standards or as are automatically retained in the course of Bidder routine back up procedures;
- **4.** Cooperate with any successor contactor, person or entity in the assumption of any or all of the obligations of this contract;
- **5.** Cooperate with any successor contactor, person or entity with the transfer of information or data related to this contract:
- **6.** Return or vacate any state owned real or personal property; and,
- 7. Return all data in a mutually acceptable format and manner.

Nothing in this Section should be construed to require the Bidder to surrender intellectual property, real or person property, or information or data owned by the Bidder for which the State has no legal claim.

#### III. BIDDER DUTIES

# A. INDEPENDENT BIDDER / OBLIGATIONS

It is agreed that the Bidder is an independent bidder and that nothing contained herein is intended or should be construed as creating or establishing a relationship of employment, agency, or a partnership.

The Bidder is solely responsible for fulfilling the contract. The Bidder or the Bidder's representative shall be the sole point of contact regarding all contractual matters.

The Bidders shall secure, at its own expense, all personnel required to perform the services under the contract. The personnel the Bidder uses to fulfill the contract shall have no contractual or other legal relationship with the State; they shall not be considered employees of the State and shall not be entitled to any compensation, rights or benefits from the State, including but not limited to, tenure rights, medical and hospital care, sick and vacation leave, severance pay, or retirement benefits.

By-name personnel commitments made in the Bidder's bid shall not be changed without the prior written approval of the State. Replacement of these personnel, if approved by the State, shall be with personnel of equal or greater ability and qualifications.

The Bidder warrants that all persons assigned to the project shall be employees of the Bidder or a Subcontractor, and shall be fully qualified to perform the work required herein. Personnel employed by the Bidder or a subcontractor to fulfill the terms of the contract shall remain under the sole direction and control of the Bidder or the subcontractor respectively.

With respect to its employees, the Bidder agrees to be solely responsible for the following:

- 1. Any and all pay, benefits, and employment taxes and/or other payroll withholding;
- 2. Any and all vehicles used by the Bidder's employees, including all insurance required by state law;
- 3. Damages incurred by Bidder's employees within the scope of their duties under the contract;
- **4.** Maintaining Workers' Compensation and health insurance that complies with state and federal law and submitting any reports on such insurance to the extent required by governing law;
- 5. Determining the hours to be worked and the duties to be performed by the Bidder's employees; and,
- **6.** All claims on behalf of any person arising out of employment or alleged employment (including without limit claims of discrimination alleged against the Bidder, its officers, agents, or subcontractor or subcontractor's employees).

If the Bidder intends to utilize any subcontractor, the Subcontractor's level of effort, tasks, and time allocation must be clearly defined in the Bidder's bid. The Bidder shall agree that it will not utilize any Subcontractor's not specifically included in its bid in the performance of the contract without the prior written authorization of the State.

The State reserves the right to require the Bidder to reassign or remove from the project any Bidder or Subcontractor employee.

Vendor shall insure that the terms and conditions contained in any contract with a sub-Bidder does not conflict with the terms and conditions of this contract.

The Bidder shall include a similar provision, for the protection of the State, in the contract with any Subcontractor's engaged to perform work on this contract.

# B. EMPLOYEE WORK ELIGIBILITY STATUS

The Bidder is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of employees physically performing work within the State. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of an employee.

If the Bidder is an individual or sole proprietorship, the following applies:

 The Bidder must complete the United States Citizenship Attestation Form, available on the DAS website at http://das.nebraska.gov/materiel/purchasing.html

The completed United States Attestation Form should be submitted with the solicitation response.

- 2. If the Bidder indicates on such attestation form that he or she is a qualified alien, the Bidder agrees to provide the U.S. Citizenship and Immigration Services documentation required to verify the Bidder's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
- 3. The Bidder understands and agrees that lawful presence in the United States is required and the Bidder may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. § 4-108.

# C. COMPLIANCE WITH CIVIL RIGHTS LAWS AND EQUAL OPPORTUNITY EMPLOYMENT / NONDISCRIMINATION (Statutory)

The Bidder shall comply with all applicable local, state, and federal statutes and regulations regarding civil rights laws and equal opportunity employment. The Nebraska Fair Employment Practice Act prohibits Bidders of the State, and their Subcontractors, from discriminating against any employee or applicant for employment, with respect to hire, tenure, terms, conditions, compensation, or privileges of employment because of race, color, religion, sex, disability, marital status, or national origin (Neb. Rev. Stat. §§ 48-1101 through 48-1125). The Bidder guarantees compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of contract. The Bidder shall insert a similar provision in all Subcontracts for goods or services to be covered by any contract resulting from this solicitation.

#### D. COOPERATION WITH OTHER BIDDERS

Bidder may be required to work with or in close proximity to other bidders or individuals that may be working on the same or different projects. The Bidder shall agree to cooperate with such other bidders or individuals, and shall not commit or permit any act which may interfere with the performance of work by any other bidder or individual. Bidder is not required to compromise Bidder's intellectual property or proprietary information unless expressly required to do so by this contract.

#### E. DISCOUNTS

Prices quoted shall be inclusive of ALL trade discounts. Cash discount terms of less than thirty (30) days will not be considered as part of the bid. Cash discount periods will be computed from the date of receipt of a properly executed claim voucher or the date of completion of delivery of all items in a satisfactory condition, whichever is later.

# F. PRICES

Prices quoted shall be unit price (per ton) and shall be firm one-hundred eighty (180) days from date of an award and are to be net; including transportation and delivery charges fully prepaid by the vendor, F.O.B. destination named in the ITB. No additional charges will be allowed for packing, handling, fuel surcharge, packaging, or partial delivery costs. When an arithmetic error has been made in the extended total, the unit price will govern. Any request for an increase must be submitted in writing to the State Purchasing Bureau a minimum of 30 days prior to proposed effective date of increase and must show cause and be accompanied by supporting documentation (such as notification letter from manufacturer). Further documentation may be required by the State, to authenticate the increase (such as manufacturer invoices). Failure to supply any requested supporting documentation may be grounds to cancel the contract. The State further reserves the right to reject any proposed price increase(s), cancel State Agencies prior to written amendment of the contract by the parties. The State further reserves the right to reject any proposed price increase(s), cancel State Agencies prior to written amendment of the contract by the parties. In no instance may a price increases be billed to the State until the contract is amended. The State further reserves the right to reject any proposed price increase(s), cancel the contract and re-bid if determined to be in the best interest of the State. The State will be given full proportionate benefit of any decrease for the term of the contract. Contract supplier or suppliers may honor pricing and extend the contract to political sub-divisions, cities, and counties. Terms and conditions of the contract must be met by political sub-divisions, cities, and counties

The State reserves the right to deny any requested price increase. No price increases are to be billed to any State Agencies prior to written amendment of the contract by the parties.

The State will be given full proportionate benefit of any decreases for the term of the contract.

# G. COST CLARIFICATION

The State reserves the right to review all aspects of cost for reasonableness and to request clarification of any bid where the cost component shows significant and unsupported deviation from industry standards or in areas where detailed pricing is required.

# H. PERMITS, REGULATIONS, LAWS

The contract price shall include the cost of all royalties, licenses, permits, and approvals, whether arising from patents, trademarks, copyrights or otherwise, that are in any way involved in the contract. The Bidder shall obtain and pay for all royalties, licenses, and permits, and approvals necessary for the performance of the contract. The Bidder must guarantee that it has the full legal right to the materials, supplies, equipment, software, and other items used to execute this contract.

# I. OWNERSHIP OF INFORMATION AND DATA / DELIVERABLES

The State shall have the unlimited right to publish, duplicate, use, and disclose all information and data developed or obtained by the Bidder on behalf of the State pursuant to this contract.

The State shall own and hold exclusive title to any deliverable developed as a result of this contract. Bidder shall have no ownership interest or title, and shall not patent, license, or copyright, duplicate, transfer, sell, or exchange, the design, specifications, concept, or deliverable.

#### J. NOTICE OF POTENTIAL VENDOR BREACH

If Vendor breaches the contract or anticipates breaching the contract the Vendor shall immediately give written notice to the State. The notice shall explain the breach or potential breach, and may include a request for a waiver of the breach if so desired. The State may, at its discretion, temporarily or permanently waive the breach. By granting a temporary waiver, the State does not forfeit any rights or remedies to which the State is entitled by law or equity, or pursuant to the provisions of the contract. Failure to give immediate notice, however, may be grounds for denial of any request for a waiver of a breach.

#### K. ANTITRUST

The Bidder hereby assigns to the State any and all claims for overcharges as to goods and/or services provided in connection with this contract resulting from antitrust violations which arise under antitrust laws of the United States and the antitrust laws of the State.

# L. CONFLICT OF INTEREST

By submitting a bid, bidder certifies that no relationship exists between the bidder and any person or entity which either is, or gives the appearance of, a conflict of interest related to this Request for Bid or project.

Bidder further certifies that bidder will not employ any individual known by bidder to have a conflict of interest nor shall bidder take any action or acquire any interest, either directly or indirectly, which will conflict in any manner or degree with the performance of its contractual obligations hereunder or which creates an actual or appearance of conflict of interest.

If there is an actual or perceived conflict of interest, bidder shall provide with its bid a full disclosure of the facts describing such actual or perceived conflict of interest and a proposed mitigation plan for consideration. The State will then consider such disclosure and proposed mitigation plan and either approve or reject as part of the overall bid evaluation.

#### M. ADVERTISING

The Bidder agrees not to refer to the contract award in advertising in such a manner as to state or imply that the company or its goods and services are endorsed or preferred by the State. Any publicity releases pertaining to the project shall not be issued without prior written approval from the State.

# N. DISASTER RECOVERY/BACK UP PLAN

The Vendor shall have a disaster recovery and back-up plan, of which a copy should be provided upon request to the State, which includes, but is not limited to equipment, personnel, facilities, and transportation, in order to continue delivery of goods and services as specified under the specifications in the contract in the event of a disaster.

#### O. DRUG POLICY

Bidder certifies it maintains a drug free work place environment to ensure worker safety and workplace integrity. Bidder agrees to provide a copy of its drug free workplace policy at any time upon request by the State.

# P. WARRANTY

Despite any clause to the contrary, the Bidder represents and warrants that its services hereunder shall be performed by competent personnel and shall be of professional quality consistent with generally accepted industry standards for the performance of such services and shall comply in all respects with the requirements of this Contract. For any breach of this warranty, the Bidder shall, for a period of ninety (90) days from performance of the service, perform the services again, at no cost to Customer, or if Bidder is unable to perform the services as warranted, Bidder shall reimburse Customer the fees paid to Bidder for the unsatisfactory services. The rights and remedies of the parties under this warranty are in addition to any other rights and remedies of the parties provided by law or equity, including, without limitation actual damages, and, as applicable and awarded under the law, to a prevailing party, reasonable attorneys' fees and costs.

# **IV. PAYMENT**

# A. PROHIBITION AGAINST ADVANCE PAYMENT (Statutory)

Neb. Rev. Stat. §§81-2403 states, "[n]o goods or services shall be deemed to be received by an agency until all such goods or services are completely delivered and finally accepted by the agency."

#### B. TAXES (Statutory)

The State is not required to pay taxes and assumes no such liability as a result of this solicitation. The Bidder may request a copy of the Nebraska Department of Revenue, Nebraska Resale or Exempt Sale Certificate for Sales Tax Exemption, Form 13 for their records. Any property tax payable on the Bidder's equipment which may be installed in a state-owned facility is the responsibility of the Bidder.

