CITY OF KNOXVILLE INVITATION TO BID

Lakeshore Park Fence Restoration

Sealed bids, invited by the City of Knoxville, will be received by the Purchasing Agent of the City of Knoxville, in Room 667-674, City County Building; 400 Main Avenue; Knoxville, Tennessee, until **11:00:00 a.m.** (**Eastern Time**) **on April 4, 2017,** at which time they will be opened and publicly read aloud and a contract awarded as soon thereafter as practicable.

The work will consist of the restoring approximately 1,187 feet of wrought iron fencing at Lakeshore Park, to include repair, sandblast, prime, and paint wrought iron fencing. All work shall be performed onsite.

SPECIFICATIONS

The Contractor shall:

- Provide onsite sandblasting of fence panels, posts, caps, and all associated hardware per The Society for Protective Coatings and NACE International Standard for near-white blast cleaning (SSPC-SP No. 10/NACE No. 2) to remove all grease, dirt, rust, and paint until only bare metal is exposed on all areas including the top, bottom, sides, and underneath areas of fence panels, posts, caps, and all associated hardware. (Standard has been attached to ITB for reference.)
- Repair and/or replace any damaged, missing, or bent fence panels, posts, caps, and associated hardware. Any parts replaced or repaired shall match or replicate the current fence style or part.
- Provide all machining, welding, fabricating, or associated specialty work needed to complete specified tasks.
- Perform sandblasting and primer/paint process simultaneously on the same day to avoid rust developing on the bare metal.
- Be responsible for preventing overspray during the sandblasting and the primer/paint process. Contractor shall use caution while vehicles and pedestrians are present.
- Utilize a high quality marine grade epoxy primer that is 100% compatible with specified paint. Paint shall be Sherwin Williams HI - Solids Polyurethane HS Black (gloss or semigloss) series. Primer and paint shall be applied using a spray application and in accordance to manufacturer specifications.
- Provide a one year warranty covering workmanship, rusting, and paint peeling.

BID SUBMISSION REQUIREMENTS

Bidders must furnish the following information in writing with their submission:

1. Bid Form showing bidder's name, address, quoted price, business license number, date of expiration of business license. A copy of the bidder's current business license may be submitted in lieu of providing the license expiration date.

- 2. Child Crime Affidavit
- 3. Non-Collusion Affidavit
- 4. Drug-Free Workplace Affidavit
- 5. Iran Divestment Act Certification of Noninclusion
- 6. Diversity Business Enterprise (DBE) Program form

GENERAL INFORMATION

- 1. Sealed bids will be received by the Purchasing Agent of the City of Knoxville in Room 667-674, City/County Building, 400 Main Avenue, Knoxville, Tennessee until Tuesday, April 4, 2017, at 11:00:00 a.m., at which time they will be publicly opened and read aloud and the contract awarded as soon as practicable. No bid will be received or accepted after the above-specified time for the opening of bids. Bids that arrive late due to the fault of U. S. Postal Service, United Parcel Service, DHL, FEDEX, any delivery/courier service, or any other carrier of any sort are still considered late and shall not be accepted by the City. Such bids shall remain unopened and will be returned to the submitting entity upon request.
- 2. The City of Knoxville reserves the right to waive any informalities or to reject any or all bids, to evaluate bids, and to accept any bid which, in its opinion, may be for the best interest of the City.
- 3. Prior to submitting their bids, bidders are to be registered with the Purchasing Division by setting up a Vendor Self-Service Account. Instructions for registering on-line are available at www.knoxvilletn.gov/purchasing. Bid submissions from un-registered bidders may be rejected.
- 4. Included in the Invitation to Bid is an affidavit in proof that the undersigned has not entered into any collusion with any person in respect to this bid or any other bid. The fully executed and notarized affidavit must be submitted with the sealed bid.
- 5. **NO CONTACT POLICY:** After the posting of this solicitation to the Purchasing Division's website, any contact initiated by any proposer with any City of Knoxville representative concerning this proposal is strictly prohibited, unless such contact is made with the Purchasing Division representative listed herein or with said representative's authorization. Any unauthorized contact may cause the disqualification of the proposer from this procurement transaction.
- 6. **INCLEMENT WEATHER:** During periods of inclement weather, the Purchasing Division will enact the following procedures with regard to solicitations and weather delays:
 - If City offices are closed due to inclement weather on the date that bids/proposals/qualifications/letters of interest are due into the Purchasing Office, all solicitations due that same day will be moved to the next operational business day.
 - The City of Knoxville shall not be liable for any commercial carrier's decision regarding deliveries during inclement weather.

- 7. Each bid must be submitted in a sealed envelope, addressed to the Purchasing Agent; City of Knoxville; City/County Building; 400 Main Street, Room 667-674; Knoxville, Tennessee, 37902. Each sealed envelope containing a bid must be plainly marked on the outside as: "Lakeshore Park Fence Restoration."
- 8. All bids must be made on the Bid Form supplied with the contract documents, and no interlineations, excisions, or special conditions shall be made or included in the Bid Evaluation Sheet by the Bidder. Any bid on which there is an alteration of or departure from the Bid Form may be considered irregular and may be rejected. All bids must be signed in full by the Bidder or Bidders in their business name or style when submitted and must show his or their complete address.
- 9. No bidder may withdraw his bid for a period of 60 days after the actual date of the opening thereof.
- 10. All bidders must be licensed to conduct business in the State of Tennessee. Bidder's name, address, license number, date of expiration of license, and that part of the license classification applying to the bid must be placed on the sealed envelope containing the bid.
- **11.**Payment for completed services delivered to and accepted by the City shall be at the contract price.
- 12. All bids must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.
- 13. Bidders shall verify bids before submission, as bids cannot be withdrawn or corrected after being opened.
- 14. If federal excise tax applies, show amount of same and deduct. Bear in mind that the City is exempt from Tennessee sales tax.
- 15. Prices are considered FOB Destination unless otherwise stated in the Invitation to Bid.
- 16. Within 30 days of delivery of the contract to the Contractor, the City must receive either the executed contract or, if execution of the contract is pending agreement of the parties as to contract language, a written request for extension indicating the cause of the delay and an estimated schedule for execution. The City may accept or reject the request for extension, but will afford reasonable opportunity for review. Failure to obtain a certificate of insurance prior to submission of a bid will not be considered a reasonable basis for extension. If neither the executed contract nor a written request for extension has been received by the City within 30 days of delivery, the City may award to the next most responsive, responsible bidder.