# C. INVOICES

Invoices for payments must be submitted by the Bidder to the agency requesting the services with sufficient detail to support payment. The terms and conditions included in the Bidder's invoice shall be deemed to be solely for the convenience of the parties. No terms or conditions of any such invoice shall be binding upon the State, and no action by the State, including without limitation the payment of any such invoice in whole or in part, shall be construed as binding or estopping the State with respect to any such term or condition, unless the invoice term or condition has been previously agreed to by the State as an amendment to the contract. Invoices should be sent to the address located in the Invoice to Address Below Field on the E1 Purchase Order.

#### D. INSPECTION AND APPROVAL

Final inspection and approval of all work required under the contract shall be performed by the designated State officials.

# E. PAYMENT (Statutory)

Payment will be made by the responsible agency in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §81-2403). The State may require the Bidder to accept payment by electronic means such as ACH deposit. In no event shall the State be responsible or liable to pay for any goods and services provided by the Bidder prior to the Effective Date of the contract, and the Bidder hereby waives any claim or cause of action for any such services.

# F. LATE PAYMENT (Statutory)

The Bidder may charge the responsible agency interest for late payment in compliance with the State of Nebraska Prompt Payment Act (See Neb. Rev. Stat. §§ 81-2401 through 81-2408).

# G. SUBJECT TO FUNDING / FUNDING OUT CLAUSE FOR LOSS OF APPROPRIATIONS (Statutory)

The State's obligation to pay amounts due on the Contract for a fiscal years following the current fiscal year is contingent upon legislative appropriation of funds. Should said funds not be appropriated, the State may terminate the contract with respect to those payments for the fiscal year(s) for which such funds are not appropriated. The State will give the Vendor written notice thirty (30) calendar days prior to the effective date of termination. All obligations of the State to make payments after the termination date will cease. The Vendor shall be entitled to receive just and equitable compensation for any authorized work which has been satisfactorily completed as of the termination date. In no event shall the Vendor be paid for a loss of anticipated profit.

# H. RIGHT TO AUDIT (First Paragraph is Statutory)

The State shall have the right to audit the Vendor's performance of this contract upon a thirty (30) day written notice. Vendor shall utilize generally accepted accounting principles, and shall maintain the accounting records, and other records and information relevant to the contract (Information) to enable the State to audit the contract. (Neb. Rev. Stat. § 84-304 et seq.) The State may audit and the Vendor shall maintain the information during the term of the contract and for a period of five (5) years after the completion of this contract or until all issues or litigation are resolved, whichever is later. The Vendor shall make the Information available to the State at Vendor's place of business or a location acceptable to both Parties during normal business hours. If this is not practical or the Vendor so elects, the Vendor may provide electronic or paper copies of the Information. The State reserves the right to examine, make copies of, and take notes on any Information relevant to this contract, regardless of the form or the Information, how it is stored, or who possesses the Information. In no circumstances will vendor be required to create or maintain documents not kept in the ordinary course of vendor's business operations, nor will vendor be required to disclose any information, including but not limited to product cost data, which is confidential or proprietary to vendor

.

The Parties shall pay their own costs of the audit unless the audit finds a previously undisclosed overpayment by the State. If a previously undisclosed overpayment exceeds one-half of one percent (.5%) of the total contract billings, or if fraud, material misrepresentations, or non-performance is discovered on the part of the Vendor, the Vendor shall reimburse the State for the total costs of the audit. Overpayments and audit costs owed to the State shall be paid within ninety (90) days of written notice of the claim. The Vendor agrees to correct any material weaknesses or condition found as a result of the audit.

# V. SCOPE OF WORK

The Vendor must provide the following information in response to this solicitation.

#### A. SCOPE

It is the intent of this bid invitation to establish a contract to supply **Steel W-Beams** per the attached specifications from date of award for a period of two (2) years with the option to renew for an additional three (3) one-year periods when mutually agreeable to the vendor and the State. The State reserves the right to extend the period of this contract beyond the end date when mutually agreeable to the vendor and the State.

All items proposed shall be of the latest manufacture in production as of the date of the solicitation and be of proven performance and under standard design complete as regularly advertised and marketed. All necessary materials for satisfactory performance of the supplies shall be incorporated into the **Steel W-Beams** whether or not they may be specifically mentioned below.

Complete specifications, manufacturer's current descriptive literature and/or advertising data sheets with cuts or photographs must be included with the bid for the IDENTICAL items proposed. Any information necessary to show compliance with these specifications not given on the manufacturer's descriptive literature and/or advertising data sheets must be supplied in writing on or attached to the bid document. If manufacturer's information necessary to show compliance with these specifications is not attached to the bid document, the Vendor may be required to submit requested information within three (3) business days of a written request. Failure to submit requested descriptive literature or advertising data sheets may be grounds to reject the bid.

# VI. TECHNICAL SPECIFICATIONS

# A. VENDOR INSTRUCTIONS

Vendor must respond to each of the following statements. Specifications listed are minimum conditions that must be met in order for a Vendor to qualify for the award.

"YES" response means the Vendor guarantees they can meet this condition.

"NO" response means the Vendor cannot meet this condition and will not be considered.

"NO & PROVIDE ALTERNATIVE" responses should be used only with a narrative response in the NOTES/COMMENTS section explaining in detail any deviation from the Vendor's ability to meet the condition, and an explanation of how this would be determined to be an acceptable alternative to meeting the condition. Alternatives must be detailed in such a way that allows such deviations to be fully evaluated. The State shall determine at its sole discretion whether or not the Vendor's alternative is an acceptable alternative.

#### B. NON-COMPLIANCE STATEMENT

YES	NO	NO & PROVIDE ALTERNATIVE		
×			1.	Read these specifications carefully. Any and all exceptions to these specifications must be written on or attached to solicitation response. Any noncompliance may void your bid. Non-compliance to any single specification can void your bid.
×			2.	It is the responsibility of Vendors to obtain information and clarifications as provided below. The State is not responsible for any erroneous or incomplete understandings or wrongful interpretations of this solicitation by any Vendor.
×			3.	No interpretation related to the meaning of solicitation specifications or other pre-bid documents will be made orally to any Vendor by the State. Any solicitation interpretation must be put in writing by the Contractor and uploaded through ShareFile link: <a href="https://nebraska.sharefile.com/r-rddad8a3f054f4afaa1a2cdf04625a99a">https://nebraska.sharefile.com/r-rddad8a3f054f4afaa1a2cdf04625a99a</a>
				to the State Purchasing Bureau, by the last day to submit written questions per the Schedule of Events. (Inquiries received after the last day to submit written questions may not be addressed).
NOTES/C	OMMENT	'S:		

# C. TECHNICAL SPECIFICATIONS: STEEL W- BEAMS

YES	NO	NO & PROVIDE ALTERNATIVE	
×			<ol> <li>Reference all drawings and specification listed in the attached document Attachment C "STEEL W – BEAMS SPECIFICATION FORM".</li> </ol>
×			<ol> <li>The fabrication of the supports involving such operations as cutting, drilling, welding, &amp; cleaning shall be in accordance with Attachment A Section 708. Mill test reports shall be submitted to the engineer prior to fabrication.</li> </ol>
X	-		<ol> <li>The Steel W-Beams post and stub post steel shall comply with ASTM A 36/A with a working stress of 20,000 psi (138 MPa).</li> </ol>
X			<ol> <li>After all post fabrication is completed the Steel W-Beams shall be hot- dip galvanized in compliance with ASTM A 12.</li> </ol>

X	6. Each Shipment of Steel W-Beams shall include a Mill Test form.
X	7. Submitted items must include a Buy America Certification .
×	8. The required Buy America BA certification must indicate the materials used to fabricate the contract material or product complies with federal requirements and was produced domestically. Domestic means with the United States, the District of Colombia, or in the territories and possessions of the United States. The certification must include:  a. Identifying information such as contract ID, control number, project number and/or project name.  b. Identifying information is not required for materials submitted for pre-approval(products noted on the NDOT approved products list, lots, batches, bundles etc.).  c. Clear and unique product identification (name of product with lot number, heat number reel number etc.)  d. The statement "Products or materials specified in this certification are permanently consumed In, incorporated into, or affixed to the project and meet the applicable Build America, Buy America requirements detailed in the Infrastructure Investment and Jobs Act as well as the 23 CFR-635.410 Buy America requirements for steel and iron products.  e. A signature by the manufacturer's authorized representative and the representative's title confirming Buy America requirements.
NOTES/COMMENTS:	
	,

# D. ANNUAL USAGE, ESTIMATED

YES	NO	NO & PROVIDE ALTERNATIVE		
×			construed as either a orders shall be for the	provided are estimates and are not to be minimum or maximum purchase quantity. The actual quantities of each item ordered by or for elife of the contract. Vendor shall not impose ements.
			W-Beam Post Type	Estimated Annual Usage (Per Post)
			Post No. 1, W6 x 15	100
			Post No. 2 , W8 x 18	20
			Post No. 3 , W8 x 24	10
			Post No. 4 , W8 x 31	10
			Post No. 5 , W8 x 48	10

NOTES/C	OMMENT	s:	
E, U	SAGE REI	PORT	
YES	NO	NO & PROVIDE ALTERNATIVE	
×			The vendor shall, upon request, provide a quarterly usage report of this contract by state agencies and political subdivisions. Information will include agency name, item, and dollar amount. Information may be requested at any time by the SPB, as determined by the State.
NOTES/C	OMMENT	s:	
F. DI	ELIVERY	ARO	
YES	NO	NO & PROVIDE ALTERNATIVE	
×			A successful Vendor will maintain sufficient inventory to process and deliver within thirty (30) calendar days ARO. There will be no minimum order requirements. Deliveries must be clearly marked with the purchase order number. If delays in delivery are anticipated, the Vendor will immediately notify the AGENCY of the expected delivery date. The order may be canceled if the delivery time is unsatisfactory, and the State may procure item(s) from other sources and the Vendor will be held responsible for any/all excess cost.
			At the time of delivery, a designated State employee will sign the "invoice/packing slip." This signature will only indicate that the order has been received and that the items actually delivered agree with the delivery invoice. This signature does not indicate all items were received in good condition and/or that there is not possible hidden damage.
NOTES/C	OMMENT	S:	
		LOCATIONS / INSTR S/INSTRUCTIONS)	UCTIONS (VENDOR AGREES THAT THEY CAN MEET THE DELIVERY
YES	NO	NO & PROVIDE ALTERNATIVE	
X			See Attachment B NDOT District Locations and Contacts.
NOTES/C	OMMENT	S:	

# H. PACKAGING

	- 1		
^		1.	Packages are to be clearly marked with size, weight, color, quantity, and the purchase order number.
X		2.	Packaging must be of suitable size and of sufficient strength to protect the contents during shipping, handling and storage.

# I. ORDERS

YES	NO	NO & PROVIDE ALTERNATIVE		
X		:	1.	Orders will be placed either by, phone, e-mail or Internet (if available and not to the exclusion of the other methods).
X			2.	All orders must reference a purchase order number and the purchase order number must be referenced on the packing slip, and invoice. Invoices are to be sent to the "Invoice to" address on the purchase order.

# J. QUALITY

YES	NO	NO & PROVIDE ALTERNATIVE		
×			1.	Product quality must meet specifications and be consistent for the term of the contract. All materials must be of first quality, under standard production by the manufacturer and be of standard design, complete as regularly advertised and marketed and be of proven performance.
×			2.	A guarantee of satisfactory performance by the vendor and meeting delivery dates are considered to be an integral part of the purchase contract resulting from this bid invitation.
X			3.	Products are to be fully guaranteed and may be returned for full credit or replacement (at the State's option) for any reason during the initial warranty period with no additional charges for shipping or restocking.
NOTES/C	OMMENT	rs:		

# K. AUTHORIZED DEALER & WARRANTY

authorized dealer. Vendor may be required to substantiate the is an authorized dealer. Proof, if required, must be submitted within three (3) business days of the request and prior to the any contract.  2. The terms of the original manufacturer's standard warranty shapes.	res NO	NO & PROVIDE ALTERNATIVE		
to all equipment acquired from this solicitation for the entire w	×		1.	To the extent required by the manufacturer, the Vendor shall be an authorized dealer. Vendor may be required to substantiate that he/she is an authorized dealer. Proof, if required, must be submitted to SPB within three (3) business days of the request and prior to the award of any contract.
	×		2.	The terms of the original manufacturer's standard warranty shall apply to all equipment acquired from this solicitation for the entire warranty period.
NOTES/COMMENTS:	TES/COMMEN	гs:		

# L. WARRANTY

YES	NO	NO & PROVIDE ALTERNATIVE	
×			1. The Vendor warrants for a period of one (1) year from the date of Acceptance that: (a) the Products perform according to all specific claims that the Vendor made in its response to the solicitation, (b) the Product is suitable for the ordinary purposes for which such Product is used, (c) the Product is suitable for any special purposes identified in the solicitation or for which the State has relied on the Vendor's skill or judgment, (d) the Product is designed and manufactured in a commercially reasonable manner, and (e) the Product is free of defects. Upon breach of the warranty, the Vendor will repair or replace (at no charge to the State) the Product whose nonconformance is discovered and made known to the Vendor. If the repaired and/or replaced Product proves to be inadequate, or fails of its essential purpose, the Vendor will refund the full amount of any payments that have been made. The rights and remedies of the parties under this warranty are in addition to any other rights and remedies of the parties provided by law or equity, including, without limitation actual damages, and, as applicable and awarded under the law, to a prevailing party, reasonable attorneys' fees and costs.
NOTES/C	OMMENT	'S:	

#### **SECTION 708 -- STEEL STRUCTURES**

# 708.01 -- Description

- 1. a. This work shall consist of furnishing, fabricating, and erecting all bolted or welded steel structures. They shall be fabricated, constructed, and erected in accordance with the details shown in the contract and as required by these Specifications.
- b. Construction of the steel superstructure for a new steel girder bridge is described by the pay item "Steel Superstructure at Station ".
- c. When the Department widens or repairs a bridge with steel components, the work is described by the pay items "Structural Steel for Superstructure and/or Substructure". These pay items are also found on new bridges when steel components are required to complete the construction. However, when these pay items are used, notes are placed in the contract to describe what steel items are to be constructed by the pay item "Structural Steel for Superstructure and/or Substructure".
- 2. The structural steel fabricating plants doing work for the NDOT shall be certified under the AISC Quality Certification Program:
- a. Category "SBR" certification is required to fabricate main members of Simple Steel Bridge Structures.
- b. Category "CBR" certification is required to fabricate main members of Major Steel Bridges (other than rolled beam structures).
- c. When a fabricator holds either a SBR or CBR certificate, a Certified Welding Inspector must be present during all aspects of fabrication and painting. The Certified Welding Inspector must follow the specified duties for Quality Control according to AWS DW 1.5 Section 6.0.
- d. Category "SBD or SBR" certification is required to fabricate secondary members.
- e. Sole Plate fabrication for Bearing Devices is allowed without AISC certification.
- 3. a. All welding and weld qualification tests shall conform to the provisions of the current ANSI/AASHTO/AWS D1.5 Bridge Welding Code, referred to as *AWS Standard Specifications*.
- b. The Quality Control personnel must be a Certified Welding Inspector and shall be separate from production. The Quality Control personnel shall be present at all times during fabrication and painting. The Quality Control personnel shall be knowledgeable of the specification requirements to insure that the fabrication performance is in conformance with the contract and the current AWS D1.5 Bridge Welding Code book.
- 4. Field Welding shall require a Welder Qualification Certification. The certification for the welder performing the work shall be submitted to the Engineer three weeks prior to starting the welding. The welder shall produce his/her credentials and photo ID at the jobsite.
  - 5. Field welding is prohibited unless specifically shown in the contract.
  - 6. Welder Certification:
- All welders, operators, and tackers shall be competent, trained in the particular arc welding process to be used, experienced in the type of

welding required, and capable of producing reliable fillet and groove welds in the weld positions for which they are qualified.

- b. (1) All welders shall be qualified under AWS Standard Specification criteria.
  - (2) Qualification testing is required.
- (3) The testing may be done by the Engineer, a private laboratory recognized and accepted by the Engineer, or laboratories of other State Highway Departments. The qualifications of welders, operators, or tackers shall remain in effect indefinitely unless the person is not engaged in the given welding process for more than 6 months or unless there is some specific reason to question the person's ability.
- (4) A certificate of the welder's qualifications shall be initially submitted to the Engineer. The initial certificate shall state:
  - (i) The name of the welder, operator, or tacker.
  - (ii) The name and title of the Engineer that observed the
  - (iii) The arc welding process.
  - (iv) The welding position.

testing.

- (v) The qualification positions.
- (vi) Whether for groove or fillet weld.
- (vii) Whether for limited or unlimited plate thickness.
- (viii) The AWS Electrode and flux or electrode classification.
- (ix) The date and results of the test and any other pertinent information.
- (5) Failure to follow described welding procedures while performing the work may be cause for suspending a welder's qualifications in Nebraska.
- (6) All suspensions may be contested by an appeal to the Engineer.
- c. The Contractor shall furnish a certified statement for each welder, operator, or tacker stating that they have satisfactorily welded with the required processes in the 6-month period before the subject work.
- d. To arrange Department Qualification Testing, the Contractor shall notify the Engineer as to the time and location of the test at least 48 hours in advance of the time the testing will begin so that the Engineer may observe the weld test.
- e. AWS Standard Specifications weld test procedures shall be used to evaluate the welds made by automatic welding machines.

#### 708.02 -- Material Requirements

1. Materials shall conform to the requirements in Table 708.01.

#### Table 708.01

Applicable Materials	Section
Structural Steel	1045
Low Strength Bolts, Nuts and Washers	1057
Structural Threaded Fasteners	1057, 1058
Steel Forging	1048
Cold-Finished Bars and Shafting	1049
Steel Castings	
Gray Iron Castings	
Malleable Castings	
Sheet Lead	
Sheet Aluminum	1054
Iron Pipe	1039
Steel Pipe	1040
Welding Electrodes	
End Welded Studs	

- 2. Wherever steel shapes, plates, and miscellaneous steel items are specified, all designations and dimensional requirements shall be understood to be the same as those of the AISC *Manual of Steel Construction*.
  - 3. Certified Mill Test Reports:
- a. The Contractor shall furnish to the Engineer 3 copies of all mill orders or 3 copies of the Certified Mill Test Reports before starting fabrication of material covered by these reports.
- b. Before the project is complete, the Certified Mill Test Reports must be provided to the Engineer.
- 4. The Contractor, through the fabricator, shall furnish to the NDOT Bridge Engineer a cutting list of all material to be used. The list shall include the direction of rolling (only for splice plates, bent plates, flanges, and webs), heat numbers, and fabrication piece marks.
- 5. All material shall be stored in such a manner as to prevent rust. Material shall not be stored so as to rest upon the ground or in water, but must be placed on suitable skids or platforms.
- 6. Threads for all bolts and pins for structural steel construction shall conform to the Unified Standard Series UNC ANSI B1.1, Class 2A for external threads and Class 2B for internal threads, except that pin ends having a diameter of 1.4 inches (35 mm) or more shall be threaded, 1 thread per each 0.16 inch (4 mm) of bolt length.
- 7. Sheared plates more than 5/8 inch (16 mm) thick which carry calculated stresses shall have the entire sheared surface planed, milled, ground, or thermally cut to remove 1/4 inch (6 mm) of the plate along the entire cut.
- 8. Bolts, nuts, and washers used in the assembly of "weathering" steel shall conform to ASTM A325/A 325M Type 3.

9. This Specification covers swedged anchor bolts, nuts and washers for use on bridge bearing devices:

#### a. Anchor Bolts

- (1) Unless specified otherwise in the contract, anchor bolts shall conform to the requirements of ASTM A307, Grade A.
- (2) Coating. The anchor bolts shall be hot-dipped galvanized after fabrication. The galvanizing shall comply with the requirements of ASTM A153.
- (3) Threads. Anchor bolts shall be threaded to the length shown on the contract. Threads shall be the Coarse Thread Series as specified in ANSI B1.1 and may be formed by cutting or rolling. The minimum body diameter on products for which no minimum limits are shown in the dimensional tables shall not be less than the minimum pitch diameter of the thread (See ANSI B18.2.1 and ANSI B1.1).
- (4) Deformations. The depth of the deformation of the swedged anchor bolt shall not be more than 1/8 inch (3 mm) with a radius not less than 1/2 inch (12.5 mm). There shall be no more than one deformation occurring in any plane perpendicular to the shaft of the bolt. There shall be at least one deformation within each 1 inch (25 mm) length of the bolt and the deformations shall be a minimum of 90 degrees out of phase with the adjacent deformation. No cutting is allowed to form deformation.

#### b. Nuts

- (1) Dimension. Nuts for anchor bolts shall be Heavy Hex nuts as specified in ANSI B18.2.2.
- (2) Strength. Nuts shall comply with the proof load or Brinell hardness requirements of ASTM A307.
- (3) Threads. Threads shall be the Coarse Thread series as specified in ANSI B1.1.
- (4) Coating. The nuts and washers shall be hot-dipped galvanized after fabrication. The galvanizing shall comply with the requirements of ASTM A153.
- (5) Thread fit. After galvanizing, the thread fit of the bolt-nut combination shall be snug and shall be such that the nuts can be turned on the bolts without the application of excessive torque. The Engineer may conduct proof load tests on the bolt-nut combination to check the thread fit.

#### c. Washers

(1) Washers for use with anchor bolts shall be Type A or Type B Regular as specified in ANSI B18.22.1 except that the following tolerances, based on uncoated washers, shall apply:

(i) Inside diameter ± 1/16 inch (1.6 mm)
(ii) Outside diameter ± 1/18 inch (1.4 mm)
(iii) Thickness -0.03, +0.05 inch
(-.8 mm, +1.3 mm)

10. Any bolt lots which do not bear the Department inspection tags and markings will not be accepted by the Engineer.

11. If the fasteners are shipped to the job site directly from the manufacturer, fabricator, or supplier, they must be sampled by State personnel and submitted to the NDOT Materials and Research Division for testing.

# 12. Prestressed concrete girder structures:

- a. All structural steel used in steel diaphragms shall conform to the minimum requirements of ASTM A709/A709M, Grade 36 steel, and shall be galvanized in accordance with ASTM A123.
- b. Bolts, nuts, and washers used to install and assemble steel diaphragms shall conform to ASTM A325 or ASTM A325M and shall be galvanized in accordance with ASTM A153.
- 13. Shear connectors shall conform to the requirements of Subsection 708.02 and Section 1046 of the *Standard Specifications*.