- 17. By execution and delivery of a bid submission, the bidder agrees that any additional terms and conditions, whether submitted to the City purposely or inadvertently, shall have no force or effect.
- 18. Bidders must provide a fully executed and notarized Drug-Free Workplace Affidavit with their bid submission.
- 19. Due to the successful bidder's likelihood of working in close proximity to children and adolescents, all bidders are required to submit an affidavit with their bids stating that they agree not to allow any employee or volunteer who is awaiting trial or has been convicted of a felony crime involving the sexual exploitation of children, sexual offenses involving children, or violent crimes to participate in this Agreement. Failure by the bidder to comply with this requirement is grounds for immediate termination of the Agreement. Bidders are required to submit this affidavit with their proposal and failure to do so may be considered grounds for rejection of the bid. Said affidavit is contained within this ITB for bidder's use.
- 20. Bidders must comply with the President's Executive Orders No.11246 and 11375 which prohibit discrimination in employment regarding race, color, religion, sex or national origin. Bidders must not maintain or provide for their employees any facilities that are segregated on the basis of race, color, religion or national origin. Bidders must also comply with Title VI of the Civil Rights Act of 1964, Copeland Anti-Kick Back Act, the Contract Work Hours and Safety Standard Act, Section 402 of the Vietnam Veterans Adjustment Act of 1974 and Section 503 of the Rehabilitation Act of 1973, all of which are herein incorporated by reference.
- 21. All bidders must comply with Title VI of the Civil Rights Act of 1964, as codified in 42 U.S.C. 2000d. The successful bidder must follow Title VI guidelines in all areas including hiring practices, open facilities, insurance, and wages. The City of Knoxville reserves the right to review all compliance records by a contract compliance officer designated by the City.
- 22. No interpretation of the meaning of the plans, specifications, or other pre-bid documents will be made to any bidder orally. Each request for such interpretation should be in writing addressed to **Julie Smith Maxwell, Procurement Specialist** for the City of Knoxville, 400 Main Street, Room 667, Knoxville, TN 37902, or emailed to her at jmaxwell@knoxvilletn.gov. To be given consideration, such requests/questions must be received by end of business day **March 28, 2017.** Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be posted to the City's website at www.knoxvilletn.gov/purchasing. Submitting organizations are strongly encouraged to view this website often to see if addenda are posted. Failure of any bidder to receive such addendum or interpretation shall not relieve such Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

- 23. Attention of all bidders is directed to the set off provision contained in Article II, Section 24-33, entitled, "Debts owed by persons receiving payments other than salary", and Section 2-1049 entitled "Receipt of benefits from City contracts by council members, employees, and officers of the City" of the Code of the City of Knoxville.
- 24. Where applicable, the successful Bidder will be required to pay prevailing wages to those whom they employ (to include any sub contractors). Information regarding the prevailing wage rates may be obtained on the following State of Tennessee website: http://www.tn.gov/workforce/article/prevailing-wage.
- 25. The City may terminate this Agreement at any time, with or without cause, by written notice of termination to the Contractor. If the City terminates this Agreement, and such termination is not a result of a default by the Contractor, the Contractor shall be entitled to receive as its sole and exclusive remedy the following amounts from the City, and the City shall have no further or other obligations to the Contractor: (a). The amount due to the Contractor for work executed through the date of termination, not including any future fees, profits, or other compensation or payments which the Contractor would have been entitled to receive if the Project had not been terminated; and (b) the direct out-of-pocket costs incurred by the Contractor for demobilization of the Project following receipt of the notice of termination, not to exceed the amount reasonably and actually required to demobilize the Project.
- 26. The City may, by written notice of default to the Contractor, terminate the whole or any part of this contract if the Contractor fails to make delivery of the supplies or to perform the services wherein the time specified herein or any extension thereof; or if the Contractor fails to perform any of the other provisions of the contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of 10 days (or such longer period as the Purchasing Agent may authorize in writing) after receipt of notice from the Purchasing Agent specifying such failure.
- 27. If the contract is terminated in whole or in part for default, the City may procure, upon such terms and in such manner as the Purchasing Agent may deem appropriate, supplies of services similar to those so terminated.
- 28. If, after notice of termination of this contract under the provisions of this clause, it is determined for any reason that the contractor was not in default under the provisions of this clause, or that the default was excusable under the provisions of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to termination for convenience of the City.
- 29. The rights and remedies of the City provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.
- 30.Before a contract will be signed by the City, the submitting entity, if selected, **must** provide the City Purchasing Division with a copy of its valid business license **or** with an

affidavit explaining why it is exempt from the business licensure requirements of the city or county in which it is headquartered. If a contract is signed, the contractor's business license shall be kept current throughout the duration of the contract, and the contractor shall inform the City of changes in its business name or location. Any Contract resulting from this Invitation to Bid shall be governed by and construed in accordance with the substantive laws of the State of Tennessee and its conflict of laws provisions. Venue for any action arising between the City and the Vendor from the Agreement shall lie in Knox County, Tennessee.

- 31. When applicable and prior to the commencement of the contract, contractor must, at its sole expense, obtain and maintain in full force and effect for the duration of the Agreement and any extension hereof at least the following types and amounts of insurance for claims which may arise from or in connection with this Agreement. Contractor shall furnish the City of Knoxville with properly executed certificates of insurance which shall clearly evidence all insurance required by the City. All insurance must be underwritten by insurers with an A.M. Best rating of A-VIII or better. Such insurance shall be at a minimum the following:
 - A. Commercial General Liability Insurance; occurrence version commercial general liability insurance, and if necessary umbrella liability insurance, with a limit of not less than two million dollars (\$2,000,000) each occurrence for bodily injury, personal injury, property damage, and products and completed operations. If such insurance contains a general aggregate limit, it shall apply separately to the work/location in this Agreement or be no less than three million dollars (\$3,000,000).

Such insurance shall:

- (a.) Contain or be endorsed to contain a provision that includes the City, its officials, officers, employees, and volunteers as additional insureds with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. The coverage shall contain no special limitations on the scope of its protection afforded to the above-listed insureds. Proof of additional insured status up to and including copies of endorsements and/or policy wording will be required.
- (b.) For any claims related to this project, Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, officers, employees, and volunteers. Any insurance or self-insurance programs covering the City, its officials, officers, employees, and volunteers shall be excess of Contractor's insurance and shall not contribute with it.
- (c.) At the sole discretion of the City, dedicated limits of liability for this specific project may be required.

- B. **Automobile Liability Insurance**; including vehicles owned, hired, and nonowned, with a combined single limit of not less than \$1,000,000 each accident. Such insurance shall include coverage for loading and unloading hazards. Insurance shall contain or be endorsed to contain a provision that includes the City, its officials, officers, employees, and volunteers as additional insureds with respect to liability arising out of automobiles owned, leased, hired, or borrowed by or on behalf of Contractor.
- C. Workers' Compensation Insurance. Contractor shall maintain workers' compensation insurance with statutory limits as required by the State of Tennessee or other applicable laws and employers' liability insurance with limits of not less than \$500,000. Contractor shall require each of its subcontractors to provide Workers' Compensation for all of the latter's employees to be engaged in such work unless such employees are covered by Contractor's workers' compensation insurance coverage. Such insurance shall include a waiver of subrogation in favor of the City. Proof of waiver of subrogation up to and including copies of endorsements and/or policy wording will be required.

D. **Other Insurance Requirements.** Contractor shall:

- Prior to commencement of services, furnish the City with original certificates and amendatory endorsements effecting coverage required by this section and provide that such insurance shall not be cancelled, allowed to expire, or be materially reduced in coverage except on 30 days' prior written notice to the City Attorney of Knoxville;
 P.O. Box 1631; Knoxville, Tennessee 37901. Proof of policy provisions regarding notice of cancellation will be required.
- Upon the City's request, provide certified copies of endorsements and policies if requested by the City in lieu of or in addition to certificates of insurance. Copies of policies will only be requested when contracts are deemed to be extremely or uniquely hazardous, include a dollar amount that is significant to the overall budget of the City or a City Department, or the coverage(s) may not follow standard insurance forms. A policy will only be requested after the City's Risk Manager has reviewed the contract and proof of coverage has been provided. Should the certificate of insurance refer to specific coverage wording or endorsements(s), proof of such policy wording or endorsement(s) will be required.
- Replace certificates, policies, and endorsements for any such insurance expiring prior to completion of services.
- Maintain such insurance from the time services commence until services are completed. Failure to maintain or renew coverage or to provide evidence of renewal may be treated by the City as a material breach of contract.
- If Contractor cannot procure insurance through an insurer having an A.M. Best rating of A-VIII, Contractor may, in the alternative, place such insurance with insurer

licensed to do business in Tennessee and having A.M. Best Company ratings of no less than A. Modification of this standard may be considered upon appeal to the City Law Director.

- Require all subcontractors to maintain during the term of the Agreement Commercial General Liability insurance, Business Automobile Liability insurance, and Workers' Compensation/Employer's Liability insurance (unless subcontractor's employees are covered by Contractor's insurance) in the same manner as specified for Contractor. Contractor shall furnish subcontractors' certificates of insurance to the City without expense immediately upon request.
- Any deductibles and/or self-insured retentions greater than \$50,000 must be disclosed to and approved by the City of Knoxville prior to the commencement of services. Use of large deductibles and/or self-insured retentions may require proof of financial ability as determined by the City.
- The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, and employees for losses arising from work performed by Contractor for the City. Proof of waiver of subrogation up to and including copies of endorsements and/or policy wording will be required.
- All general liability policies must be written on an occurrence basis, unless the Risk Manager determines that a claims made basis is reasonable in the specific circumstance. Use of policies written on a claims made basis must be approved by the Risk Manager and retroactive dates and/or continuation dates must be provided to the City prior to commencement of any work performed. Professional Liability and Environmental Liability (Pollution Coverage) are most commonly written on a claims made basis and are generally acceptable in that form.
- 32. The successful bidder will be required to sign a contract which contains the following indemnification clause. This indemnification clause will not be altered in any way. Failure to agree with this indemnification clause in the contract may result in the City moving to the next responsible responsive proposer.