#### 708.03 -- Construction Methods

# General Requirements:

- a. The Contractor shall assemble and place all structural steel as shown in the contract.
- b. All structural steel shall be shaped by methods which will not damage the metal. Metal with sharp kinks or bends shall be rejected.
- c. Bent steel shall be shaped using procedures that will not produce fractures or damage. The metal shall not be heated unless approved by the Engineer, in which case the heating shall not be done to a temperature higher than 1150°F (621°C). After heating, the metal shall be left to cool at ambient air temperatures above 40°F (4°C). Accelerated cooling is not allowed.
- d. The work quality and finish shall equal or exceed ANSI, AASHTO, and AWS Standards.
- e. Shearing, thermal cutting, and chipping shall be done accurately; and all portions of the work shall be finished neatly.

# 2. Plans and Working Drawings:

a. Plans shall be supplemented by the Contractor's working drawings provided in accordance with the requirements of Subsection 105.02.

# 3. Bolt Holes:

- a. The Contractor shall punch or drill and ream all bolt holes. Material forming parts of a member composed of not more than 5 thicknesses of metal may be punched 1/16 inch (1.5 mm) larger than the nominal diameter of the bolts whenever the thickness of the metal is not greater than 3/4 inch (19 mm) for structural steel or 5/8 inch (16 mm) for high strength low alloy steel.
- b. When there are more than 5 thicknesses of material or when any of the main material is thicker than 3/4 inch (19 mm) in carbon steel or 5/8 inch (16 mm) in alloy steel, or when required under Paragraph 6. of this Subsection, all the holes shall be subpunched or subdrilled 3/16 inch (5 mm) smaller and, after assembling, reamed 1/16 inch (1.5 mm) larger or drilled 1/16 inch (1.5 mm) larger than the nominal diameter of the bolts.

#### Punched Holes:

The diameter of the die shall not exceed the diameter of the punch by more than 1/16 inch (1.5 mm). If any holes must be enlarged to admit the bolts, they shall be reamed. Holes must be clean cut and without torn or ragged edges. Material with poorly matching holes will be rejected.

# 5. Accuracy of Hole Group:

- a. All holes punched full size, subpunched, or subdrilled shall, after assembling (before any reaming is done), allow a cylindrical pin 1/8 inch (3 mm) smaller in diameter than the nominal size of the punched hole to be entered perpendicular to the face of the member, without drifting, in at least 75% of the contiguous holes in the same plane. If the requirement is not fulfilled, the badly punched pieces will be rejected. If any hole will not pass a pin 3/16 inch (5 mm) smaller in diameter than the nominal size of the punched hole, this will be cause for rejection.
- b. When holes are reamed or drilled, 85% of the holes in any contiguous group shall, after reaming or drilling, show no offset greater than 1/16 inch (15 mm) between adjacent thicknesses of metal.
- c. Having met the foregoing criteria, remaining offsets may be corrected by further reaming to admit bolts perpendicular to the face of the member.
- d. Except where restoration by welding is necessary for structural or other reasons, mislocated holes shall be left open or filled with bolts.

#### e. Reaming:

- (1) Reamed or drilled holes shall be cylindrical, perpendicular to the member, and shall comply with Paragraph 3. of this Subsection as to size.
- (2) Where practical, reamers shall be directed by mechanical means.
  - (3) Burrs on the outside surfaces shall be removed.
- (4) Reaming and drilling shall be done with twist drills, twist reamers, or sluggers (rotobroach cutters).
- (5) Connecting parts requiring reamed or drilled holes shall be assembled and securely held while being reamed or drilled and shall be match-marked before disassembling.

#### f. Tolerances:

- (1) Holes not more than 1/32 inch (0.75 mm) larger in diameter than the true decimal equivalent of the nominal diameter that may result from a drill or reamer of the nominal diameter are considered acceptable. The slightly conical hole that naturally results from punching operations is considered acceptable.
- (2) The width of slotted holes which are produced by thermal cutting or a combination of drilling or punching and thermal cutting shall generally be not more than 1/32 inch (0.75 mm) greater than the nominal width.
  - (3) The thermal cut surface shall be ground smooth.

- 6. Drilling, Subpunching, Reaming, and Shop Assembly:
- a. (1) Unless otherwise specified, holes in all field connections and field splices of main members of trusses, arches, continuous beams, girders, or rigid frames shall be drilled full size or subpunched (or subdrilled) and reamed, with all members assembled in the shop.
- (2) If splices are to be drilled full size, one splice plate from each flange or from each web splice may be predrilled full size and the predrilled plate used as a template for drilling the flange or web and opposite splice plates, provided the resulting holes are equal in quality to holes drilled completely or subdrilled (or subpunched) and reamed through the assembled plates.
- (3) The assembly, including camber, alignment, and accuracy of holes and milled joints, shall be approved by the Engineer before reaming of under size holes or drilling of full size holes is commenced.
- (4) The connecting parts shall be assembled and held securely while being reamed or drilled and shall be match-marked.
- $\mbox{(5)}\;\;\mbox{No parts shall be interchanged. (See Paragraph 8. of this Subsection.)}$
- All holes for field end connections of floor beam and stringers shall be subpunched and reamed to a steel templet or reamed while assembled.
- c. The Contractor shall clean metal surfaces before assembling. The parts of a member shall be assembled, well pinned, and firmly drawn together with bolts before reaming is commenced. Assembled pieces shall be taken apart, if necessary, for the removal of burrs and shavings produced by the reaming operation. The members shall be free from twists, bends, and other deformation.

# 7. Drifting of Holes:

The drifting done during assembling shall be only that amount necessary to bring the parts into position and not sufficient to enlarge the holes or distort the metal. If any holes must be enlarged to admit the bolts, they shall be reamed.

# 8. Matchmarking:

- a. Connecting parts assembled in the shop for the purpose of reaming holes in field connections shall be matchmarked by the Contractor, and a diagram showing such marks shall be furnished to the Engineer.
- b. Where steel stamping is used, impressions shall be placed on the thicker tension-joint member in transition joints. Impressions shall not be made on tensile-stressed plate members except at field splices. The maximum allowable depth of the impression shall be 0.01 inch (250  $\mu m$ ). Any metal die stamping shall be done using low-stress dies with rounded edges conforming with the requirements in Table 708.02.

#### Table 708.02

Low Stress Die Edges								
Character Size Minimum Character Face Radius								
inches(millimeter) inches(micrometer)								
1/8 (3)	.007 (180)							
3/16 (4.5)	.008 (212)							
1/4 (6)	.010 (250)							

- 9. Unfinished Turned or Ribbed Bolt Connections (Not applicable to high-strength bolts):
- a. The Contractor shall provide bolted connections as required by the contract.
- b. Unless otherwise specified, approved lock washers shall be used on all bolts.
- c. Bolts transmitting shear shall be threaded to such a length that not more than one thread will be within the grip of the metal.
- d. The bolts shall be of lengths which will extend entirely through their nuts and washers but not more than 1/4 inch (6 mm) beyond them.
- e. All bolts shall have hexagonal heads and hexagonal nuts. The diameter of the bolt holes shall be not more than 1/16 inch (1.5 mm) greater than the diameter of the bolts used unless otherwise shown.
  - 10. Structural Joints Using High Tensile Steel Fasteners:
- a. When shown in the contract, high tensile steel bolts shall be used for the fabrication of structural steel forming rigid joints in installations where the initial tension in the bolt body is depended upon to produce resistance to shear loads through friction at the faying surfaces.
- b. Fastener material requirements, as well as manufacturing, testing, documentation, and shipping requirements, shall be as set forth in Section 1058.

# c. Testing:

- (1) The rotational capacity test described in Section 1058 will also be performed by the NDOT Materials and Tests Division on each rotational capacity lot before bolt installation at the project site or fabricator's plant.
- (2) This test will be performed by the Department in addition to the rotational capacity testing certified by the manufacturer or distributor.
- (3) If the fasteners are shipped to the job site directly from the manufacturer, fabricator, or supplier, the Engineer has the option of performing the rotational capacity test and verification testing required in Section 1058 at the job site or fabricator's plant.
- (4) If, however, the bolts have not been pretested in accordance with AASHTO M164 (ASTM A325) by State personnel, they must be sampled by State personnel and submitted to the NDOT Materials and Tests Division for testing.
- (5) These requirements apply to shop bolts as well as field bolts.

d. Bolted parts shall fit solidly together when assembled. There shall be no compressible material such as gaskets or insulation within the grip. Holes may be punched, subpunched or reamed, or drilled as required by the applicable specifications and shall be of a diameter not more than 1/16 inch (1.5 mm) in excess of the nominal bolt diameter.

# e. Faying Surface Preparation:

- (1) The faying surfaces shall be free of burrs, pits, and other defects that would prevent solid seating of the parts or would interfere with the development of friction between the parts. The Contractor shall clean surfaces that are to be painted in accordance with Subsection 709.03, Paragraph 1.b.
- (2) If unpainted "weathering" steel is specified, the faying surfaces shall be cleaned as described in Subsection 709.03, Paragraph 4.

#### f. Bolts:

- (1) Heavy hex structural bolts and heavy hex nuts shall be required unless other dimensional requirements are stipulated in the contract
- (2) Bolts shall be assembled with a hardened washer under the nut, unless otherwise specified.
- (3) A hardened steel flat washer shall be used when the abutting surface adjacent to the bolt head or nut does not have a slope of more than 1 to 20 with respect to a plane normal to the bolt axis.
- (4) Where an outer face of the bolt part has a slope of more than 1 to 20 with respect to a plane normal to the bolt axis, a smooth, hardened steel beveled washer shall be used to compensate for adjoining surfaces not being parallel.

#### q. Installation:

- (1) The sequence of tightening the bolts in a connection shall be such that the stiffest or most restrained area is tightened first, with work progressing toward the free edges.
- (2) Sufficient bolts shall be installed and brought to a "snugtight" condition to ensure that all parts of the connection are in full contact.
- (3) Snug-tight is defined as the tightness attained when an impact wrench begins to impact or when the full effort of a person using a standard 18 inch (450 mm) spud wrench is applied.
- (4) Snug-tight is more specifically defined as the tightness necessary to produce approximately 15% (but no more than 50%) of the minimum bolt tension as shown in Table 708.03 (A or B), column (3).
- (5) This snug-tight tension may be verified using an approved bolt tension calibrator.
- (6) All remaining bolts shall be installed and tightened to a snug-tight fit.
- (7) The Engineer may require bolts previously installed to be rechecked for tightness.

**Table 708.03A** 

Bolt Tension ASTM A325 Bolts Used in Slip-Critical and Direct Tension Connections											
U.S. Standards											
(1)	(2)	(3)	(4)								
Bolt Snug-Tight * Minimum Bolt +5% Required Installation Size Tension (kips) Tension (kips) Tension (kips)											
1/2"	2	12	13								
5/8"	3	19	20								
3/4"	4	28	29								
7/8"	6	39	41								
1"	8	51	54								
1 1/8"	8	56	59								
1 1/4"	11	71	75								
1 3/8"	13	85	89								
1 1/2"	15	103	108								

<sup>\*</sup> Minimum tension values shown in column (3) are equal to 70% of the specified tensile load as shown in ASTM A325 specifications (tested full size with UNC threads loaded in axial tension), rounded to the nearest kip (kN).