Contractor shall defend, indemnify and hold harmless the City, its officers, employees and agents from any and all liabilities which may accrue against the City, its officers, employees and agents or any third party for any and all lawsuits, claims, demands, losses or damages alleged to have arisen from an act or omission of Contractor in performance of this Agreement or from Contractor's failure to perform this Agreement using ordinary care and skill, except where such injury, damage, or loss was caused by the sole negligence of the City, its agents or employees.

Contractor shall save, indemnify and hold the City harmless from the cost of the defense of any claim, demand, suit or cause of action made or brought against the City alleging liability referenced above, including, but not limited to, costs, fees, attorney fees, and other expenses of any kind whatsoever arising in connection with the defense of the City;

and Contractor shall assume and take over the defense of the City in any such claim, demand, suit, or cause of action upon written notice and demand for same by the City. Contractor will have the right to defend the City with counsel of its choice that is satisfactory to the City, and the City will provide reasonable cooperation in the defense as Contractor may request. Contractor will not consent to the entry of any judgment or enter into any settlement with respect to an indemnified claim without the prior written consent of the City, such consent not to be unreasonably withheld or delayed. The City shall have the right to participate in the defense against the indemnified claims with counsel of its choice at its own expense.

Contractor shall save, indemnify and hold City harmless and pay judgments that shall be rendered in any such actions, suits, claims or demands against City alleging liability referenced above.

The indemnification and hold harmless provisions of this Agreement shall survive termination of the Agreement.

CITY OF KNOXVILLE BID FORM

TO: Purchasing Agent

City of Knoxville City/County Building 400 Main Street, Suite 667 Knoxville, TN 37902

Having carefully examined the specifications entitled "Lakeshore Park Fence Restoration" to open on April 04, 2017, at 11:00:00 a.m. and the other Contract Documents and addenda, and having familiarized ourselves with the existing conditions of the job, we hereby propose to furnish the supervision, labor, materials, equipment, delivery, and services to do the work as specified for the following amount:

| Bid: | |
|-------------------|--------------|
| Total Cost: \$ | |
| Firm Name: | Date: |
| Official Address: | |
| | |
| (By) | (Name Typed) |
| \ \ | (Title) |
| Email | Phone |

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

| State | of |
|--------|--|
| Coun | ty of |
| | , being first duly sworn, deposes and says that: |
| (1) | He is owner, partner, officer, representative, or agent of, the Bidder that has submitted the attached Bid; |
| (2) | He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid; |
| (3) | Such Bid is genuine and is not a collusive or sham Bid; |
| (4) | Neither the said Bid nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached Bid or or any other Bidder, firm, or person to fix any overhead, profit, or cost element of the bid price or the bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Knoxville or any person interested in the proposed Contract; and |
| (5) | The price or prices quoted in that attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit. |
| Signe | ed: |
| Title: | |
| Subso | cribed and sworn to before me this day of, 2 |
| | My commission expires: |

IRAN DIVESTMENT ACT

Certification of Noninclusion

NOTICE: Pursuant to the Iran Divestment Act, Tenn. Code Ann. § 12-12-106 requires the State of Tennessee Chief Procurement Officer to publish, using creditable information freely available to the public, a list of persons it determines engage in investment activities in Iran, as described in § 12-12-105. Inclusion on this list makes a person ineligible to contract with the state of Tennessee; if a person ceases its engagement in investment activities in Iran, it may be removed from the list. A list of entities ineligible to contract in the State of Tennessee Department of General Services or any political subdivision of the State may be found here:

https://www.tn.gov/assets/entities/generalservices/cpo/attachments/List of persons pursuant to Tenn. Code Ann. 12-12-106, Iran Divestment Act-July.pdf

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to T.C.A. § 12-12-106.

Address

Vendor Name (Printed)

| By (Authorized Signature) | Date Executed |
|---|---------------|
| Printed Name and Title of Person Signing | |
| | |
| NOTARY PUBLIC: | |
| Subscribed and sworn to before me this day of 2 | of, |
| My commission expires: | |

DRUG-FREE WORKPLACE AFFIDAVIT

| State o | of | | |
|---------|--|---|--|
| County | y of | | |
| | 1 | | |
| (1) | He/She is a principal officer ofhas submitted the attached Proposal, his | is or her title being | |
| (2) | of the firm; and He/She has personal knowledge of the policies of the above-named firm with respect to the maintenance of a drug-free workplace; and | | |
| (3) | He/She certifies that all provisions and | requirements of the Tennessee ablished by Tenn. Code Ann. §§ 50-9-101 | |
| (Signe | | | |
| (Title) | | | |
| Subscr | ribed and sworn to before me thisday | of, <u>20</u> | |
| Title_ | | | |
| Му Со | ommission expires | | |

Child Crime Affidavit

| State of | |
|--|---|
| County of | |
| | being first duly sworn, deposes and says that: |
| (1) He/She is the owner, partner, officer, represent | entative, or agent of |
| , the Bidder t | that has submitted the attached Bid; |
| (2) The Bidder chosen as the successful bidder: | will abide by the following if |
| The Bidder or volunteer who is awaiting trial or has bee sexual exploitation of children, sexual offen participate in this Agreement at sites where Bidder to comply with this requirement is grayagreement. | ses involving children or violent crimes to children may be present. Failure by the |
| Signed: | |
| Title: | |
| Subscribed and sworn to before me this day | v of, 2 |
| My commission expires: | |

DIVERSITY BUSINESS ENTERPRISE (DBE) PROGRAM

The City of Knoxville strongly encourages prime contractors to employ diverse businesses in the fulfillment of contracts/projects for the City of Knoxville.

The City of Knoxville's Fiscal Year 2017 goal is to conduct <u>3.33%</u> of its business with minority-owned businesses, <u>9.21%</u> of its business with woman-owned businesses, and <u>45.5%</u> with small businesses.

While the City cannot engage (pursuant to state law) in preferential bidding practices, the City does **strongly encourage** prime contractors to seek out and hire diverse businesses in order to help the City meet its goals as stated above. As such, the City encourages prime contractors to seek out and consider competitive sub-bids and quotations from diverse businesses.

For DBE tracking purposes, the City requests that prime contractors who are bidding, proposing, or submitting statements of qualifications record whether or not they plan to employ DBE's as subcontractors or consultants. With that in mind, please fill out, sign and submit (with your bid/proposal) the following sub-contractor/ consultant statement.

CITY OF KNOXVILLE DIVERSITY BUSINESS DEFINITIONS

<u>Diversity Business Enterprise (DBE's)</u> are minority-owned (MOB), women-owned (WOB), service-disabled veteran-owned (SDVO), and small businesses (SB), who are impeded from normal entry into the economic mainstream because of past practices of discrimination based on race or ethnic background. These persons must own at least 51% of the entity and operate or control the business on a daily basis.

Minority: A person who is a citizen or lawful admitted permanent resident of the United States and who is a member of one (1) of the following groups:

- a. <u>African American</u>, persons having origins in any of the Black racial groups of Africa;
- b. <u>Hispanic American</u>, persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race;
- c. <u>Native American</u>, persons who have origin in any of the original peoples of North America;
- d. <u>Asian American</u>, person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.

Minority-owned business (MOB) is a continuing, independent, for profit business that performs a commercially useful function, and is at least fifty-one percent (51%) owned and controlled by one (1) or more minority individuals.

<u>Woman-owned business</u> (WOB) is a continuing, independent, for profit business that performs a commercially useful function, and is at least fifty-one percent (51%) owned and controlled by one (1) or more women.

Service Disabled Veteran-owned business (SDOV) is a continuing, independent, for profit business that performs a commercially useful function, owned by any person who served honorably on active duty in the armed forces of the United States with at least a twenty percent (20%) disability that is service connected. Meaning such disability was incurred or aggravated in the line of duty in the active military, naval or air service, and is at least fifty-one percent (51%) owned and controlled by one (1) or more service disabled veteran.

Small Business (SB) is a continuing, independent, for profit business which performs a commercially useful function and has total gross receipts of not more than ten million dollars (\$10,000,000) average over a three-year period or employs no more than ninety-nine (99) persons on a full-time basis.

Subcontractor/Consultant Statement

(TO BE SUBMITTED IN THE BID/PROPOSAL ENVELOPE)

| We | | | do certify that on the |
|---|----------------------------|-------------------------|--|
| | (Bidder/Propo | ser Company Na | me) |
| (Project Name) | | | |
| \$ | | | |
| (Amount of Bid) | | | |
| Please select one: | | | |
| □ Option A: Intent to subc | ontract using Div | erse Businesses | |
| A Diversity business will | | | ndor(s) supplier(s) or |
| professional | be employed as sur | beominacion(s), ve | ndor(s), supplier(s), or |
| service(s). The estimated | dollar value of the | e amount that we | plan to pay is: |
| \$ | | | |
| Estimated Amount of Sub | contracted Service | · | |
| | Diversity Bu | siness Enterpris | e Utilization |
| | | Diverse | |
| Description of | | Classification | |
| Work/Project | Amount | (MOB, WOB, SB, SDOV) | Name of Diverse Business |
| | | | |
| | | | |
| | | | |
| | | | |
| □ Option B: Intent to perfe | orm work "witho | ut" using Divers | e Businesses |
| We hereby certify that it is work will be completed with companies. | • | | work required for the contract, bcontract with non-Diverse |
| DATE: | COMPAN | NY NAME: | |
| SUBMITTED BY: | | TIT | LE: |
| (A | uthorized Representat | tive) | LE: |
| ADDRESS: | | | |
| | | | |
| | | | |
| TELEPHONE NO: | | | |

Joint Surface Preparation Standard

SSPC-SP NO. 10/NACE NO. 2

Near-White Blast Cleaning

This SSPC: The Society for Protective Coatings and NACE International standard represents a consensus of those individual members who have reviewed this document, its scope and provisions. Its acceptance does not in any respect preclude anyone, having adopted the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not in conformance with this standard. Nothing contained in this standard is to be construed as granting any right, by implication or otherwise, to manufacture, sell, or use in connection with any method, apparatus, or product covered by Letters Patent, or as indemnifying or protecting anyone against liability for infringement of Letters Patent. This standard represents minimum requirements and should in no way be interpreted as a restriction on the use of better procedures or materials. Neither is this standard intended to apply in all cases relating to the subject. Unpredictable circumstances may negate the usefulness of this standard in specific instances. SSPC and NACE assume no responsibility for the interpretation or use of this standard by other parties and accept responsibility for only those official interpretations issued by SSPC or NACE in accordance with their respective governing procedures and policies, which preclude the issuance of interpretations by individual volunteers.

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Foreword

This joint standard covers the use of blast cleaning abrasives to achieve a defined degree of cleaning of steel surfaces prior to the application of a protective coating or lining system. This standard is intended for use by coating or lining specifiers, applicators, inspectors, or others whose responsibility it may be to define a standard degree of surface cleanliness.

The focus of this standard is near-white metal blast cleaning. White metal blast cleaning, commercial blast cleaning, industrial blast cleaning and brush-off blast cleaning are addressed in separate standards.

Near-white blast cleaning provides a greater degree of cleaning than commercial blast cleaning (SSPC-SP 6/NACE No. 3), but less than white metal blast cleaning (SSPC-SP 5/NACE No. 1).