**Table 708.03B** 

Bolt Tension ASTM A325M Bolts Used in Slip-Critical and Direct Tension Connections										
		ndards								
(1)	(2)	(3)	(4)							
Bolt Size (mm)	Snug-Tight Tension (kN)	* Minimum Bolt Tension (kN)	+5% Required Installation Tension (kN)							
16	14	91	96							
20	21	142	149							
22	26	176	185							
24	31	205	215							
27	40	267	280							
30	49	326	342							
36	71	475	499							

<sup>\*</sup> Minimum tension values shown in column (3) are equal to 70% of the specified tensile load as shown in ASTM A325 specifications (tested full size with UNC (metric coarse) threads located in axial tension), rounded to the nearest kip (kN).

#### h. Bolt Tension Methods:

High strength fasteners must be installed using either the turn-of-nut method.

# (1) Turn-of-Nut Method:

- (i) The following requirements for installation of fasteners by this method apply in addition to the specifications in the AASHTO Standard Specifications for Highway Bridges, Division II, Section 11, when high-strength bolts are installed in the field or shop.
- (ii) Bolts shall be installed in accordance with AASHTO Division II, Section 11, Article 11.5.6.4.4, for turn-of-nut tightening, using required hardened steel washers under the turned element (the turned element being the high strength nut, unless otherwise specified).
- (iii) If the manufacturer's markings on the nuts are raised, the nuts must be installed so that the markings are not in contact with the hardened washer.
- (iv) During installation, particular care should be exercised so that the required snug-tight condition is achieved.
- (v) After all bolts in the connection have been properly snug-tightened (see Paragraph 10.g. of this Subsection), the nuts shall be match-marked by the Contractor or fabricator using paint, crayon, or other approved means in order to provide the Engineer a reference for determining the relative rotation of the parts during final tightening.
- (vi) The outer face of the nut must be match-marked to the protruding end of the bolt after the joint has been snug-tightened, but before final tightening.

# Table 708.04

	Nut Rotation from Snug-Tight Condition Disposition of Outer Faces of Bolted Parts										
Bolt Length (as measured from underside of head to extreme end of point)	Both faces normal to bolt axis	One face normal to bolt axis and other face sloped not more than 1:20 (bevel washer not used)	Both faces sloped not more than 1:20 from bolt axis (bevel washers not used)								
Up to and including 4 diameters	1/3 turn	1/2 turn	2/3 turn								
Over 4 diameters but not exceeding 8 diameters	1/2 turn	2/3 turn	5/6 turn								
Over 8 diameters but not exceeding 12 diameters	2/3 turn	5/6 turn	1 turn								

# Table Notes:

- Nut rotation is relative to bolt, regardless of the element (nut or bolt) being turned. For bolts installed by 1/2 turn and less, the tolerance should be plus or minus 30 degrees. For bolts installed by 2/3 turn and more, the tolerance should be plus or minus 45 degrees.
- No research work has been performed by the Research Council
  on Riveted and Bolted Structural Joints to establish the turn-of-nut
  procedure when bolt lengths exceed 12 diameters. Therefore, the
  required rotation must be determined by actual tests in a suitable
  tension device simulating the actual conditions.
- Applicable only to connections in which all material within grip of the bolt is steel.
- (vii) The element not being turned must be held stationary with a wrench or other suitable means to ensure that no rotation of the unturned element occurs.
- (viii) After being properly match-marked, the bolts shall be tensioned by applying the amount of nut rotation as specified in Table 708.04.
- (ix) If impact wrenches are used for tightening, they shall be of adequate capacity and sufficiently supplied with air to perform the required tightening of each bolt in approximately 10 seconds.
- (x) When all bolts in the connection are tight, each bolt should provide a tension at least 5% greater than the minimum tension values shown in Table 708.03 (A or B), column (3).
- (xi) These minimum installation tension values are shown in column (4) of Table 708.03 (A or B).
  - i. Inspection:
- (1) Fasteners of appropriately assigned and tested lot numbers shall be assembled together when installed.

(2) Such fasteners shall be protected from dirt and moisture at the job site (in protective storage from the outside elements) in the original containers. These containers or kegs will be sealed and tagged by Department personnel before shipment.

- (3) Only as many fasteners as are anticipated to be installed and tightened during a work shift shall be taken from the protected storage. Fasteners not used shall be returned to the protective storage at the end of the shift.
- (4) Any fasteners not properly stored or handled are subject to rejection by the Engineer.
- (5) Fasteners shall not be cleaned of lubricant that is required to be present in the as-delivered condition.
- (6) The Contractor in the field and the bridge fabricator in his/her shop shall provide a certified, calibrated, dial indicator type manual torque wrench and bolt tension measuring device (a Skidmore-Wilhelm calibrator or other acceptable bolt tension indicating device) when high-strength fasteners are being tightened and the Engineer requires a rotational capacity test as required in Section 1058 and/or to verify the tension requirements of Table 708.03 (A or B) for the complete fastener assembly.
- (7) Calibration of this equipment will be performed by the Department's Materials and Research Division. Such devices must be submitted to the Department at least 1 week before their use is anticipated.
- (8) Recalibration of the torque wrench and tension measuring device will be required at any time which, in the opinion of the Engineer, the equipment is not functioning properly or is out of calibration.
- (9) Bolts tightened by the turn-of-nut method may be accepted by the Engineer on the basis of a visual inspection of the matchmarks
- (10) If there is a disagreement or question as to the tension of the installed bolts, the Engineer shall require the following procedure to be used:
- (i) Five bolts of the same brand, grade, diameter, length, and condition as those under inspection shall be placed individually in the calibration device. The samples selected must be representative of the fasteners used in the work and should be from the same manufacturer's lot if at all possible.
- (ii) When the fasteners to be inspected have been installed in the structure for any significant length of time as determined by the Engineer and have been exposed to the elements, the samples should be selected from the fasteners in the work
- (iii) A hardened steel washer must be used under the nut's faying surface with a minimum of 3, but not more than 5, exposed threads included in the grip portion of the bolt.
- (iv) Steel shim plates may have to be used as spacers between the washer and the calibrator in order to provide this spacing requirement.

(v) Bolts must first be brought to a snug-tight tension as shown in Table 708.03 (A or B).

- (vi) Match-marks are then applied for the purpose of rotational referencing from snug-tight.
- (vii) Each of the 5 bolts shall then be tightened in the calibration device, beyond snug-tight, by any convenient means to the minimum tension specified for its size as shown in Table 708.03 (A or B), column (3).
- (viii) Tightening from the initial snug-tight condition must not produce greater nut rotation than that allowed in Table 708.05.
- (ix) The inspecting wrench shall then be applied to each of the 5 tightened bolts and the torque necessary to turn the nut 5 degrees [1 inch (25 mm) in a 12 inch (300 mm) radius] in the tightening direction shall be determined.
- (x) From a practical standpoint, this is the torque necessary to just start rotation of the nut. Record all 5 torque determinations.
- (xi) The job inspection torque shall be taken as the average of the 3 remaining values after rejecting the high and low values.
- (xii) This job inspection torque is to be used in the manner specified as follows:
- (a) Bolts represented by the sample described in Paragraphs 10.i.(10)(x), and (xi) of this Subsection which have been tightened in the structure shall be inspected by applying the inspecting wrench with the accompanying job inspecting torque to a minimum of 10% of the bolts, but not less than 2 bolts, selected at random in each connection.
- (b) If no nut is turned by this application of the job inspection torque, the connection shall be accepted as properly tightened. If any nut is turned by the application of job inspection torque, this torque shall be applied to all bolts in the connection, and all bolts whose nut is turned by the job inspection torque shall be tightened and reinspected; or, alternatively, the fabricator or Contractor may retighten all of the bolts in the connection and then resubmit the connection for the specified inspection.

Table 708.05

Maximum Nut Rotation from Snug-Tight							
Bolt Length	Rotation						
4 diameters or less	1/2 turn						
Greater than 4 but not exceeding 8 diameters	3/4 turn						
Greater than 8 diameters but not exceeding 12	1 turn						

- (11) The Engineer will monitor the fastener conditions in order to detect any change in the level of lubrication or accumulation of dirt or other detrimental fastener conditions. At any time during the erection process when the Engineer suspects there may have been a change in the lubrication or fastener conditions, he/she may require the Contractor to run a rotational capacity test as well as verification testing as indicated in these Specifications.
- (12) Bolts tightened in-place, then removed, shall be discarded and not reused.

# 11. Bearing Surfaces and Abutting Joints:

a. Bearing surfaces shall conform to the ANSI B46.1, Surface Texture in Table 708.06.

**Table 708.06** 

Surface Texture							
Surface	Texture						
Steel slabs	2000						
Heavy plates in contact with shoes	1000						
Flame cut surfaces of members carrying calculated stress	1000						
Flame cut surfaces of members not carrying calculated stress	2000						
Mill ends of compression members	500						
Bridge rollers and rockers	250						
Pins and pinholes	125						
Sliding bearings	125						

- b. Caps and base plates of columns, the sole plates of girders and trusses, and other steel components shall fit as required by AWS when assembled. The plates, if warped or deformed, shall be hot-straightened, planed, or otherwise treated to secure an accurate, uniform contact as approved by the Engineer. Correspondingly, the surfaces of base and sole plates which are to come in contact with concrete shall be rough finished and be free from warps or other deformations.
- c. Abutting ends of compression members shall, after the members have been fastened, be accurately faced to secure an even bearing when assembled in the structure. (Applicable to truss bridge only.)
- d. The contract shall state which ends of tension members at splices shall be faced to provide an even bearing. Where joints are not faced, the opening shall not exceed 1/4 inch (6 mm).

#### 12. Pins and Rollers:

- a. Pins and rollers shall be accurately manufactured to the contract dimensions and shall be smooth, straight, and free from flaws. The final surface shall be produced by a finishing cut and shall conform to the requirements of Paragraph 11. of this Subsection.
- b. Pins and rollers more than 9 inches (225 mm) in diameter shall be forged and annealed. Pins and rollers 9 inches (225 mm) or less in diameter may be either forged and annealed or cold-finished carbon-steel shafting.
- c. Pinholes shall be bored true to detailed dimensions, smooth and straight, at right angles with the axis of the member, and parallel with each other. A finishing cut shall always be made.
- d. The diameter of the pinhole shall not exceed that of the pin by more than 1/50 inch (0.5 mm) for pins 5 inches (125 mm) or less in diameter, or by 1/32 inch (0.75 mm) for larger pins.

e. The Contractor shall provide 2 pilot nuts and 2 driving nuts for each size of pin.

# 13. Thermal Cutting:

- a. Structural steel may be thermally cut provided a smooth surface is attained by the use of a mechanical guide. Thermal cutting by hand shall be done only where approved by the Engineer; and the surface shall be made smooth by planing, chipping, or grinding according to ANSI B46.1 Surface Texture.
  - b. Cuts shall not go beyond the described limit lines.
- c. Reentrant cuts shall be filleted to a radius of not less than 1/2 inch (13 mm). Thermal cut surfaces shall meet the ANSI surface roughness rating of 500 micro inches, except members carrying no calculated stress shall meet a rating of 2,000 micro inches.
- d. Thermal cut surfaces of members carrying calculated stress shall have their corners rounded to a 1/16 inch (1.5 mm) radius by grinding after thermal cutting.

#### 14. Bent Plates:

- a. Cold-bent load-carrying rolled-steel plates shall conform to the following:
  - (1) They shall be bent at right angles to the direction of rolling.
- (2) Cold bending shall be such that no cracking of the plate occurs. Minimum bending radii, measured to the concave face of the metal, are given in Table 708.07.