Near-white blast cleaning is used when the objective is to remove all rust, coating, and mill scale, but when the extra effort required to remove all stains of these materials is determined to be unwarranted. Staining shall be limited to no more than 5 percent of each unit area of surface.

Near-white blast cleaning allows staining on only 5 percent of each unit area of surface, while commercial blast cleaning allows staining on 33 percent of each unit area of surface. White metal blast cleaning does not permit any staining to remain on the surface.

This joint standard was prepared by the SSPC/NACE Task Group A on Surface Preparation by Abrasive Blast Cleaning. This joint Task Group includes members of both the SSPC Surface Preparation Committee and the NACE Unit Committee T-6G on Surface Preparation.

1. General

- 1.1 This joint standard covers the requirements for near-white blast cleaning of unpainted or painted steel surfaces by the use of abrasives. These requirements include the end condition of the surface and materials and procedures necessary to achieve and verify the end condition.
- **1.2** This joint standard allows random staining to remain on no more than 5 percent of each unit area of surface as defined in Section 2.6.
- **1.3** The mandatory requirements are described in Sections 1 to 9 as follows:

| Section 1 | General |
|-----------|---|
| Section 2 | Definition |
| Section 3 | References |
| Section 4 | Procedures Before Blast Cleaning |
| Section 5 | Blast Cleaning Methods and Operation |
| Section 6 | Blast Cleaning Abrasives |
| Section 7 | Procedures Following Blast Cleaning and |
| | Immediately Prior to Coating |
| Section 8 | Inspection |

Section 9 Safety and Environmental Requirements NOTE: Section 10, "Comments" and Appendix A, "Explanatory Notes" are not mandatory requirements of this standard.

2. Definition

- **2.1** A near-white metal blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter, except for staining as noted in Section 2.2.
- **2.2** Random staining shall be limited to no more than 5 percent of each unit area of surface as defined in Section 2.6, and may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating.
- 2.3 Acceptable variations in appearance that do not affect surface cleanliness as defined in Section 2.1 include variations caused by type of steel, original surface condition, thickness of the steel, weld metal, mill or fabrication marks, heat treating, heat affected zones, blasting abrasives, and differences in the blast pattern.
- **2.4** When a coating is specified, the surface shall be roughened to a degree suitable for the specified coating system.
- **2.5** Immediately prior to coating application, the entire surface shall comply with the degree of cleaning specified herein.

- **2.6** Unit area for determinations shall be approximately 5776 mm² (9 in²) (i.e., a square 76 mm x 76 mm [3 in x 3 in]).
- 2.7 SSPC-VIS 1-89, photographs A SP-10, B SP-10, C SP-10 or D SP-10 may be specified to supplement the written definition. In any dispute, the written standards shall take precedence over visual standards and comparators. Additional information on visual standards and comparators is available in Section A.4 of Appendix A.

3. References

AB 1

- **3.1** The documents referenced in this standard are listed in Section 3.4.
- **3.2** The latest issue, revision, or amendment of the referenced standards in effect on the date of invitation to bid shall govern unless otherwise specified.
- **3.3** If there is a conflict between the requirements of any of the cited reference standards and this standard, the requirements of this standard shall prevail.

3.4 SSPC: THE SOCIETY FOR PROTECTIVE COATINGS STANDARDS:

| AB 2 | Cleanliness of Recycled Ferrous Metallic |
|------------|--|
| | Abrasives |
| AB 3 | Newly Manufactured or Re-Manufactured |
| | Steel Abrasive |
| PA Guide 3 | A Guide to Safety in Paint Application |
| SP 1 | Solvent Cleaning |
| VIS 1 | Visual Standard for Abrasive Blast Cleaned |
| | Steel |

Mineral and Slag Abrasives

4. Procedures Before Blast Cleaning

- **4.1** Before blast cleaning, visible deposits of oil, grease, or other contaminants shall be removed in accordance with SSPC-SP 1 or other agreed upon methods.
- **4.2** Before blast cleaning, surface imperfections such as sharp fins, sharp edges, weld spatter, or burning slag should be removed from the surface to the extent required by the procurement documents (project specification). Additional information on surface imperfections is available in Section A.5 of Appendix A.
- **4.3** If a visual standard or comparator is specified to supplement the written standard, the condition of the steel prior to blast cleaning should be determined before the blasting commences. Additional information on visual standards and comparators is available in Section A.4 of Appendix A.

5. Blast Cleaning Methods and Operation

- **5.1** Clean, dry compressed air shall be used for nozzle blasting. Moisture separators, oil separators, traps, or other equipment may be necessary to achieve this requirement.
- **5.2** Any of the following methods of surface preparation may be used to achieve a near-white blast cleaned surface:
- **5.2.1** Dry abrasive blasting using compressed air, blast nozzles, and abrasive.
- **5.2.2** Dry abrasive blasting using a closed-cycle, recirculating abrasive system with compressed air, blast nozzle, and abrasive, with or without vacuum for dust and abrasive recovery.
- **5.2.3** Dry abrasive blasting using a closed cycle, recirculating abrasive system with centrifugal wheels and abrasive.
- **5.3** Other methods of surface preparation (such as wet abrasive blasting) may be used to achieve a near-white blast cleaned surface by mutual agreement between those parties responsible for establishing the requirements and those responsible for performing the work. NOTE: Information on the use of inhibitors to prevent the formation of rust immediately after wet blast cleaning is contained in Section A.9 of Appendix A.

6. Blast Cleaning Abrasives

- **6.1** The selection of abrasive size and type shall be based on the type, grade, and surface condition of the steel to be cleaned, type of blast cleaning system employed, the finished surface to be produced (cleanliness and roughness), and whether the abrasive will be recycled.
- **6.2** The cleanliness and size of recycled abrasives shall be maintained to ensure compliance with this specification.
- **6.3** The blast cleaning abrasive shall be dry and free of oil, grease, and other contaminants as determined by the test methods found in SSPC-AB 1, AB 2 and AB 3.
- **6.4** Any limitations on the use of specific abrasives, the quantity of contaminants, or the degree of allowable embedment shall be included in the procurement documents (project specification) covering the work, because abrasive embedment and abrasives containing contaminants may not be acceptable for some service requirements. NOTE: Additional information on abrasive selection is given in Section A.2 of Appendix A.

7. Procedures Following Blast Cleaning and Immediately Prior to Coating

- **7.1** Visible deposits of oil, grease, or other contaminants shall be removed according to SSPC-SP 1 or another method agreed upon by those parties responsible for establishing the requirements and those responsible for performing the work.
- 7.2 Dust and loose residues shall be removed from prepared surfaces by brushing, blowing off with clean, dry air, vacuum cleaning, or other methods agreed upon by those responsible for establishing the requirements and those responsible for performing the work. NOTE: The presence of toxic metals in the abrasives or paint being removed may place restrictions on the methods of cleaning permitted. Comply with all applicable regulations. Moisture separators, oil separators, traps, or other equipment may be necessary to achieve clean, dry air.
- **7.3** After blast cleaning, surface imperfections that remain (e.g., sharp fins, sharp edges, weld spatter, burning slag, scabs, slivers, etc.) shall be removed to the extent required in the procurement documents (project specification). Any damage to the surface profile resulting from the removal of surface imperfections shall be corrected to meet the requirements of Section 2.4. NOTE: Additional information on surface imperfections is contained in Section A.5 of Appendix A.
- **7.4** Any visible rust that forms on the surface of the steel after blast cleaning shall be removed by recleaning the rusted areas to meet the requirements of this standard before coating. NOTE: Information on rust-back (re-rusting) and surface condensation is contained in Sections A.6, A.7 and A.8 of Appendix A.

8. Inspection

- **8.1** Work and materials supplied under this standard are subject to inspection by a representative of those responsible for establishing the requirements. Materials and work areas shall be accessible to the inspector. The procedures and times of inspection shall be as agreed upon by those responsible for establishing the requirements and those responsible for performing the work.
- **8.2** Conditions not complying with this standard shall be corrected. In the case of a dispute, an arbitration or settlement procedure established in the procurement documents (project specification) shall be followed. If no arbitration or settlement procedure is established, then a procedure mutually agreeable to purchaser and supplier shall be used.

8.3 The procurement documents (project specification) should establish the responsibility for inspection and for any required affidavit certifying compliance with the specification.

9. Safety and Environmental Requirements

9.1 Because abrasive blast cleaning is a hazardous operation, all work shall be conducted in compliance with applicable occupational and environmental health and safety rules and regulations. NOTE: SSPC-PA Guide 3, "A Guide to Safety in Paint Application," addresses safety concerns for coating work.

10. Comments

10.1 Additional information and data relative to this standard are contained in Appendix A. Detailed information and data are presented in a separate document, SSPC-SP COM, "Surface Preparation Commentary." The recommendations contained in Appendix A and SSPC-SP COM are believed to represent good practice, but are not to be considered requirements of the standard. The sections of SSPC-SP COM that discuss subjects related to near-white blast cleaning are listed below.

SubjectCommentary SectionAbrasive Selection6Film Thickness10Wet Abrasive Blast Cleaning8.2Maintenance Repainting4.2Rust-back (Re-rusting)8.3Surface Profile6.2Visual Standards11Weld Spatter4.4.1

Appendix A. Explanatory Notes

A.1 FUNCTION: Near-white blast cleaning (SSPC-SP 10/NACE No. 2) provides a greater degree of cleaning than commercial blast cleaning (SSPC-SP 6/NACE No. 3) but less than white metal blast cleaning (SSPC-SP 5/NACE No. 1). It should be used when a high degree of blast cleaning is required. The primary functions of blast cleaning before coating are: (a) to remove material from the surface that can cause early failure of the coating system and (b) to obtain a suitable surface roughness and to enhance the adhesion of the new coating system. The hierarchy of blasting standards is as follows: white metal blast cleaning, near-white blast cleaning, commercial blast cleaning, industrial blast cleaning, and brush-off blast cleaning.

A.2 ABRASIVE SELECTION: Types of metallic and non-metallic abrasives are discussed in the Surface Preparation Commentary (SSPC-SP COM). It is important to

recognize that blasting abrasives may become embedded in or leave residues on the surface of the steel during preparation. While normally such embedment or residues are not detrimental, care should be taken to ensure that the abrasive is free from detrimental amounts of water-soluble, solvent-soluble, acid-soluble, or other soluble contaminants (particularly if the prepared steel is to be used in an immersion environment). Criteria for selecting and evaluating abrasives are given in SSPC-AB 1, "Mineral and Slag Abrasives," SSPC-AB 2, "Cleanliness of Recycled Ferrous Metallic Abrasives," and SSPC-AB 3, "Newly Manufactured or Re-Manufactured Steel Abrasives."

A.3 SURFACE PROFILE: Surface profile is the roughness of the surface which results from abrasive blast cleaning. The profile depth (or height) is dependent upon the size, shape, type, and hardness of the abrasive, particle velocity and angle of impact, hardness of the surface, amount of recycling, and the proper maintenance of working mixtures of grit and/or shot.