Minimum Bending Radii Thickness in Inches (millimeters) [t] Over Over Up to 1/4 1/4 to 1/2 ½ to 1 (6 mm) (6 mm to (12 mm to 12 mm) 25 mm) Bending radii for all grades 2t 3t 5t of structural steel

Table 708.07

- (3) If a shorter radius is essential, the plates shall be bent hot. Hot bent plates shall conform to the requirements of Paragraph 14.a. of this Subsection.
- (4) Before bending, the corners of the plate shall be rounded to a radius of 1/16 inch (1.5 m) throughout that portion of the plate at which the bending is to occur.
- (5) Allowance for the springback of Grades 100 and 100W steels should be about 3 times that for Grade 36 steel. For break press forming, the lower die span should be at least 16 times the plate thickness. Multiple hits are advisable.

b. If a radius shorter than the minimum specified for cold bending is essential, the plates shall be bent hot at a temperature not greater than 1,200°F (649°C), except for Grades 70W, 100, and 100W. If Grades 100 and 100W steel plates are to be bent and are heated to a temperature greater than 1,100°F (593°C), and if Grade 70W plates are heated to a temperature greater than 1,050°F (565°C), they must be requenched and tempered in accordance with the producing mill's standard practices.

#### 15. Fabrication of Steel Girders:

a. Welding Procedure:

the WPS.

- (1) The Contractor shall submit shop drawings for girders and a proposed Welding Procedure Specification (WPS) to the Engineer for review before any fabrication is started. The WPS is maintained on file in the Department.
- (2) The fabricator may submit a WPS directly to the Department's Bridge Engineer.
  - (3) The WPS shall include the following:
    - (i) Joint description or preparation.
    - (ii) Welding process and type of welding equipment.
    - (iii) Base-metal material specifications.
    - (iv) Welding position.
    - (v) Amperage, voltage, and travel speed.
    - (vi) Type current, polarity, and electrical stickout.
- (vii) Electrode or electrode-flux classification and manufacturer.
  - (viii) Gas shielding type and flow rate.
  - (ix) Preheat and other heating requirements.
  - (x) Procedure Qualification Record (PQR) used to derive
  - (xi) Other data to fully describe the WPS.
- b. The Contractor shall complete the following work before welding webs to flanges:
- (1) Butt splices in the flanges and webs shall be welded and radiographed by the fabricator before being approved by the Engineer. The maximum number of weld repairs is three.
- (2) The tee joint shall be freed from carbon, rust, pits, dirt, scale, moisture, and other deleterious material.
- (3) An external source of heat or force shall be applied to bend the flanges of irregular shaped girders. After the heat or the force is removed, the flange shall fit the contour of the web. If heat is used, it shall be limited to a steel temperature of 1,150°F (621°C). After heating, the metal shall be left to cool at ambient air temperatures above 41°F (5°C) and the velocity of the air shall not exceed 5 mph (8 km/h) throughout the cooling period. Accelerated cooling is not allowed.

c. (1) The girder material shall be held securely in position during welding, and the welding sequence shall be such as to minimize internal stresses and distortion.

- (2) Heating and cooling shall be controlled to produce a product within the dimensional tolerances specified.
- d. All fillet or groove welds connecting flange plates to web plates shall be made with a submerged-arc automatic welder. Other welds may be made with an automatic. semi-automatic. or manual welder.
- e. Unauthorized welds are prohibited. The Engineer's written permission is required before producing any temporary or permanent welds not shown in the contract or allowed in the specifications.
- f. All repairs must be Pre-Approved and must have a Welding Procedure and a final report submitted.

# g. Preassembly:

- (1) In the shop, preassembly of field connections for steel girders is required to verify the geometry of the completed structure and prepare field joints. The details and methods of preassembly of field connections shall be consistent with the erection plan and blocking diagrams prepared by the Contractor and approved by the Engineer.
- (2) Camber and blocking tolerances shall be according to AWS Standard Specifications, Section 3.5.1.3. The span length is the length of girder between the end support and a field splice or between field splices.
- (3) Only minor weld repairs shall be allowed following preassembly of field connections. Girders placed while checking preassembly of field connections shall have the following items completed:
  - (i) Welding.
  - (ii) Cambering.
  - (iii) Curving.
  - (iv) Straightening.
  - (v) Flattening of bearing surfaces.
  - (vi) Flange Tilt
- (4) (i) Preassembly of field connections shall consist of 3 or more contiguous girders accurately adjusted for line and camber. Successive segments shall consist of at least 1 girder from the previous assembly plus 2 or more girders at the advancing end.
- (ii) The Department will approve a 2-girder laydown if the fabricator's shop is too small to handle the 3-girder laydown.

#### 16. Heat Curved Girders:

a. Rolled beams and plate girders which are manufactured to a specified yield point of 50,000 psi (345 MPa) or less may be heat curved in accordance with the Standard Specifications when so indicated in the contract.

- b. Heating:
  - (1) Heating Procedures are required for the following:
    - (i) Camber Correction
    - (ii) Horizontal Curving of Beams and Girders
    - (iii) Correcting of flange tilt
    - (iv) Web Flatness Correction
- (2) (i) Beams and girders may be curved by either continuous or V-Type heating as approved by the Engineer.
- (ii) For the continuous method, a strip along the edge of the top and bottom flanges shall be heated simultaneously; the strip shall be of sufficient width and temperature to obtain the required curvature.
- (iii) For the V-Type heating, the top and bottom flanges shall be heated in truncated triangular or wedge-shaped areas having their base along the flange edge and spaced at regular intervals along each flange. The spacing and temperature shall be as required to obtain the required curvature, and heating shall progress along the top and bottom flanges at approximately the same rate.
- (iv) For the V-Type heating, the apex of the truncated triangular area applied to the inside flange surface shall terminate just before the junction of the web and the flange is reached. To avoid unnecessary web distortion, special care shall be taken when heating the inside flange surfaces (the surfaces that intersect the web) so that heat is not applied directly to the web.
- (v) When the radius of curvature is 1,000 feet (305 m) or more, the apex of the truncated triangular heating pattern applied to the outside flange surface shall extend to the juncture of the flange and web.
- (vi) When the radius of curvature is less than 1,000 feet (305 m), the apex of the truncated triangular heating pattern applied to the outside flange surface shall extend past the web for a distance equal to 20% of the flange width or 3 inches (75 mm), whichever is less.
- (vii) The truncated triangular pattern shall have an included angle of approximately 15 to 30 degrees, but the base of the triangle shall not exceed 10 inches (250 mm).
- (viii) Variations in the patterns described above may be made with the approval of the Engineer.
- (3) For both types of heating, the flange edges to be heated are those that will be on the inside of the horizontal curve after cooling. Heating both inside and outside flange surfaces is only mandatory when the flange thickness is 1 1/4 inches (32 mm) or greater, in which case, the 2 surfaces shall be heated concurrently. The maximum temperature shall be 1,150°F (621°C).
- c. The girder shall not be artificially cooled, cooled below 41°F, nor shall the velocity of the air exceed 5 mph (8 km/h) throughout the cooling period.

# d. Heating Position:

(1) The girder may be heat-curved with the web in either a vertical or a horizontal position.

- (2) When curved in the vertical position, the girder must be braced or supported so that the tendency of the girder to deflect laterally during the heat-curving process will not cause the girder to overturn or be damaged.
- (3) When curved in the horizontal position, the girder must be supported near its ends and at intermediate points, if required, to obtain a uniform curvature. The bending stress in the flanges due to the dead weight of the girder must not exceed the usual allowable design stress.
- (4) When the girder is positioned horizontally for heating, intermediate safety catch blocks must be maintained at the midlength of the girder within 2 inches (50 mm) of the flanges at all times during the heating process to guard against a sudden sag due to plastic flange buckling.
- e. The girder shall be heat-curved in the fabrication shop before it is painted. The heat-curving operation may be conducted either before or after all the required welding of transverse intermediate stiffeners is completed.
- (1) However, unless provisions are made for girder shrinkage, connection plates and bearing stiffeners shall be located and attached after heat curving.
- (2) If longitudinal stiffeners are required, they shall be heat-curved or thermal-cut separately and then welded to the curved girder.
- (3) When cover plates are to be attached to rolled beams, they may be attached before heat curving if the total thickness of one flange and cover plate is less than 2 1/2 inches (64 mm) and the radius of curvature is greater than 1,000 feet (305 m).
- (4) For other rolled beams with cover plates, the beams must be heat-curved before the cover plates are attached. Cover plates must be either heat-curved or thermal-cut separately and then welded to the curved beam.
- f. Girders shall be cambered before heat curving. Camber for rolled beams may be obtained by heat-cambering methods approved by the Engineer. For plate girders, the web shall be cut to the described camber with suitable allowance for shrinkage due to cutting, welding, and heat curving.

# g. Tolerance Checking:

- (1) Horizontal curvature and vertical camber shall not be measured for final acceptance before all welding and heating operations are completed and the flanges have cooled to the ambient air temperature.
- (2) Horizontal curvature shall be measured with the girder blocked with the web in a normal, vertical position.
- (3) Vertical camber may be measured in an unloaded position.

h. Moderate deviations from specified camber may be corrected by carefully supervised heating subject to the approval of the Engineer.

i. The bearing ends of bearing stiffeners shall be flush and square with the web and shall be connected to the bottom with a full penetration weld. As an alternate, the stiffener shall be ground to bear and attached with fillet welds. Grind to bear shall mean that at least 75% of the area under the stiffener is in contact with the flange. Contact is defined as being such that a 0.001 inch gage will not pass between the stiffener and the flange.

# 17. Welding:

a. The Contractor shall perform all preapproved welding using the following processes; shielded metal-arc, submerged arc, gas metal-arc, or flux cored arc process.

# b. Steel Backing:

- (1) Welds made with the use of steel backing shall have the weld metal thoroughly fused with the backing.
- (2) Steel backing shall be continuous for the full length of the weld with run-off plates in place. All necessary joints in the steel backing shall have complete joint penetration welds in butt joints.
- (3) Steel backing of welds that are transverse to the direction of computed stress shall be removed, and the joints shall be ground or finished smooth. Steel backing of welds that are parallel to the direction of stress or are not subject to computed stress need not be removed, unless specified by the Engineer or shown in the contract. Where the steel backing of longitudinal welds is externally attached to the base metal by welding, such welding shall be continuous for the length of the backing.
- c. When back gouging is required, the surface to be welded shall be cleaned of all spatter and ground smooth.

#### d. Run-off Plates:

- (1) Run-off plates shall be similar to the plate being welded and be sized to provide a reasonable run-off length and allow adequate heat dissipation.
- (2) Run-off plates shall be removed when the weld has cooled. The edges of the weld shall be ground smooth and flush with the edges of abutting parts.
  - e. Tack welds shall not be made outside of the weld area.
- f. Preheat and interpass temperature shall be sufficient to prevent weld cracking. The minimum preheat and interpass temperature shall be in accordance with AWS Standard Specifications.
- g. The Contractor shall match filler metal to base metal in accordance with the AWS Standard Specifications.
- h. Aluminum welding shall be done in accordance with the requirements of Section 418.

#### End Welded Studs:

Stud welding shall be accomplished in accordance with the AWS D1.5 Standard Specifications Section 7.

# 19. Drip Plates:

When drip plates are required on the exterior girders the weld material shall stop 1/2 inch from the end of the drip plate and 1/2 inch from the edge of the girder. The edges are required to be filled as shown in the contract with a clear colored, 100% silicone product from the Department's Approved Products List.