The allowable minimum/maximum height of profile is usually dependent upon the thickness of the coating to be applied. Large particle sized abrasives (particularly metallic) can produce a profile that may be too deep to be adequately covered by a single thin film coat. Accordingly, it is recommended that the use of larger abrasives be avoided in these cases. However, larger abrasives may be needed for thick film coatings or to facilitate removal of thick coatings, heavy mill scale, or rust. If control of profile (minimum/maximum) is deemed to be significant to coating performance, it should be addressed in the procurement documents (project specification). Typical profile heights achieved with commercial abrasive media are shown in Table 5 of the Surface Preparation Commentary (SSPC-SP COM). Surface profile should be measured in accordance with NACE Standard RP0287 (latest edition), "Field Measurement of Surface Profile of Abrasive Blast Cleaned Steel Surfaces Using Replica Tape," or ASTM(1) D 4417 (latest edition), "Test Method for Field Measurement of Surface Profile of Blast Cleaned Steel."

A.4 VISUAL STANDARDS: SSPC-VIS 1-89 (Visual Standard for Abrasive Blast Cleaned Steel) provides color photographs for the various grades of surface preparation as a function of the initial condition of the steel. The series A-SP 10, B-SP 10, C-SP 10 and D-SP 10 photographs depict surfaces cleaned to a near-white blast grade. Other available visual standards are described in Section 11 of SSPC-SP COM.

A.5 SURFACE IMPERFECTIONS: Surface imperfections can cause premature failure when the service is severe. Coatings tend to pull away from sharp edges and

⁽¹⁾ ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

projections, leaving little or no coating to protect the underlying steel. Other features that are difficult to properly cover and protect include crevices, weld porosities, laminations, etc. The high cost of the methods to remedy surface imperfections requires weighing the benefits of edge rounding, weld spatter removal, etc., versus a potential coating failure.

Poorly adhering contaminants, such as weld slag residues, loose weld spatter, and some minor surface laminations may be removed during the blast cleaning operation. Other surface defects (steel laminations, weld porosities, or deep corrosion pits) may not be evident until the surface preparation has been completed. Therefore, proper planning for such surface repair work is essential because the timing of the repairs may occur before, during, or after the blast cleaning operation. Section 4.4 of SSPC-SP COM and NACE Standard RP0178 (latest edition), "Fabrication Details, Surface Finish Requirements, and Proper Design Considerations for Tanks and Vessels to be Lined for Immersion Service" contain additional information on surface imperfections.

A.6 CHEMICAL CONTAMINATION: Steel contaminated with soluble salts (e.g., chlorides and sulfates) develops rust-back rapidly at intermediate and high humidities. These soluble salts can be present on the steel surface prior to blast cleaning as a result of atmospheric contamination. In addition, contaminants can be deposited on the steel surface during blast cleaning if the abrasive is contaminated. Therefore, rust-back can be minimized by removing these salts from the steel surface,, and eliminating sources of recontamination during and after blast cleaning. Wet methods of removal are described in SSPC-SP 12/NACE No. 5. Identification of the contaminants along with their concentrations may be obtained from laboratory and field tests as described in SSPC-TU 4, "Technology Update on Field Methods for Retrieval and Analysis of Soluble Salts on Substrates."

A.7 RUST-BACK: Rust-back (re-rusting) occurs when freshly cleaned steel is exposed to moisture, contamination, or a corrosive atmosphere. The time interval between blast cleaning and rust-back will vary greatly from one environment to another. Under mild ambient conditions, if chemical contamination is not present (see Section A.6), it is best to blast clean and coat a surface the same day. Severe conditions may require more expedient coating application to avoid contamination from fallout. Chemical contamina-

tion should be removed prior to coating (see Section A.6).

A.8 DEW POINT: Moisture condenses on any surface that is colder than the dew point of the surrounding air. It is, therefore, recommended that the temperature of the steel surface be at least 3 °C (5 °F) above the dew point during dry blast cleaning operations. It is advisable to visually inspect for moisture and periodically check the surface temperature and dew point during blast cleaning operations and to avoid the application of coating over a damp surface.

A.9 WET ABRASIVE BLAST CLEANING: Steel that is wet abrasive blast cleaned may rust rapidly. Clean water should be used for rinsing. It may be necessary that inhibitors be added to the water or applied to the surface immediately after blast cleaning to temporarily prevent rust formation. The use of inhibitors or the application of coating over slight discoloration should be in accordance with the requirements of the coating manufacturer. CAUTION: Some inhibitive treatments may interfere with the performance of certain coating systems.

A.10 FILM THICKNESS: It is essential that ample coating be applied after blast cleaning to adequately cover the peaks of the surface profile. The dry film thickness of the coating above the peaks of the profile should equal the thickness known to be needed for the desired protection. If the dry film thickness over the peaks is inadequate, premature rust-through or failure will occur. To assure that coating thicknesses are properly measured the procedures in SSPC-PA 2 (latest edition), "Measurement of Dry Coating Thickness with Magnetic Gauges" should be used.

A.11 MAINTENANCE AND REPAIR PAINTING: When this standard is used in maintenance painting, specific instructions should be given on the extent of surface to be blast cleaned or spot blast cleaned to this degree of cleanliness. In these cases, the cleaning shall be performed across the entire area specified. For example, if all weld seams are to be cleaned in a maintenance operation, this degree of cleaning shall be applied 100% to all weld seams. If the entire structure is to be prepared, this degree of cleaning shall be applied to 100% of the entire structure. SSPC-PA Guide 4 (latest edition), "Guide to Maintenance Repainting with Oil Base or Alkyd Painting Systems," provides a description of accepted practices for retaining old sound coating, removing unsound coating, feathering, and spot cleaning.