# 20. Steel Diaphragms:

- a. Flatness or deflection of steel diaphragms and separators after bending shall not exceed half the thickness of the material being bent.
- b. The item "Steel Diaphragms" shall include furnishing and installation of all cross frames, bent plate separators, angles, plates, bolts, and other incidentals necessary to complete the installation of the diaphragms as shown in the contract.
- c. For prestressed concrete girder structures, all structural steel used in steel diaphragms shall conform to the minimum requirements of ASTM A709/A709M, Grade 36 steel, and shall be galvanized in accordance with ASTM A123.
- d. Bolts, nuts, and washers shall conform to ASTM A325/A325M and shall be galvanized in accordance with ASTM A153.

# 21. Shop and Field Inspection:

- a. The Contractor shall give the Engineer 30 days advanced notice of shop work and provide a copy of the anticipated production schedule. The Engineer will schedule a Prefabrication Meeting at the fabrication shop to review the applicable codes and specifications and the production schedule. The Engineer shall be notified three working days (Saturdays, Sundays, and Holidays are excluded) before actual fabrication start time so inspection can be scheduled.
- b. The Contractor shall perform inspection and testing at least to the extent specified in the current AWS D1.5 Standard Specifications and additionally as necessary to assure conformance with the requirements of the contract.
- c. The Contractor shall facilitate the inspection of material and work quality in the shop, and the Engineer shall be allowed free access to the plant.
- (1) The Contractor shall have the fabricator of main members for structural steel bridges provide an office area for the exclusive use of the Department inspectors assigned to the fabrication plant. The office shall be accessible during all fabrication operations. Parking shall be provided nearby.
- (2) The office facility shall have a floor area of approximately 110 square feet (10 m²). It shall be weatherproof, insulated, lighted, and secured. An office key shall be furnished to each assigned inspector.
- (3) The office shall be equipped with 115 volt, 60 cycle A/C electrical outlets, telephone with direct outside line and intra-plant capabilities, and a heating-cooling-ventilation system which circulates clean smoke-free air and will maintain an ambient air temperature of 72°F (22°C).

(4) The office shall be furnished with an office desk [approximately 30 inches (750 mm) x 60 inches (1500 mm)] with drawers, a swivel chair, and a locking storage cabinet.

- d. When structural steel is fabricated outside of Nebraska, the Engineer may elect to make complete inspections of all fabricated work after delivery to the site.
  - 22. Cleaning, Painting and Storage of Material
- Cleaning and Painting of all final structural members with the exception of Cross Frames and Diaphragms/Separartors shall conform to Section 709.
- b. Storage of all final structural members shall conform to Section 106.04.
- c. All bearing devices while on the job site must be protected from the elements of weather. Devices shall either be stored in a job trailer or properly covered with tarps until the devices are put into place. Devices with sole plates and fabric pads require final field inspection by the Bridge Fabrication Manager and approved prior to installation.

# 23. Marking and Shipping:

- a. Each structural member shall be scribed or paint marked for identification. An erection drawing shall be furnished showing identification marks.
- b. When the weight of a member exceeds 3 tons (3 Mg), then the weight shall be marked on the member.
- c. Bolts of one length and diameter and loose nuts and washers of each size shall be packed separately.
- d. Pins, small parts, and small packages of bolts, washers, and nuts shall be shipped in boxes, crates, kegs, or barrels of convenient sizes. An inventory list with a complete description of each item shall be plainly marked on the outside of each shipping container.
- e. The loading, transporting, unloading, and storing of all material shall be conducted so that the material is kept clean and is not damaged.

# 24. Field Assembly:

#### a. Methods:

- (1) The Contractor shall request the Engineer's approval of the proposed assembly methods at least 2 NDOT work days before starting the work.
- (2) Work shall not begin until the Engineer's approval has been obtained.
- (3) Approval of these methods does not relieve the Contractor of responsibility for performing the work safely in accordance with the contract.
  - b. The Contractor's preparation of bearing areas shall include:
- (1) Contractor shall contact the Department's Bridge Office a minimum of two weeks prior to installation of Bearing Plates for final inspection.

(2) Column bases and bearing devices shall have full and uniform bearing upon the substructure concrete. Bearing plates or pads shall not be placed upon bridge seat areas of piers or abutments which are deformed, irregular, or improperly finished.

- (3) The bearing devices and the bases of columns shall be rigidly and permanently located to the correct alignment and elevations.
- (4) A 1/8 inch (3 mm) thick lead sheet shall be placed between all steel and concrete at all areas where a bearing load is transferred. For example, a 1/8 inch (3 mm) lead sheet is required under all pot bearings and special bearings.
- (5) Anchor bolts shall be cast in the concrete as shown in the contract.
- c. The Contractor's methods and equipment used to assemble the structure shall not damage the members. Damaged members shall be rejected.
- d. The Contractor shall adjust the structure to its correct grade, alignment, and elevations and confirm splices are properly aligned before installing bolts. The correct camber and relative elevations shall be established before tightening the bolts.
- e. The Contractor shall block those girder segments assembled on the ground according to the camber and blocking diagram before bolted field splices are tightened.
- f. Plates, angles, and other shapes shall be straightened by methods that will not produce fracture or other damage. Metal shall not be heated unless allowed by the Engineer. If the Contractor uses heat, a proposal for its use shall be provided. The proposal shall include methods of heating, cooling, and other pertinent details.
- g. After straightening a bend or buckle, the surface of the metal shall be carefully inspected for evidence of fracture.

#### h. Corrections:

- (1) Minor corrections involving reaming, cutting, and chipping are expected. However, any error in the shop fabrication or deformation resulting from handling and transportation which prevents the proper assembling and fitting of parts by the moderate use of drift pins or by a limited reaming, chipping, or cutting shall be reported immediately to the Engineer.
- (2) Correction using approved methods shall be made in the Engineer's presence.
- (3) The Contractor shall be responsible for all misfits, errors, and damage and shall make the necessary corrections and replacements.

#### 25. Falsework:

Falsework shall be designed, constructed, and removed as described in Subsection 704.03, Paragraphs 5. and 7.

26. Installation of shear connectors shall be in accordance with ANSI/AASHTO/AWS *Bridge Welding Code*.

#### 708.04 -- Method of Measurement

1. a. "Steel Superstructure at Station \_\_\_\_\_" is measured as a lump sum.

- b. Structural steel for substructures and superstructures is measured by the pound (kilogram).
  - c. Steel diaphragms are measured by the each.
  - d. Payment quantities are shown in the contract.
- 2. a. "Steel Superstructure at Station \_\_\_\_\_", "Structural Steel for Superstructure", and "Structural Steel for Substructure" shall include all structural steel and miscellaneous metals, except railing and handrails, necessary for the construction as shown in the contract.
- b. The weight of structural steel shall be computed by the Department on the basis of the dimensions shown in the contract.
- c. In the computation of quantities, no deductions will be made for copes, cuts, and open holes, except that in cases of gusset plates, tapered plates, and irregular shaped plates such as the webs and cover plates of tapered columns and the webs of curved plate girders, skewed bearing plates, and shim plates, the actual sizes as assembled in the completed structure shall be measured for payment. In the case of rolled plates which have been beveled by milling, payment will be made on the basis of full maximum thickness throughout.
- d. The weight of paint or weld metal on structural steel will not be included in the quantities.

# 708.05 -- Basis of Payment

1. Pay Item Pay Unit

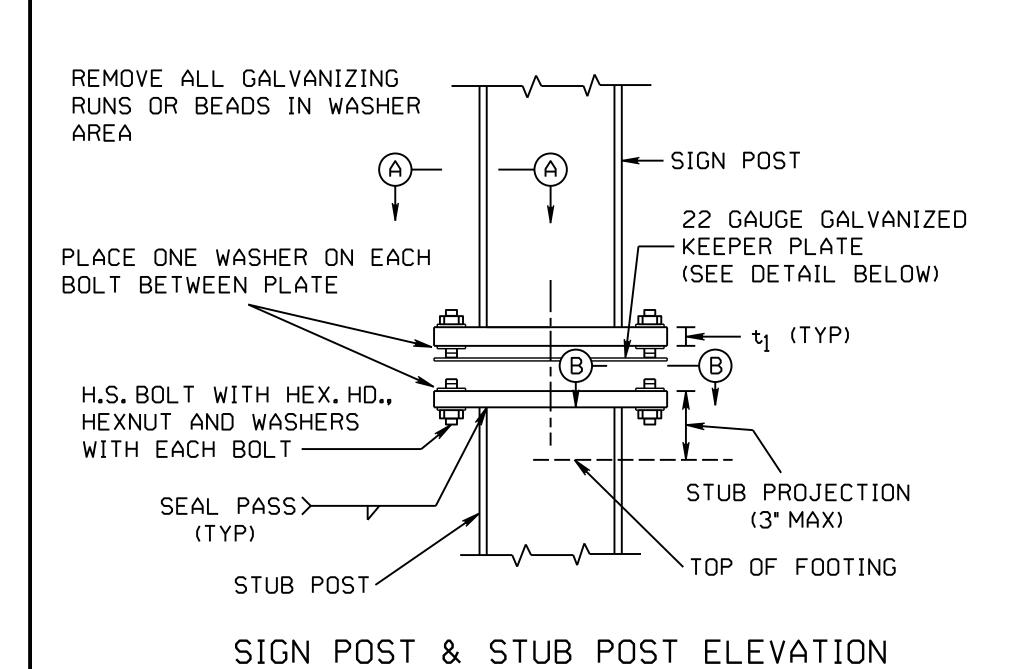
Steel Superstructure at Station \_\_\_\_\_ Lump Sum (LS)

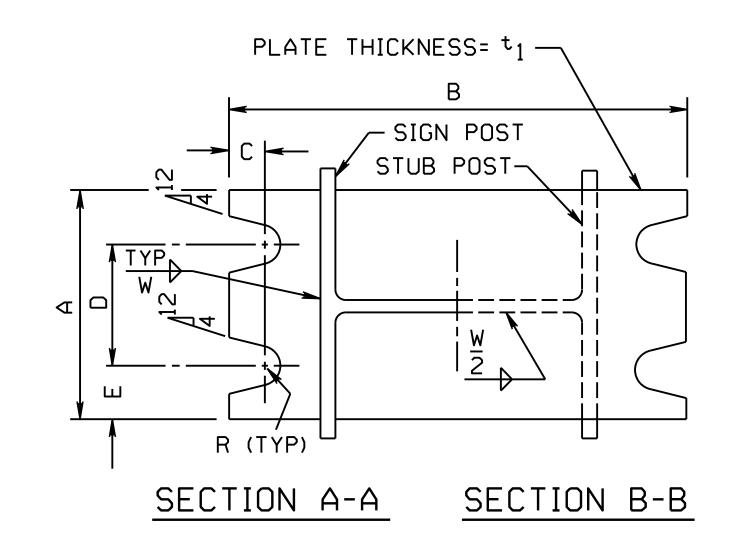
Structural Steel for Substructure Pound (lb)
[Kilogram (kg)]

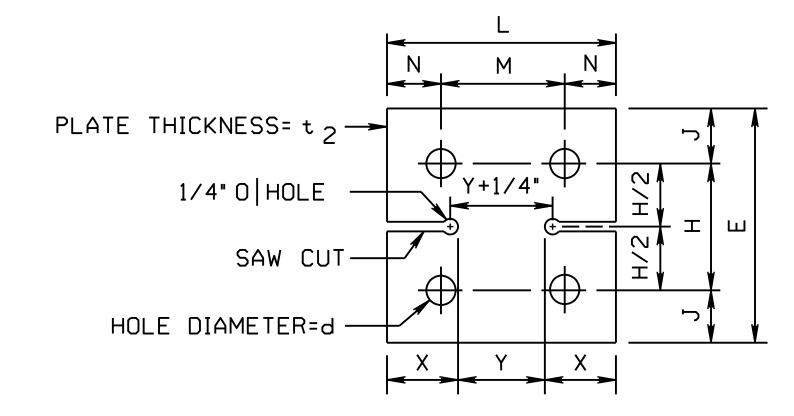
Structural Steel for Superstructure Pound (lb)
[Kilogram (kg)]

Steel Diaphragm Each (ea)

- 2. Direct payment for arc welding and prequalification testing, including all labor, equipment, materials, tools, and incidentals shall not be made but shall be considered subsidiary to the relevant items for which the contract provides direct payment.
- 3. The cost of furnishing and maintaining an inspection office will not be paid directly, but shall be considered subsidiary to the relevant items for which direct payment will be made.
- 4. All bolts and fasteners, including anchor and swedge bolts for bearing devices, shall not be paid for directly but shall be considered subsidiary to the various structural steel and steel diaphragm pay items.
  - 5. Payment is full compensation for all work described in this Section.







# FUSE LINK PLATE DETAIL

USE H.S. BOLTS WITH HEX. HD. & HEX. NUT, ONE FLAT WASHER UNDER EACH BOLT HEAD AND UNDER EACH NUT.

	STUB POST BASE CONNECTION TABLE											
SIGN AREA SO. FT.	POST NO.	W SHAPES	BOLT SIZE, LENGTH & MAX.TORQUE	А	В	С		Ш	т 1	W	R	* CONNECTION WT. IN LBS.
0-85	I	W6 × 15	3/4" × 3-1/4"	6	10 1/4	3/4"	3 ½	1 1/4	1	5/16	13/32	88
86-120	П	W8 × 18	80 FTLB.	b	12 ½	3/ <del>4</del>	J 72	1 74	1	716	732	105
121-170	Ш	W8 × 24	7/8" × 4"		13 1/8							164
171-225	IV	W8 × 31	100 FTLB.	8	13 1/4	7/8"	4	2	1 1/4	3/8	15/32	184
OVER 225	$oldsymbol{\nabla}$	W8 × 48	יין ששו דו. ברD.		13 ¾							238

\* INCLUDES WEIGHTS OF 2 BASE CONNECTION PLATES, BOLTS, WASHERS, STUB POST, FUSE PLATE AND WELDING. WEIGHT OF POST, ABOVE BASE CONNECTION, SHALL BE COMPUTED AND ADDED FOR EACH LOCATION.

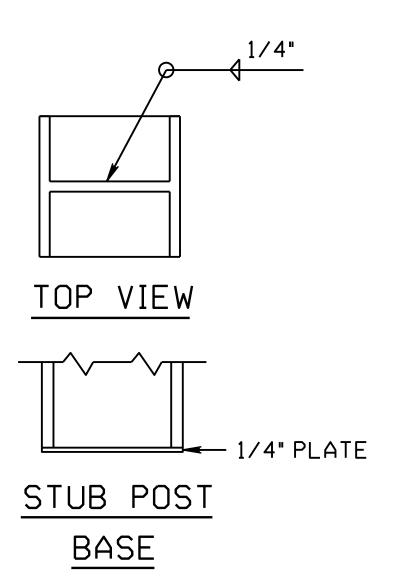
	FUSE LINK PLATE TARLE												
	FUSE LINK PLATE TABLE										во	LT	PLATE
POST NO.	E	Н	J	L	М	N	X	Υ	Ъ	ť	DIA.	MIN. LENGTH	wt. ın lbs.
I	5 1/4	2 3/4	1 1/4	5	2 3/4	1 1/8	2 1/16	7/8	11/16	g/80	5/8	2 1/4	2.54
П	5 1/4	2 3/4	1 1/4	5	2 3/4	1 1/8	2 1/16	7/8	11/16	% ⊘®	5/8	2 1/4	2.54
Ш	6 ½	3 ½	1 ½	6 ½	3 ½	1 ½	2	2 ½	15 16	1/2	7/8	2 3/4	5.63
IV	6 ½	3 ½	1 ½	6 ½	3 ½	1 ½	2	2 ½	15 16	1/2	7/8	3	5.63
$oldsymbol{\nabla}$	6 ½	3 ½	1 ½	6 ½	3 ½	1 ½	2	2 ½	15 16	1/2	7/8	3	5.63

IF MINIMUM BOLT LENGTHS AS SHOWN IN TABLE ARE NOT AVAILABLE, USE NEXT LONGER STANDARD BOLT LENGTH.

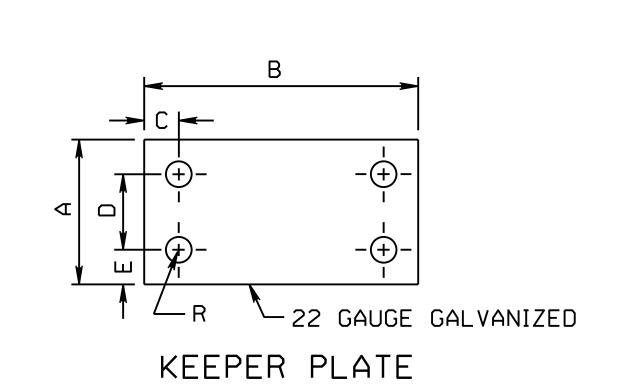
# 1 3/4" 15/16"

# SHIM DETAIL

FURNISH 2 5 .012" + THICK AND 2 ω .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CON-FORMING TO A.S.T.M.-B36.



FOR ALL W SHAPES



1. THE FABRICATION OF THE SUPPORTS INVOLVING SUCH OPERATIONS AS CUTTING, DRILLING, WELDING AND CLEANING SHALL BE IN ACCORDANCE WITH SECTION 708. MILL TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION.

GENERAL NOTES

- 2. ALL STRUCTURAL STEEL SHALL COMPLY WITH ASTM-A36 OR EQUAL AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-F3125.
- 3. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED HIGH STRENGTH STEEL COMPLYING WITH ASTM-A325.

PLAN SHEET

Project Number

DIVISION

ENGINEERING

SPORTATION

NEBRASKA

C.N.

# Note 1

# Sampling and Testing Small Quantities of Non-critical Materials

Certain exceptions to the normal sampling and testing procedures may be made where quantities of non-critical items or materials are too small to justify the cost of testing or inspection. These exceptions in sampling and testing are intended for small quantities of materials whose positions on the project are not structurally critical. Such procedures are not to be permitted in materials for major structures, permanent mainline or ramp pavements, or other structurally critical items where use of unsound materials might significantly influence the performance, strength or durability of that item, or the public safety.

By notification of Materials & Research and documenting the waiver of Sampling/Testing in AWP, the project manager may waive their respective sampling and testing requirements where quantities of non-critical items or materials are too small to justify the cost of testing or inspection. When this method is used, records must be recorded on the affected line item, consistent with materials acceptance documentation of the department.

The following tabulation indicates the approximate maximum quantities of material, excepting Portland cement concrete and asphaltic concrete that may be accepted under the methods indicated above:

- a. Aggregates (for Portland cement concrete and asphaltic concrete quality testing of aggregate is required) Not to exceed approximately 200 cubic yards per day nor more than approximately 500 cubic yards per project. Rock riprap and Gabion stone fill shall not exceed 1,000 tons per project.
- b. Bituminous Mixtures (cold mix) Not to exceed approximately 50 tons per day nor more than approximately 250 tons per project.
- c. Asphaltic Oils and Emulsified Asphalts Not to exceed approximately 1,500 gallons of each type per project.
- d. Paint Not to exceed approximately five gallons of each type per project. Brand name paints of the color specified and the weights and analysis on the container label should be the basis for acceptance.
- e. Dimensional Lumber (2x4, 1x6, etc.) Recognized commercial grades only may be used.
- f. Masonry Items Not to exceed approximately 100 pieces of each item. Acceptance should be based on physical measurements for nominal size and visual inspection. Masonry items may include but are not exclusive to bricks, concrete blocks, etc.

Portland cement concrete for the items and approximate quantities listed below may be accepted by entering a sample in AWP and selecting the 'Small Quantities of Non-critical Materials' test method:

- a. Mix designs are not required for small quantities of non-critical items.
- b. Sidewalks not to exceed 200 cubic yards per day
- c. Median Surfacing not to exceed 200 cubic yards per day
- d. Concrete Base Course not to exceed 200 cubic yards per day
- e. Concrete Base Course Widening not to exceed 200 cubic yards per day
- f. Curb and Gutter not to exceed approximately 500 linear feet per project, or 50 cubic yards per day, for more than two consecutive days
- g. Slope Paving and Headers not to exceed 50 cubic yards
- h. Paved Ditch (intermittent water flow)
- i. Single Culvert Headwalls and Collars

- j. Catch Basins, Manhole Bases and Inlets
- k. Concrete Ditch Checks
- I. Post Hole Concrete (Fence and Guardrail)
- m. Miscellaneous Concrete Concrete placements of five cubic yards or less and which are non-critical. Non-critical refers to placements that will not be subject to traffic loading and for which failure is not likely to disrupt traffic or pose a threat of harm to the traveling public.

Acceptance under this system shall be based on the following:

- a. Delivery tickets shall accompany each load.
- b. The concrete plant must comply with the specifications.
- c. Only state tested and approved aggregates, cements and admixtures may be used.
- d. Project personnel will perform necessary testing on any material they feel may be of inferior quality.
- e. The project manager will determine that the concrete for these items is from a known reliable source and fulfills the requirements for the purpose intended.

The above system is intended to provide a method whereby the project manager may be relieved of sampling and testing small quantities of material which, in his judgment, are placed in such a location within the project that the absence of sampling and testing does not materially affect the principle of sound engineering control. This program includes, but is not exclusive to, the items in the list above. Many other miscellaneous minor items (e.g., 3 or 4 posts, a few bolts, washers, nuts, a few pieces of pipe, short pieces of wire, a few pieces of reinforcing steel, a few feet of fencing material, etc.) will be within the definition of the above but cannot all be listed inasmuch as location on the project will determine the need to sample and test.

A word of caution: this system should not be used as a means of reducing sampling and testing of materials by adjusting daily delivery of quantities, nor to allow the contractor to provide non-specification materials. It is intended that all materials shall comply with specification requirements but that this compliance is determined by experience and judgment and that the project manager shall retain absolute control over the determination of items to be accepted without the usual engineering controls.

# Note 30 Buy America Certification

The required Buy America (BA) certification must indicate the materials used to fabricate the contract material or product complies with federal requirements and was produced domestically. Domestic means within the United States, the District of Colombia, or in the territories and possessions of the United States. The certification must include:

- Identifying information such as contract ID, control number, project number and/or project name
  - Identifying information is not required for materials submitted for pre-approval (products noted on the NDOT approved products list, lots, batches, bundles, etc)
- Clear and unique product identification (name of product with lot number, heat number, reel number, etc.)
- The statement
  - Products or materials specified in this certification are permanently consumed in, incorporated into, or affixed to the project and meet the applicable Build America, Buy America requirements detailed in the Infrastructure Investment and Jobs Act as well as the 23 CFR-635.410 Buy America requirements for steel and iron products
- A signature by the manufacturer's authorized representative and the representative's title